

**SOUTHEASTERN PENNSYLVANIA TRANSPORTATION
AUTHORITY**

RAILROAD DIVISION

PASSENGER TRAIN

EMERGENCY PREPAREDNESS PLAN

First Edition, Effective October 31, 1998

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Federal Railroad Administration
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PREFACE

This ***Railroad Division Passenger Train Emergency Preparedness Plan*** is a *response* plan used by the Railroad Division on all SEPTA-owned property over which regional railroad commuter service is operated, and on the applicable portions of property owned by Conrail (or its successor) as per the joint arrangement.

This plan provides for the minimum action to be taken in the event of any unexpected occurrence related to the operation of a passenger train that involves a significant threat to the health or safety of employees or the general public, and to which immediate action must be taken.

This plan is in full compliance with **The Code of Federal Regulations, Title 49, Part 239, “Passenger Train Emergency Preparedness.”** This plan has been developed in conjunction with the Federal Railroad Administration’s Office of Research and Development. It follows closely the guidelines set forth by the U. S. Department of Transportation, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Cambridge, MA. (The title of the Volpe document is ***Recommended Emergency Preparedness Guidelines for Passenger Trains.***)

The ***Railroad Division Passenger Train Emergency Preparedness Plan*** is also an integral part of SEPTA’s overall emergency/disaster management platform. Other supporting documents presently in effect which may be referred to are as follows:

- ***Railroad Division System Safety Program Plan:*** a *prevention* program designed specifically for railroad operations, developed in conjunction with The American Public Transit Association (APTA) and fully supported by the Federal Railroad Administration; this proactive program plan defines critical safety elements designed to increase efficiency and reduce potential accidents common to the railroad industry.
- ***SEPTA System Safety Program Plan:*** a *prevention* program designed for the SEPTA transit system (other than railroad operating activities), mandated by the Federal Transit Administration, developed in conjunction with the Pennsylvania Department of Transportation which is responsible for regulatory oversight; this proactive program plan defines critical safety elements designed to increase efficiency and reduce potential accidents common to the transit industry; this program also contains the *SEPTA Transit Security Plan* which outlines the management of all security activities to include railroad operations.
- ***SEPTA Transit Security Plan:*** an internal corporate plan that supplements the *SEPTA System Safety Program Plan* that defines both prevention and response activities to ensure the safety and security of SEPTA’s assets and interests.

- ***SEPTA Emergency Preparedness Plan***: an internal corporate *response* plan that defines emergency operating procedures that relate to events which may have catastrophic implications affecting the SEPTA system.

The ***Railroad Division Passenger Train Emergency Preparedness Plan*** will be made available to applicable Railroad Division operations personnel, and to all outside emergency response agencies in the Philadelphia five county area who would routinely respond to such types of major occurrences. Holders of this document are encouraged to recommend changes to improve the quality of the plan. The document will be periodically revised and updated by the railroad liaison officer charged with that responsibility. New or revised pages will be indicated by a revision date. All revisions and new material will be distributed to document holders in a timely manner. Holders will then be responsible for maintaining the most current revisions to the plan by inserting new pages and discarding old pages. The plan will be re-distributed in its entirety once every three years.

As per regulatory requirement, this plan (and all future revisions pending) has been filed with the Federal Railroad Administration in Washington, D. C. for conditional and ultimate final approval by that agency. A master copy of this plan is retained at Railroad Division headquarters in Philadelphia, Pennsylvania, where the document is held available for inspection and copying during normal business hours.

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SUMMARY OF INTERNAL ANALYSIS

This section of the Railroad Division *Passenger Train Emergency Preparedness Plan* presents a brief summary of the internal processes by which the division approached the various elements in the development of the plan, and how each element was ultimately addressed when the plan was implemented.

This section is intended to summarize for the Federal Railroad Administration the division's supporting analysis of how operating characteristics and conceivable unique conditions, which could potentially arise at any time during SEPTA's everyday operation, are likely to affect emergency response situations.

Vulnerabilities and Potential Risks to Railroad Safety

By the very nature of the physical layout of the general railroad system, SEPTA's highest vulnerability remains the open and easy accessibility to the exposed right-of-way which traverses a five county area through cities, municipalities, and rural areas. While great effort is made to operate in a secure environment, it is unrealistic to assume that the system can function as a closed or inaccessible system without continual incursion by trespassers, motor vehicular traffic at highway grade crossings, interface with freight operations (however minimal), natural disaster, fire or police activity in proximity to the tracks or facilities, or without incident stemming from railroad related activities.

In preparing this plan, the potential risks to the operation of commuter passenger train service with regards to the above vulnerabilities have been carefully considered from past experiences. Railroad related activities are most readily addressed, as SEPTA has minimized the risk potential by the establishment of the system safety program plans designed as proactive preventive programs to reduce potential accidents. The remaining vulnerabilities -- those over which SEPTA has little to no control -- must be addressed through reactive measures, which has been the primary design of this plan.

The various departments engaged in the oversight of railroad safety have long identified the physical locations and special circumstances, and the potential scenarios which are most likely to arise with SEPTA's type of operation. Throughout the course of its history, the Railroad Division has learned from its experiences of past events. The division has subsequently formulated various approaches to emergency response (including specialized locations and conditions), and has established measures that lessen the risk affiliated with incidents that could jeopardize the safety of the railroad operation. It has been an emerging process, and now continues on a more formal basis with the implementation of this regulation.

Safety Benefits Associated With Each Element of the Plan

To this end, certain safety benefits have been realized with formalizing the elements of the preparedness plan. Most issues addressed have already been an integral part of SEPTA's operation and routinely support its commitment to safety. Following is a brief summary of the benefits associated with each element prescribed in this part.

Communication

Communication continues to be the key element of timely and efficient emergency response. SEPTA's communication process functions at optimum efficiency. All SEPTA trains are equipped with AAR radios, are dispatched with radios in proper working condition, and operate under continuous open communication between the train and the Regional Rail Operations Center (RROC). SEPTA Conductors also carry portable radios. In addition, the majority of SEPTA's passenger cars are equipped with a public address system inside the cars. The RROC maintains an open communication link with all outside sources for immediate emergency response services, including phone numbers for police and EMS services, and utilization of 911 for fire emergencies. The railroad system, therefore, operates under the supposition that proper communication is available instantly, thereby providing the most critical of safety benefits.

Employee Training and Qualification

SEPTA has always placed a high priority on the training element and operates under the premise that a well-trained employee can make educated decisions when applying the tools of knowledge. Training in all facets of the job craft responsibility has always been an integral part of employee qualification. The operating practices and procedures for railroad operation are clearly outlined in various publications which must be maintained and carried by on-duty employees. One such publication outlines the emergency response protocols. All on-board employees and control center personnel are initially trained on emergency response procedures, and are routinely re-familiarized annually during re-certification classes. The safety benefit associated with this element of the plan is the continual exposure to information governing employee responsibilities. With the mandate of testing, such knowledge will be reinforced to a greater degree.

Joint Operations

SEPTA's commuter system includes territories owned by both Amtrak and Conrail's successor. Since half of SEPTA's service encompasses operating on Amtrak's property, SEPTA has adopted Amtrak's response protocol in entirety. For that minor portion of property previously owned by Conrail, SEPTA has arranged for the applicable portions of SEPTA's preparedness plan to be jointly adopted. The safety benefit associated with this element of the plan is that protocols that have been in place for years continue and there remains total autonomous control over the development of the formalized plan, notwithstanding procedural consistency when facets of the plan must be implemented.

Special Circumstances

Perhaps the most significant mandate of this regulation has been the requirement to examine those special circumstances that previously may have been considered from a more general perspective. While SEPTA did have in place a finely detailed emergency information platform for its major center city tunnel, instructions for working in electrified territory, and detailed evacuation instructions for the various scenarios, the regulation made Railroad Division management look more closely at certain inaccessible locations which heretofore had not been as clearly defined. As a result of this mandate, SEPTA was able to conduct a study of its entire geographical system and identify those locations and areas where emergency responders may be confronted with a greater degree of difficulty to access if detailed information was not available. By identifying such operating considerations, SEPTA has enhanced the response capabilities of outside agency responders by integrating into the plan a much detailed explanation of the locations and situations that may be encountered. The safety benefit associated with this element has greatly reinforced the overall potential effectiveness of the preparedness plan.

Liaison With Emergency Responders

SEPTA has maintained a continual liaison with numerous outside agencies throughout the five county area since its inception as a railroad carrier in 1983. The working relationship has continued to grow through a mutual understanding of each other's protocols and interaction through both simulated drills and actual emergency situations. As the mandates of the regulation now require formalizing the overall preparedness plan, there is a reinforcement of the protocols and a clearly defined methodology to responding to railroad accidents and incidents. The safety benefit associated with this element is the consistency of information which is now being disseminated to the entire coverage area.

On-Board Emergency Equipment

SEPTA's passenger car equipment has previously met all regulatory requirements for emergency equipment with the exception of the inclusion of a pry bar in each passenger coach. As a safety benefit, the addition of a pry bar will enhance the availability of rescue equipment for those persons who may become trapped inside coaches while awaiting arrival of responders.

Passenger Safety Information

SEPTA has always maintained a dialogue with the general public regarding safety issues around the railroad environment. With the mandate to enhance public awareness of emergency procedures, SEPTA has been provided the opportunity to enhance its overall public awareness campaign to keep more riders informed about the most important safety aspects of utilizing railroad transportation. The safety benefit associated with this element of the plan is the additional knowledge of emergency procedures imparted to the riding public which heretofore may not have been emphasized to this great a degree.

Expected Monetary Costs

There are six primary areas where SEPTA will incur high costs to comply with the regulation. Those areas are: 1) development of emergency preparedness plan, 2) publication and distribution of plan to outside responder agencies, 3) training, 4) equipment modifications, 5) passenger awareness campaign, and 6) emergency simulations. Following are the expected costs based upon the topics listed above.

Development of Emergency Preparedness Plan

The cost of a technical writer researching and preparing the document is based upon an average hourly rate of \$32.00 per hour, taking four hundred hours to produce the final document for submission.

Following is an estimate of the cost to *develop* the plan:

$$(\$32.00 \text{ per hour}) \times (400 \text{ hours}) = \mathbf{\$12,800}$$

Publication and Distribution of Plan to Outside Agencies

The regulation mandates the distribution of the plan to all outside agencies which would reasonably be expected to respond to such type emergency, including re-distribution every three years. SEPTA estimates the cost to produce one plan (assembled in three ring binder form, complete with text, index tabs, and appendices) to be \$30. SEPTA estimates that a minimum of three hundred copies must be initially and subsequently produced for distribution. SEPTA further estimates the cost of the actual distribution (i.e. mailing, physical delivery) to be \$10.00 per copy.

SEPTA estimates the cost of *initial* distribution to be as follows:

$$\begin{aligned} (\$30 \text{ cost of publication}) \times (300 \text{ copies}) &= \mathbf{\$9,000} \\ (\$10 \text{ distribution cost}) \times (300 \text{ copies}) &= \mathbf{\$3,000} \end{aligned}$$

SEPTA further estimates the *annual* cost to maintain up-to-date revisions on a periodic basis to be as follows:

$$(\$5 \text{ cost of revision distribution}) \times (300 \text{ copies}) = \mathbf{\$1,500}$$

SEPTA further estimates the *re-publication* cost of the plan in its entirety in each successive three year cycle to be as follows (text and appendices only):

$$(\$15 \text{ cost of re-publication}) \times (300 \text{ copies}) = \mathbf{\$4,500}$$

SEPTA further estimates the *re-distribution* cost in each successive three year cycle to be as follows:

$$(\$10 \text{ cost of re-distribution}) \times (300 \text{ copies}) = \mathbf{\$3,000}$$

Training

SEPTA does not anticipate to incur initial costs to implement the training requirement of the regulation for its railroad personnel, as training in emergency procedures is already an integral part of the overall training process. However, SEPTA does anticipate to incur some cost for updating training materials for railroad personnel courses, and for revising the in-house training program for outside agencies. The average hourly rate for an instructor is \$27.00 per hour taking 50 hours to revise each facet of training. SEPTA also anticipates to incur a much higher cost to develop and conduct training for outside agencies by both in-house training and off-the-shelf type training.

SEPTA estimates the cost for updating training materials for railroad personnel (i.e. lesson plans, handouts, visual aides, etc.) to be:

$$(\$27.00/\text{hr}) \times (50 \text{ hrs}) = \mathbf{\$1,350}$$

$$\text{Cost of emergency exit window mock-up fabricated for classroom} = \mathbf{\$1,000}$$

SEPTA estimates the cost to revise the in-house training program for outside agencies to be:

$$(\$27.00/\text{hr}) \times (50 \text{ hrs}) = \mathbf{\$1,350}$$

SEPTA estimates the cost to conduct an average of *four* training sessions per calendar year for outside groups to be:

$$(2 \text{ instructors}) \times (\$27.00/\text{hr}) \times (4 \text{ hrs per session}) + ([\$550/\text{day equipment utilization cost}] \times [2 \text{ cars}]) \times (4 \text{ sessions per year}) = \mathbf{\$5,264}$$

SEPTA has incurred the following costs to produce an off-the-shelf training program for outside agencies:

$$\text{Training Manual} = \mathbf{\$27,000}$$

$$\text{Video Production} = \mathbf{\$30,000}$$

SEPTA further anticipates that future modifications to the video and training manual will cost **\$10,000** per modification (video editing and manual updating).

Equipment Modifications

SEPTA has previously incurred costs for equipment modifications as a result of the mandates of Emergency Order No.20. SEPTA's equipment is currently equipped with a fire extinguisher, emergency exit signage, and each crew member carries a hand-held light. However, SEPTA has incurred additional costs to properly equip each passenger coach with the required pry bar emergency tool, and installation of additional signage.

SEPTA estimates the equipment modification costs to be:

$$(\$100 \text{ cost of one pry bar}) + (\$152 \text{ cost of signage one car}) \times 339 \text{ cars} = \mathbf{\$85,428}$$

SEPTA further anticipates to incur a cost of **\$5,000** per year for replacement due to thefts, loss, and mutilation.

Passenger Awareness Campaign

As SEPTA already utilizes the method of public announcement advisories for other safety related issues, no additional cost is anticipated to make emergency preparedness related announcements. However, to further enhance public awareness of emergency preparedness, SEPTA anticipates to incur additional cost to develop and produce visual aids for public distribution (i.e. posters, brochures, schedule panel graphics), and for labor costs to distribute and post stations with posters, and periodically distribute brochures.

SEPTA estimates the *initial* cost to develop and distribute materials to be:

$$(\$1,000 \text{ posters}) + (\$250 \text{ brochures}) + (\$500 \text{ schedule panel graphics}) + (\$1,000 \text{ labor}) = \mathbf{\$2,750}$$

SEPTA estimates the *annual* cost to replace/revise and distribute/re-post (due to weathering, mutilation, etc.) to be:

$$(\$500 \text{ posters}) + (\$250 \text{ brochures}) + (\$1,000 \text{ labor}) = \mathbf{\$1,750.}$$

Emergency Simulations

SEPTA anticipates to conduct full scale emergency simulations on its branch lines through a coordinated effort between railroad operations, system safety, SEPTA police, and outside agency emergency responder invitees. SEPTA anticipates to incur high cost resultant of: pre-planning logistics, pre-training of safety issues, manpower utilization, equipment utilization, impact to service, safety contingencies, peripheral support, and administrative costs.

SEPTA estimates the cost to conduct *one* emergency simulation drill to be:

Pre-planning logistics (i.e. scenario development, coordination effort, implementation of event)

$(\$32.00/\text{hr}) \times (2 \text{ coordinators}) \times (40 \text{ hrs development}) = \mathbf{\$2,560}$

Pre-training of safety issues (i.e. training session for participants)

$(\$27.00/\text{hr}) \times (2 \text{ instructors}) \times (4 \text{ hours}) + (\$250 \text{ materials}) = \mathbf{\$466}$

Manpower utilization (i.e. extra crew members, maintenance, police personnel)

These labor costs (minimum 8 hour day) will be incurred (based upon minimal manning requirements):

1 Engineer (@ \$19.93/hr) = \$159
1 Conductor (@ \$18.28/hr) = \$146
1 Train Dispatcher (average \$250/day) = \$250
1 Tower Operator (@ \$14.13/hr) = \$113
1 P.A. System Announcer (@ \$14.00/hr) = \$112
2 Electric Traction Linemen (@ \$20.00/hr) = \$320
1 Electric Traction Foreman (@ \$30.00/hr) = \$240
1 Signal Maintainer (@ \$18.00/hr) = \$144
2 SEPTA Police Officers (@ \$15.63/hr) = \$250
10 additional extra personnel (average \$150/day) = \$1,500
TOTAL = **\$3,234**

Equipment utilization (i.e. railroad equipment)

Operating cost of two extra MU cars (\$550 per car per day) = **\$1,100**

Impact to service (i.e. cost of delays incurred, alternate bussing)

Cost of impact (estimated) = **\$1,000**

Safety contingencies (i.e. establishment of staging areas, security measures, safety overseers)

Cost to establish (estimated) = **\$1,000**

Peripheral support (i.e. motor vehicles, PPE, emergency equipment devices)

Cost to make available (estimated) = **\$2,000**

Administrative costs (i.e. publication materials for handout, flyers for public information, critique & debriefing session, refreshment costs)

Cost to provide = **\$1,000**

Total cost of emergency simulation drill = **\$12,360**

SUMMARY OF TOTAL COSTS

Based upon the above estimated costs to comply with the mandates of the regulation, SEPTA anticipates that the *initial development and implementation* cost will be:

12,800	plan development
12,000	publication and distribution of plan to outside agencies
1,350	updating training materials for railroad personnel
1,350	revising in-house program for outside agencies
1,000	mock-up emergency exit window for classroom instruction
57,000	production of off-the-shelf training program for outside agencies
85,428	equipment modification
<u>2,750</u>	passenger awareness campaign

\$173,678 Grand Total

SEPTA further anticipates the *annual* cost to be:

1,500	cost to maintain and distribute up-to-date revisions
5,264	cost of four training sessions conducted for outside agencies
500	cost of re-producing ten “loaner” off-shelf programs
5,000	cost of replacement materials on equipment
1,750	passenger awareness campaign
<u>12,360</u>	cost of one emergency simulation drill

\$26,374 Grand Total

SEPTA further anticipates the *long term* costs to be:

7,500	re-publication/re-distribution of plan once every three years
<u>10,000</u>	revision of video presentation and training manual (as required)

\$17,500 Grand Total

1.0 POLICY

1.1 Policy Statement

The mission of the Southeastern Pennsylvania Transportation Authority (SEPTA) is to provide safety, service, and continuous improvement. The mission is the responsibility of each and every employee under the direction of the General Manager to assure that every aspect of the daily mission is managed toward protecting the passengers, employees, public, assets of the organization, and the environment in which the Authority performs its tasks.

To effectively carry out this mission, the General Manager establishes safety initiatives in the form of safety programs and plans to address both preventive and responsive approaches to managing the mission. The execution of such safety programs and plans is paramount to the success of the mission.

To implement an emergency response plan, each and every employee charged with this responsibility must focus on the clearly defined goals and objectives that have been outlined for emergency situations which may occur during operations. Employees are therefore held accountable for following the standard of conduct to ensure full capability and coordination of effort has been achieved between management, supervision, outside emergency response organizations, emergency medical services, police and fire departments.

1.2 Authority

SEPTA's General Manager has the authority to establish and implement safety programs and plans designed to protect the public and the employees and assets of the organization in support of the mission.

To achieve its mission, the General Manager has delegated the Chief Operations Officer to have authority over the operating divisions to assure the mission is carried out. The Chief Railroad Operations Officer has been delegated the authority to develop and implement this ***Railroad Division Passenger Train Emergency Preparedness Plan***. The Chief Railroad Operations Officer has further delegated the Railroad Administrative Staff and the SEPTA System Safety Department to detail the elements of the emergency preparedness plan. This response plan is a clear and concise guide for all SEPTA Railroad Division employees and outside emergency response agencies for executing the safety responsibility of the General Manager and for assuring the accountability and success of the mission at all levels of the organization.

In any railroad environment where the operation of passenger trains is conducted, preserving the safety and health of passengers and employees on a continual basis ultimately resides with those managers, supervisors, and operating personnel who are charged with that task. Taking effective response actions in the event of situations that may compromise their safety is the immediate responsibility of all railroad operating personnel. Overall success depends upon the persistence and dedication of management to oversee the response measures, and both management and operating personnel to initiate such measures when emergencies occur as detailed in this plan.

To implement and adhere to the ***Railroad Division Passenger Train Emergency Preparedness Plan***, managers and operating employees must focus on the following principles:

- Understanding the importance, purpose, and implementation of this emergency management system.
- Understanding the emergency concept.
- Understanding the elements (people, organizations, procedures, equipment, facilities) contained in the response plan.
- Understanding the individual's role and responsibility.
- Understanding the roles and responsibilities of other persons responding to such emergencies.
- Acting in accordance with all safety principles to ensure optimum efficiency of response.
- Maintaining professionalism to ensure the mission is carried out to the best of one's ability.



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October 31, 1998

1.3 Purpose

The purpose of the *Railroad Division Passenger Train Emergency Preparedness Plan* is to establish standard protocol for responding to undesired emergencies that occur in the railroad environment. The plan provides a clearly defined guideline through which the Railroad Division commits to responding to unusual occurrences that jeopardize the safety of its operation. The plan clearly defines organizational functions and responsibilities, coordination with outside agencies, emergency procedures and supporting documentation, and general response data critical to the understanding of the railroad system. The plan provides for systemic safety by clearly defining the authorities, responsibilities, and accountabilities for decisions which may affect the safety of the commuter railroad system.

To this purpose, the *Railroad Division Passenger Train Emergency Preparedness Plan* will:

- Establish detailed rules and procedures to maximize safety and efficiency.
- Provide a systematic approach ensuring compliance with federal, state and local regulations by clearly defining the responsibilities and accountability of Railroad Division management and operating personnel.
- Meet all requirements set forth by federal, state, and local agencies as well as those organizations that provide safety recommendations/plans approved by federal, state and local agencies and the railroad industry.
- Define the relationship between SEPTA and the outside agencies that will respond to such emergency situations.

1.4 Scope of the Plan

The *Railroad Division Passenger Train Emergency Preparedness Plan* defines the conditions which constitute an emergency, describes the division organizational functions and responsibilities for both management and operating employees to address such emergency conditions, and provides pertinent information concerning equipment and the physical layout of the railroad system and its accessibility.

The scope of the plan details the following *actions*:

- Reporting of the emergency condition by or to train crews and train dispatcher/rail operations.
- Evaluating and establishing the parameters of a railroad emergency.
- The notification processes within the chain of responsibility, both internally and externally.
- Initiating the dispatching of responders (railroad personnel and outside emergency response agencies) and equipment to the scene of the event.
- Establishing the coordination of activities once the response has been initiated.
- Protection of passengers, employees, and property at or in proximity of the scene.
- Maintaining a continual communication link to keep personnel and the public sufficiently informed.
- Evacuating passengers in a safe and efficient manner when necessary.
- Arranging for alternative transportation and other follow-up services.
- Restoring normal operations once the emergency has been declared over.

The scope of the plan details the following *information*:

- General description of the railroad system including the geographical layout and territories within regional municipalities.
- General description of railroad equipment, environment, and significant structures.
- Access to rights-of-way, equipment, facilities, structures.
- Railroad support protocol (i.e. training, accident investigation, passenger awareness information, publications governing railroad personnel).

1.5 Goals and Objectives

Safety is the result of proper performance. SEPTA's primary goal is therefore to promote a proactive approach to achieve optimum performance of its employees and employees of outside agencies. SEPTA will achieve this goal through responsible management of the ***Railroad Division Passenger Train Emergency Preparedness Plan***. The planning, implementation, and maintenance of this effort includes specific measurable tasks and objectives which, when met, will yield an efficient response plan to accomplish SEPTA's mission of providing the safest environment possible.

Goals are the purpose to which an effort is directed. The goals of the ***Railroad Division Passenger Train Emergency Preparedness Plan*** are:

- To establish a plan that details optimum response protocol by the railroad organization and appropriate outside emergency response organizations.
- To remain continuously prepared to mobilize the actual response to any emergency condition.
- To be prepared to recover from emergencies and restore normal operations.

Objectives are the means by which the goals are achieved. The objectives of the ***Railroad Division Passenger Train Emergency Preparedness Plan*** are:

- To comply with the mandate for the development and implementation of the plan in accordance with regulatory requirements.
- To establish comprehensive training protocol which will ensure that all employees and non-employees have a full understanding of the applications of the plan (continuing education programs).
- To establish liaison activities with outside emergency response agencies that would routinely respond to such events (including training, familiarity with system, special circumstances).
- To establish internal oversight of the plan to monitor performance and to provide revisions to the plan as necessary.
- To conduct simulations to measure response capabilities of participants.
- To maintain public awareness by enhancing the passenger information system.

2.0 GLOSSARY OF TERMS

The following is a glossary of terms as they are used in this plan:

<u>TERM</u>	<u>DESCRIPTION</u>
C/P	Catenary Pole: designation for the structures along the railroad right-of-way which support the overhead electrical catenary system.
EAP	Employee Assistance Program: an in-house SEPTA program that provides guidance, support, and resources to employees and their families for the resolution of emotional, financial, legal, family, marital, and substance abuse problems; in major occurrences, they also provide assistance, support, and resources to employees and passengers as well.
EMS	Emergency Medical Services
ET001	Electric Traction Instructions for railroad operating personnel.
FRA	Federal Railroad Administration is the federal agency under the U. S. Department of Transportation that develops and enforces rail safety regulations, investigates and analyzes railroad accidents, and which conducts safety assessments of railroad activities.
FDIC	Fire Department Incident Commander
MP	Milepost: used throughout railroad system as location designations, expressed either in tenths or hundredths (e.g. MP3.1; MP4.19).
MU	Multiple Unit: the term used to designate the electrically self-propelled locomotive units (which are also passenger coaches) having one or more control stands; the unit may be operated individually or in multiple with other MU units.
NRC	National Response Center is a twenty-four hour per day regulatory office for the notification by railroads of major train emergencies.
NTSB	National Transportation Safety Board is an independent federal agency of the Federal Department of Transportation that reports directly to the President of the United States; the agency investigates and analyzes major transportation accidents (railroad, aviation, highway, marine, etc.) and prepares a public report on its findings, conclusions, and recommendations.

PASSENGER TRAIN	A train which is operating in revenue or non-revenue service, scheduled or non-scheduled (i.e. "extra"), and designated to carry passengers.
PennDOT	Pennsylvania Department of Transportation is the state agency responsible for the oversight of transportation throughout the state.
PDIC	Police Department Incident Commander
PUSH/PULL	A train consist configured with a self-propelled electric locomotive on one end, non-propelled passenger coaches in the middle, and a control cab locomotive unit (also a passenger coach) on the other end.
RROC	Regional Rail Operations Center (acronym pronounced as "rock"); the RROC is the control center specifically for SEPTA railroad operations; the RROC consists of: 1) Superintendent of Operations desk, 2) chief train dispatcher's console, 3) three train dispatching consoles (designated as Desks A, B, and C) which dispatch trains on SEPTA-owned property and a portion of Conrail property, 4) mechanical desk, 5) signal maintenance desk, 6) television monitoring console, and 7) administrative offices.
SEP-1	Septa Emergency Evacuation Procedures manual for railroad operating personnel.
STO	Superintendent of Operations (Director who is in charge of RROC, on duty 24 hours per day).

3.0 SEPTA RESPONSIBILITIES

3.1 Introduction

SEPTA's primary concern at the time of any passenger train emergency situation is for the safety and welfare of passengers, employees, emergency responders, and the general public. To this end, all SEPTA employees are dedicated to performing their roles and carrying out their responsibilities to the best of their abilities.

When incidents occur involving railroad operation, the SEPTA organization is responsible for providing all available resources and personnel to respond to such emergency situations from a systematic structure. For major occurrences, this may include on-site command post, customer support processing, and supporting equipment and supplies.

3.2 Responsibility Priorities

In the event of major occurrences which require mobilization of resources and personnel, the SEPTA organization is responsible for the following:

- Coordinating additional support activities to supplement railroad response
- Arranging for initial transportation of passengers to a customer support processing area
- Ensuring passengers and employees receive appropriate attention and are dealt with in a compassionate manner
- Disseminating timely and accurate information to the public and news media regarding the present status of the event
- Informing family and relatives of passengers and employees as to their condition and location
- Protecting SEPTA assets and interests at the accident site and customer support process areas
- Interfacing with outside agencies including police, fire, EMS as well as other government agencies including FRA, NTSB, PennDOT
- Participating in the investigation
- For environmental occurrences, advising federal, state, and local environmental agencies and ensuring appropriate response actions are initiated
- Advising the National Response Center as required
- Resuming normal passenger service or arranging for alternate means of transportation with the shortest delay possible

4.0 RAILROAD OPERATIONS ORGANIZATIONAL FUNCTIONS AND RESPONSIBILITIES

4.1 Introduction

SEPTA's Railroad Division operations is supported by numerous departments throughout the organization, both within the division and outside the division, which through a coordinated effort accomplish the goals and objectives of the *Railroad Division Passenger Train Emergency Preparedness Plan*.

These various departments all have clearly defined functions and responsibilities. The following sections provide emergency response narratives that describe those functions and responsibilities for those departments that routinely are, or may become an integral part of emergency response action in the event of emergency situations.

4.2 On-Board Employees

4.2.1 General Responsibilities

On-board train crew employees (i.e. Engineers, Conductors, Assistant Conductors) are responsible for the movement of their train, the safety and care of their train and the passengers, the vigilance, conduct, and proper performance of duty by all train crew members, and the observance and enforcement of all rules and instructions governing their activities.

4.2.2 Responsibilities During Emergencies

On-board employees, who are all qualified on emergency preparedness procedures, are responsible for assessing the magnitude of emergency situations and making determination, to the best of their judgment, whether the situation requires emergency response measures. They are responsible for determining the criticality of the situation by classifying it as critical (imminent danger to life), serious (conditions that may jeopardize continued safety or health), or otherwise (no imminent danger, but relevant conditions that may pose threat if situation continues).

Once a situation has been assessed as an event posing a significant threat to the safety or health of persons and it requires immediate response, on-board employees are responsible for implementing emergency response measures in accordance with pre-established protocol currently outlined in the SEP-1 manual (see Appendix "E").

On-board employees are responsible for the initial notification to the RROC, the initial care and preservation of safety to passengers and employees, and for coordinating any immediate response measures as the situation warrants. Such employees are then further responsible for maintaining continual communication and care until such time they are relieved of that responsibility.

On-board employees are responsible to communicate information by the quickest possible means, conveying the maximum amount of accurate and pertinent information to facilitate a prompt decision whether evacuation is pending or other alternative measures must be taken.

On-board employees are responsible for providing:

- A description of the nature of the situation
- The precise location of the affected train and whether it is at a passenger station, at grade, on an embankment, in a cut, in a tunnel, or on a trestle or other elevated structure
- The train consist and approximate number of passengers
- Whether there are any injuries or illnesses as a result of the occurrence
- The estimated time the train has been stopped and whether it can be estimated how much longer before the train moves
- A description of any adverse condition that may further jeopardize the safety or health of the passengers or employees including, but not limited to: 1) fire, fumes, or smoke, 2) lack of ventilation, 3) unruly or uncontrollable passengers, 4) excessive heat or cold, 5) excessive crowding, 6) lack of lighting
- Any other pertinent information affecting a decision to evacuate

4.2.3 Specific Craft Responsibilities

During an emergency, each craft assigned to the passenger train has a specific responsibility. Those responsibilities are as follows.

The *Conductor* is further responsible for:

- Initially taking charge of the emergency situation in accordance with the Chain of Responsibility outlined in the SEP-1 manual
- When the decision is made to evacuate, based upon the evacuation priority, implementing the proper preferred method of evacuation as outlined in the SEP-1 manual
- Informing responders or supervision arriving on the scene of the current status of the situation including any potential hazards, and the locations of passengers or employees needing assistance (i.e. injuries, disabilities, children, etc.)

- Maintaining charge of the train until relieved; after relinquishing charge in accordance with the Chain of Responsibility, assist command personnel by providing safety and security of train, passengers, and other SEPTA interests

The *Engineer* is further responsible for:

- Assuming charge of the emergency situation in accordance with the Chain of Responsibility in the event the Conductor cannot fulfill that duty
- Protecting the safety of the train equipment in accordance with standard operating practices

The *Assistant Conductors* are further responsible for:

- Assuming charge of the emergency situation in accordance with the Chain of Responsibility in the event the Conductor or Engineer cannot fulfill that duty
- Following the explicit instructions of those in charge
- Protecting the safety of the train equipment in accordance with standard operating practices

4.3 Control Center (RROC)

4.3.1 General Responsibilities

Regional Rail Operations Center (RROC) employees (i.e. Superintendent of Operations [STO], Chief Train Dispatcher, Train Dispatcher, and certain designated Tower personnel) are responsible for the general oversight of train movements, the issuance of authorities for movement and other instructions affecting the safe and efficient operation of the train system, and arranging the use of blocks, tracks, switches and signals for the prompt movement of trains.

4.3.2 Responsibilities During Emergencies

Control center RROC employees are responsible for initiating emergency response measures based upon notification made by on-board employees who have communicated their assessment of such emergency condition or situation. They are responsible for establishing immediate internal communications through the chain of command in accordance with standard operating procedures, and for notifying the appropriate emergency responder entities when deemed necessary to do so (see Appendix “B”).

Once a situation has been assessed as an event posing a significant threat to the safety or health of persons and it requires a train evacuation, control center RROC employees (usually the STO) are responsible for implementing emergency evacuation procedures in accordance with pre-established protocol currently outlined in the SEP-1 manual (see Appendix "E"). They are responsible for initially directing and coordinating the personnel, departments, and any agencies involved in handling the evacuation.

As soon as possible after being notified of any emergency condition requiring an evacuation, control center RROC personnel are responsible for immediately notifying the appropriate local police, fire, or rescue units, SEPTA police, the Chief Railroad Operations Officer and his or her subordinates, and the Mechanical Department (see Appendix "C"). They are responsible to dispatch operations supervisors to the scene, and designate who will be in charge as the on-scene coordinator once the on-board employee is relieved. They are responsible to inform the on-board employee in charge of the affected train of the decision to evacuate (unless deemed as a critical emergency, in which case evacuation will have already commenced), who is en route to assist, and make record of each subsequent event that takes place at the scene. They are responsible for then notifying any additional support groups as deemed necessary based upon criticality of circumstances (e.g. system safety department, claims and legal department, customer relations, medical department, media relations, line maintenance.)

Control Center RROC employees are further responsible for:

- Arranging for de-energizing the overhead electrical catenary power if deemed necessary
- Determining the method of evacuation that offers the maximum passenger safety and minimum passenger inconvenience
- Maintaining continual communication with the affected train(s) until the emergency is deemed contained and under control
- Maintaining familiarization with territory within realm of dispatch responsibility
- Preparation of an evacuation report as inclusion in the debriefing and critique session following the event

4.4 Operations Front Line Supervision

4.4.1 General Responsibilities

Railroad operations front line supervisors (i.e. Line Directors, Deputy Line Directors, Transportation Managers) are responsible for the general field oversight of train operations and train crew personnel, enforcement of rules and regulations, certain aspects of customer service, certain aspects of wayside facility maintenance, accident/incident investigation, and responding to situational occurrences as assigned by superior management personnel.

4.4.2 Responsibilities During Emergencies

Railroad operations front line supervisors are responsible for immediately responding to any unusual occurrence or emergency situation which either arises during their direct monitoring activities, or upon notification by control center RROC employees or other railroad personnel. They are responsible for establishing immediately a continual communication link once they arrive on the scene of any event and the initial assessment had been made of the situation by either themselves or others.

In the event that a situation has been assessed as an event posing a significant threat to the safety or health of persons, they are responsible for taking charge of the situation as the on-scene coordinator in accordance with the Chain of Responsibility by relieving the on-board employee in charge and then assigning the train crew members to specific tasks that address the situation. They are responsible for remaining in charge until relieved of such responsibility by superior officers or other qualified personnel. They are then responsible for interacting with such personnel until relieved of further duty or participation.

In the event of a controlled evacuation during which they are in charge, front line supervisors are responsible for implementing the procedures that are outlined in the SEP-1 manual (see Appendix "E") for the safe and expeditious handling of passengers and employees.

Railroad operations front line operations supervisors are further responsible for:

- Investigating and preparing a full report of the nature of the event and submitting such report to their direct superiors for inclusion in the critique and debriefing session
- Preparing and submitting required employee injury/illness reports
- When required, preparing and submitting required rail equipment damage or highway grade crossing accident reports

4.5 SEPTA Police Department

4.5.1 General Responsibilities

The mission of the SEPTA *Transit Police Department* is to work in partnership with other SEPTA employees and customers to provide a safe and secure work and travel environment and to enhance the quality of life on the system through law enforcement efforts that reduce the fear and incidents of crime; in accomplishing this mission, the department commits itself to service, integrity, and true professionalism.

In accordance with the department's *SEPTA Transit Security Plan*, the department is responsible for ensuring that SEPTA (on a system-wide basis) initiates and maintains an emergency preparedness plan that coordinates procedures and action plans for various types of emergencies with all outside police and fire departments, hospitals, and other emergency medical forces who would routinely respond to an emergency. The department is responsible for responding to and participating in both actual emergency situations and emergency simulation drills in coordination with System Safety and in conjunction with other outside agencies, and for maintaining proficiency skills in such response matters in accordance with SEPTA protocol.

4.5.2 Responsibilities During Emergencies

During emergencies which require the on-scene presence of SEPTA Police Officers, SEPTA police are responsible for taking charge of the situation (as assigned by superior management in lieu of a transportation designee), and if deemed necessary according to the criticality of the emergency, establish an incident command post, staging areas, or other work areas, and working directly with the PDIC or FDIC when required. They are responsible for carrying out the emergency response procedures that are outlined in the *SEPTA Transit Security Plan* for the specific type of emergency to which they are responding.

The SEPTA *Police Department* is further responsible for:

- The gathering of critical incident information
- The protection of evidence, assets and property of SEPTA employees and passengers
- Casualty information
- Logistical support for outside emergency responders
- Coordinating with SEPTA legal and claims department representatives, public relations liaison officers, and customer relations representatives

4.6 System Safety Section

4.6.1 General Function

The primary function of SEPTA's *System Safety Section* is to direct the occupational safety and health concerns throughout the Authority. The section's programs are planned and executed to deal with preventing potential accident and occupational injuries. The section advises management on loss prevention techniques through monitoring and evaluating operational safety on all modal divisions, including regularly inspecting facilities, conducting audits and efficiency checks on personnel, assessing environmental issues, specifying standard personal protective equipment, and investigating certain accidents and injuries to determine causes and to formulate recommendations to prevent future occurrences.

4.6.2 Specific Responsibilities

The *System Safety Section* is responsible for the direct oversight of all safety-related activities throughout the Authority by taking appropriate corrective action when such activities place persons or property in jeopardy, and by responding in a timely and efficient manner to emergency situations or other compromising occurrences.

Safety Officers of the section are responsible for the following tasks (which are also railroad-related):

- Participating in joint labor/management committees throughout the Authority aimed at safety and accident prevention
- Responding to, and investigation of major accidents and certain qualifying accidents and injuries reportable under federal and state regulations, and the production of timely reports with conclusions and recommendations
- Analyses of safety-related data for purpose of assisting in evaluation of solutions and corrective actions
- Coordination with other sections to ensure proper training is accomplished; conducting selected facets of specialized training as required
- Reviewing safety plans
- Conducting regular inspections of (railroad) facilities and structures for proper compliance with codes, regulations, etc.
- Coordinating efforts between SEPTA and outside Emergency Response Forces in promoting fire prevention and public safety

4.6.3 Response During Emergencies

The *System Safety Section* is responsible for directly responding to certain emergency situations that are qualified by SEPTA protocol and/or federal regulatory requirements. When responding, Safety Officers are responsible for directly assisting management and/or emergency responders at the scene with the ensuing investigation or determination of cause.

The section is responsible for the following tasks:

- Notifying FRA of railroad accidents that involve: 1) passenger or employee fatality, 2) death or injury (or combination thereof) involving five or more persons
- Notifying NTSB of railroad accidents that involve: 1) passenger or employee fatality, 2) serious injuries requiring admission to hospital of two or more passengers/employees, 3) estimated damages of \$150,000 or more for replacement costs to property, 4) damage to vehicle or container resulting in release of hazardous materials or causing general public evacuation, 5) evacuation of a passenger train, 6) fatality at a highway grade crossing, 7) damage of \$25,000 or more to a passenger train/railroad property
- Notifying National Response Center for environmental spills
- Preparing initial reports and follow-up reports regarding such emergencies which are responded to by the section

4.7 **Claims Department and Legal Division**

4.7.1 General Responsibilities

SEPTA's *Claims Department* and SEPTA's *Legal Division* are similarly responsible for analyzing the severity and circumstances of railroad accidents and incidents, identifying the responsible parties, and assessing damages.

4.7.2 Responsibilities Following Emergency

The claims and legal groups are responsible for identifying and evaluating injuries (including fatalities) and damages to properties in the wake of an accident. They are further responsible for:

- Obtaining passenger names and addresses and coordinating the information (claims group)
- Assisting in tending to passengers and employees at hospitals and at accident site (claims group)

- Coordinating activities with hospitals, ambulances, and rescue units
- Identifying customers and employees, who are being treated, for future arrangement of payments (claims group)
- Working with attorneys and injured parties to resolve matters with claimants (claims group)
- Providing counseling in legal matters relating to the accident and bring resolution to matters (legal group)

4.8 Customer Relations Department

4.8.1 General Responsibilities

SEPTA's *Customer Relations Department* is responsible for providing assistance to the general riding public to include such services as public transportation service advisory information, scheduling information, fare information, routing information, arranging for special transportation needs, and responding to customer inquiries and complaints regarding transportation issues.

4.8.2 Responsibilities Following Emergency

When necessary and upon notification during extreme emergencies, the customer relations group is responsible for supporting the efforts of other departments as assigned by management. This may include, but is not limited to, the following:

- Maintaining communication with on-scene coordinator or public relations liaison officer
- Maintaining a customer support central location
- Handling passenger needs at accident site (if on site)
- Coordinating information regarding alternate means of transportation
- Disseminating only that information regarding the cause and effect of the event as authorized by the public relations group

4.9 Employee Assistance Program

4.9.1 General Function

If the severity of the accident is determined by personnel in the field to be of a critical nature, SEPTA's *Medical Department* is responsible for making an assessment whether on-site services are needed.

If on-site services are not required, the Employee Assistance Program staff will proceed with the follow-up components of SEPTA's program to assist traumatized employees which includes follow-up debriefing sessions if needed.

If on-site response is established, the Employee Assistance Program staff are responsible for conducting the following:

- Assist on-site emergency responder agencies to set up services or coordinate setting up services as required
- Conducting debriefing sessions with employees directly involved in the accident, or supervisors involved in the response
- Providing support services to family members of employees directly involved in the accident
- Monitoring stress levels of responding supervisory employees and providing necessary assistance to support these persons
- Conducting debriefing sessions with other personnel as required
- Providing additional assistance as required when event involves fatalities

4.10 Media Relations Department

4.10.1 General Function

The primary function of SEPTA's *Media Relations Department* is to act as liaison between the Authority and the general public through the local media by establishing and maintaining a continual communication link to disseminate accurate and timely information. The department is responsible for handling all media relations by formulating official statements and advisories pertaining to any event.

4.10.2 Responsibilities Following Emergency

When necessary and upon notification during extreme emergencies, the media relations group is responsible for handling media relations regarding the specific emergency event. The department will assign a designated spokesperson to serve as direct liaison officer who will be responsible for coordinating and disseminating official statements regarding the event. The liaison officer or designee may be dispatched to the incident scene depending upon the criticality of the event.

No information regarding the details of the event will be released to the media without the approval of the designated liaison officer. Such statements, written and oral, may be issued on-site or from general headquarters dependent upon the nature of the event. Initial statement will be issued at the first practical

opportunity once factual information has been gathered. However, initial media statement will not be unduly delayed due to uncontested information that cannot be obtained without long-term investigation.

The media relations group is responsible for:

- If on-site, making their presence known to on-scene coordinators and other responding representatives
- Consulting with appropriate SEPTA officials (either at the scene or at the RROC) to obtain accurate and current information
- When practical, coordinating with entities other than SEPTA officials to verify information, investigate uncontested facts, and coordinate media activities
- Coordinating factual information to formulate official media statements pertaining to the event, both initial and periodic follow-up
- Responding to public inquiries in a timely manner with regularly updated information
- Formulating internal or external advisories as required
- Authorizing customer relations group to respond to public inquiries regarding the event

4.11 Mechanical Department

4.11.1 General Responsibilities

SEPTA's *Railroad Mechanical Department* is responsible for the continual maintenance and inspection of all railroad rolling stock and locomotive equipment, and ensuring that all equipment is in full compliance with regulatory requirements.

4.11.2 Responsibilities Following Emergencies

Upon notification that rail equipment has been involved in an accident or incident, the Chief Mechanical Officer will dispatch designated officers who are responsible for inspecting all equipment involved and documenting their findings.

The mechanical department officers are further responsible for the following:

- Testing all equipment prior to movement to determine it is safe to do so
- Obtaining pertinent maintenance records on equipment involved in the accident
- Providing assistance to investigating officers
- Providing temporary repairs as required to safely move equipment

- When required, rerailling equipment
- Providing required damage estimate report as required by SEPTA protocol or regulatory requirement

4.12 Infrastructure Maintenance and Operations Support Department

4.12.1 General Responsibilities

SEPTA's *Infrastructure Maintenance and Operations Support Department* is responsible for the continual maintenance and inspection of the railroad infrastructure including trackage, signal systems, facilities, bridges, and traction power system, and ensuring that all standards are maintained and are in full compliance with regulatory requirements.

4.12.2 Responsibilities Following Emergencies

Upon notification that rail equipment has been involved in an accident or incident, the appropriate line maintenance officers will dispatch designated personnel who are responsible for inspecting all trackage, wayside appurtenances, or any other wayside structures and documenting their findings.

The infrastructure maintenance officers are further responsible for the following:

- Testing all pertinent signal and electrical system circuitry prior to restoration of normal operations
- Repairing all damages incurred to track structure, wayside systems, or bridges and other structures, and determining when it is safe to move trains
- Participate in rerailling activities as required
- Provide assistance to investigating officers

4.13 Operations Training Department

4.13.1 General Training Function

The primary function of SEPTA's *Operations Training Department, Railroad Training Section* is to develop, implement, and maintain initial and continuing education training programs designed to sustain railroad operations.

The department is charged with the general responsibility of instructing all railroad operating personnel (including managers) and designated railroad and other support non-operating personnel on those facets of railroad operations

requiring performance skills and knowledge training in accordance with the code of operating practices and other FRA regulatory requirements.

The department provides initial qualification and certification for the operating crafts of Engineer, Conductor and Assistant Conductor, Train Dispatcher, and Tower Operator, and provides support training in operating practices for other than operating craft workers (e.g. Roadway Workers). The department also provides safety training for outside agencies and employees of private contractors who perform work on or near the railroad right-of-way. In addition, the department provides to outside emergency response agencies upon request an informational program on commuter train operation designed to enhance capability to respond to emergency situations.

4.13.2 General Emergency Response Training

An integral part of railroad employees' skills and knowledge includes appropriate response to emergency situations which may arise in the railroad environment. Depending upon the particular job responsibility, the department has incorporated specific protocols in its training programs to address those job responsibilities. All training programs (both initial and periodic) include those elements mandated by the emergency preparedness regulation and are described later in this section.

In general, emergency response training activities are designed to impart the optimum amount of usable information which will enable the individual to respond appropriately to the various emergency scenarios that may occur in the railroad environment.

Training activities for both outside emergency responders and railroad personnel include such facets of railroad operation as operating practices for train movement, equipment familiarization, system geographical and structural characteristics, personal safety, train safety, handling of passengers, emergency scenarios, and evacuation priorities.

4.13.3 Specific Training Responsibilities

Following is the schedule, description of the types of instruction, and the testing criteria for which the department is responsible:

Initial Training of Railroad Personnel

Initial training in emergency response protocol is conducted within 90 days for all newly hired employees who have been employed after the effective date of the conditional approval of this plan by the FRA. For those individuals who were presently employed at the time of the effective date of the regulation, initial training will have been completed by the published date of January 29, 2001.

Initial training on emergency response protocol is a separate component of the overall craft qualification program. Persons who have been deemed qualified have been administered a comprehensive written test which has been designed to accurately measure the individual's knowledge of his or her responsibilities, has been objective in nature, and has been conducted without reference to open text or other material.

For *railroad operating personnel, on-board employees* the department is responsible for instruction on these elements:

- Comprehensive rail equipment familiarization
- Situational awareness
- Emergency evacuation procedures
- Coordination of functions (i.e. chain of command, roles and responsibilities)
- "Hands-on" instruction concerning location, function, and operation of emergency equipment (i.e. exit windows, fire extinguishers, pry bars)

For *railroad operating personnel, RROC employees* the department is responsible for instruction on these elements:

- Familiarization with territory (i.e. physical characteristics qualification and familiarization)
- Protocols governing internal and external communications between appropriate control center personnel and outside agencies
- Emergency evacuation procedures
- Coordination of functions (i.e. chain of command, roles and responsibilities)

Periodic Training of Railroad Personnel

Periodic training on emergency response is conducted at least once in every two calendar year period commencing with calendar year 2003. Such instruction on emergency response protocol is integrated into annual re-certification training, which includes all other applicable facets of operating practices. Previously qualified persons who have been given such refresher training are tested on their knowledge by being administered a limited written test segment which may be integrated into the comprehensive examination designed to accurately measure the individual's knowledge of his or her responsibilities on all operating practices. This comprehensive test is objective in nature, and is conducted without reference to open text or other material.

For *railroad operating personnel, on-board employees* the department is responsible for instruction on these elements:

- Refresher situational
- Refresher emergency evacuation procedures
- Refresher coordination of functions (i.e. chain of command, roles and responsibilities)
- Re-familiarization of location, function, and operation of emergency equipment, including “hands-on” refresher concerning emergency exit windows and fire extinguisher familiarization

For *railroad operating personnel, control center employees* the department is responsible for instruction on these elements:

- Refresher protocols governing internal and external communications between appropriate control center personnel and outside agencies
- Refresher emergency evacuation procedures
- Refresher coordination of functions (i.e. chain of command, roles and responsibilities)

Training for Emergency Responders of Outside Agencies

Training for emergency responders of outside agencies is presently established in accordance with an ongoing liaison, whereby all agencies within the five county area (who may be reasonably expected to respond) continue to have an open working relationship with SEPTA.

There are two avenues of instruction available to outside agencies: direct training by SEPTA instructors, or a self-familiarization course of instruction. Training conducted by departmental instructors is made available upon request (subject to scheduling availability), and may be conducted either on-property or off-property dependent upon the specific arrangement made with the agency or groups of agencies. SEPTA also provides an off-the-shelf program consisting of an informational manual and video presentation.

For *emergency responders of outside agencies*, the department provides information and/or instruction on these elements:

- Familiarization with the SEPTA passenger train system operations and general geographical and physical characteristics of the right-of-way
- Familiarization with the configuration of all types of passenger equipment (may include orientation tours and hands-on instruction), and right-of-way wayside facilities

- Familiarization with specific railroad structures that may pose limited access (i.e. tunnels, elevated structures, other significant constructions)
- Familiarization with the overhead electrical catenary system
- Familiarization with the emergency-related duties of key railroad operations personnel and other SEPTA response personnel

5.0 COORDINATION WITH OUTSIDE EMERGENCY RESPONSE AGENCIES

5.1 Introduction

When major emergency situations occur, SEPTA's Railroad Division operations is largely dependent upon the coordinated efforts of the numerous emergency response agencies throughout the five county region. By establishing a liaison with the agencies throughout the area, SEPTA has ensured that timely and effective response to such emergencies has been optimized.

One of the primary objectives of this *Railroad Division Passenger Train Emergency Preparedness Plan* is to coordinate the roles of the various outside organizations and to have them sufficiently familiarized with the railroad operating environment to enhance the effectiveness of their activities when they respond to emergencies. In addition, SEPTA has come to recognize the development of community-related disaster plans which outline various response protocols for major disasters in regional locales, in many instances including disasters involving trains. Such information is shared and reinforces the effectiveness of the coordinated effort to respond in a timely and effective manner.

Integrated into this plan, therefore, is information regarding inter-organizational emergency protocols that form the basis for the coordination of roles between SEPTA operations personnel and emergency responders of outside agencies.

5.2 Inter-Organizational Emergency Protocols

Contained throughout portions of the *Railroad Division Passenger Train Emergency Preparedness Plan* are the inter-organizational emergency protocols that serve as a formal basis of mutual understanding of the resources that can be made available during times of emergency situations. This plan contains detailed information pertaining to command, control, communication procedures, and responsibilities as they relate to passenger train emergencies.

Information is provided throughout the plan (including appendices) to assist outside agencies with their understanding of the system. Some of the more important aspects are with regards to the following:

- A comprehensive list of participating emergency response organizations and pertinent information regarding their response capabilities, resources, scope, jurisdictional boundaries
- Railroad chain of command
- Communications and evacuation procedures

- Various descriptions of the railroad environment and the train operating system, equipment, and significant physical characteristics
- Railroad emergency procedures for designated types of emergencies
- Descriptions of other disaster/emergency management plans
- Training responsibilities

5.3 Passenger Train Emergency Simulations

It its continued effort to maintain a well-established liaison with outside emergency response agencies and to optimize its emergency preparedness, SEPTA periodically arranges passenger train emergency simulations with local emergency responder units throughout the commuter area. SEPTA's primary objective is to evaluate its capability to execute the provisions of the plan under a variety of scenarios.

SEPTA periodically arranges to conduct an emergency simulation on a selected route line, and will arrange to continue this practice at least once in every calendar year commencing in 1999 in accordance with the regulatory requirement. SEPTA invites local responder organizations within the geographical area of the selected site to participate in the drill. The effort is coordinated through the applicable Railroad Division Line Director and the designated coordinator from the System Safety Department who will contact the responder organizations to pre-arrange the type of scenario that will be simulated.

The actual drill involves the participating responder units, SEPTA police, railroad operating personnel (including train crew and RROC personnel), and transportation managers and supervisors. At the conclusion of the drill, a debriefing and critique is held to evaluate the overall effectiveness. A written report of the drill is prepared and placed on file for future reference.

6.0 EMERGENCY PROCEDURES

6.1 General Information

SEPTA's *Railroad Division Passenger Train Emergency Preparedness Plan* identifies the types of emergency situations and associated hazards that are the most typical kinds of emergencies which could occur. Each type of scenario has its own unique characteristics and therefore requires procedures which are specially tailored to address that type of emergency. Such procedures specify the necessary tasks that are to be performed by on-board train personnel, other train system operating personnel, and emergency response personnel. The procedures may also specify activities associated with implementation, recovery, and follow-up.

The following *emergency scenarios* are addressed in this section of the plan:

- Illness or injury
- Stalled or standing train
- Emergency stoppages
- Suicides or striking trespasser
- Derailments or collisions
- Fire and smoke
- Derailments or collisions with fire or smoke or immersion in water
- Severe weather conditions or natural disasters
- Security situations

The following *systematic sequence* of passenger train system-related activities (where applicable) are contained in this section of the plan for the scenarios mentioned above:

- Pre-incident planning (preparation)
- Initial response
- Assessment/response by emergency personnel
- Hazard control
- Support operations
- Access to train, right-of-way structure, facility
- Emergency care
- Extrication
- Evacuation (removal) and transfer
- Debriefing and critique

(NOTE: In the sections that follow here, some procedures for specific scenarios may only be summarized while making reference to an alternate existing document. Certain emergency response protocols are generic to the entire SEPTA system and are integrated into either the existing *SEPTA Transit Security Plan* or the existing *SEPTA Emergency Preparedness Plan*. In addition, certain railroad procedural plans are routinely held in possession by operating personnel and/or management personnel while on duty. Such instances will be noted where appropriate.)

6.2 Systematic Sequences Common to All Emergency Scenarios

Certain train system-related response activities are common to each type of emergency scenario described in Section 6.1. Following are descriptions of those common activities.

6.2.1 Assessment/Response by Emergency Personnel

In the event that the nature of an injury or illness requires immediate medical response, RROC personnel will dispatch the appropriate emergency response entity to the scene. In most instances, the RROC will arrange for the nearest medical assistance based upon logistics to optimize response time and efficiency.

If the injury or illness occurs on board a train, the train will usually be held at a passenger station which provides optimum logistical support. In all instances, on-board crew members will first ascertain if there are any medical persons on the train and will request their assistance. On some occasions, if it is deemed safe to do so, a crew member may be instructed to remain at the station with the injured or ill person until medical assistance arrives while the train is dispatched to continue its schedule.

In the event that a stalled or standing train must be evacuated with the assistance of emergency response personnel, SEPTA personnel are governed by the instructions outlined in the SEP-1 manual.

In the event of an apparent suicide or a trespasser struck by a train, emergency response units dispatched to the scene will take charge of the situation and will make the official determination of the criticality of the event.

6.2.2 Hazard Control

In the event an injury or illness occurs in an unsecured location (i.e. outside the safety confines of the train), immediate assessment will be made to ascertain if the injured or ill victim is endangered by the railroad environment (i.e. within the envelope of the right-of-way.) If the situation in any way poses a hazard to the

victim or attending individuals, appropriate measures will be taken by RROC personnel to ensure continuous protection until the situation is under control.

In the event that a stalled or standing train must be evacuated, SEPTA personnel will be dispatched to the scene to provide or assist responders with hazard control for the passengers who may be evacuated along the right-of-way.

6.2.3 Support Operations

SEPTA personnel will be made readily available to direct or protect emergency responders who may enter railroad property. They will be at the disposal of such responders to provide any assistance which may be required for events which are beyond normal protocol.

6.2.4 Access to Train, Right-of-Way Structure, Facility

Whenever possible, SEPTA personnel will be readily available to provide immediate access to the location of the event. SEPTA trains standing in a passenger station are easily accessed through the same train doors accessible to the public. Structures and other facilities will be accessed according to the instructions imparted by RROC personnel or by on-scene supervisors in coordination with the RROC.

6.2.5 Emergency Care

In the event of an illness or injury occurring on a train, a possible suicide or struck trespasser, or other similar emergency involving persons who have entered railroad property, crew members will ascertain if there are any medical persons on board the train and will request their assistance for emergency care. Otherwise, such care will be provided by those responding to the scene.

6.2.6 Extrication

Events requiring a decision for extrication of injured persons from a train will be left to emergency responding units unless the nature of the event is a disaster requiring immediate attention, in which case it may be necessary for crew members or other persons to assist until help arrives.

6.2.7 Evacuation (Removal) or Transfer

Procedures for the evacuation or transfer of injured or ill persons is contained in the SEP-1 manual.

In the event that a stalled or standing train must be evacuated, crew members will inform emergency responder units of those persons requiring special needs.

Removal of a suicide victim or a struck trespasser from the area on or near the right-of-way will be conducted by the appropriate responding units.

6.2.8 Debriefing and Critique

In the event of an injury or illness to a passenger or employee which requires emergency response or medical assistance (including known admission to a hospital), a fatality to a railroad employee or passenger or trespasser, or the evacuation of a train, the RROC will document the facts of the event by utilizing SEPTA *RROC Emergency Response Incident Report Form* (see Appendix “N”). This form will in turn be forwarded to the designated contact person for inclusion with the formal report to be prepared. Based upon criteria delineated by FRA, debriefing and critique shall be conducted in accordance with 239.105.

Such debriefing will include the following:

- Whether the on-board communications functioned properly
- How much time elapsed between the occurrence and notification to responders
- Whether the RROC promptly initiated the notification
- How quickly the responders responded after notification
- How efficiently the passengers exited through emergency exits (as applicable)

A record of the event will be retained to be placed on file with the division for inspection by FRA and other outside agencies. The railroad will utilize the SEPTA *Record of Debriefing and Critique Session* form (see Appendix “O”). The record will contain the following:

- The date and location of the emergency
- The date and location of the debriefing and critique
- The names of the participants in the debriefing and critique sessions
- A summary of the effectiveness of the plan

6.3 **Systematic Sequences Specific to the Emergency Situation**

Certain train system-related response activities are specific to the type of emergency scenarios described in Section 6.1. Following are descriptions of those specific activities.

6.3.1 Illness or Injury

Pre-incident Planning (Preparation)

Since illness and injury are the most common types of emergency occurrences, SEPTA employs a standard protocol for such instances. When such events occur to a passenger riding on a passenger train, crew members are instructed to immediately notify the Train Dispatcher of the event and await further instructions based upon the criticality of the occurrence. When occurrence directly involves an employee, either the Train Dispatcher or other immediate supervisor is notified depending upon the location of the occurrence (i.e. on-board a train or at another railroad facility.)

In all instances, employees who are involved (whether the victim or witness) are required to fill out the required *Regional Rail Division Accident/Incident Form* and submit the form in a timely manner to the designated location. In addition, if an employee injury, the employee must fill out and submit the *Railroad Employee Injury and/or Illness Record SEPTA Form 6180.98*.

In the event that the injury or illness has resulted in the death of an employee or passenger, or five or more persons are injured and/or incur death as a result of an accident, FRA will be notified in accordance with outline of criteria. In addition, NTSB will be notified in accordance with its criteria.

Initial Response

Upon notification of an injury or illness on board a passenger train (usually via train radio or cellular phone), the Train Dispatcher will immediately ascertain the nature of the occurrence, whether it is life-threatening, and whether immediate medical assistance is required. Based upon the assessment of the report, the decision will be made as to whether emergency response will be initiated, to what point the train will progress (or remain standing), and what additional steps will be taken to preserve safety and prevent the occurrence from magnifying. The crew members on a train will be notified accordingly as to what instructions they are to follow.

6.3.2 Stalled or Standing Train

Pre-incident Planning (Preparation)

When a passenger train is stalled or otherwise standing for any extended period of time, on-board crew members are governed by the *Passenger Operations Instruction Manual SPO-1* and are responsible to make proper announcements regarding the nature of the delay or service interruption. Communication with the RROC must be made as soon as it is determined that the delay will interrupt

normal service. In all instances, on-board crew members must make every effort to keep passengers informed of the situation. To the best of their ability, they will prevent passengers from detraining onto the right-of-way by advising them of the extreme danger involved with occupying the right-of-way unauthorized.

Initial Response

The Engineer and Conductor are responsible for notifying the RROC as soon as it is known that the train has stalled or is standing, informing RROC personnel of the situation (i.e. equipment malfunction, obstruction on right-of-way, loss of electric power, etc.) The train crew is then governed by the instructions of the RROC.

6.3.3 Emergency Stoppages

Pre-incident Planning (Preparation)

Whenever a passenger train experiences an emergency stoppage (either undesired, unintentional, or intentional), the Engineer and Conductor are governed by applicable operating rules and other instructions to immediately notify the Train Dispatcher that such an occurrence has resulted, and to take appropriate measures to ascertain if safety of the train has been compromised, and if so, take proper measures to protect their train and persons on-board.

Initial Response

If the safety of the train is in any way compromised, or if the safety of any other trains which may be passing is compromised, train crews will take appropriate measures to ensure protection is provided in accordance with applicable operating rules and procedures. Upon notification, RROC personnel will determine if additional measures must be taken to preserve safety (e.g. de-energize power, place signals in the stop position, notify other trains immediately via radio, etc.)

6.3.4 Suicide or Striking Trespasser

Pre-incident Planning (Preparation)

In the event of an apparent suicide or striking a trespasser, train crew members are governed by applicable operating rules and other instructions to immediately notify the Train Dispatcher that person has been struck by the train, then attempt to take any further preventive action to preserve safety along the right-of-way. RROC personnel will immediately take additional measures to preserve safety (e.g. de-energize power, place signals in the stop position, notify other trains immediately via radio, etc.), and immediately notify the appropriate authority that such an event has just taken place. An assessment of the criticality of the event

will next be determined. Based upon that assessment, the RROC will issue further instructions to the train crew and inform the responding unit of the information obtained.

Initial Response

RROC personnel will immediately notify the nearest police responding unit of the event, after which the appropriate emergency response unit(s) will be notified. RROC personnel will then dispatch supervisors to the scene to assist the emergency responding units. RROC will notify SEPTA System Safety, who will in turn dispatch the on-call field safety officer to the scene to assist with the investigation of the event.

6.3.5 Derailments or Collisions

Pre-incident Planning (Preparation)

In the event of derailment or collision where passengers are occupying the train, train crew members are governed by applicable operating rules and other instructions to take any further preventive action to preserve safety along the right-of-way, then to immediately notify the Train Dispatcher. If derailment occurs and train is fouling an adjacent track, crew members will afford immediate protection against other trains. RROC personnel will immediately take additional measures to preserve safety (e.g. de-energize power, place signals in the stop position, notify other trains immediately via radio, etc.). An assessment of the criticality of the event will next be determined. Based upon that assessment, the RROC will issue further instructions to the train crew.

Initial Response

If derailment or minor collision has not resulted in injury or no apparent danger is evident, RROC personnel will first immediately dispatch supervisors to the scene. Supervisors are governed by the current accident investigation procedures to determine cause of derailment.

If derailment or collision has occurred which has caused apparent injury, RROC personnel will first immediately notify the appropriate emergency response unit(s). RROC personnel will then dispatch supervisors to the scene to assist the emergency responding units. RROC will notify SEPTA System Safety, who will in turn dispatch the on-call field safety officer to the scene to assist with the investigation of the event.

6.3.6 Fire and Smoke

Pre-incident Planning (Preparation)

All SEPTA locomotives and passenger cars and coaches are equipped with fire extinguishers which are available for service at all times. Instructions on the use of the various types of fire extinguishers available on equipment are contained in the *SEPTA Railroad Division Timetable Special Instructions*. Employees are periodically familiarized on the locations and use of these devices during annual recertification classes.

Initial Response

In the event fire and/or smoke occurs on a passenger train, crew members are instructed to ascertain the source and extent of the fire or smoke, then take appropriate action as required. This may include the decision to discharge a fire extinguisher, to evacuate the train if danger to life is deemed imminent, or to have persons detrain at a passenger station pending further investigation of the source. In the event fire or smoke occurs outside the train where the safety of passengers or crew members may come into jeopardy, crew members are instructed to take the safest course. In any instance of fire or smoke, the Train Dispatcher is notified immediately. Crew members are then governed by the further instructions of RROC personnel.

6.3.7 Derailments or Collisions with Fire or Smoke or Immersion in Water

Pre-incident Planning (Preparation)

Derailments or collisions that are accompanied by fire or smoke, or which result in immersion in water, are regarded as critical emergencies where there is imminent danger to life. In such instances, the immediate safety of passengers and train crew members is paramount. In accordance with instructions contained in the SEP-1 manual, the decision to evacuate the train is to be made by the most responsible employee at the scene.

Initial Response

On-board employees will make the immediate determination to evacuate the train. As soon as possible, RROC personnel will be informed by train crew members as to the severity of the situation. RROC personnel will take immediate action to notify emergency response units and will take appropriate measures to preserve safety (e.g. de-energize power, place signals in the stop position, notify other trains immediately via radio, etc.) Supervision will be dispatched to the scene to assist the emergency responding units. RROC will then notify SEPTA System

Safety, who will in turn dispatch the on-call field safety officer to the scene to assist with the investigation of the event.

6.3.8 Severe Weather Conditions or Natural Disasters

Pre-incident Planning (Preparation)

The RROC maintains a continual update on weather conditions throughout the five county area. In the event that severe weather is predicted for any area within the railroad commuter region, the RROC transmits specific information via the alpha-numeric paging system, whereby supervisors and managers receive instantaneous detailed information about any pending weather.

Natural disasters are usually unpredictable and therefore preparations cannot always be implemented in a timely manner. The *SEPTA Emergency Preparedness Plan* contains response procedures for occurrences of such magnitude. The plan contains response information on such types of events as floods and earthquakes.

Initial Response

Initial response when such events take place are in accordance with the response protocol of the *SEPTA Emergency Preparedness Plan*.

6.3.9 Security Situations

Pre-incident Planning (Preparation)

Security situations such as terrorism, sabotage, bomb threats, assaults, robberies, or destruction of property are addressed in both the *SEPTA Emergency Preparedness Plan* and the *SEPTA Transit Security Plan* which outlines the management of security activities.

In the event of a security situation on board a train, crew members are instructed not to take any action which will aggravate the situation, and to inform the Train Dispatcher as soon as it is safe to do so. They are also instructed to attempt to obtain names of those involved and of witnesses. Above all else, the safety to passengers and crew members is paramount.

Initial Response

Upon receipt of information that a security situation is occurring on board a train, RROC personnel will immediately inform the nearest police unit and make proper arrangement where the train can be met. If possible, the crew members will be informed as to what will occur with regards to responding police units.

7.0 EMERGENCY PROCEDURES - SPECIAL CIRCUMSTANCES

7.1 General Information

SEPTA's *Railroad Division Passenger Train Emergency Preparedness Plan* identifies the special circumstances around which emergency situations could occur where immediate passenger egress is not feasible due to the relative inaccessibility of the location or structure along the right-of-way. At such locations or structures, unless the emergency situation is deemed to be critical where danger to life is imminent, passenger egress must be initiated under controlled conditions and must follow closely the specific procedures which are prescribed for the circumstance.

There are many locations along SEPTA's railroad right-of-way that may pose varying degrees of difficulty for on-board employees and emergency responders alike in the event that passengers must be detrained or evacuated. There are certain locations and structures which have been identified in this plan that have significant physical characteristics which may pose extreme difficulties. Information and procedural issues on these selected locations and structures are therefore addressed individually in this plan.

These significant locations and structures along SEPTA property are:

- Center City Commuter Tunnel on Main Line (central Philadelphia)
- Market Street Tunnel on West Chester Line (central Philadelphia)
- Viaduct over I-95 on Airport Line
- Viaduct over Amtrak's Northeast Corridor on Airport Line
- Delaware River Bridge on Conrail's Trenton Line
- Cresheim Valley Bridge on Chestnut Hill West Line
- Trestle over Cobbs Creek on Media/West Chester Line
- Trestle over Darby Creek on Media/West Chester Line
- Trestle over Crum Creek on Media/West Chester Line
- Trestle over Ridley Creek on Media/West Chester Line
- Raised Right-of-Way on Main Line (north Philadelphia)
- Gwynedd Cut on Main Line to Lansdale
- Shawmont Cut on Norristown Line
- Overhead Electrical Catenary System on entire commuter territory

(NOTE: In the sections that follow here, some procedures for specific special circumstances may only be summarized while making reference to an alternate existing document. Certain emergency response protocols are routinely held in possession by operating personnel and/or management personnel while on duty. Such instances will be noted where appropriate.

Reference should also be made to Appendix “G” which is a quick reference information matrix chart that highlights the more pertinent information that is more closely detailed for each of the selected locations and structures that are described in the sections that follow below.)

7.2 Tunnels

7.2.1 Center City Commuter Tunnel (Central Philadelphia)

Description and Characteristics of Tunnel

SEPTA’s Center City Commuter Tunnel is located in central Philadelphia and is the longest railroad tunnel structure on the system. The tunnel was constructed in the late 1970’s and early 1980’s for the purpose of connecting the two prior railroad systems that once serviced central Philadelphia, those being the former Reading Railroad and the former Pennsylvania Railroad. The northern/eastern portion of the tunnel was new construction, while the southern/western portion is the original tunnel construction of the Pennsylvania Railroad in the late 1920’s that extended into the underground Suburban Station. Both portions were connected through a prior existing wall in Suburban Station. The tunnel went into service in 1984.

The tunnel extends for a total length of 8,650 feet and runs both in an east-west compass direction and a north-south compass direction, as the tunnel makes a significant bend at its midpoint. The east-west portion opens at a portal (designated as South Portal) located in the vicinity of 20th Street and J. F. Kennedy Boulevard (original construction), while the north-south portion opens at a portal (designated as North Portal) located in the vicinity of Green Street between 8th & 9th Streets (new construction). Both portals open onto a closed system right-of-way, accessible only over steep walls from street levels above. The east-west portion basically runs parallel beneath the street surface of J. F. Kennedy Boulevard, parallels Market Street to around 11th Street, then bends to the north-south direction to run parallel to 8th & 9th Streets below the surface.

Four main tracks enter and exit at each portal location and run the entire length of the tunnel. Only in the vicinity of Suburban Station are there additional tracks, of which there are four storage tracks which terminate at bumping blocks near the end wall. At various points there are also crossover switches. Above all tracks are overhead electrical catenary wires. The track bed between the South Portal and the south end of Suburban Station is coarse stone ballast with wooden railroad tie construction. The track bed between the south end of Suburban Station and the North Portal is all smooth concrete surfacing and concrete tie construction.

There are two passenger stations located within the tunnel. Suburban Station is situated in the vicinity of 16th Street and J. F. Kennedy Boulevard. There are five high level train platforms that extend for an approximate length of 800 feet each which are accessed by numerous stairwells (there are no elevators) throughout the underground concourse. Market East Station is situated in the vicinity of 11th Street and Market Street. There are two high level platforms that extend for an approximate length of 500 feet each which are accessed by numerous stairwells and elevators on the concourse level adjacent to the Gallery Shopping Mall.

The tunnel is of concrete construction. The inside height of the tunnel varies only slightly, and in general is no more than 18 feet distance from track area to the ceiling. At a closer distance of 16 feet are the overhead electrical catenary wires. The width of the tunnel varies, but is approximately 70 feet at its narrowest point. There is not sufficient clearance along the outside walls to permit safe walking under normal railroad traffic conditions. There are numerous points of refuge throughout the tunnel both along the outside walls and in between the inside pillar structures. There is no benchwall structure. The tunnel between Suburban Station and the North Portal is sufficiently lighted to effect minimal visibility, while the shorter portion between Suburban Station and the South Portal is less sufficiently lighted.

A “leaky wire antenna” runs the length of the tunnel to permit radio communication between trains and the RROC and towers. Other than the passenger station exits, there are six emergency exits within the tunnel and one additional emergency exit just outside the tunnel at the North Portal. All exits are marked with emergency lighting and reflective material. There are also two air ducts between Market East Station and the North Portal. In addition, there are emergency centrex phones and fire phones located at various points throughout the tunnel which are marked with reflective material. At several locations, there are also extended points of refuge or enclosures that may house railroad appurtenances or other items for storage.

At one point in the vicinity of 15th Street and J. F. Kennedy Boulevard, the railroad tracks are over top SEPTA’s Broad Street Subway Line which is situated on an underground level below the railroad tunnel.

Nearest Railroad Facility or Location

The nearest railroad facilities to access the tunnel are Suburban Station, located at 16th Street and J. F. Kennedy Boulevard, and Market East Station located in the Gallery Shopping Mall between 11th & 12th Streets along Market Street or Filbert Street.

Nearby Emergency Response Units

The SEPTA Transit Police routinely patrol both Suburban Station and Market East Station and effect a continual presence on a twenty-four hour per day basis. Both the Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response unit is Engine 20 located at 10th Street & Cherry Street. The nearest police districts are 9, located at 20th Street and Pennsylvania Avenue, and 6, located at 11th Street and Winter Street.

Optimum Points of Access

Optimum points of access are through the platform levels at both Suburban Station and Market East Station, and at both the North Portal and South Portal in extreme emergencies. The emergency exit locations are designated in both the *SEPTA Railroad Division Timetable Special Instructions* for the Main Line, and in the *SEPTA Emergency Evacuation Procedures* (SEP-1) manual (see Appendix “E”.)

Evacuation Procedure

Specific instructions for the evacuation of tunnels is contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information on the tunnel (see Section 8.8, “Emergency/Disaster Management Plans”.)

7.2.2 Market Street Tunnel (Central Philadelphia)

Description and Characteristics of Tunnel

SEPTA’s Market Street Tunnel on the West Chester Line is located in central Philadelphia and is the only other railroad tunnel structure on the system longer than one thousand feet. The tunnel was constructed in the 1920’s by the former Pennsylvania Railroad. The tunnel is actually a two artery railroad right-of-way, the third portal entrance being the now abandoned Gray’s Ferry Branch which connects midway into the main tunnel via a second tunnel. The Gray’s Ferry Line has never been a part of SEPTA’s railroad operation. However, vestiges of the old right-of-way are still evident, although no trackage exists. This abandoned portion of the tunnel offers an opening up to the surface level of Powelton Avenue Yard via this abandoned railroad grade which is usually heavily overgrown.

The northern portal of the tunnel opens onto the closed system right-of-way in the vicinity of 30th Street Station, Upper Level (i.e. SEPTA portion of Amtrak's station) near Powelton Avenue Yard. The southern portal opens onto the closed system right-of-way in the vicinity of Walnut Street which passes overhead. There are high stone walls at the south end portal. Both portals are more easily accessible entering from the right-of-way a short distance from either portal. The portal opening from the abandoned railroad grade can be entered from the eastern end of Powelton Avenue Yard.

Entering from the northern portal, the tunnel bends to the left and runs basically in a north/south direction, extending for a total length of 1,333 feet through the main portion, and for about 300 feet into the abandoned portion. Two main tracks enter and exit at each active portal location and run the entire length of the tunnel. There are no crossover switches inside the tunnel. Above both tracks are overhead electrical catenary wires. The track bed between both portals is stone ballast with wooden ties.

The tunnel is of stone wall and concrete construction supported by interior steel beams. The inside height of the tunnel varies only slightly, and in general is no more than 18 feet distance from track area to the ceiling. At a closer distance of 16 feet are the overhead electrical catenary wires. The width of the tunnel is relatively consistent throughout at approximately 40 feet. There is not sufficient clearance along the outside walls to permit safe walking under normal railroad traffic conditions. There are numerous points of refuge throughout the tunnel along the outside walls. There is no benchwall structure. The tunnel is lighted to effect minimal visibility, but without emergency lighting.

A "leaky wire antenna" runs the length of the tunnel to permit radio communication between trains and the RROC and towers. There are no designated emergency exits or phones within the tunnel, nor any air ducts. At several locations, there are points of refuge. In the abandoned tunnel portion, approximately 200 feet away from the tracks, there is an overhead steel structured enclosed catwalk attached to the ceiling of the tunnel which is utilized by SEPTA railroad crews traversing the area between Powelton Avenue Yard proper and the crew quarters. The purpose of the catwalk is to provide safe passage for railroad personnel to avoid having them cross active main line tracks on the surface.

Nearest Railroad Facility or Location

Powelton Avenue Yard is located at the north end portal in close proximity to 30th Street Station, Upper Level. University City passenger station, located at South Street & Convention Avenue, is nearest the southern portal.

Nearby Emergency Response Units

Both the Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response unit is Engine 43 located at 2166 Market Street. The nearest police district is 9, located at 400 North 20th Street.

Optimum Points of Access

Optimum points of access are via either portal entrance. The north end portal can be accessed from Powelton Avenue Yard. However, access into the yard's small parking lot area is severely limited account vehicles must pass through a short undergrade tunnel passage that can only accommodate standard size vehicles (i.e. automobiles, small trucks). Larger rescue-type vehicles will not fit through the tunnel. Overhead clearance in the tunnel is approximately 8 feet.

The south end portal can be accessed via entering the right-of-way from the vicinity of University City passenger station. An alternate point of access via vehicle would also be off Chestnut Street near the railroad "High Line" overpass. Traveling east on Chestnut Street beyond this overpass, vehicles must turn right at the traffic light, then right down the driveway, arriving in a limited parking area which is adjacent to the railroad tracks near the ball field.

In an extreme emergency, the tunnel can be accessed via the abandoned Gray's Ferry Branch. This can be entered (on foot only) at the top of the railroad grade which comes up to ground level at the east end of the yard near Spring Garden Street overpass. Powelton Avenue Yard can be accessed by large-type vehicle at the east end through Amtrak's Maintenance of Way storage facility behind the generator plant where a gate has been erected at the entrance of SEPTA property (called Weaver Crossing). Two main tracks must be crossed to enter the yard roadway (permission must be obtained as railroad is heavily traveled). In the abandoned tunnel portion, there is an emergency escape ladder (steel rungs) approximately fifteen feet in height extending from the ground to the catwalk which could be utilized as an ingress/egress route in an extreme emergency. The catwalk emerges in two locations: the yard proper at one end, and near the crew quarters parking lot (located along 32nd Street) at the other.

Evacuation Procedure

Specific instructions for the evacuation of tunnels is contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information on the tunnel (see Section 8.8, "Emergency/Disaster Management Plans".)

7.3 Bridges and Other Elevated Structures

7.3.1 Viaduct over I-95 on Airport Line

Description and Characteristics of Viaduct

The Airport Line was opened in 1984 after extended improvements (including electrification) to the former Conrail Chester Secondary Track, and additional new construction between the vicinity of 90th Street and the airport (including the viaduct.) The line is utilized jointly by SEPTA and Conrail's successor, the freight carrier operating only between the vicinity of 60th Street and 90th Street. Freight service is not operated on the viaduct (except occasional operation of SEPTA's inspection and maintenance "wire train".)

The northern end of the viaduct structure is located adjacent to Bartram Avenue near the exit ramp that enters Bartram Avenue in the vicinity of 89th-90th Streets. The southern end is located near Airport Terminal A-B along Departure Road. The viaduct curves severely from end to end, passing above Bartram Avenue and I-95 at a maximum height of approximately 40 feet. The northern portion also rises above the edge of the Tinicum Wildlife Preserve, a marshy waterway. There is also a very small marshy area at the southern end of the viaduct. The viaduct extends for a total length of 4,120 feet, catenary pole HSL-50 at the northern end, catenary pole HSL-21F at the southern (airport) end. The viaduct is not accessible by vehicle.

The entire viaduct is of concrete construction with concrete side railing protection affording the ability to walk adjacent to the trackage on either side with minimum clearance. There are no points of refuge. The walking surface is smooth concrete, while the track bed is coarse stone ballast and wooden railroad tie construction. There are two main tracks running the entire length of the viaduct. There are no crossover switches on the viaduct, but several are located at the immediate southern end and in relative proximity to the north end near 89th Street. Above both tracks are overhead electrical catenary wires. There are no wayside means of communication available on the viaduct.

Nearest Railroad Facility or Location

The nearest railroad facility at the southern end is Airport Terminal A-B located at catenary pole HSL-15. At the northern end is the railroad junction utilized by the freight carrier in the vicinity of catenary pole HSL-56. Eastwick passenger station is to the north (catenary pole HSL-71) accessed on the east side from Bartram Avenue near 84th Street, and accessed on the west side from Mario Lanza Boulevard near Crane Street.

Nearby Emergency Response Units

Both the Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response unit is Engine 69 (Tinicum Fire Station) located on Bartram Avenue near 84th Street. The nearest police district is 12, located at 65th Street and Woodland Avenue.

Optimum Points of Access

At the southern (airport) end, the optimum point of access would be over the wall or fence on either side of the tracks in the vicinity of the southern end of the viaduct. Along the airport's Departure Road, there is a low wall. Along the airport's Arrival Road, there is a fence. At the extreme end of Arrival Road near where the southern end of the viaduct ends, there is an open area where vehicles can be parked. The railroad is fenced in here, but there is a gate near catenary pole HSL 21A.

At the northern end, a fence runs along the right-of-way parallel to Bartram Avenue. Access may be gained to the right-of-way through two gates located near 89th Street at catenary poles HSL-54 and HSL-56.

Evacuation Procedure

Specific instructions for the evacuation along roadbed to station is contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information pertaining to evacuations along railroads (see Section 8.8, "Emergency/Disaster Management Plans".)

7.3.2 Viaduct over Amtrak's Northeast Corridor on Airport Line

Description and Characteristics of Viaduct

(Also see general description contained in Section 7.3.1)

The viaduct structure is both a raised right-of-way with a short bridge at the midway point directly over Amtrak's Northeast Corridor. The northern end (toward Philadelphia) of the viaduct structure is located in the vicinity of the CSX railroad bridge over Amtrak's Northeast Corridor.

The viaduct curves severely from end to end, passing above Amtrak's Northeast Corridor at a maximum height of approximately 25 feet in the middle above Amtrak's four track railroad system. The viaduct structure extends for a total approximate length of ¼ mile, catenary pole HSL-182 at the northern end, catenary pole HSL-166 at the southern end (toward airport). The viaduct is not accessible by vehicle.

The viaduct is of raised roadbed construction with a steel girder bridge (113 feet in length) with side railing protection affording the ability to walk adjacent to the trackage on either side with minimum clearance. There are no points of refuge. The viaduct surface (walkway and track bed) is coarse stone ballast and wooden railroad tie construction. There is one single main track running the entire length of the viaduct. Above the track is the overhead electrical catenary wire. There are no wayside means of communication available on the viaduct.

Nearest Railroad Facility or Location

At the south end (toward airport), the nearest railroad facility is SEPTA's 'A' Tower Interlocking Station located near 58th Street and Lindbergh Boulevard. There are no railroad facilities in nearby proximity at the northern end.

Nearby Emergency Response Units

Both the Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response unit is Engine 40 located on 53rd Street and Woodland Avenue. The nearest police district is 12, located at 65th Street and Woodland Avenue.

Optimum Points of Access

A railroad access road is located near the southern end which can be accessed through a gate off Elmwood Avenue between 58th Street and 61st Street. The optimum point of access for the northern end would be via the private railroad access road which is entered by turning off 58th Street between the CSX railroad and Amtrak's Northeast Corridor, which will be in the vicinity of a PECO sub station near the tracks.

Evacuation Procedure

Specific instructions for the evacuation along roadbed to public area is contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information pertaining to evacuations along railroad (see Section 8.8, "Emergency/Disaster Management Plans".)

7.3.3 Delaware River Bridge on Conrail Successor's Trenton Line

Description and Characteristics of Bridge

The Delaware River Bridge is a major railroad bridge artery spanning the river between Pennsylvania and New Jersey, originally constructed as a part of the former Reading Railroad system in the early 1900's. The bridge today is heavily utilized by both freight and passenger train service, coming under joint operating arrangement. Conrail's successor is responsible for inspection and maintenance (except for catenary system, which is the responsibility of SEPTA.)

The north end of the bridge is located in New Jersey, and is tangent track with extended visibility toward West Trenton (NJ) passenger station. The south end is located in Pennsylvania, curving to the right as the bridge is exited southward toward Yardley (PA) passenger station with extreme limited visibility. The bridge is of concrete and steel construction. The bridge expands for a length of approximately 1,800 feet, rising approximately 100 feet above the river and adjacent canals. Catenary pole 31/4 marks the southern end, catenary pole 31/12 the northern end. Two main tracks cross the bridge. There are no crossover switches. Above both tracks are overhead electrical catenary wires. The track bed is stone ballast with wooden railroad ties. There is a concrete surface walkway protected on both sides by double steel tubular railings offering minimal walking clearance on both sides. There are no points of refuge or wayside communication on the bridge.

Nearest Railroad Facility or Location

At the north end is SEPTA's West Trenton (NJ) passenger station located approximately one mile north of the bridge at Grand Avenue and Railroad Avenue. At the south end is SEPTA's Yardley (PA) passenger station approximately ½ mile south of the bridge at Main Street and Reading Avenue.

Nearby Emergency Response Units

On the Pennsylvania side, the Yardley Fire Company and Yardley Borough Police, located at 56 S. Main Street, Yardley, are available for emergency response. On the New Jersey side, the West Trenton Fire Company, West Trenton Police, and Ewing Township Police are available for emergency response.

Optimum Points of Access

There is no immediate vehicular access to the bridge. However, a railroad private access road runs adjacent to the tracks from the vicinity of West Trenton (NJ) passenger station to a point approximately 1,000 feet north of the bridge. This road may be entered from the south end of the inbound platform parking lot. From the southern end, there is no direct access other than walking along the immediate railroad right-of-way from the vicinity of Yardley (PA) passenger station.

Evacuation Procedure

Specific instructions for the evacuation along roadbed to public area or to passenger station is contained in the SEP-1 manual.

7.3.4 Cresheim Valley Bridge on Chestnut Hill West Line

Description and Characteristics of Bridge

The Cresheim Valley Bridge was totally reconstructed in 1987 after the original iron trestle was condemned. The bridge is utilized only for passenger train operations.

The east end of the bridge (toward Chestnut Hill West) is located near St. Martin's passenger station and is tangent track with extended visibility toward and beyond the passenger station. At the west end (toward central Philadelphia), the track curves to the right as the bridge is exited toward Allen Lane passenger station, with extreme limited visibility. The bridge is of concrete and steel construction. The bridge expands for a length of 411 feet, rising approximately 50 feet above Cresheim Valley Drive. Catenary pole 5/13 marks the western end of the bridge, catenary pole 5/15 the northern end. Two main tracks cross the bridge. There are no crossover switches. Above both tracks are overhead electrical catenary wires. The track bed is stone ballast with wooden railroad ties. There is a concrete surface walkway protected on both sides by double concrete railings offering minimal walking clearance on both sides. There are no points of refuge or wayside communication on the bridge.

Nearest Railroad Facility or Location

The nearest railroad facility is St. Martins passenger station (catenary pole 5/19) east of the bridge located at St. Martins Lane and Springfield Avenue. Allen Lane passenger station, located at Allens Lane and Cresheim Road, is approximately ½ mile west of the bridge.

Nearby Emergency Response Units

Both the Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response unit is Engine 9 located on Germantown Avenue and Carpenter Lane. The nearest police district is 14, located at Germantown Avenue and Haines Street..

Optimum Points of Access

The optimum point of access would be from St. Martins passenger station. The bridge is more easily accessed from Pocono Street near the intersection of Mermaid Lane. There is no direct access from the south end.

Evacuation Procedure

Specific instructions for the evacuation along roadbed to passenger station is contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information pertaining to evacuations along railroad (see Section 8.8, “Emergency/Disaster Management Plans”.)

7.3.5 Trestle over Cobbs Creek on Media/West Chester Line

Description and Characteristics of Trestle

The Trestle over Cobbs Creek was originally constructed by the former Pennsylvania Railroad with current continual maintenance by SEPTA. The trestle is utilized primarily for passenger train operations and occasional freight train operation by both Conrail’s successor and Amtrak.

At the north end (toward central Philadelphia) the track curves slightly to the right exiting toward Angora passenger station. At the south end, the track curves to the right exiting toward Fernwood-Yeadon passenger station. There is limited visibility entering or exiting the trestle in either direction. The trestle is of steel girder construction. The trestle expands for a length of 377 feet, rising approximately 40 feet above the creek and Cobbs Creek Road. Catenary pole 4/23 marks the northern end, catenary pole 4/25 the southern end. Two main tracks cross the trestle. There are no crossover switches. Above both tracks are overhead electrical catenary wires. The trestle surface is open exposed wooden railroad ties. There is a center steel grate walkway. The sides are exposed with no safety or side railing protection. There is no walking area other than the center grate. There are no points of refuge or wayside communication on the trestle.

Nearest Railroad Facility or Location

The nearest railroad facility at the north end is Angora passenger station, located at 58th Street near Baltimore Avenue, approximately ¼ mile from the trestle. At the south end is Fernwood-Yeadon passenger station located at Church Lane and Penn Boulevard, approximately ½ mile from the trestle.

Nearby Emergency Response Units

The north side of the trestle is in the jurisdiction of the City of Philadelphia. The Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response unit is Engine 57, located on 56th Street and Chestnut Street. The nearest police district is 18, located at 55th Street and Pine Street. On the south side of the trestle is both Yeadon Borough and Upper Darby Township. The Yeadon Fire Company located at Bailey Road and Church Lane is the closest emergency response unit. The nearest police district is Yeadon Police Department.

Optimum Points of Access

From the north end, the best point of access is the rear parking lot of the John P. Turner Middle School, 59th Street and Baltimore Pike. The railroad can be accessed through the fence in the vicinity of catenary pole 4/23. From the south end, vehicles can access to a point approximately 1,000 feet from the trestle (catenary pole 5/2) via West Cobbs Creek Parkway off Bailey Road.

Evacuation Procedure

Specific instructions for the evacuation on trestles is contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information pertaining to evacuations along railroad (see Section 8.8, “Emergency/Disaster Management Plans”.)

7.3.6 Trestle over Darby Creek on Media/West Chester Line

Description and Characteristics of Trestle

The Trestle over Darby Creek was originally constructed by the former Pennsylvania Railroad with current continual maintenance by SEPTA. The trestle is utilized primarily for passenger train operations and occasional freight train operation by Amtrak.

The track is tangent at both ends with sufficient visibility in either direction toward Gladstone passenger station at the north end (toward central Philadelphia) and Clifton-Aldan passenger station south of the trestle. The trestle is of steel girder construction. The trestle expands for a length of 339 feet, rising approximately 70 feet above the creek and Darby Creek Road. The trestle is situated between catenary pole 7/1 at the northern end, and catenary pole 7/4 at the southern end. Two main tracks cross the trestle. There are no crossover switches. Above both tracks are overhead electrical catenary wires. The trestle surface is open exposed wooden railroad ties. There is a center steel grate walkway. The sides are exposed with no safety or side railing protection. There is no walking area other than the center grate. There are no points of refuge or wayside communication on the trestle.

Nearest Railroad Facility or Location

Gladstone passenger station is located in immediate proximity just north of the trestle in the vicinity of Walsh Road and Madison Road. Clifton-Aldan passenger station is approximately ¼ mile south of the trestle at Springfield Road and Maryland Road.

Nearby Emergency Response Units

The nearest emergency response units are the Lansdowne Fire Company at Gladstone, and Clifton-Aldan Fire Company at Clifton-Aldan. The nearest police district is Lansdowne Police Department, located at 12 E. Baltimore Avenue, Lansdowne.

Optimum Points of Access

The optimum point of access is from Gladstone passenger station (inbound side on Scottsdale Road, outbound side on Eldon Road.)

Evacuation Procedure

Specific instructions for the evacuation on trestles is contained in the SEP-1 manual.

7.3.7 Trestle over Crum Creek on Media/West Chester Line

Description and Characteristics of Trestle

The Trestle over Crum Creek was originally constructed by the former Pennsylvania Railroad and later reconstructed by SEPTA in 1982. The trestle is utilized primarily for passenger train operations and occasional freight train operation by Amtrak.

The track is tangent at the south end (toward Media) with sufficient visibility viewing toward Turner Road highway grade crossing. Between the trestle and Turner Road, the railroad spans I-476, "The Blue Route." At the north end (toward central Philadelphia), the track curves to the right exiting toward Swarthmore passenger station with limited visibility. The trestle is of steel girder construction. The trestle expands for a length of 925 feet, rising approximately 90 feet above the creek. The trestle is situated between catenary pole 11/22 at the northern end, and catenary pole 11/27 at the southern end. Two main tracks cross the trestle. There are no crossover switches. Above both tracks are overhead electrical catenary wires. The trestle surface is open exposed wooden railroad ties. There is a center steel grate walkway. The sides are exposed with no safety or side railing protection. There is no walking area other than the center grate. There are no points of refuge or wayside communication on the trestle.

Nearest Railroad Facility or Location

Swarthmore passenger station is approximately ¼ mile north of the trestle located at Chester Road and Park Avenue. Turner Road highway grade crossing is located approximately 1,000 feet south of the bridge.

Nearby Emergency Response Units

The nearest emergency response unit is Swarthmore Fire House located at 121 Park Avenue, Swarthmore. The nearest police districts are Swarthmore Police Department, located at 121 Park Avenue, Swarthmore, and Wallingford Police Department, located at 214 Sykey Lane, Wallingford.

Optimum Points of Access

The optimum point of access is from Turner Road highway grade crossing south of the trestle (catenary pole 12/4), but there is no vehicular access beyond that point. Trestle must be accessed by foot directly along the right-of-way. There is no vehicular access from the north end. There is also an access dirt road off College Road into the valley below the structure.

Evacuation Procedure

Specific instructions for the evacuation on trestles is contained in the SEP-1 manual.

7.3.8 Trestle over Ridley Creek on Media/West Chester Line

Description and Characteristics of Trestle

The Trestle over Ridley Creek was originally constructed by the former Pennsylvania Railroad with current continual maintenance by SEPTA. The trestle is utilized primarily for passenger train operations and occasional freight train operation by Amtrak.

The track curves slightly to the left exiting at the south end (toward Elwyn) with limited visibility. At the north end (toward Media), the track curves to the right with limited visibility. The trestle is of steel girder construction. The trestle expands for a length of 641 feet, rising approximately 90 feet above the creek and Ridley Creek Road. The trestle is situated between catenary pole 14/17 at the northern end, and catenary pole 14/21 at the southern end. Two main tracks cross the trestle. There are no crossover switches. Above both tracks are overhead electrical catenary wires. The trestle surface is open exposed wooden railroad ties. There is a center steel grate walkway. The sides are exposed with no safety or side railing protection. There is no walking area other than the center grate. There are no points of refuge or wayside communication on the trestle.

Nearest Railroad Facility or Location

Media passenger station at Station Road and Orange Street, and Media train storage yard are located in near proximity just north of the trestle. Elwyn passenger station at Elwyn Road near Middletown Road is located approximately ½ mile south of the trestle.

Nearby Emergency Response Units

The nearest emergency responder units are the South Media Fire Company in Media and the Lima Fire Company in Upper Providence Township. The nearest police districts is Media Police Department, located at State & Jackson Streets, Media.

Optimum Points of Access

From the north end, the trestle can be accessed from the rear parking lot area of the car care center on Painter Street (Brooke Street off Baltimore Pike.) From the south end, there is no access except directly on foot via the railroad right-of-way from the vicinity of Elwyn.

Evacuation Procedure

Specific instructions for the evacuation on trestles is contained in the SEP-1 manual.

7.3.9 Raised Right-of-Way on Main Line (North Philadelphia)

Description and Characteristics of Right-of-Way

A portion of SEPTA's railroad follows the old original route of the Reading Railroad that terminated at Reading Terminal. That route was reconstructed in the late 1970's and early 1980's when the railroad was re-routed in the vicinity of Brown Street to connect with the new tunnel. For a six mile stretch between the North Portal of the Center City Commuter Tunnel and Newtown Junction (Broad Street near Wagner Avenue), the railroad right-of-way in most locations runs along a raised roadbed above street level with limited to no accessibility. At one point, the railroad "dips" under North Broad Street near Lehigh Avenue, passes under Amtrak's Northeast Corridor, Indiana & 17th Street Bridge, SEPTA's Chestnut Hill West Line, then rises again to a raised level. In the vicinity of the Amtrak overpass, the railroad connects to the Norristown Line at 16th Street Junction. This stretch of railroad can be considered a "closed" system, accessible primarily on foot from numerous entry points.

There is one significant note regarding railroad milepost locations on SEPTA's Main Line which needs clarification. For operational purposes, railroad locations (whether passenger stations or otherwise) are routinely designated by milepost (MP) numbers. These numbers are assigned by computing actual distances (rounded off to tenths or sometimes hundredths of a mile) from a designated starting point. There is one minor discrepancy with regard to MP locations along this portion of the railroad. "Brown" (i.e. the area around Brown Street where the railroad was re-routed) is a designated location in the railroad timetable that carries two MP numbers. "Brown" denotes the location of the milepost transition from Suburban Station (in the tunnel) to the distance from the former Reading Terminal. Brown is 1.6 miles from Suburban Station, and 1.1 miles from the former Reading Terminal. From Brown northward, therefore, all railroad milepost locations are measured from MP1.1 for SEPTA's operational purposes.

Nearest Railroad Facility or Location

Along the six mile stretch of railroad, there are numerous railroad facilities of note. In a northward direction (outbound from tunnel), they are:

- Temple University passenger station (MP2.1) at Berks Street between 9th & 10th Streets
- North Broad Street passenger station (MP2.9) at Broad Street near Lehigh Avenue (also SEPTA's building maintenance facility)
- 16th Street Junction connection to Norristown Line (MP3.5)
- Hunt connection to the south end of Roberts Avenue Yard facility (MP4.5) at Hunting Park Avenue underpass
- Wayne Junction passenger station (MP5.2) at Wayne Avenue and Windrim Avenue
- Wayne Junction Static Frequency Converter (MP5.4) at 18th Street near Windrim Avenue

Nearby Emergency Response Units

Both the Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response units are Engine 50 located on Broad Street and Glenwood Avenue, and Engine 72, located on 12th Street and Loudon Street. The nearest police districts are 6, located at 11th Street and Winter Street, 22, located at 17th Street and Montgomery Avenue, and 39, located at 22nd Street and Hunting Park Avenue.

Optimum Points of Access

The optimum points of access on foot are the above noted passenger stations and Roberts Avenue Yard facility. In addition, the overpasses and underpasses listed in Appendix "I" may provide accessibility based upon the conditions and magnitude of the event.

Evacuation Procedure

Specific instructions for the evacuation along roadbed to passenger station or public areas are contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information pertaining to evacuations along railroad (see Section 8.8, "Emergency/Disaster Management Plans".)

7.4 Railroad Cuts

7.4.1 Gwynedd Cut on Main Line to Lansdale

Description and Characteristics of Cut

Gwynedd Cut was originally constructed by the Reading Railroad during electrification of the railroad in the 1930's. The cut is approximately two miles in length running from the area near the Route 202 underpass and Main Street, North Wales. Catenary pole 20/16 marks the south end (toward Philadelphia) and catenary pole 22/1 marks the north end near Main Street. The cut has extremely limited access from adjacent properties and in most locations, the cut walls are steep and sheer. Passing over top of the cut walls are three significantly high bridges: 1) Pennsylvania Avenue at catenary pole 21/22, 2) Prospect Avenue at catenary pole 21/16, and 3) Swedesford Road at catenary pole 21/2. There is no vehicular access at all. Moving northward, the track is primarily tangent from Route 202 to just beyond Swedesford Road, then curves to the right into North Wales.

Two main tracks run the entire length of the cut. There is a crossover switch located just south of Route 202 underpass. Above both tracks are overhead electrical catenary wires. The track bed is heavy coarse stone ballast and wooden railroad tie construction. Walking is extremely difficult in any location along the cut, and caution must be exercised when on the ground.

Nearest Railroad Facility or Location

At the south end, Gwynedd Valley passenger station is located at Gwynedd Pike (Plymouth Road) approximately ½ mile south of Route 202. At the north end, North Wales passenger station is located at Beaver Street and 5th Street.

Nearby Emergency Response Units

The North Wales Fire Department is located adjacent to the railroad tracks at Main Street. The nearest police districts are North Wales Borough Police Department, located at 300 School Street, North Wales, and Upper Gwynedd Township Police Department, located at Parkside Place and Sunneytown Pike. Lower Gwynedd Township Police Department is located at 1130 N. Bethlehem Pike, Spring House.

Optimum Points of Access

The south end may be accessed through the private landscaping property parking lot located on Schoolhouse Road just off Route 202. The north end can be accessed via Main Street, North Wales.

Evacuation Procedure

Specific instructions for the evacuation in railroad cuts is contained in the SEP-1 manual.

7.4.2 Shawmont Cut on Norristown Line

Description and Characteristics of Cut

Shawmont Cut was originally constructed circa 1900 by predecessors of the Reading Railroad. The cut is approximately one mile in length running between Glen Willow Road at the south end (toward Philadelphia) and Shawmont Avenue at the north end (toward Norristown). Catenary pole 8/10 marks the south end and catenary pole 9/10 marks the north end. The cut has no access from adjacent properties and in most locations, the cut walls are steep and sheer and heavily wooded.

Two main tracks run the entire length of the cut. There are no crossover switches. Above both tracks are overhead electrical catenary wires. The track bed is heavy coarse stone ballast and wooden railroad tie construction. Walking is extremely difficult in any location along the cut, and caution must be exercised when on the ground.

Nearest Railroad Facility or Location

At the south end near Glen Willow Road (toward Philadelphia) is the Ivy Ridge passenger station. At the north end at Shawmont Avenue (toward Norristown) is the old Shawmont passenger station, no longer in service.

Nearby Emergency Response Units

Both the Philadelphia Police Department and the Philadelphia Fire Department are in close proximity and are immediately available for emergency response situations. The nearest emergency response unit is Engine 66 located at Ridge Avenue and Cinnaminson Avenue. The nearest police district is 5, located at Ridge Avenue and Cinnaminson Avenue.

Optimum Points of Access

The cut can only be accessed from both ends by foot. From the south end, however, vehicles can enter the private property on the west side of Glen Willow Road, turn right to the north end of the lot, and locate to catenary pole 8/15. From the north end, vehicles can enter from the parking lot and locate to catenary pole 9/9.

Evacuation Procedure

Specific instructions for the evacuation in railroad cuts is contained in the SEP-1 manual. In addition, the *Philadelphia Fire Department Operational Procedure #12* contains specific information pertaining to evacuations along railroad (see Section 8.8, "Emergency/Disaster Management Plans".)

7.5 Overhead Electrical Catenary System

Description and Characteristics of the Catenary System

SEPTA's entire commuter railroad right-of-way utilizes an overhead catenary system which provides an electric traction power source of 12 KV, 25 Hz single-phase. The system covers approximately 282 trackage miles, not including yard storage facilities and siding tracks, all of which are also electrified.

Electrical power for SEPTA property is supplied by both SEPTA and Amtrak. The electrical power for the system is fed from a number of primary sources as follows:

- *SEPTA's Wayne Junction Static Frequency Converters*, which supplies power to all trackage from the Phase Break (catenary pole 1/12, between the North Portal and Temple University passenger station) to all locations north, which includes SEPTA's Main Line north of the Center City Commuter Tunnel, R6 Norristown Line, R7 Chestnut Hill East Line, R8 Fox Chase and CR Trenton Line, R3 Neshaminy and CR Trenton Line, R2 Warminster Line, R5 Lansdale/Doylestown Line, Roberts Avenue Yard, and Wayne Junction Electric Car Yard
- *Amtrak's Lamokin Sub Station*, which supplies power to SEPTA's R3 West Chester Line via Lenni tie-line.
- *Amtrak's Arsenal Sub Station*, which supplies power to SEPTA's R3 West Chester Line, including the Market Street Tunnel.
- *SEPTA/Amtrak's jointly shared Brill Sub Station*, which supplies power to SEPTA's Airport Line.

- *Amtrak's North Philadelphia Switching Station*, which supplies power to SEPTA's R8 Chestnut Hill West Line.
- *Amtrak's Zoo Sub Station*, which supplies power to SEPTA's R6 (Cynwyd) Ivy Ridge Line, and Overbrook Yard
- *Amtrak's Frazer Sub Station*, which supplies power to SEPTA's Frazer Yard
- *Amtrak's West Philadelphia Sub Station*, which supplies power to SEPTA's Powelton Avenue Yard, Market Street Tunnel, SEPTA's Main Line through the entire Center City Commuter Tunnel up to the Phase Break north of the North Portal

A Power Dispatcher is in charge of monitoring the electrical flow of the system. There is one SEPTA Power Dispatcher and several Amtrak Power Dispatchers on continual duty. Electrical power can be turned on or off (referred to as "sectionalizing") by Power Dispatchers at selected points throughout the system according to pre-configured sections. The system is also constructed with elaborate circuit breakers designed to "trip" the sections in the event of overload or other abnormal occurrences.

It is not possible to tell by visual observation whether there is electrical current flowing through the overhead wires. Therefore in all instances, whenever on or about the railroad tracks, the overhead catenary system must be assumed to be ENERGIZED unless otherwise specifically advised by the designated on-scene coordinator that the system has been safely de-energized and grounded.

In a number of locations, the catenary structures (explained below) also support other types of high voltage transmission wires or signal cable wires which may or may not be associated directly with the railroad operation, and therefore may *remain* energized even when the wires utilized by the trains has been de-energized. It is highly recommended that *all* non-authorized personnel remain at least ten feet from overhead wires in all instances.

Significant Features of the Catenary System

(NOTE: Refer to Appendix "K" for a diagram of the catenary structure and construction.)

The overhead catenary system is basically a configuration of energized wire over and spanning the track which is held in place by steel catenary pole structures erected adjacent to the right-of-way.

Catenary pole structures vary as to their features. Some are configured as an “H” spanning across multiple tracks, as a “T” erected between multiple tracks, as an “I” on either side of multiple tracks with no span support, or as an inverted “L” erected off to the side of single tracks or multiple tracks. In tunnel locations and various overhead bridge locations, the catenary system is attached directly to the ceilings.

Catenary pole structures are all marked with a number. That number corresponds with the railroad milepost plus the sequential number of the structure in that mile. (e.g. 22/9 signifies that this structure is the 9th structure past milepost 22.) The number of catenary poles per mile varies according to the terrain, track layout, or physical plant of the railroad. The number of structures can be as few as twenty two, and as many as thirty-five to forty. As a rule of thumb, an average number to consider is about twenty-eight. The only exception is the Airport Line. The catenary poles are numbered as HSL-1 (the first structure at the bumpers at the airport) to HSL-182 (where SEPTA’s Airport Line enters Amtrak’s Northeast Corridor.)

The actual wire portion that directly contacts the train pantograph (explained below) consists of either two or three connected wires, called *simple* or *compound* catenary. The bottom wire, or the one that actually touches the pantograph, is referred to as the *trolley* wire. The top wire is called the *messenger* wire. In the compound system, the third wire directly above the trolley wire is called the *auxiliary* wire. The wires are held connected by *hangers* and *clips*. Whether simple or compound, they should all be considered as one wire. The supporting wires on the sides are steady supports, spans, and rods, including steady insulators. They are also energized.

Association Between Overhead Catenary System and Train Equipment

(NOTE: Refer to Appendix “M” for a diagram of pantographs and trains equipped with pantographs.)

The majority of SEPTA’s passenger equipment is electrically self-propelled utilizing the overhead electrical power source. The power is transferred to the train’s traction motors through a device attached to the roof of the unit called a “pantograph”. With the exception of the diesel locomotives and the non self-propelled passenger coaches dedicated to SEPTA’s push/pull train consists, each of SEPTA’s Silverliner single units and married pairs, ALP-44 locomotive unit, and AEM-7 locomotive units are equipped with pantographs (see Section 8.4 for description of equipment.) The pantographs ride along the trolley wire remaining in continual contact transferring the power to the motors.

It must always be remembered that the entire pantograph structure is ENERGIZED while it is in contact with *any* portion of the overhead wire, not just the trolley wire. This is especially important to remember during emergency situations, particularly when derailment has occurred. Since the rail itself is utilized as a return circuit (grounded, of course) during normal operation, when the train leaves the rail it is possible that the contact is broken with the rail return circuit. Until the pantograph has been “dropped” (i.e. lowered onto the roof of the car in a latched position), or otherwise untangled from the wire when damage has occurred, it is possible that current is still waiting to flow to ground. If the human body contacts the earth and the car body simultaneously, it becomes the path for the electricity. The human body offers little resistance to flowing current.

Other Essential Information

The exact distance from the rail to the overhead trolley wire varies throughout the system. This distance between rail and wire is not less than 16 feet. It should therefore always be assumed that 16 feet is the distance, and safety considerations should be made accordingly. (NOTE: Refer to Appendix “L” for Catenary to Rail Clearances at Bridges.)

While it is not possible to present all safety information in this plan that is essential to fully understanding all the safety aspects of working around the overhead electrical catenary system, there are a few additional safety items which should be considered when responding to emergency situations in electrified territory.

A few additional safety reminders are as follows:

- If fire-fighting apparatus, hose streams, etc. comes into contact with energized wire, electrocution may occur; make certain whenever possible that overhead wires have been *de-energized*.
- When preparing to discharge fire extinguishers on electrical apparatus, make certain whenever possible that *all* power sources have been removed.
- Circuit breakers and transformers along or near the right-of-way contain amounts of oil; exercise caution when attempting to put out fires to prevent non-visible oil from splashing onto other electrical apparatus.
- At no time should the roof of a train be occupied unless specifically authorized.

Emergency Procedure

Specific instructions, including emergency procedures, governing operating employees whose duties involves movement of trains in electrified territory is contained in the ET001 manual.

7.6 Joint Operations

SEPTA is engaged in joint operations with both Amtrak and Conrail's successor. Since almost half of SEPTA's entire operation is over Amtrak's Northeast Corridor, SEPTA has adopted and embraces Amtrak's emergency preparedness plan, which has been developed concurrently with SEPTA's plan in accordance with the regulatory requirement.

SEPTA also operates under a joint operating arrangement with Conrail's successor over a much smaller portion of the freight carrier's territory (approximately 15 route miles). A part of this operating arrangement also includes the responsibility for inspection and maintenance of the overhead catenary system, which remains in place as part of that agreement and is utilized solely by SEPTA.

All the essential physical and operating characteristics of the freight carrier's railroad property that may affect the safety of SEPTA's railroad operations is contained in this ***Railroad Division Passenger Train Emergency Preparedness Plan***. By mutual agreement with Conrail's successor, SEPTA's plan is hereby adopted to address emergency situations involving passenger train events.

(NOTE: At the time of the submission of this plan, FRA was engaged in discussion with Conrail's successor concerning the regulatory requirements of Part 239 with regards to freight carriers.)

8.0 SUPPORTING DOCUMENTATION

8.1 Introduction

The basic strategy of the *Railroad Division Passenger Train Emergency Preparedness Plan* is to impart a full understanding of the roles and responsibilities of all individuals who would become involved in the coordinated effort to respond to emergency situations. While it is critical that each individual retain the applicable information and be expected to apply it instantaneously, it is not realistic to assume that each and every decision will be made in accordance with every aspect of the plan simply from memory.

As each individual becomes an integral part of the overall response effort, that individual's effectiveness must be maximized by timely and efficient decisions. To assist individuals who may find themselves in the role of decision-maker during emergency situations, the plan integrates a number of key tactical documents that support the decision-making process. Supporting documents may be in the form of checklists, memory aids, condensed references, descriptions, maps, diagrams, publications, or other aids.

The sections that follow here describe the supporting documentation that is utilized by railroad operating personnel and emergency responders. Where noted, the document being described is contained in the appendix section of this plan.

8.2 Decision Making Aids

A number of decision-making aids have been developed to condense information focusing on the specific role responsibility for the purpose of shortening the response time. These documents target specific personnel.

8.2.1 Decision-Making Aids for RROC Employees

RROC personnel have available the following aids:

- Telephone listing of local hospitals and medical services
- Telephone listing of local police municipalities
- 911 for fire response
- Railroad right-of-way track charts and facility maps
- SEPTA Philadelphia Street and Transit Map
- SEPTA Suburban Street and Transit Map
- Automated pager notification via modem

8.2.2 Decision-Making Aids for Emergency Response Personnel

Personnel of outside emergency response entities are provided with the following aids (included as appendices in this plan):

- Schematic diagram of railroad system with passenger stations and street addresses
- Railroad chain of command
- Matrix chart: *Quick Reference of Significant SEPTA Railroad Structures with Limited Accessibility*
- Matrix chart: *Quick Reference of SEPTA Railroad System Vehicular Highways and Roadways Undergrade and Overhead Bridges*
- Matrix chart: *Quick Reference of SEPTA Railroad System Highway Grade Crossings: Public and Private Crossings in Commuter Territory*
- Matrix chart: *Quick Reference of Railroad Maintenance and Yard Facilities*
- Passenger car graphics and illustrations
- Catenary system illustrations
- Directory of telephone numbers for SEPTA commuter territory operations

8.3 **Publications Governing Railroad Operating Personnel**

In accordance with operating practices and regulatory requirements, all railroad operating personnel are required by rule to carry and maintain up-to-date publications that govern their activities while performing duty. Following is a list of the publications and a brief explanation of their contents:

- *NORAC Operating Rules, Sixth Edition* - contains the code of operating rules that govern the operation of the railroad (SEPTA, Amtrak, and Conrail's successor.)
- *SEPTA Railroad Division Timetable Special Instructions* - contains schedules of trains, and special operating procedures, conditions, and instructions that govern train movements on individual branch lines and the entire SEPTA system.
- *Airbrake, Equipment, and Train Handling Instruction Manual (SAB-1)* - contains instructions that govern the preparation, inspection, testing, troubleshooting, and safe handling of train equipment.
- *Electric Traction Instructions ET001* - contains instructions that govern train movements in electrified territory (including territory owned by Conrail's successor) and the protection of employees and properties.
- *Emergency Evacuation Procedures (SEP-1)* - contains information and instructions on the procedures and methods of quickly and efficiently entering and evacuating rail passenger cars in the event of emergencies.

- *Passenger Operations Instruction Manual (SPO-1)* - contains instructions that prescribe the duties and responsibilities of train service employees who come into contact with the public.
- *Hazardous Materials Information Manual (SHM-1)* - contains information that is a guide for personnel to make on-the-scene decisions as to emergency actions to be taken on incidents involving hazardous materials in rail transportation.
- *Safety Rules (S7A)* - contains rules and procedures that outline the safety practices to be followed by operating employees to prevent accident or injury.
- *Amtrak Timetable Special Instructions* - contains schedules and special operating instructions applicable on Amtrak territory.
- *Amtrak Electrical Operating Instructions (AMT-2)* - contains instructions that govern train movements in Amtrak electrified territory and the protection of employees and properties.
- *Bulletin Orders (SEPTA and Amtrak)* - contains periodic instructions of changes to rules or procedures which affect train movements.
- *Division Notices* - contains periodic instructions or information that does not affect train movements.

(NOTE: By joint agreement between SEPTA and Conrail, all applicable timetable special instruction information is co-published in both SEPTA's and Conrail's individual timetable special instruction publications.)

8.4 Descriptions of Trains, Environment, Emergency Equipment

Various documents containing information about trains, the environment, and emergency equipment are available throughout the system. Following is a listing of such supporting documentation and what personnel or departments would routinely utilize such material.

8.4.1 Descriptions of Trains

General Information: SEPTA's Railroad Division basically operates two types of train sets for passenger revenue service. The most extensive type is referred to as "multiple unit silverliner equipment", more commonly known as "MU" trains. All single units and Silverliner IV "married pairs" are electrically self-propelled by use of a pantograph device riding along the overhead wire. All MU type equipment is compatible with each other and units may be coupled together, the number restricted only by electrical catenary restrictions.

The other basic type is referred to as Bombardier train sets, more commonly known as “Push/Pull” trains. Only the electric locomotives are electrically self-propelled by use of a pantograph device riding along the wire. The remainder of these train sets consist of non-powered trailing coaches. These train sets are either “pulled” by the powered locomotive when occupied and controlled on the leading end, or “pushed” from the hind end when the non-powered control cab locomotive is configured as the leading controlling unit. Push/pull sets are not compatible with MU type equipment and may not be coupled together.

MU silverliner type equipment consists of two basic models: 1) Silverliner II and Silverliner III (all single units), and 2) Silverliner IV’s (single units and “married pair” units). Both models of Silverliner II’s and III’s were constructed in the 1960’s by the Budd Company (II’s) and the St. Louis Company (III’s). The current fleet inventory is 73 units. Silverliner IV’s were constructed in the 1970’s by General Electric, current fleet inventory being 231 units. While II’s and III’s are similar in appearance, they are easily distinguished by the location of the engineer’s control stand, which is on the left side on Silverliner III’s. On both Silverliner II’s and the newer Silverliner IV’s, the engineer is located on the right side.

Push/Pull type equipment consists of eight dedicated train sets, each set consisting of one Electric Locomotive (AEM-7 or ALP-44), four Bombardier passenger coaches, and one Bombardier Control Cab Locomotive. The current fleet inventory consists of seven AEM-7’s, one ALP-44, twenty five passenger coaches, and ten control cab locomotives.

On Silverliner II and III equipment, all four side doors are manually operated from both inside and outside. On Silverliner IV and Bombardier equipment, all four side doors are electrically operated from both inside and outside, being activated by a special coach key issued only to railroad personnel.

General seating capacities for each type of car is as follows:

- Silverliner II – 124 seats (cars with 5 seats abreast)
- Silverliner III – 122 seats (cars with 5 seats abreast)
- Silverliner III – 100 seats (cars with 4 seats abreast)
- Silverliner IV – 120 seats (cars with 5 seats abreast)
- Bombardier trailer coaches – 131 seats (cars with 5 seats abreast)
- Bombardier control cab car – 118 seats (cars with 5 seats abreast)

In many instances, particularly during rush hour periods, cars are filled to capacity including standees. A car having every seat occupied and having standees may have as many as 30 additional persons on board above the number seated.

SEPTA also utilizes five diesel locomotives which are not used in passenger service except in emergencies, in which case they may be coupled to either type of train set for movement purposes. This diesel equipment is dedicated to maintenance and support operations.

Documents: Information such as diagrams, motive power unit components, schematics, operating procedures, etc. are contained in these documents which have been made available to railroad personnel:

- Budd Silverliner II & II Operator's Manual (utilized by both maintenance personnel and locomotive engineers)
- General Electric Silverliner IV Operator's Manual (utilized by both maintenance personnel and locomotive engineers)
- AEM-7 Operator's Manual (utilized by both maintenance personnel and locomotive engineers)
- JWC-II Push-Pull Coach Operating Instructions (utilized by both maintenance personnel and locomotive engineers)
- ALP-44 Operator's Manual (utilized by both maintenance personnel and locomotive engineers)
- Airbrake, Equipment, and Train Handling Instruction Manual (SAB-1) (utilized by train service personnel)
- Electric Traction Instructions ET001 (utilized by train service and RROC personnel)
- Emergency Evacuation Procedures (SEP-1) (utilized by train service and RROC personnel)
- Numerous OEM and SEPTA in-house manuals dedicated to troubleshooting specific car units (detailed listing available for inspection upon arrangement.)

Whenever modifications are made to any of the equipment, applicable information is disseminated through the appropriate information channels. In some instances, if the modifications are extensive or pose considerable change, classes may be held to familiarize personnel with the modification, procedure, etc.

8.4.2 Description of Operational Environment

General Information: SEPTA's operational environment covers approximately 300 route miles (600 actual trackage miles) throughout the five county area as well as a small portion of New Jersey and Delaware. Over half of the route miles operate over Amtrak-owned property. SEPTA's routing consists of 13 dedicated route lines. The right-of-way throughout the entire system is privately owned by either SEPTA, Amtrak, or Conrail's successor.

On SEPTA owned property where commuter trains operate, there are a total of 83 public highway crossings at grade protected by automatic crossing protection apparatus, two crossings with X-bucks only, and four private unprotected crossings (see Appendix "H".) There are 234 major vehicular overhead or undergrade passes (see Appendix "I".) There are five major car maintenance and yard storage facilities, and an additional eight train storage yard facilities at outlying points (see Appendix "J".) Throughout the entire commuter system, there are 158 passenger stations and 118 parking lots for customers.

Contained in this plan (Section 7.0) is a detailed description of significant right-of-way structures and wayside facilities (i.e. tunnels and locations with special circumstances.)

8.4.3 Description of Emergency Equipment

Emergency equipment is available on train equipment and in the various yard and storage facilities throughout the system. Following is a listing of readily available emergency equipment:

- *Fire Extinguishers:* each individual MU, trailing coach, and locomotive unit is equipped with a fire extinguisher readily available for use (on MU's and coaches, it is located in the vestibule area); a description of types and the operation of each type is contained in the timetable special instructions.
- *Pry Bars:* each individual MU, trailing coach, and locomotive unit will have been equipped with a pry bar by the published date of May 4, 1999; on the newly retro-fitted MU Silverliner IV units, there is an emergency tool kit located under the seat nearest the center bulkhead, and is marked with appropriate signage; on MU's not yet retro-fitted and on other coaches, there is a pry bar located in a dedicated storage compartment above the luggage rack near a vestibule end door.
- *Pantograph Poles:* each individual MU and locomotive unit is equipped with a 19 foot insulated pantograph pole, housed in a dedicated housing unit attached to the side of the car frame, which is utilized to manually retract pantographs away from the catenary wire; in addition, poles can be utilized as ramming devices to manually strike and dislodge emergency exit windows (or any other window) from the outside of cars; poles are also available in all yard and storage facilities.
- *Hand-held Emergency Lighting:* all train crew personnel are required to carry a flashlight while performing duty on board trains.
- *On-Board Train Radios:* each MU, electric locomotive, and control cab locomotive is equipped with an AAR radio at the Engineer's control stand.
- *Portable Radios:* each Conductor is equipped with a hand-held portable radio which must be carried while performing duty on board trains.

8.5 Graphics

SEPTA's passenger train equipment is posted with numerous decal signs, symbols, and information which provide continuous information pertaining to emergency issues. Each individual MU and passenger coach is posted with the following graphics:

- *Emergency Exit Windows*: each window is posted outside on the car body with a decal bordering the window indicating "emergency exit & for entry strike glass here"; inside, each window is posted with a decal indicating "emergency exit", and a posting instructing to pull the emergency handle to remove the "zip strip" to extract the window.
- *Emergency Exit for Doors*: posted on the inside of each parlor door (two doors per car) is a decal indicating "emergency exit"; posted on the inside of each side exit door in the vestibule areas (four doors per car) is a decal indicating "emergency exit".
- *Instructions to Open Passenger Door in Emergency (Silverliner IV's and Bombardier coaches)*: posted on the face of each wall panel accessing the components of the automatic doors (four panels per car), located just inside the coach area, is a decal with simplified instructions to manually override the door mechanism.
- *Instructions to Access Door Panels Inside Coach (Silverliner IV's and Bombardier coaches)*: posted on the inside of each side exit door in the vestibule areas (four doors per car) is a decal indicating to go back inside the coach to access the wall panel to operate the door manually.
- *Emergency Tools Under Seat*: posted on side panel of seat near center bulkhead of retro-fitted MU Silverliner IV's.

8.6 Passenger Awareness Information

SEPTA provides passenger awareness information regarding emergency preparedness by utilizing several methods. As of the date of this plan, the following methods are either being utilized as a method of public awareness or are in the process of being considered for further development as a part of the public awareness program on emergency preparedness:

- *Passenger Safety Awareness Public Announcements*: Approximately 140 of SEPTA's railroad passenger stations are equipped with the public address system; throughout the course of the day, safety awareness announcements are broadcast frequently; such announcements range in topics from general safety tips on boarding and detraining to emergency preparedness information.

- *Posters on Emergency Preparedness:* in various high-density stations throughout the system, posters are placed illustrating emergency escape windows on equipment and providing information concerning basic evacuation procedures from trains.
- *Brochure Distribution:* periodically, SEPTA prints safety information on brochures which are distributed to the public at various high-density stations, or are distributed through “seat-drops” on train consists.
- *Schedule Folders:* SEPTA utilizes panels on the schedule folders to illustrate emergency exits on equipment.

8.7 Training Materials

During the course of annual recertification for all operating personnel, the training department integrates segments of emergency preparedness instruction by the use of various training materials. Following is a list of materials which may be utilized as training aids:

- Video: evacuation procedures
- Work exercise for evacuation
- Video: electric traction instructions
- Video: use of fire extinguishers
- Video: security measures
- Emergency Exit Window static display for hands-on training

SEPTA also provides training for outside agencies. Training materials made available to such agencies include a familiarization manual that contains definitions and terminology, telephone numbers, procedures, evacuation priorities, situations, equipment illustrations, catenary illustrations, and railroad schematic maps. Under development is a video and self-taught program on system and equipment familiarization.

8.8 Emergency/Disaster Management Plans

As SEPTA’s scope of operations covers a five county area and small portion of New Jersey and Delaware, emergency/disaster management plans of various outside agencies are an integral part of the overall response readiness platform. SEPTA’s liaison with the numerous municipalities ensures that optimum response and assistance is continually available in the event of emergencies or disasters.

Some of the more strategic plans are as follows:

- *Philadelphia Fire Department Operational Procedure #12*: this manual outlines the responsibilities for the department when responding to incidents involving all railroads operating in the City of Philadelphia; the plan contains specific instructions concerning fire department responsibilities, communication and information links, general fire-fighting along railroad right-of-ways, derailments, fires around catenary systems, and incidents in tunnels; the department provides its own in-house training.
- *SEPTA Emergency Preparedness Plan* (see Preface)
- *SEPTA Transit Security Plan* (see Preface)
- *Department of Emergency Management Terrorism Plan for City of Philadelphia*
- *Various County Disaster Plans*

8.9 Accident Investigation Information

8.9.1 Accident/Incident Investigation and Reporting

Basic Investigation

SEPTA's Railroad Division routinely investigates all accidents/incidents, including occupational illnesses and injuries at least at the contact level. When certain criteria is met, System Safety is also included in the investigative process.

Accident/incident investigation is initiated in accordance with regulatory requirements for major events that include the following:

- Death of a passenger or employee
- Serious injuries requiring admission to a hospital of two or more passengers or employees
- Impact accident at a highway grade crossing
- Damage to tank car vehicle or container resulting in release of hazardous materials or public evacuation
- Fatality at a highway grade crossing (suicides excluded)
- Damage of \$25,000 or more to a passenger train and non-railroad property
- Accident resulting in damage of \$150,000 or more for repairs or the correct replacement cost to railroad or non-railroad property

Notification and Reporting

Upon receiving a report of an accident or incident, RROC personnel (usually the STO) initiate immediate notification based on the severity of the event. This may include, but is not limited to, police, fire and rescue units, transportation management, and safety officers. Simultaneously, a report is sent via pager to ensure appropriate railroad supervisory personnel have been fully informed of the event. Also, dependent upon the severity, prompt notification is made to the FRA or the NTSB in accordance with their protocol.

If the nature of the event meets the criteria outlined under 49 CFR Part 225, “Railroad Accidents/Incidents: Reports Classifications, and Investigations”, the applicable forms will be completed in accordance with regulatory requirements and placed on file at Railroad Division headquarters for inspection by FRA.

8.9.2 Investigation Process

Railroad Transportation Managers

Transportation Managers routinely investigate all types of accidents/incidents regardless of the severity. Managers utilize the *Railroad Division Accident Investigation Manual* when investigating events that involve derailments, collisions, public grade crossings, trespasser incidents, and employee and passenger injuries. Procedures include basic response, employee interviews, probable cause summation, conclusions, drug & alcohol testing, and reporting.

The process also includes the utilization of various checklists and pre-printed report forms that are either produced in-house or are produced in conjunction with regulatory requirements for documentation and reporting purposes. Accident investigation reports may include the following:

- Photos of the damaged equipment or location
- Sketches or diagrams
- Employee and witness statements
- Physical evidence documentation which may include: event recorders, radio tapes, equipment inspection and damage reports, RROC documentation, employee records
- *Regional Rail Division Accident/Incident Report* form
- *Employee Question & Answer* interview form
- *Supervisor's Special Report* form
- *FRA/SEPTA Post-Accident Drug and Alcohol Test* form
- *Record of Decision: Reasonable Suspicion Drug and Alcohol Test* form

All investigations of accidents and incidents are placed on file at Railroad Division headquarters.

System Safety Officers

System Safety Officers will respond to the scene of an event when notified by RROC personnel. Accident investigation reports will include the following:

- An on-site inspection report of the accident/incident scene with photos
- Reports written by involved personnel and witnesses
- Interviews with the involved personnel and witnesses
- Review of physical evidence (in conjunction with railroad managers) which may include: event recorders, radio tapes, equipment inspection and damage reports, RROC documentation, employee records
- Conclusions and recommendations.

All investigations of accidents and incidents responded to by the department are placed on file at System Safety Department headquarters.

9.0 GENERAL RESPONSE CAPABILITY CRITERIA

9.1 Introduction

One of the primary objectives of the *Railroad Division Passenger Train Emergency Preparedness Plan* is to ensure consistency between preparation and implementation of the elements of the plan. To be consistent, both the Railroad Division operations and the outside response organizations must maintain a constant awareness of their abilities to respond in a timely and efficient manner. To this end, the plan has established pre-determined protocols that clearly define the courses of actions each entity must take to optimize the plan elements. This tactical approach provides a mutual understanding of the roles and sequences of actions of each entity.

Following in this section is condensation of the criteria that has been integrated into the overall emergency response platform and the expected capabilities of those charged with carrying out the provisions of the plan.

9.2 Criteria and Capabilities to Respond

Criteria pertaining to emergency situations and the capabilities to respond are as follows:

Types of Emergencies: the plan has defined the most common types (e.g. derailments, collisions, passenger injuries, etc.); railroad operating personnel are trained to recognize and evaluate the severity of each type of occurrence.

Initial Reports of Emergencies: railroad on-board personnel are trained to immediately report such occurrences and are fully qualified on the physical characteristics of the railroad environment to accurately report precise locations.

Locations of Trains: trains are continually tracked throughout the railroad system by interlocking stations (i.e. towers) where dedicated personnel routinely record passing times at pre-determined locations for each train movement; both tower personnel and Train Dispatchers also have the capability to immediately contact every train via radio.

Chain of Responsibility At Onset of Emergency: when incident occurs in the field, train crew members will take charge of the situation in accordance with a pre-determined chain of responsibility defined in their emergency evacuation procedural instructions.

Follow-up Information After Initial Report of Incident: after initial report of incident, persons in charge in accordance with the chain of responsibility will provide follow-up information in accordance with emergency evacuation instructions.

Initial Action Upon Report of Emergency: RROC personnel are trained to recognize severity of events; when RROC personnel receive initial report of emergency, determination is made by STO as to appropriate response measures (i.e. whether fire, medical, rescue, or police agencies are required), including determining whether train is to continue to a more optimum location (if able) or is to remain standing; response organizations are provided with detailed logistical information to optimize response efforts.

Follow-up Action After Response is Initiated: RROC personnel will coordinate efforts between transportation managers dispatched to the scene and emergency responders; RROC will provide protection as required; RROC personnel are trained to compile detailed information with regards to criticality of situation, approximate passenger count, special needs, severity of terrain, existing injuries, weather conditions, alternate transportation, anticipated support resources to properly handle severity of event.

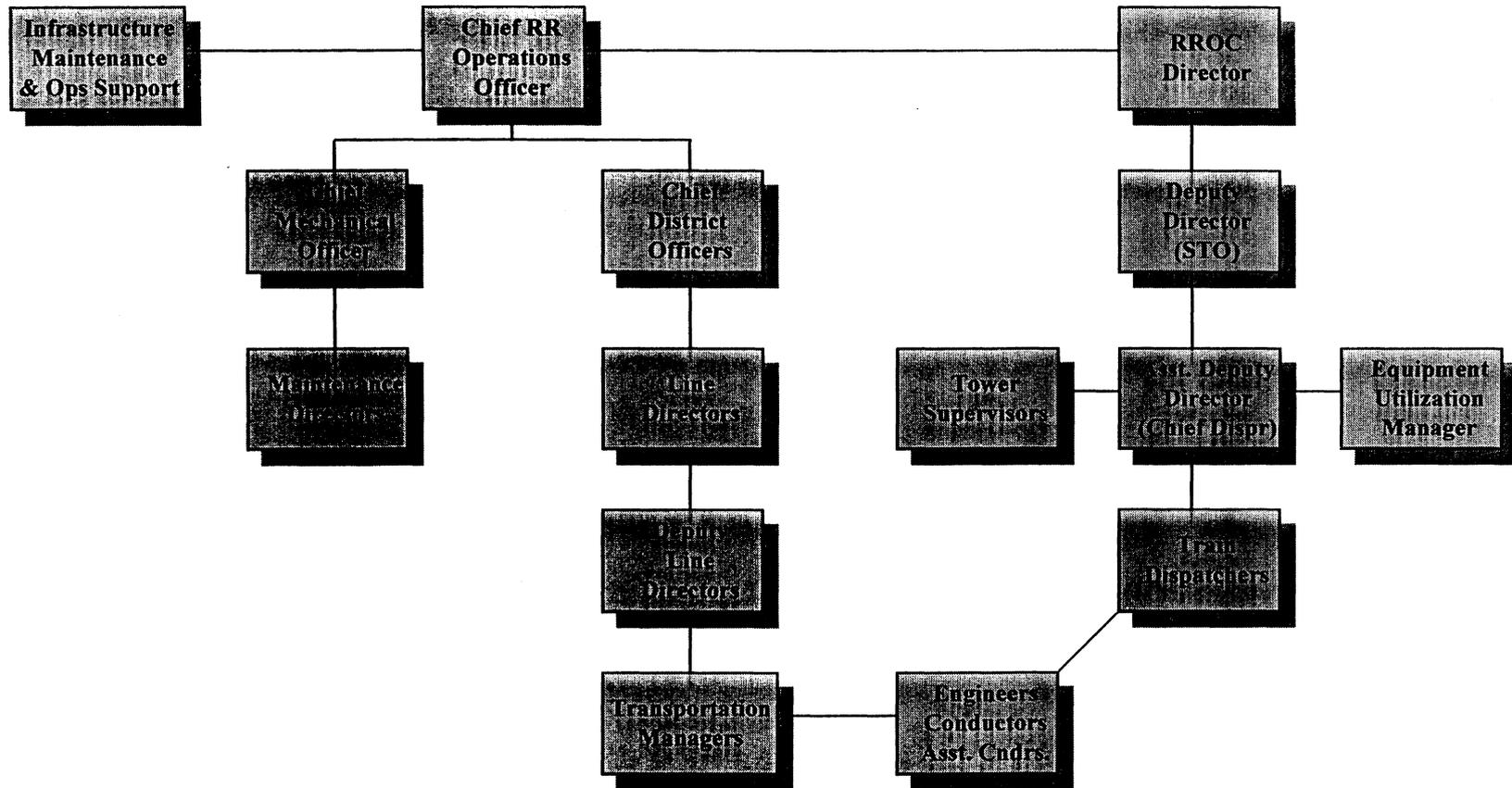
Decisions to Evacuate: operating personnel are trained to recognize criticality of event and to determine evacuation priorities including who will be in charge of the evacuation as determined by the terrain and priority (i.e. in a tunnel, on a trestle, in a cut, etc.); STO will order evacuation of train unless nature of emergency is critical, in which case immediate evacuation is in charge of designated train crew member in accordance with chain of responsibility.

Major Occurrences; Transfer of Command: operating personnel are trained to understand that in accordance with the chain of responsibility, the on-scene coordinator will assume field control of the situation during major occurrences; emergency responders are cognizant that the PDIC or FDIC may fill that role as applicable and will assume transfer with a complete understanding of RROC.

Special Services: RROC personnel are trained to maintain a continual coordination effort during the response effort and follow-up phases of any incident and will coordinate any special services (e.g. extrication equipment, coroner, re-railing equipment, etc.)

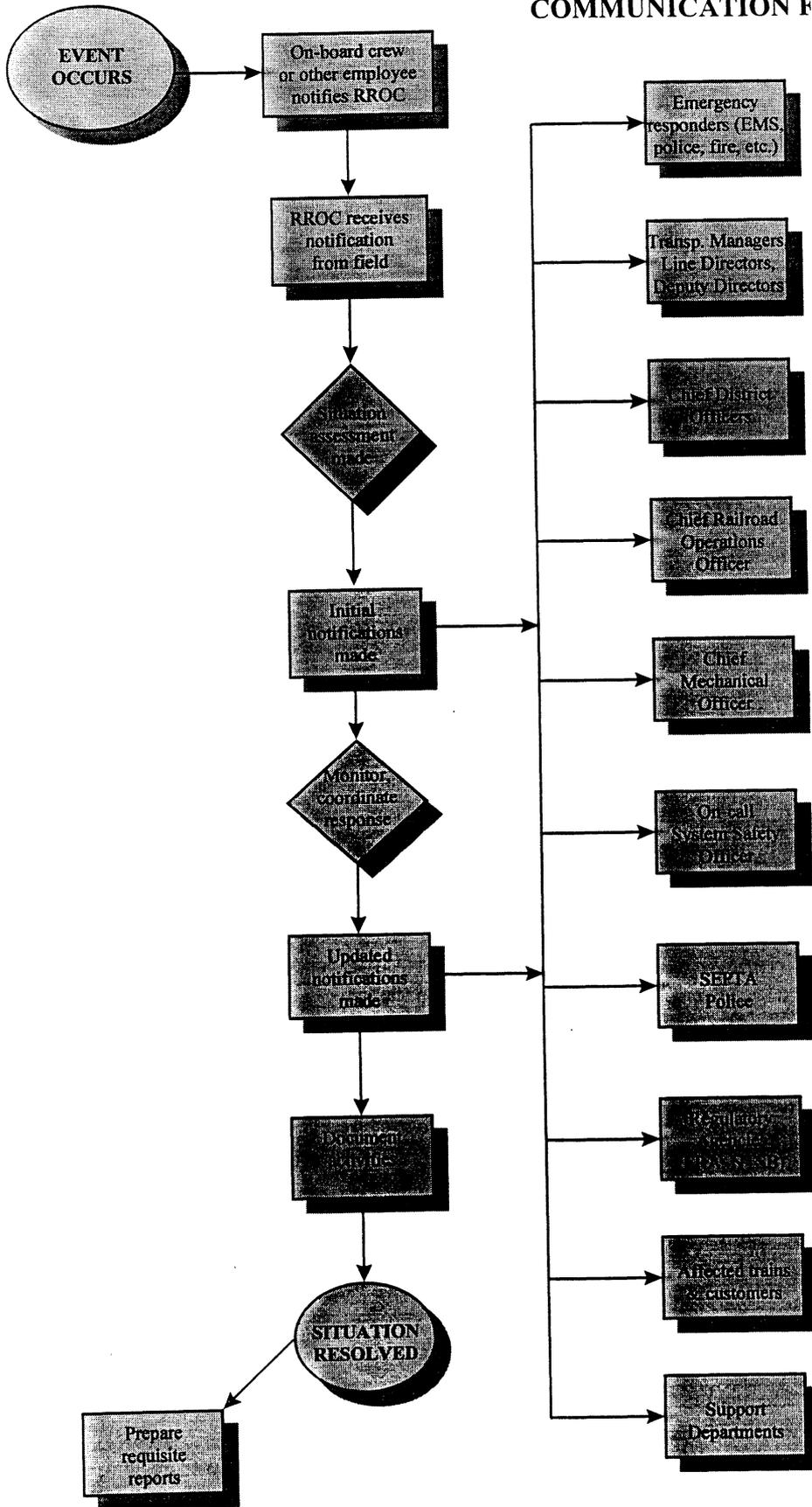
Resumption of Service: RROC personnel are trained to make arrangement for alternate transportation if necessary, to maintain normal service on unaffected routes, and to make decision when normal service can be resumed during recovery phase.

RAILROAD OPERATIONS CHAIN OF COMMAND



APPENDIX "B"

PASSENGER TRAIN EMERGENCY COMMUNICATION FLOWCHART



**DIRECTORY OF TELEPHONE NUMBERS
SEPTA RD COMMUTER TERRITORY OPERATIONS**

(Area Code 215 unless otherwise noted)

Regional Rail Operations Center (RROC)	
Superintendent of Operations	580-5700
Chief Train Dispatcher	580-5715
Train Dispatcher, Desk A	580-5701
Train Dispatcher, Desk B	580-5702
Train Dispatcher, Desk C	580-5703
Mechanical Desk	580-5717
SEPTA Power Dispatcher's Office	580-6844
	580-6845
SEPTA Tower Locations	
'A' Tower	580-6337
	580-6338
Broad Tower	580-5756
	580-5757
	580-5758
Chestnut Hill West Tower	580-4620
Mark Tower	580-7682
	580-7683
Wayne Tower	580-6953
Wind Tower	580-6956
SEPTA Yard Offices	
Frazer Yard Switchboard	(610) 251-9680
Frazer Yard Supervisor	(610) 251-9371
Powelton Avenue Yard Supervisor	580-6037
Roberts Avenue Yard Supervisor	580-6925
Wayne Electric Car Yard Supervisor	580-4618
Overbrook Yard Supervisor	580-3077
Other SEPTA Locations	
Road Supervisor's Office	580-7367
	580-7606
	580-7723
SEPTA Police	580-5749
RD Trouble Desk	580-6004
SEPTA Medical Department	580-7128
Railroad Training Section	580-7758
Stationmaster's Office (Suburban Station) ...	580-5740
	580-5741
	580-5742
AMTRAK & CONRAIL Locations	
Amtrak CETC	
Chief Train Dispatcher	349-2417
Amtrak Power Director (30th Street)	349-2279
Amtrak Power Director (Ragan to B&P)	349-2259
Amtrak Power Director (Harrisburg)	(717) 232-3319
	(717) 232-3317
Amtrak North Philadelphia Tower	349-2334
Amtrak Overbrook Tower	349-2335
Amtrak Paoli Tower	349-2336
Amtrak Thorn Tower	(717) 291-5043
Amtrak Zoo Tower	349-2340
Conrail Delaware Dispatcher's Office ..	(609) 231-2314
Conrail Midvale Yard Office	977-5985
Conrail Trent Tower	(609) 882-3190

APPENDIX "E"



Southeastern Pennsylvania
Transportation Authority

Emergency Evacuation Procedures for Regional Rail Division Employees

SEP-1
1-1-86

1. INTRODUCTION

The Southeastern Pennsylvania Transportation Authority presents this information pertaining to entry and evacuation procedures to familiarize employees and public service agencies with methods of quickly and efficiently entering and evacuating rail passenger cars in the event of an emergency situation.

Rail passenger cars and locomotives are constructed to withstand extreme stresses under all conditions. Forced entry is not easily accomplished. There are, however, certain locations on every class of locomotive and rail passenger car whereby entry may be obtained quickly by following the procedures contained herein.

As used herein, the term "evacuation" is defined as the discharge of passengers under unusual conditions which threaten the safety or health of passengers. This definition pertains to **Emergency Situations Only** and excludes a transfer of passengers from a particular train at a station under arrangements set up by the Superintendent of Operations (herein referred to as STO) or his designee to minimize delays (ie. transferring passengers from an annulled train to a later train). It is understood that such evacuations must be carried out under controlled conditions subjecting passengers to the least possible degree of inconvenience.

2. PURPOSE

The purpose of this document is to establish procedures for expeditiously handling passenger train evacuations on the Regional Rail Division. It contains specific procedures to insure that pertinent information dealing with actual or potential service disruptions, regardless of cause, are transmitted in the shortest time to all concerned departments and agencies so that appropriate action can immediately be taken. It defines in detail all steps necessary to insure passenger and employee safety during an evacuation. To establish proper internal communications as well as communications between the railroad and the affected passengers, and appropriate local police, fire, and rescue agencies; and finally, to insure the maintenance of detailed records of events, to permit subsequent evaluation of the decision to evacuate under the circumstances and of the handling of the evacuation itself.

3. GENERAL

The decision to evacuate a train must be confirmed by the STO in all instances **unless** there is imminent danger to the safety of passengers or employees.

In any decision to evacuate, the safety of passengers must be the primary concern. Employees on the scene must immediately take charge of the situation to avoid passenger panic.

3.1 CHAIN OF RESPONSIBILITY

On any train, the Conductor is responsible for the train and its passengers until relieved. In the event of the Conductors failure to act, the responsibility shall fall as follows:

- a. Engineer
- b. Any train crew member
- c. RRD Operations Management personnel
- d. SEPTA or local police department personnel
- e. Any other "qualified" management personnel
- f. Any other "qualified" employee

"QUALIFIED" means they had received Emergency Evacuation Training

3.2 PROCEDURES

3.21 NO IMMINENT DANGER TO LIFE

3.211 COMMUNICATIONS

Communications must be established and maintained:

- a. By on-train radio, if possible
- b. By block phone or telephone
- c. By any other available means

3.212 INFORMATION TO BE TRANSMITTED

The maximum amount of accurate and pertinent information must be transmitted to the STO in the quickest possible time to facilitate a prompt decision on evacuation or other alternative measures to relieve the condition.

Therefore, qualified, on site personnel must transmit the following information to the STO as soon as possible.

- a. A description of the nature of the problem including train consist and approximate number of passengers.
- b. Precise location of the affected train and whether it is in a station, at grade, on an embankment, in a cut, in a tunnel, or on a trestle.
- c. The length of time the train has been stopped and an estimate of how much longer it will be before it can be moved, if possible.
- d. A description of any adverse conditions jeopardizing the safety or health of passengers including:
 1. Fire, fumes, or smoke
 2. Lack of ventilation
 3. Unruly or uncontrollable passengers
 4. Excessive heat or cold
 5. Excessive crowding
 6. No lights
- e. Any other information affecting a decision to evacuate or the evacuation procedure; for example, a sick or handicapped passenger on board.

3.213 DECISION TO EVACUATE

The decision to evacuate passengers from a train will normally be made by the STO. Based on the information received from the designated official on the scene, whenever possible, this decision is to be made by the STO, or his designee. In the event of service disruptions, the decision to evacuate must be based on the threat to passengers safety or health, resulting from the conditions listed in paragraph D.

A decision to evacuate a train based on the duration of the delay must take into consideration any additional delays that will be caused by such an evacuation.

3.214 SUPERINTENDENT OF OPERATIONS RESPONSIBILITY

The STO is responsible for directing and coordinating the personnel, the departments, and the agency involved in handling the evacuation procedures. As soon as possible after being notified of any condition requiring evacuation of passengers, the STO must notify the following:

- a. Fire or Rescue; Police (local and SEPTA)
- b. Assistant General Superintendent/Operations
- c. Rail Equipment Department
- d. Control Center

The STO must then designate and dispatch operations supervisory personnel (designated official) to take charge at the scene and direct the evacuation of passengers. This official shall be radio-equipped if possible, and will remain in full charge at the scene to coordinate the activities of all operating and maintenance departments. This official will also act as a contact with outside agencies (if they have been requested to assist in the evacuation).

The STO must then inform the conductor of the affected train of the decision to evacuate, who is enroute to assist in the evacuation, and make record of each event that takes place at the scene, including who responded, what actions were taken, the procedures used, etc.

The STO must also keep an accurate log of each event that takes place including who was notified, who responded, actions taken, etc. This information will be included on the STO Evacuation Report.

The STO will direct the conductor to make the following announcement:

"Ladies and Gentlemen, may I have your attention please. There is no indication that this train will be able to continue on to its scheduled destination in the immediate future, therefore arrangements have been made to evacuate you from the train. We have already deployed personnel and equipment to assist you and we expect to begin the evacuation shortly. Please remain seated until a crew member comes to assist you. The evacuation will begin as soon as the final safety precautions have been completed. Please follow all instructions and directions of those in charge. They have been trained in evacuation procedures. We sincerely regret the inconvenience this may cause you. Thank you."

Note: If alternate means of transportation are immediately available, the passengers must be notified.

3.22 CRITICAL EMERGENCY — IMMINENT DANGER TO LIFE

In the event of a critical emergency creating imminent danger to the lives of passengers or crew members, the decision to evacuate a train shall immediately be made by the most responsible employee on scene. This person shall remain in charge until an official of the Authority arrives on the scene.

3.3 MULTIPLE EVACUATIONS

3.31 GENERAL

When and if a series of related or unrelated evacuations are necessary, the procedure provided in this manual will be followed. Each train will be considered as an individual evacuation to be handled as appropriate. A systematic analysis is presented herein to determine evacuation priorities.

3.32 EVACUATION PRIORITIES

Evacuation priorities must be based on the following guidelines:

- a. Critical Emergencies — imminent danger to life including fire, fumes, smoke, injury.
- b. Serious Emergencies — conditions which may jeopardize the safety or health of passengers including excessive heat, no ventilation, excessive crowding, unruly or uncontrolled passengers, special medical needs of individuals.
- c. Emergencies — under the advisement of the conductor to the STO, any condition including length of delay, number of passengers on the train, length of time without power, location, any other relevant condition.

Note: The STO or his designee such as Chief Road Supervisor or Road Supervisor, may direct crews to evacuate without the agencies if conditions warrant.

4. GENERAL EVACUATIONS

The method of evacuation chosen must be the one offering maximum passenger safety and minimum passenger inconvenience.

Evacuation requiring movement of passengers onto the roadbed must be avoided unless no other means of evacuation is possible.

4.1 PREFERRED METHODS OF EVACUATION

4.11 TRAIN TO PLATFORM

4.111 FULLY PLATFORMED TRAIN

Whenever possible, a train must be directed to move to the nearest station in order to detrain passengers. Evacuation of a fully platformed train consists of discharging the passengers to the platform.

- 3.112 If the train is only partially platformed at a station the crew must proceed through the cars, opening those doors that are at the platform, making necessary announcements, and assisting passengers who must walk between cars to get to the opened doors.

Note: The appropriate car body doors must be secured or held open to expedite passenger movement.

- 4.113 Use of a second train as a bridge to platform. If the passengers are to walk from car to car and train to train on the same track to reach a station platform, the crew must advise the passengers of the circumstances and:
- Inform the passengers as to which direction to walk and hazards they may encounter.
 - Assist passengers who must walk from car to car to reach the platform.

Note: The appropriate car body doors must be secured or held open to expedite passenger movement.

- Assist passengers while crossing to the second train.
- Open only those side doors that are on the platform.
- Instruct passengers how to proceed after reaching the second train.

4.12 TRAIN TO TRAIN

- 4.121 If a train is between stations and it is impractical or unsafe to move the train to a station platform, the following train to train evacuation will be used.

CAUTION

Before Any Evacuation Is Initiated The Train Air Brakes Must Be Applied By An Emergency Application And Remain So Applied Until The Evacuation Is Completed.

4.122 RESCUE TRAIN ON SAME TRACK

The STO will direct a rescue train to proceed to the train to be evacuated and move up directly ahead of or behind it. When possible, the cars should be coupled and the passengers should be evacuated through the end doors. If it is impossible to couple the cars the passengers must be evacuated to the roadbed and then proceed to the rescue train. **Passengers must not be permitted to pass between cars that are not coupled.** Crew members must position themselves so that they may provide maximum assistance to the passengers. This procedure may also be accomplished using two rescue trains, one at either end, to speed up the evacuation procedure.

4.2 OTHER METHODS OF EVACUATION

4.21 GENERAL

If impractical or unsafe to evacuate at station platforms or with a rescue train, passengers may be evacuated onto the roadbed.

Note: These methods of evacuation should only be utilized if consistent with passenger safety, with the approval of the STO or his designee.

4.22 TRAIN TO ROADBED

The following procedures apply to all situations in which passengers must be evacuated from a train onto the roadbed.

CAUTION

- Before Any Evacuation Is Initiated The Train Brakes Must Be Applied By An Emergency Application and a Sufficient Number of Handbrakes must be applied Until The Evacuation Is Completed.**
- Before Any Evacuation Is Initiated That Would Require Passengers Crossing An Active Track, The Trains On That Track Must Be Stopped And The Catenary Power Removed If Catenary Wires Are Down At Or In Close Proximity To The Train.**

NOTE

In the event that these precautions cannot be taken, crew members must provide protection against injury to civilians.

The designated official on the scene must direct personnel in detrainning the passengers.

- The crew must get off the train to select a safe means of exit from the roadbed.
- The crew must determine the door to be used for evacuation, preferably a door nearest to the closest station or near a convenient point of exit from the roadbed. This door must be opened and secured or held open.
- When the evacuation has been set, personnel must be stationed at the door to be used for evacuation, preferably one at the door and one at the roadbed.
- Passengers who must walk from car to car must be informed in which direction to walk.

Note: The appropriate car body doors must be secured or held open to expedite passenger flow.

- Personnel positioned at the door to be used must assist passengers in detrainning safely to the roadbed providing sufficient lighting when necessary.
- If any handicapped or disabled passengers are among those being evacuated, personnel must direct SEPTA or local police or rescue crews to them so they may be evacuated by using the necessary equipment.

4.23 EVACUATION TO GRADE LEVEL

NOTE

Police and Fire Department Assistance May Be Utilized During Evacuations at Grade Level.

4.231 ALONG ROADBED TO STATION

If the train is in close proximity to a station, the crew must obtain permission to walk passengers along the roadbed to the station.

The procedures in 4.22 must be followed to evacuate passengers from the train to the roadbed. As the passengers are evacuated from the train, personnel must direct them to the station.

- Sufficient light and guidance must be provided to insure safe movement of passengers along the roadbed to the station under the prevailing conditions.

NOTE

Evacuation Must Be Conducted So That Passengers Remain Grouped Until They Arrive at the Station.

- b. If any handicapped or disabled passengers are among those being evacuated, personnel must direct SEPTA and/or Local Police or Fire Department personnel to them so they can be helped to the station using stretchers, blankets, etc., as necessary.

4.232 FROM ROADBED TO PUBLIC AREA

If the train is **not in close proximity** to a station, the crew must obtain permission to evacuate directly to a public area.

The procedures in 4.22 must be followed to evacuate passengers from the train, personnel must direct them to a public area.

- The crew must evacuate and select a safe means of exit from the roadbed.
- In the event that the area is fenced or other obstructions are encountered, personnel must assist SEPTA Police and/or Outside Agencies in providing safe access to a public area. (Cut an exit opening in fence, clear debris, etc.)
- Sufficient light and guidance must be provided to insure safe movements of passengers to the nearest public area under the prevailing conditions.

NOTE

Evacuation Must Be Conducted So That Passengers Remain Grouped Until They Arrive In A Public Area.

- If any handicapped or disabled passengers are among those being evacuated, personnel must direct SEPTA and/or Local Police or Fire Department personnel to them so they can be helped to a public area using stretchers, blankets, etc., as necessary.

4.3 EVACUATION ON EMBANKMENT

NOTE

Police and Fire Department Assistance MUST Be Utilized During Evacuations on Embankments.

If the train is in close proximity to a station, the crew must obtain permission to walk passengers along the roadbed to the station.

The procedures in 4.231 must be followed. The CAUTION in 4.22 must be rigidly adhered to.

4.4 EVACUATION IN CUTS

NOTE

Police and Fire Department MUST Be Utilized During Evacuations in Cuts.

4.41 ALONG ROADBED TO STATION

If the train is in **close proximity** to a station, the crew must obtain permission to walk passengers along the roadbed to the station.

The procedures in 4.231 must be followed.

The CAUTION in 4.22 must be rigidly adhered to.

4.42 UP CUT WALL TO PUBLIC AREA

If the train is **not in closed proximity** to a station, the crew must obtain permission to evacuate directly to a public area.

The CAUTION in 4.22 must be rigidly adhered to.

As passengers are evacuated from the train, personnel must direct them to a public area.

- 4.421 Fire or Police Department personnel should be positioned at various intervals on the cut wall to aid ascending passengers.

- 4.422 In the event that the area is fenced or other obstructions are encountered, personnel must assist SEPTA Police and/or Outside Agencies in providing safe access to a public area (cut exit opening in fence, clear debris, etc.).

- 4.423 Sufficient light and guidance must be provided to insure safe movement of passengers to the nearest public area under the prevailing conditions.

NOTE

Evacuations Must Be Conducted So That Passengers Remain Grouped Until They Arrive At A Public Area.

- 4.424 If any handicapped or disabled passengers are among those being evacuated, personnel must direct SEPTA and/or Local Police or Fire Department to them so they can be helped to a public area using stretchers, blankets, etc., as necessary.

4.5 EVACUATION IN TUNNELS

NOTE

Police and Fire Department Assistance MUST Be Utilized During Evacuation In Tunnels, when possible.

4.51 ALONG ROADBED TO STATION

If the train is in **close proximity** to a station, the crew must obtain permission to walk passengers along the roadbed to the station.

The procedures in 4.231 must be followed to evacuate passengers from the train to the roadbed. As the passengers are evacuated from the train, personnel must direct them to the station.

The CAUTION in 4.22 must be rigidly adhered to.

- 4.511 Sufficient light and guidance must be provided to insure safe movement of passengers along the roadbed to the station under the prevailing conditions.

NOTE

Evacuation Must Be Conducted So That Passengers Remain Grouped Until They Arrive At The Station.

If any handicapped or disabled passengers are among those being evacuated, personnel must direct SEPTA and/or Local Police or Fire Department personnel to them so they can be helped to the station using stretchers, blankets, etc., as necessary.

The CAUTION in 4.22 must be rigidly adhered to.

4.512 ALONG ROADBED TO EXIT

If the train is **not in close proximity** to a station in a tunnel, the crew must obtain permission to walk passengers along the roadbed to the nearest exit listed below.

The procedures in 4.232 must be followed to evacuate passengers from the train to the roadbed. As passengers are evacuated from the train, personnel must direct them to a public area.

- 4.5121 The crew must select a safe means of exit from the roadbed.
- 4.5122 In the event that the area is fenced or other obstructions are encountered, personnel must assist SEPTA Police and/or Outside Agencies in providing safe access to a public area. (Cut an exit opening in fence, clear debris, etc.)
- 4.5123 Sufficient light and guidance must be provided to insure safe movements of passengers to the nearest public

To Open Passenger Door in Emergency

1.  Lift and Pull Ring to Open
2. Press red handle inside down
3. Go to vestibule passenger door and push door back



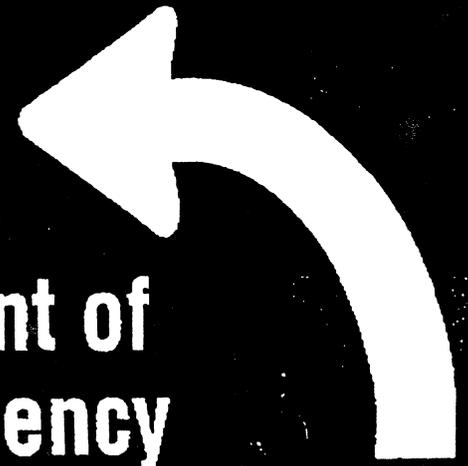
To Open Passenger Door in Emergency

1. Lift and Pull  Ring to Open
2. Press red handle inside down
3. Go to vestibule passenger door and push door back





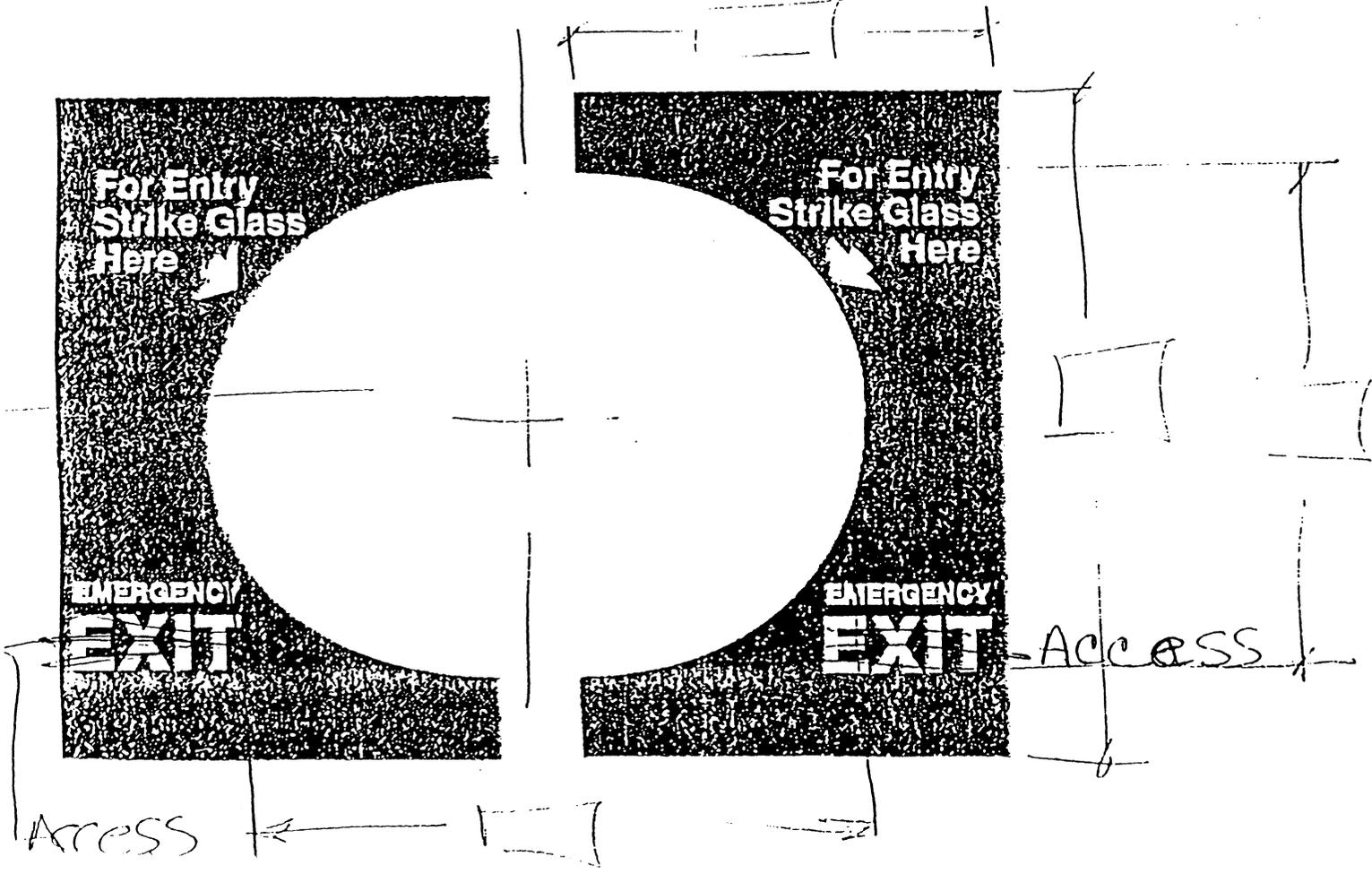
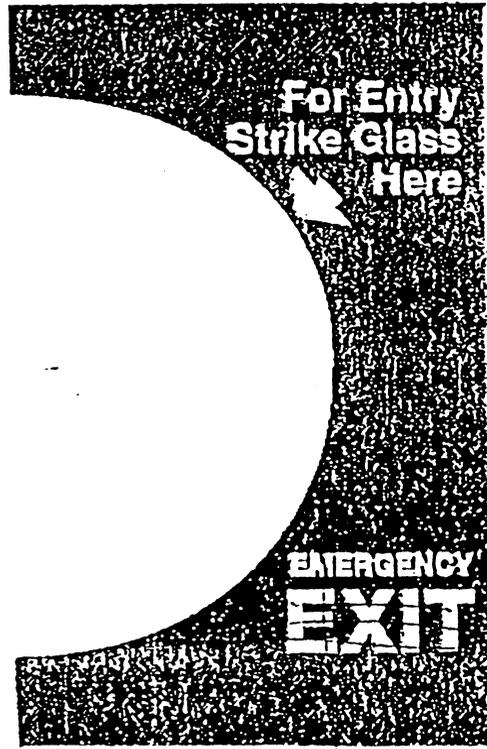
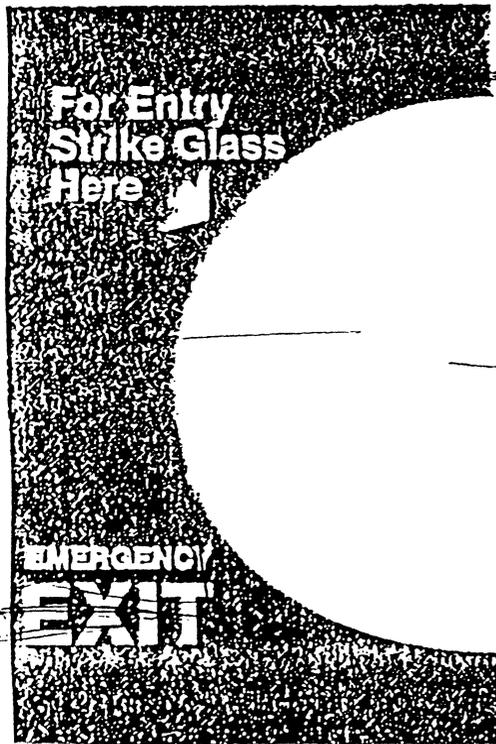
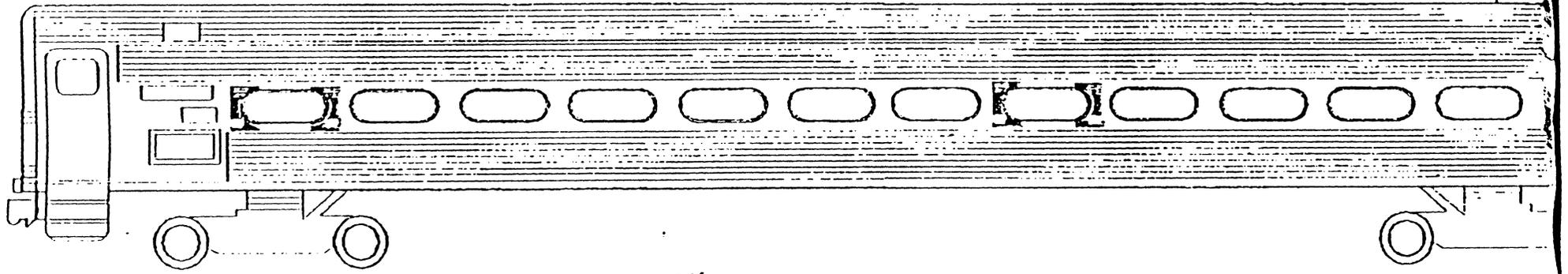
**In Event of
Emergency
Push Handle
UP and
Push Door IN**



**In Event of
Emergency
Push Handle
UP and
Push Door IN**

In EMERGENCY

- Remain Calm
- Listen for Announcements
- Crew is in Radio Contact with Emergency Personnel
- Adjacent Tracks are Active
- Please Remain Inside Car
- **EXIT ONLY** when Directed
- Follow Instructions of Crew and Emergency Personnel
- If Necessary, Open **EMERGENCY EXITS**
- Follow Instructions on Panels and Emergency Windows



QUICK REFERENCE OF SIGNIFICANT SEPTA RAILROAD STRUCTURES WITH LIMITED ACCESSIBILITY
(Refer to Schematic Map of SEPTA Railroad System for General Location of Branch Lines)

Railroad Branch Line, Railroad Direction, Type of Structure or Construction and Approximate Length	Municipality and Nearest Fire/Rescue	Nearest Passenger Station, Highway Grade Crossing, or Other Identifiable Location	Existing Dangerous Conditions and Other Pertinent Information	Optimum Points of Access
<p>R1 AIRPORT LINE</p> <p><i>Direction:</i> Southward from Philadelphia to Airport</p> <p>VIADUCT over I-95, 4,120 feet in length, 40 feet maximum height above highway</p>	Philadelphia: Engine 69; Police District 12	Airport Terminal A-B passenger station at south end	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 16-20 feet above rail</p> <p><i>Information:</i> viaduct has concrete surface walkway and closed sides to permit safe walking; viaduct is situated between catenary poles HSL-21F and HSL-50</p>	<p>From SOUTH end: Airport Terminal A-B located at Departure Road and Arrival Road (catenary pole HSL-21A)</p> <p>From NORTH end: adjacent to Bartram Avenue @ 89th St. (catenary pole HSL-54, HSL-56)</p>
<p>R1 AIRPORT LINE</p> <p><i>Direction:</i> Southward from Philadelphia to Airport</p> <p>VIADUCT over Amtrak Northeast Corridor, 1,200 feet in length, 25 feet maximum height above railroad</p>	Philadelphia: Engine 40; Police District 12	(none)	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 16-20 feet above rail</p> <p><i>Information:</i> viaduct has concrete surface walkway and closed sides to permit safe walking; viaduct is situated between catenary poles HSL-166 and HSL-182</p>	<p>From SOUTH end: railroad access road from 58th Street near Elmwood Avenue overpass (catenary pole HSL-163)</p> <p>From NORTH end: from 58th St. near CSX railroad bridge near PECO substation (catenary pole HSL-182)</p>
<p>R3 NESHAMINY/CONRAIL TRENTON LINE</p> <p><i>Direction:</i> Northward from Jenkintown to West Trenton, NJ</p> <p>DELAWARE RIVER BRIDGE, 1,800 feet in length, 100 feet height above river</p>	<p>Yardley (south end): Yardley Fire Co.; Yardley Police Dept.</p> <p>West Trenton Borough (north end): West Trenton Fire Co.; West Trenton Police Dept.</p>	<p>Yardley passenger station at south end is located approximately ½ mile from bridge</p> <p>West Trenton passenger station at north end is located approximately 1 mile from bridge</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 16-18 feet above rail</p> <p><i>Information:</i> bridge has concrete surface walkway and open side railings to permit safe walking; bridge is situated between catenary poles 31/4 and 31/12</p>	<p>From SOUTH end: Yardley, but no vehicular access north of station</p> <p>From NORTH end: limited vehicular access from vicinity of West Trenton passenger station to a point approximately 1,000 feet from bridge (catenary pole 31/16)</p>

Railroad Branch Line, Railroad Direction, Type of Structure or Construction and Approximate Length	Municipality and Nearest Fire/Rescue	Nearest Passenger Station, Highway Grade Crossing, or Other Identifiable Location	Existing Dangerous Conditions and Other Pertinent Information	Optimum Points of Access
<p>R3 MEDIA/WEST CHESTER LINE</p> <p><i>Direction:</i> Southward from Philadelphia to Media/Elwyn</p> <p>TRESTLE over Cobbs Creek, 377 feet in length, 40 maximum height above creek area</p>	<p>Philadelphia (north end): Engine 57; Police District 18</p> <p>Yeadon Borough (south end): Yeadon Fire Co.; Yeadon Police Dept.</p>	<p>Angora passenger station at north end is located approximately ¼ mile from trestle</p> <p>Fernwood-Yeadon passenger station at south end is located approximately ½ mile from trestle</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 16-18 feet above rail</p> <p><i>Information:</i> trestle surface is railroad tie construction, center plate walking area only, open end with no safety or side railing protection; trestle is situated between catenary poles 4/23 and 4/25</p>	<p>From NORTH end: parking lot behind John P. Turner Middle School, Baltimore Pike & 59th St., through fence (catenary pole 4/23)</p> <p>From SOUTH end: vehicular access from West Cobbs Creek Parkway (off Bailey Rd.) to a point approximately 1,000 feet from trestle (catenary pole 5/2)</p>
<p>R3 MEDIA/WEST CHESTER LINE</p> <p><i>Direction:</i> Southward from Philadelphia to Media/Elwyn</p> <p>TRESTLE over Darby Creek, 339 feet in length, 70 feet maximum height above creek area</p>	<p>Upper Darby Township: Lansdowne Fire Co. @ Gladstone; Clifton Fire Co. @ Clifton-Aldan; Lansdowne Police Dept.</p>	<p>Gladstone passenger station at north end is in proximity of trestle</p> <p>Clifton-Aldan passenger station at south end is approximately ¼ mile from trestle</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 16-18 feet above rail</p> <p><i>Information:</i> trestle surface is railroad tie construction, center plate walking area only, open end with no safety or side railing protection; trestle is situated between catenary poles 7/1 and 7/4</p>	<p>From NORTH end: Gladstone, Scottsdale Rd. (inbound side), Eldon Rd. (outbound side)</p> <p>From SOUTH end: Clifton-Aldan, but no vehicular access from station</p>
<p>R3 MEDIA/WEST CHESTER LINE</p> <p><i>Direction:</i> Southward from Philadelphia to Media/Elwyn</p> <p>TRESTLE over Crum Creek, 925 feet in length, 90 feet maximum height above creek area</p>	<p>Nether Providence Township: Swarthmore Fire House; Swarthmore Police Dept.; Wallingford Police Dept.</p>	<p>Turner Road highway grade crossing is approximately 1,000 feet south of trestle</p> <p>Swarthmore passenger station is approximately ¾ mile north of trestle</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 16-18 feet above rail</p> <p><i>Information:</i> trestle surface is railroad tie construction, center plate walking area only, open end with no safety or side railing protection; trestle is situated between catenary poles 11/22 and 11/27</p>	<p>From NORTH end: NO access</p> <p>From SOUTH end: Turner Road (catenary pole 12/4)</p>

Railroad Branch Line, Railroad Direction, Type of Structure or Construction and Approximate Length	Municipality and Nearest Fire/Rescue	Nearest Passenger Station, Highway Grade Crossing, or Other Identifiable Location	Existing Dangerous Conditions and Other Pertinent Information	Optimum Points of Access
<p>R3 MEDIA/WEST CHESTER LINE</p> <p><i>Direction:</i> Southward from Philadelphia to Media/Elwyn</p> <p>TRESTLE over Ridley Creek, 641 feet in length, 90 feet maximum height above Ridley Creek Road</p>	<p>Upper Providence Township: South Media Fire Co.; Lima Fire Co.</p> <p>Media Police Dept.</p>	<p>Media passenger station is approximately ¼ mile north of trestle</p> <p>Elwyn passenger station is approximately ½ mile south of trestle</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 16-18 feet above rail</p> <p><i>Information:</i> trestle surface is railroad tie construction, center plate walking area only, open end with no safety or side railing protection; trestle is situated between catenary poles 14/17 and 14/21</p>	<p>From NORTH end: access from parking lot area of car care center on Painter St. (Brooke St. off Baltimore Pike)</p> <p>From SOUTH end: limited access from Elwyn</p>
<p>R5 LANSDALE LINE</p> <p><i>Direction:</i> Northward from Philadelphia to Lansdale</p> <p>GWYNEDD CUT between Route 202 underpass and North Wales, 2 miles in length</p>	<p>Lower Gwynedd Township Police Dept. (south end)</p> <p>Upper Gwynedd Township Police Dept.; North Wales Borough Police Dept.; North Wales Fire Dept. (north end)</p>	<p>Gwynedd Valley passenger station is located along Gwynedd Pike at south end; station is approximately ½ mile south of Route 202 underpass (catenary pole 20/15)</p> <p>Main Street, North Wales is located at north end</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximate height 17-20 feet above rail</p> <p><i>Information:</i> cut has limited points of accessibility from adjacent properties; cut is situated between catenary poles 20/16 and 22/1</p>	<p>From SOUTH end: through landscaping property parking lot located off Schoolhouse Road (vicinity of catenary pole 20/20)</p> <p>From NORTH end: Main Street</p> <p>From points in between: must access railroad over cut walls (Prospect Ave. catenary pole 21/22; Pennsylvania Ave. catenary pole 21/16; Swedesford Rd. catenary pole 21/2)</p>
<p>R6 NORRISTOWN LINE</p> <p><i>Direction:</i> Northward from Philadelphia to Norristown</p> <p>SHAWMONT CUT between Glen Willow Road and Shawmont Avenue, 1 mile in length</p>	<p>Philadelphia: Engine 66; Police District 5</p>	<p>Ivy Ridge passenger station @ Glen Willow Rd. at south end</p> <p>Shawmont passenger station (out-of-service) @ Shawmont Ave. at north end</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximately 16-20 feet above rail</p> <p><i>Information:</i> railroad curves at various points through the cut; has no points of accessibility between two opposing highway grade crossings; cut is situated between catenary poles 8/10 and 9/10</p>	<p>From SOUTH end: Glen Willow Road; north end of private lot accessible to catenary pole 8/15</p> <p>From NORTH end: Shawmont Avenue; south end of parking lot accessible to catenary pole 9/9</p> <p>From points in between: NO access</p>

Railroad Branch Line, Railroad Direction, Type of Structure or Construction and Approximate Length	Municipality and Nearest Fire/Rescue	Nearest Passenger Station, Highway Grade Crossing, or Other Identifiable Location	Existing Dangerous Conditions and Other Pertinent Information	Optimum Points of Access
<p>R8 CHESTNUT HILL WEST LINE</p> <p><i>Direction:</i> Eastward from Philadelphia to Chestnut Hill West</p> <p>CRESHEIM VALLEY BRIDGE between Allen Lane and St. Martins, 411 feet in length, 50 feet maximum height above Cresheim Valley Road</p>	<p>Philadelphia: Engine 9; Police District 14</p>	<p>Allen Lane passenger station (catenary pole 4/19) at west end is approximately ½ mile from bridge</p> <p>St. Martins passenger station (catenary pole 5/19-5/20) at east end is in proximity of bridge</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximately 16-20 feet above rail</p> <p><i>Information:</i> bridge has concrete surface side walkway and closed sides to permit safe walking; bridge is situated between catenary poles 5/13 and 5/15</p>	<p>From WEST end: no feasible point of access</p> <p>From EAST end: from adjacent neighborhood area west of St. Martins off Pocono St. near intersection of Mermaid Lane</p>
<p>MAIN LINE</p> <p><i>Direction:</i> Southward from Wayne Junction to Center City, Philadelphia</p> <p>RAISED RIGHT-OF-WAY between North Broad Street passenger station and Center City Commuter Tunnel, 2 ½ miles in length</p>	<p>Philadelphia: Engines 50, 72; Police Districts 6, 22, 39</p>	<p>North Broad Street passenger station @ Broad & Lehigh</p> <p>Temple University passenger station @ 9th & Berks</p> <p>Wayne Junction passenger station @ Wayne & Windrim</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximately 16-20 feet above rail</p> <p><i>Information:</i> raised right-of-way has limited access points, and is generally enclosed by fencing</p>	<p>From points in between: Temple U, North Broad St., Wayne Jct passenger stations; various undergrade and overhead bridges</p>

Railroad Branch Line, Railroad Direction, Type of Structure or Construction and Approximate Length	Municipality and Nearest Fire/Rescue	Nearest Passenger Station, Highway Grade Crossing, or Other Identifiable Location	Existing Dangerous Conditions and Other Pertinent Information	Optimum Points of Access
<p>MAIN LINE</p> <p><i>Direction:</i> Southward from Wayne Junction to Center City, Philadelphia</p> <p>CENTER CITY COMMUTER TUNNEL, 8,650 feet in length</p>	<p>Philadelphia: Engine 20; Police Districts 6, 9</p>	<p>Temple University passenger station north of tunnel is located 1 mile from north tunnel portal</p> <p>Market East passenger station is located inside tunnel beneath Gallery @ 11th & Market</p> <p>Suburban Station passenger station is located inside tunnel beneath street level @ 16th & JFK</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximately 14-16 feet above rail</p> <p><i>Information:</i> locations of emergency exits are indicated in footage markers, starting with "0" feet at the south end portal beneath 20th & JFK, and ending at "8650" feet at the north end portal beneath 9th and Green Sts.</p>	<p>From inside tunnel at SOUTH end: Suburban Station</p> <p>From inside tunnel at NORTH end: Market East Station</p> <p>Emergency exit tunnel markers provide access to these street level locations:</p> <ul style="list-style-type: none"> • 7745 - north side of Noble St., between 8th & 9th Sts. • 7272 - exits south of Callowhill St., between 8th & 9th Sts. • 5708 - exits south side of Cherry St., between 8th & 9th Sts. • 2401 - exits north side of JFK Blvd., between Broad & 15th Sts. • 6348 - exits Chinatown Station Platform (Broad-Ridge subway), then up one level to street, exits between 8th & 9th Sts. at Race & Vice intersection • 3206 - exits east side of 13th St., between Filbert & Commerce Sts. • outside north portal - exits north side of Green St. between 8th & 9th Sts.

Railroad Branch Line, Railroad Direction, Type of Structure or Construction and Approximate Length	Municipality and Nearest Fire/Rescue	Nearest Passenger Station, Highway Grade Crossing, or Other Identifiable Location	Existing Dangerous Conditions and Other Pertinent Information	Optimum Points of Access
<p>MAIN LINE</p> <p><i>Direction:</i> Northward from University City area to Center City, Philadelphia</p> <p>MARKET STREET TUNNEL, 1,333 feet in length</p>	<p>Philadelphia: Engine 43; Police district 9</p>	<p>SEPTA's 30th Street passenger station is located on the upper train level of Amtrak's 30th Street Station, south end platform is 200 feet north of tunnel</p> <p>University City passenger station is located approximately ¼ mile south of tunnel</p>	<p>DANGER: 11,500 volt overhead electrical catenary system approximately 14-16 feet above rail</p> <p><i>Information:</i> tunnel has no emergency exits from street level</p>	<p>From NORTH end: 30th Street passenger station platform, or Powelton Ave. Yard (vehicular access to yard limited to standard size automobiles from Amtrak parking lot; access to SEPTA crew facility off 32nd St.)</p> <p>From SOUTH end: University City, limited access from Amtrak lower level Penn Coach Yard</p> <p>From middle of tunnel: out-of-service railroad roadbed (former Grays Ferry Branch) could be utilized in extreme emergency to access tunnel; right-of-way (heavily overgrown) exits in vicinity of south end of Powelton Ave. Yard, accessed via Amtrak M&W yard; also 200 feet from tracks is emergency ladder 15 foot climb to enclosed catwalk exiting into north end of Powelton Ave. Yard</p>

**QUICK REFERENCE of SEPTA RAILROAD SYSTEM HIGHWAY GRADE CROSSINGS
PUBLIC AND PRIVATE CROSSINGS IN COMMUTER TERRITORY
(Refer to Schematic Map of SEPTA Railroad System for General Location of Branch Line)**

Railroad Line	Name of Crossing (Private Where Noted)	Municipality	Railroad Milepost	Type of Protection (Flashers, Gates, X-Bucks)
DOYLESTOWN	Main Street	Lansdale	MP0.10 & 24.35 (Main Line)	F, G
DOYLESTOWN	Claire Crossing	Lansdale	MP0.27	F, G
DOYLESTOWN	Fifth Street	Lansdale	MP0.40	F, G
DOYLESTOWN	Seventh Street	Lansdale	MP0.60	F, G
DOYLESTOWN	Walnut Street	Hatfield Township	MP1.20	F, G
DOYLESTOWN	Cowpath Road	Hatfield Township	MP1.45	F, G
DOYLESTOWN	Route 309	Hatfield Township	MP2.35	F, G (pre-empted traffic light)
DOYLESTOWN	County Line Road	Hatfield Township	MP3.25	F, G
DOYLESTOWN	Schoolhouse Road	New Britain Township	MP3.80	F, G
DOYLESTOWN	private farm crossing	New Britain Township	MP4.10	(none)
DOYLESTOWN	private farm crossing	New Britain Township	MP4.40	(none)
DOYLESTOWN	private farm crossing	Chalfont	MP5.10	(none)
DOYLESTOWN	Route 202	New Britain Township	MP6.10	F (pre-empted traffic light)
DOYLESTOWN	Sand Road	New Britain Township	MP6.65	F, G
DOYLESTOWN	Tamanend Avenue	New Britain Township	MP7.10	F, G
DOYLESTOWN	Beulah Road	Doylestown Township	MP7.70	F, G
DOYLESTOWN	Shady Retreat Road	Doylestown Township	MP7.85	F, G
DOYLESTOWN	Lower State Road	Doylestown Township	MP9.00	F, G
FOX CHASE	Oxford Avenue	Philadelphia	MP10.75	F, G
FOX CHASE	Rhawn Street	Philadelphia	MP11.20	F, G
MAIN LINE (to Lansdale)	PECO (private)	Abington Township	MP11.00	F
MAIN LINE (to Lansdale)	Rices Mill Road	Abington Township	MP11.30	F, G
MAIN LINE (to Lansdale)	Church Street	Ambler	MP16.70	X (Stop Sign)
MAIN LINE (to Lansdale)	Butler Pike	Ambler	MP17.25	F, G
MAIN LINE (to Lansdale)	Mt. Pleasant Avenue	Ambler	MP17.80	F, G
MAIN LINE (to Lansdale)	Gwynedd Pike (Plymouth Road)	Lower Gwynedd Township	MP20.00	F, G
MAIN LINE (to Lansdale)	Main Street	North Wales	MP22.10	F, G
MAIN LINE (to Lansdale)	Second Street	North Wales	MP22.15	F, G
MAIN LINE (to Lansdale)	Third Street	North Wales	MP22.20	F, G
MAIN LINE (to Lansdale)	Walnut Street	North Wales	MP22.30	F, G
MAIN LINE (to Lansdale)	Beaver Street	North Wales	MP22.40	F, G
MAIN LINE (to Lansdale)	Church Road	Lansdale	MP23.40	F, G
MAIN LINE (to Lansdale)	Hancock Street	Lansdale	MP23.70	F, G
MAIN LINE (to Lansdale)	Broad Street	Lansdale	MP24.20	F, G

Railroad Line	Name of Crossing (Private Where Noted)	Municipality	Railroad Milepost	Type of Protection (Flashers, Gates, X-Bucks)
MAIN LINE (to Lansdale)	Main Street	Lansdale	MP24.35 & 0.10 (Doyles Line)	F, G
NESHAMINY & CR TRENTON	Rydal Road	Abington Township	MP12.60	F, G
NESHAMINY & CR TRENTON	Red Lion Road	Lower Moreland Township	MP15.75	F, G
NESHAMINY & CR TRENTON	Pine Road	Lower Moreland Township	MP16.35	F, G
NESHAMINY & CR TRENTON	Tomlinson Road	Lower Moreland Township	MP16.55	F, G
NESHAMINY & CR TRENTON	Byberry Road	Philadelphia	MP17.65	F, G
NESHAMINY & CR TRENTON	Bellevue Avenue	Langhorne	MP23.90	F, G
NESHAMINY & CR TRENTON	Woodbourne Road	Middletown Township	MP26.50	F, G
NESHAMINY & CR TRENTON	Township Line Road	Middletown Township	MP27.50	F, G
NESHAMINY & CR TRENTON	Dobry Road (private)	Lower Makefield Township	MP27.70	X
NESHAMINY & CR TRENTON	Heacock Road	Lower Makefield Township	MP28.20	F, G
NESHAMINY & CR TRENTON	Stoney Hill Road	Lower Makefield Township	MP28.70	F, G
NESHAMINY & CR TRENTON	Edgewood Road	Lower Makefield Township	MP29.70	F, G
NORRISTOWN	Scotts Lane	Philadelphia	MP5.10	F, G
NORRISTOWN	Indian Queen Lane	Philadelphia	MP5.25	F, G
NORRISTOWN	Schoolhouse Lane	Philadelphia	MP5.90	F, G
NORRISTOWN	Glen Willow Road	Philadelphia	MP8.35	F
NORRISTOWN	Shawmont Avenue	Philadelphia	MP9.40	F, G
NORRISTOWN	Nixon Street	Philadelphia	MP9.70	F, G
NORRISTOWN	River Road	Philadelphia	MP10.40	F, G
NORRISTOWN	Spring Mill Road	Whitemarsh Township	MP12.25	F, G
NORRISTOWN	End Street	Whitemarsh Township	MP12.35	F, G
NORRISTOWN	Cherry Street	Conshohocken	MP12.95	F, G
NORRISTOWN	Poplar Street	Conshohocken	MP13.15	F, G
NORRISTOWN	Ash Street	Conshohocken	MP13.30	F, G
NORRISTOWN	Harry Street	Conshohocken	MP13.40	F, G
NORRISTOWN	Ford Street	Norristown	MP16.60	F, G
NORRISTOWN	Washington Street	Norristown	MP17.60	F, G
NORRISTOWN	Main Street	Norristown	MP17.75	F, G
NORRISTOWN	Marshall Street	Norristown	MP17.90	F, G
WARMINSTER	Mt. Carmel Avenue	Abington Township	MP0.20	F, G
WARMINSTER	Jenkintown Road	Abington Township	MP0.90	F, G
WARMINSTER	Bradfield Road	Abington Township	MP1.90	F, G
WARMINSTER	Easton & Susquehanna Roads	Abington Township	MP2.10	F (pre-empted traffic light)
WARMINSTER	Moreland Road	Upper Moreland Township	MP3.80	F, G
WARMINSTER	Davisville Road	Upper Moreland Township	MP4.00	F, G
WARMINSTER	Old York Road	Upper Moreland Township	MP4.05	F, G
WARMINSTER	Township Building (private)	Upper Moreland Township	MP4.70	(none)
WARMINSTER	Warminster Avenue	Hatboro	MP5.80	F, G

Railroad Line	Name of Crossing (Private Where Noted)	Municipality	Railroad Milepost	Type of Protection (Flashers, Gates, X-Bucks)
WARMINSTER	Fulmor Avenue	Hatboro	MP6.00	F, G
WARMINSTER	Byberry Road	Hatboro	MP6.40	F, G
WARMINSTER	Moreland Avenue	Hatboro	MP6.55	F, G
WARMINSTER	Montgomery Avenue	Hatboro	MP6.65	F, G
WARMINSTER	Meadowbrook Avenue	Hatboro	MP7.05	F, G
WARMINSTER	County Line Road	Hatboro	MP7.25	F, G
WEST CHESTER	Union Avenue	Lansdowne	MP6.00	F, G
WEST CHESTER	Wycombe Avenue	Lansdowne	MP6.20	F, G
WEST CHESTER	Oak Avenue	Upper Darby Township	MP8.20	F, G
WEST CHESTER	Bishop Avenue	Upper Darby Township	MP8.75	F, G
WEST CHESTER	Providence Road	Upper Darby Township	MP8.95	F, G
WEST CHESTER	Amosland Road	Morton	MP9.75	F, G
WEST CHESTER	Woodland Avenue	Morton	MP9.85	F, G
WEST CHESTER	Blue Church Road	Morton	MP10.15	F, G
WEST CHESTER	Swarthmore Road	Swarthmore	MP10.80	F, G
WEST CHESTER	Turner Road	Nether Providence Township	MP12.20	F, G

**QUICK REFERENCE of SEPTA RAILROAD SYSTEM VEHICULAR HIGHWAYS AND ROADWAYS
UNDERGRADE AND OVERHEAD BRIDGES
(Refer to Schematic Map of SEPTA Railroad System for General Location of Branch Line)**

Railroad Line	Undergrade or Overhead Bridge?	Name of Roadway	Railroad Milepost	Nearest Railroad Passenger Station
AIRPORT	Overhead	58 th Street	MP3.91	Eastwick
AIRPORT	Overhead	Elmwood Avenue	MP4.23	Eastwick
AIRPORT	Overhead	Lindburgh Boulevard	MP4.40	Eastwick
AIRPORT	Overhead	61 st Street	MP4.65	Eastwick
AIRPORT	Overhead	63 rd Street	MP4.91	Eastwick
AIRPORT	Overhead	70 th Street	MP5.73	Eastwick
AIRPORT	Overhead	Island Avenue	MP6.61	Eastwick
AIRPORT	Overhead	84 th Street	MP7.09	Eastwick
AIRPORT	Undergrade (viaduct)	Bartram Avenue	MP8.30	Eastwick
AIRPORT	Undergrade (viaduct)	Interstate 95	MP8.50	Airport Terminal A-B
AIRPORT	Overhead	'A' Ramp	MP8.74	Airport Terminal A-B
AIRPORT	Overhead	'L' Ramp	MP8.75	Airport Terminal A-B
CHESTNUT HILL EAST	Undergrade	Wayne Avenue	MP5.04	Wayne Junction
CHESTNUT HILL EAST	Undergrade	Germantown Avenue	MP5.18	Wayne Junction
CHESTNUT HILL EAST	Undergrade	Logan Street	MP5.72	Fishers (out of service)
CHESTNUT HILL EAST	Undergrade	Wister Street	MP6.09	Wister
CHESTNUT HILL EAST	Undergrade	Penn Street	MP6.41	Wister
CHESTNUT HILL EAST	Undergrade	Church Lane	MP6.63	Germantown
CHESTNUT HILL EAST	Undergrade	Armat Street	MP6.77	Germantown
CHESTNUT HILL EAST	Undergrade	Chelten Avenue	MP6.85	Germantown
CHESTNUT HILL EAST	Undergrade	Baynton Street	MP6.91	Germantown
CHESTNUT HILL EAST	Undergrade	Morton Street	MP7.06	Germantown
CHESTNUT HILL EAST	Undergrade	Magnolia Street	MP7.16	Germantown
CHESTNUT HILL EAST	Undergrade	Musgrave Street	MP7.31	Germantown
CHESTNUT HILL EAST	Undergrade	Haines Street	MP7.39	Washington Lane
CHESTNUT HILL EAST	Undergrade	High Street	MP7.49	Washington Lane
CHESTNUT HILL EAST	Undergrade	Chew Street	MP7.63	Washington Lane
CHESTNUT HILL EAST	Undergrade	Washington Lane	MP7.84	Washington Lane
CHESTNUT HILL EAST	Undergrade	Upsal Street	MP8.23	Stenton
CHESTNUT HILL EAST	Undergrade	Vernon Road	MP8.51	Stenton
CHESTNUT HILL EAST	Undergrade	Gorgas Lane	MP8.70	Stenton/Sedgewick
CHESTNUT HILL EAST	Undergrade	Sedgewick Street	MP8.81	Sedgewick
CHESTNUT HILL EAST	Undergrade	Mt. Pleasant Avenue	MP8.90	Sedgewick
CHESTNUT HILL EAST	Overhead	Mt. Airy Avenue	MP9.06	Sedgewick

Railroad Line	Undergrade or Overhead Bridge?	Name of Roadway	Railroad Milepost	Nearest Railroad Passenger Station
CHESTNUT HILL EAST	Overhead	Gowen Avenue	MP9.26	Mt. Airy
CHESTNUT HILL EAST	Undergrade	Mermaid Lane	MP9.70	Wyndmoor
CHESTNUT HILL EAST	Undergrade	Willow Grove Avenue	MP10.00	Wyndmoor
CHESTNUT HILL EAST	Overhead	Gravers Lane	MP10.36	Gravers
CHESTNUT HILL EAST	Overhead	Evergreen Avenue	MP10.52	Gravers
CHESTNUT HILL EAST	Overhead	Summit Street	MP10.61	Chestnut Hill East
CHESTNUT HILL WEST	Undergrade	16 th Street & Indiana Street	MP0.21	North Philadelphia
CHESTNUT HILL WEST	Undergrade	17 th Street	MP0.34	North Philadelphia
CHESTNUT HILL WEST	Undergrade	Allegheny Avenue	MP0.64	North Philadelphia
CHESTNUT HILL WEST	Undergrade	21 st Street	MP0.72	Westmoreland (out of service)
CHESTNUT HILL WEST	Undergrade	22 nd Street	MP0.83	Westmoreland (out of service)
CHESTNUT HILL WEST	Undergrade	Hunting Park Avenue	MP1.17	Westmoreland (out of service)
CHESTNUT HILL WEST	Undergrade	Roberts Avenue	MP1.56	Queen Lane
CHESTNUT HILL WEST	Overhead	Abbottsford Road	MP1.76	Queen Lane
CHESTNUT HILL WEST	Overhead	Roosevelt Boulevard	MP1.76A	Queen Lane
CHESTNUT HILL WEST	Overhead	Abbottsford Road	MP1.76B	Queen Lane
CHESTNUT HILL WEST	Overhead	Wissahickon Avenue	MP2.26	Queen Lane
CHESTNUT HILL WEST	Overhead	Coulter Street	MP2.51	Chelten Avenue
CHESTNUT HILL WEST	Overhead	Morris Street	MP2.57	Chelten Avenue
CHESTNUT HILL WEST	Overhead	School Lane	MP2.68	Chelten Avenue
CHESTNUT HILL WEST	Overhead	Chelten Avenue	MP2.82	Chelten Avenue
CHESTNUT HILL WEST	Undergrade	Rittenhouse Street	MP2.98	Chelten Avenue
CHESTNUT HILL WEST	Undergrade	Harvey Street	MP3.09	Tulpehocken
CHESTNUT HILL WEST	Overhead	Walnut Lane	MP3.19	Tulpehocken
CHESTNUT HILL WEST	Undergrade	Pomona Street	MP3.47	Tulpehocken
CHESTNUT HILL WEST	Overhead	Wayne Avenue	MP3.48	Tulpehocken
CHESTNUT HILL WEST	Overhead	Johnson Street	MP3.62	Upsal
CHESTNUT HILL WEST	Undergrade	Greene Street	MP3.88	Upsal
CHESTNUT HILL WEST	Undergrade	Hortter Street	MP4.01	Upsal
CHESTNUT HILL WEST	Undergrade	Cherokee Street	MP4.22	Carpenter
CHESTNUT HILL WEST	Undergrade	Carpenter Lane	MP4.42	Carpenter
CHESTNUT HILL WEST	Undergrade	Mt. Pleasant Avenue	MP4.74	Allen Lane
CHESTNUT HILL WEST	Overhead	Allens Lane	MP4.98	Allen Lane
CHESTNUT HILL WEST	Undergrade	Cresheim Valley Drive	MP5.44	St. Martins
CHESTNUT HILL WEST	Undergrade	Springfield Avenue	MP5.67	St. Martins
CHESTNUT HILL WEST	Overhead	Willow Grove Avenue	MP5.77	St. Martins
CHESTNUT HILL WEST	Undergrade	Graver Lane	MP6.13	Highland
CHESTNUT HILL WEST	Overhead	Highland Avenue	MP6.20	Highland
DOYLESTOWN	Overhead	Main Street	MP5.46	Chalfont

Railroad Line	Undergrade or Overhead Bridge?	Name of Roadway	Railroad Milepost	Nearest Railroad Passenger Station
DOYLESTOWN	Undergrade	Farm School	MP8.53	Delaware Valley College
DOYLESTOWN	Undergrade	New Britain Road	MP8.90	Delaware Valley College
FOX CHASE & CR TRENTON	Undergrade	10 th Street	MP6.44	Olney
FOX CHASE & CR TRENTON	Undergrade	5 th Street	MP6.87	Olney
FOX CHASE & CR TRENTON	Undergrade	3 rd Street	MP7.03	Olney
FOX CHASE & CR TRENTON	Undergrade	Masher Street & Tabor Road	MP7.25	Olney
FOX CHASE & CR TRENTON	Overhead	Olney Avenue	MP7.53	Olney
FOX CHASE & CR TRENTON	Undergrade	Adams Avenue	MP8.15	Lawndale
FOX CHASE & CR TRENTON	Undergrade	Newtown Avenue	MP8.22	Lawndale
FOX CHASE & CR TRENTON	Overhead	Levick Street	MP9.15	Lawndale
FOX CHASE & CR TRENTON	Overhead	Martins Mill Road	MP9.66	Cheltenham
FOX CHASE & CR TRENTON	Undergrade	Cottman Street	MP10.20	Ryers
IVY RIDGE	Undergrade	Jefferson Street (2 locations)	MP4.37	Wynnefield
IVY RIDGE	Undergrade	Bryn Mawr Avenue	MP4.75	Wynnefield
IVY RIDGE	Undergrade	Wynnefield Avenue	MP4.98	Wynnefield
IVY RIDGE	Undergrade	Woodbine Avenue	MP5.29	Bala
IVY RIDGE	Overhead	City Avenue	MP5.64	Bala
IVY RIDGE	Overhead	Union Avenue	MP5.90	Bala
IVY RIDGE	Overhead	Montgomery Avenue	MP6.11	Cnywyd
MAIN LINE (to 30 th Street)	Overhead	Spring Garden Street	MP1.68	30 th Street & Powelton Yard
MAIN LINE (to 30 th Street)	Undergrade	23 rd Street	MP0.64	30 th Street
MAIN LINE (to 30 th Street)	Undergrade	22 nd Street	MP0.58	30 th Street
MAIN LINE (to 30 th Street)	Undergrade	21 st Street	MP0.49	30 th Street
MAIN LINE (to Jenkintown)	Undergrade	Fairmont Avenue	MP0.96	Temple U
MAIN LINE (to Jenkintown)	Undergrade	Oxford Street	MP1.76	Temple U
MAIN LINE (to Jenkintown)	Undergrade	Columbia Avenue	MP1.86	Temple U
MAIN LINE (to Jenkintown)	Undergrade	Montgomery Avenue	MP1.97	Temple U
MAIN LINE (to Jenkintown)	Undergrade	Berks Street	MP2.07	Temple U
MAIN LINE (to Jenkintown)	Undergrade	Norris Street	MP2.17	Temple U
MAIN LINE (to Jenkintown)	Undergrade	Diamond Street	MP2.28	Temple U
MAIN LINE (to Jenkintown)	Undergrade	10 th Street	MP2.31	Temple U
MAIN LINE (to Jenkintown)	Undergrade	Susquehanna Avenue	MP2.41	North Broad
MAIN LINE (to Jenkintown)	Undergrade	Colona Street	MP2.46	North Broad
MAIN LINE (to Jenkintown)	Undergrade	11 th Street & Nevada Street	MP2.49	North Broad
MAIN LINE (to Jenkintown)	Undergrade	Dauphin Street	MP2.53	North Broad
MAIN LINE (to Jenkintown)	Undergrade	12 th Street & York Street	MP2.66	North Broad
MAIN LINE (to Jenkintown)	Undergrade	13 th Street & Cumberland Street	MP2.79	North Broad
MAIN LINE (to Jenkintown)	Overhead	Broad Street & Lehigh Avenue	MP3.02	North Broad
MAIN LINE (to Jenkintown)	Overhead	Glenwood Avenue	MP3.20	North Broad

Railroad Line	Undergrade or Overhead Bridge?	Name of Roadway	Railroad Milepost	Nearest Railroad Passenger Station
MAIN LINE (to Jenkintown)	Overhead	17 th Street	MP3.44	North Broad
MAIN LINE (to Jenkintown)	Undergrade	Allegheny Avenue	MP3.69	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Westmoreland Street	MP3.81	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	19 th Street	MP3.84	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Ontario Street	MP3.92	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Tioga Street	MP4.03	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	20 th Street	MP4.06	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Atlantic Street	MP4.09	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Venango Street	MP4.15	Tioga (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Erie Avenue	MP4.26	Nicetown (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Hunting Park Avenue	MP4.37	Nicetown (out of service)
MAIN LINE (to Jenkintown)	Overhead	Roosevelt Boulevard	MP4.90	Wayne Junction
MAIN LINE (to Jenkintown)	Undergrade	Wayne Avenue	MP5.03	Wayne Junction
MAIN LINE (to Jenkintown)	Undergrade	Germantown Avenue	MP5.17	Wayne Junction
MAIN LINE (to Jenkintown)	Undergrade	18 th Street	MP5.52	Wayne Junction
MAIN LINE (to Jenkintown)	Undergrade	Belfield Avenue	MP5.68	Logan (out of service)
MAIN LINE (to Jenkintown)	Undergrade	Broad Street & Old York Road	MP6.01	Logan (out of service)
MAIN LINE (to Jenkintown)	Undergrade	10 TH Street	MP6.44	Fern Rock
MAIN LINE (to Jenkintown)	Undergrade	Tabor Road	MP6.68	Fern Rock
MAIN LINE (to Jenkintown)	Undergrade	Olney Avenue	MP6.74	Fern Rock
MAIN LINE (to Jenkintown)	Undergrade	Godfrey Avenue	MP7.37	Fern Rock
MAIN LINE (to Jenkintown)	Undergrade	Cheltenham Avenue	MP7.56	Fern Rock
MAIN LINE (to Jenkintown)	Overhead	66 th Avenue	MP7.83	Melrose Park
MAIN LINE (to Jenkintown)	Overhead	Oaklane Avenue	MP8.04	Melrose Park
MAIN LINE (to Jenkintown)	Undergrade	Cheltenham Avenue	MP8.23	Melrose Park
MAIN LINE (to Jenkintown)	Undergrade	Valley Road	MP8.38	Melrose Park
MAIN LINE (to Jenkintown)	Overhead	Union Avenue	MP8.85	Melrose Park
MAIN LINE (to Jenkintown)	Undergrade	Park Avenue	MP9.22	Elkins Park
MAIN LINE (to Jenkintown)	Undergrade	Old York Road	MP9.49	Elkins Park
MAIN LINE (to Jenkintown)	Overhead	Church Road	MP9.92	Elkins Park
MAIN LINE (to Jenkintown)	Overhead	Washington Lane	MP10.41	Jenkintown
MAIN LINE (to Jenkintown)	Overhead	Greenwood Avenue	MP10.75	Jenkintown
MAIN LINE (to Lansdale)	Undergrade	Keswick Avenue	MP11.62	Glenside
MAIN LINE (to Lansdale)	Undergrade	Easton Road	MP11.83	Glenside
MAIN LINE (to Lansdale)	Overhead	Edge Hill Road	MP12.57	North Hills
MAIN LINE (to Lansdale)	Undergrade	North Hills Avenue	MP13.04	North Hills
MAIN LINE (to Lansdale)	Overhead	Bridge Street	MP13.95	Oreland
MAIN LINE (to Lansdale)	Undergrade	stream/private road	MP14.62	Fellwick (out of service)
MAIN LINE (to Lansdale)	Undergrade	Camp Hill Road	MP14.74	Fellwick (out of service)

Railroad Line	Undergrade or Overhead Bridge?	Name of Roadway	Railroad Milepost	Nearest Railroad Passenger Station
MAIN LINE (to Lansdale)	Overhead	Route 309	MP15.09	Fellwick (out of service)
MAIN LINE (to Lansdale)	Overhead	Pennsylvania Turnpike	MP15.30	Fellwick (out of service)
MAIN LINE (to Lansdale)	Overhead	Bethlehem Pike	MP15.92	Fort Washington
MAIN LINE (to Lansdale)	Undergrade	Tennis Avenue	MP17.54	Ambler
MAIN LINE (to Lansdale)	Undergrade	Pennlyn Pike	MP18.87	Pennlyn
MAIN LINE (to Lansdale)	Undergrade	Route 202	MP20.61	Gwynedd Valley
MAIN LINE (to Lansdale)	Overhead	Swedesford Road	MP21.04	North Wales
MAIN LINE (to Lansdale)	Overhead	Prospect Avenue	MP21.67	North Wales
MAIN LINE (to Lansdale)	Overhead	Pennsylvania Avenue	MP21.93	North Wales
NESHAMINY & CR TRENTON	Overhead	Walnut Street	MP11.37	Jenkintown
NESHAMINY & CR TRENTON	Overhead	Old York Road	MP11.95	Noble
NESHAMINY & CR TRENTON	Undergrade	Meadow Brook Road	MP12.38	Noble
NESHAMINY & CR TRENTON	Undergrade	Susquehanna Road	MP12.87	Rydal
NESHAMINY & CR TRENTON	Undergrade	Mill Road	MP13.88	Meadowbrook
NESHAMINY & CR TRENTON	Overhead	Route 232	MP15.01	Bethayres
NESHAMINY & CR TRENTON	Overhead	Bustleton Avenue	MP18.17	Somerton
NESHAMINY & CR TRENTON	Overhead	Pennsylvania Turnpike	MP19.36	Treose
NESHAMINY & CR TRENTON	Overhead	Street Road	MP19.68	Treose
NESHAMINY & CR TRENTON	Overhead	Old Street Road	MP19.72	Treose
NESHAMINY & CR TRENTON	Undergrade	Bristol Road	MP21.22	Neshaminy Falls
NESHAMINY & CR TRENTON	Overhead	Route 281	MP21.82	Neshaminy Falls
NESHAMINY & CR TRENTON	Undergrade	Route 133	MP23.22	Langhorne
NESHAMINY & CR TRENTON	Overhead	Hulmeville Road	MP23.16	Langhorne
NESHAMINY & CR TRENTON	Undergrade	Flowers Mill Road	MP24.85	Langhorne
NESHAMINY & CR TRENTON	Overhead	Route 213	MP25.32	Woodbourne
NESHAMINY & CR TRENTON	Overhead	Route 281	MP26.28	Woodbourne
NESHAMINY & CR TRENTON	Overhead	Interstate 95	MP27.70	Woodbourne
NESHAMINY & CR TRENTON	Undergrade	Main Street & Reading Avenue	MP30.70	Yardley
NESHAMINY & CR TRENTON	Undergrade	Grand Avenue	MP32.40	West Trenton
NORRISTOWN	Undergrade	Allegheny Avenue	MP3.83	Allegheny
NORRISTOWN	Undergrade	21 st Street	MP3.87	Allegheny
NORRISTOWN	Undergrade	22 nd Street	MP3.96	Allegheny
NORRISTOWN	Overhead	Fox Street	MP4.20	Allegheny
NORRISTOWN	Undergrade	Hunting Park Avenue	MP4.51	Allegheny
NORRISTOWN	Overhead	Henry Avenue	MP4.74	Allegheny
NORRISTOWN	Undergrade	Roosevelt Avenue	MP5.14	East Falls
NORRISTOWN	Undergrade	Midvale Avenue	MP5.49	East Falls
NORRISTOWN	Overhead	Calumet Street	MP5.57	East Falls
NORRISTOWN	Overhead	Ridge Avenue	MP6.54	Wissahickon

Railroad Line	Undergrade or Overhead Bridge?	Name of Roadway	Railroad Milepost	Nearest Railroad Passenger Station
NORRISTOWN	Undergrade	Jamestown Street	MP7.13	Manayunk
NORRISTOWN	Undergrade	Pensdale Street	MP7.20	Manayunk
NORRISTOWN	Undergrade	Leverington Avenue	MP7.87	Manayunk
NORRISTOWN	Undergrade	Fountain Street	MP8.12	Manayunk
NORRISTOWN	Overhead	Fayette Street	MP13.48	Conshohocken
NORRISTOWN	Overhead	Interstate 476 "Blue Route" (2 bridges)	MP14.16 & 14.18	Conshohocken
NORRISTOWN	Overhead	Pennsylvania Turnpike	MP15.96	Mogeess (out of service)
NORRISTOWN	Undergrade	DeKalb Street	MP17.16	Norristown TC
NORRISTOWN	Overhead	Route 202	MP17.54	Main Street
NORRISTOWN	Overhead	Airy Street	MP17.75	Main Street
WARMINSTER	Undergrade	Hamilton Avenue	MP3.13	Cresmont
WARMINSTER	Overhead	Welsh Road	MP3.51	Cresmont
WARMINSTER	Undergrade	Terwood Road	MP5.13	Willow Grove
WARMINSTER	Overhead	Pennsylvania Turnpike	MP5.59	Fulmor (out of service)
WEST CHESTER	Overhead	Walnut Street	MP1.44	University City
WEST CHESTER	Overhead	South Street	MP1.70	University City
WEST CHESTER	Undergrade	University Avenue	MP2.25	University City
WEST CHESTER	Overhead	47 th Street	MP2.89	49 th Street
WEST CHESTER	Overhead	Woodland Avenue	MP2.97	49 th Street
WEST CHESTER	Overhead	Kingsessing Avenue	MP3.17	49 th Street
WEST CHESTER	Overhead	49 th Street	MP3.20	49 th Street
WEST CHESTER	Overhead	Chester Avenue	MP3.29	49 th Street
WEST CHESTER	Undergrade	Springfield Avenue	MP3.43	49 th Street
WEST CHESTER	Overhead	52 nd Street	MP3.74	49 th Street
WEST CHESTER	Overhead	Whitby Avenue	MP3.93	Angora
WEST CHESTER	Overhead	Thomas Avenue	MP4.03	Angora
WEST CHESTER	Undergrade	55 th Street	MP4.23	Angora
WEST CHESTER	Overhead	57 th Street	MP4.40	Angora
WEST CHESTER	Overhead	58 th Street	MP4.52	Angora
WEST CHESTER	Undergrade	Cobbs Creek Road	MP4.79	Angora
WEST CHESTER	Overhead	Church Lane	MP5.53	Fernwood
WEST CHESTER	Overhead	Lansdowne Avenue	MP6.37	Lansdowne
WEST CHESTER	Undergrade	Darby Creek Road	MP7.11	Gladstone
WEST CHESTER	Undergrade	Springfield Avenue	MP7.65	Clifton-Aldan
WEST CHESTER	Undergrade	Chester Road Route 320	MP11.27	Swarthmore
WEST CHESTER	Overhead	College Road	MP11.59	Swarthmore
WEST CHESTER	Undergrade	Interstate 476 "Blue Route"	MP12.09	Wallingford
WEST CHESTER	Overhead	Providence Road	MP12.58	Wallingford
WEST CHESTER	Overhead	Manchester Avenue	MP13.36	Moylan

Railroad Line	Undergrade or Overhead Bridge?	Name of Roadway	Railroad Milepost	Nearest Railroad Passenger Station
WEST CHESTER	Undergrade	Park Avenue	MP13.81	Media
WEST CHESTER	Overhead	Orange Street	MP13.96	Media
WEST CHESTER	Undergrade	Ridley Creek Road	MP14.41	Media
WEST CHESTER	Overhead	Indian Lane	MP14.60	Elwyn
WEST CHESTER	Overhead	Middletown Road	MP15.42	Elwyn

QUICK REFERENCE of SEPTA RAILROAD YARD & MAINTENANCE FACILITIES
(Refer to Schematic Map of SEPTA Railroad System for General Location of Branch Line)

Railroad Line	Name of Yard Facility	Primary Function(s)	Location & Access	Occupancy
CHESTNUT HILL EAST	Chestnut Hill East Yard	(yard currently not utilized)	Adjacent to Chestnut Hill East passenger station located at Chestnut Hill Avenue and Bethlehem Pike; easily accessed from parking lot or station platform	(yard currently not utilized)
CHESTNUT HILL WEST	Chestnut Hill West Station Tracks	Utilized as turnaround point only; equipment not stored overnight	Adjacent to Chestnut Hill West passenger station located at Germantown & Evergreen Avenues; easily accessed from parking lot or station platform	Tower operator on duty daily between approximate hours of 6:00 a.m. and midnight
DOYLESTOWN	Doylestown MU Yard	Utilized for overnight storage of equipment	Adjacent to Doylestown passenger station located at Clinton Avenue & Bridge Street; easily accessed from parking lot or station platform	Car inspector on duty nightly Sunday through Thursday from approximately 11:00 p.m. to 7:00 a.m.
MAIN LINE	Powelton Avenue Yard	Major facility utilized for inspection, running repairs, and equipment storage; small maintenance shop; crew quarters facility near 34 th Street; yard supervisor facility near shop	Near 30 th Street passenger station; accessed via narrow vehicular undergrade tunnel from Amtrak property near yard facility, from Amtrak Maintenance yard, or from 34 th Street near crew quarters	Occupied 24 hours per day by SEPTA supervision
MAIN LINE	Roberts Avenue Yard & Maintenance Facility	Major maintenance facility utilized for inspection, heavy maintenance, and equipment storage; large maintenance shop nearest main tracks, overhead catenary wires inside on 2 tracks; crew quarters and yard supervisor facility near parking lot	Near Wayne Junction passenger station; accessed from Roberts Avenue near Roosevelt Boulevard overpass	Occupied 24 hours per day by SEPTA supervision
MAIN LINE	Wayne Junction Electric Car Shop	Major maintenance facility utilized for inspection, heavy maintenance, and equipment storage; large maintenance shop, no catenary wires inside	Near Wayne Junction passenger station; accessed via driveway off Germantown Avenue underneath station; also can be accessed from 18 th Street near undergrade	Occupied by shop personnel between approximate hours of 6:00 a.m. and midnight, Monday through Friday; closed on weekends
MAIN LINE	Lansdale MU Yard	Utilized for overnight storage of equipment	Adjacent to Lansdale passenger station lower parking lot; accessed through driveway off Main Street or through upper parking lot via 5 th Street	Car inspector on duty nightly Sunday through Thursday from approximately 11:00 p.m. to 7:00 a.m.

Railroad Line	Name of Yard Facility	Primary Function(s)	Location & Access	Occupancy
NESHAMINY & CR TRENTON	West Trenton MU Yard	Utilized for overnight storage of equipment and turnaround point	Adjacent to old railroad tower building (presently crew quarters) located just north of West Trenton passenger station along Railroad Avenue	Car inspector on duty nightly Sunday through Thursday from approximately 11:00 p.m. to 7:00 a.m.
NORRISTOWN	Norristown MU Yard	Utilized for overnight storage of equipment	Adjacent to Norristown Elm Street passenger station; accessed through parking lot off Markley Street	Car inspector on duty nightly Sunday through Thursday from approximately 11:00 p.m. to 7:00 a.m.
WARMINSTER	Warminster MU Yard	Utilized for overnight storage of equipment	Adjacent to Warminster passenger station; accessed through parking lot off Jacksonville Road @ Station Road; also accessed from Park Avenue	Car inspector on duty nightly Sunday through Thursday from approximately 11:00 p.m. to 7:00 a.m.
WEST CHESTER	Media MU Yard	Utilized for overnight storage of equipment	Adjacent to Media passenger station; accessed through parking lot off Station Road & Orange Street	Car inspector on duty nightly Sunday through Thursday from approximately 11:00 p.m. to 7:00 a.m.
AMTRAK HARRISBURG	Overbrook Yard & Maintenance Facility	Major maintenance facility utilized for inspection, heavy maintenance, and equipment storage; large maintenance shop, overhead catenary wires inside on 1 track; smaller maintenance shop in close proximity	Adjacent to Amtrak's main tracks just east of Overbrook passenger station; accessed through driveway at 56 th street and Upland Way	Occupied by shop personnel between approximate hours of 6:00 a.m. and midnight, Monday through Friday; closed on weekends
AMTRAK HARRISBURG	Frazer Yard & Shop Facility	Major maintenance facility utilized for inspection, heavy maintenance, and equipment storage; large maintenance shop, no catenary wires inside; crew facility in close proximity	Adjacent to Amtrak's main tracks; accessed through gate located on Sproul Road just off Lincoln Highway	Occupied 24 hours per day by SEPTA supervision

APPENDIX "K"

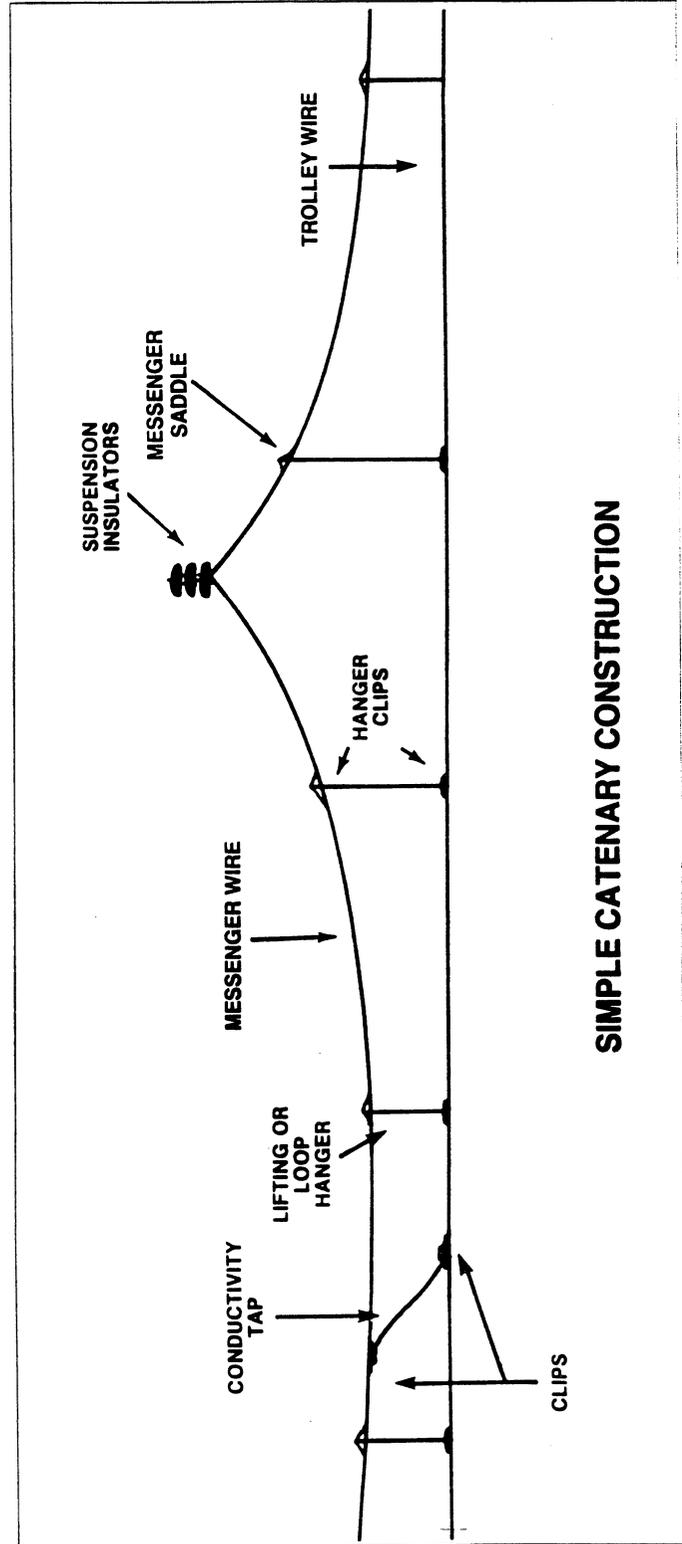


Electric Traction Instructions

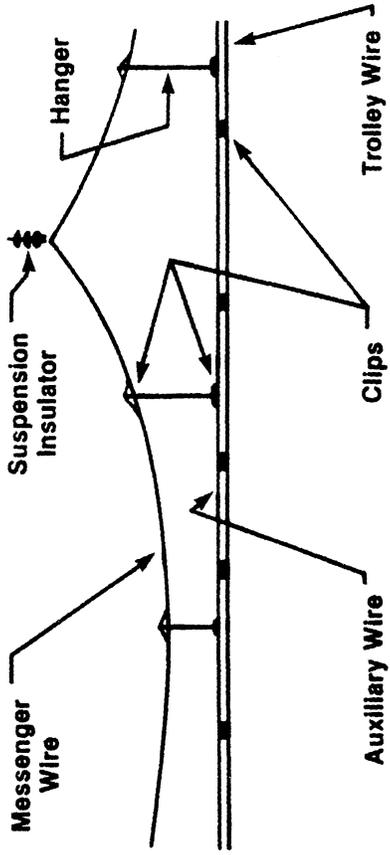
ET 001

For the Government of all SEPTA
Railroad Division
Train & Engine Service Personnel,
Train Dispatchers, Towerpersons, Facilities
Personnel, R.E.D. Personnel, Supervisors,
and Employees of Foreign Railroads
Operating on SEPTA Territory

Revised July 1, 1990



SIMPLE CATENARY CONSTRUCTION



**CATENARY IDENTIFICATION
COMPOUND CATENARY**

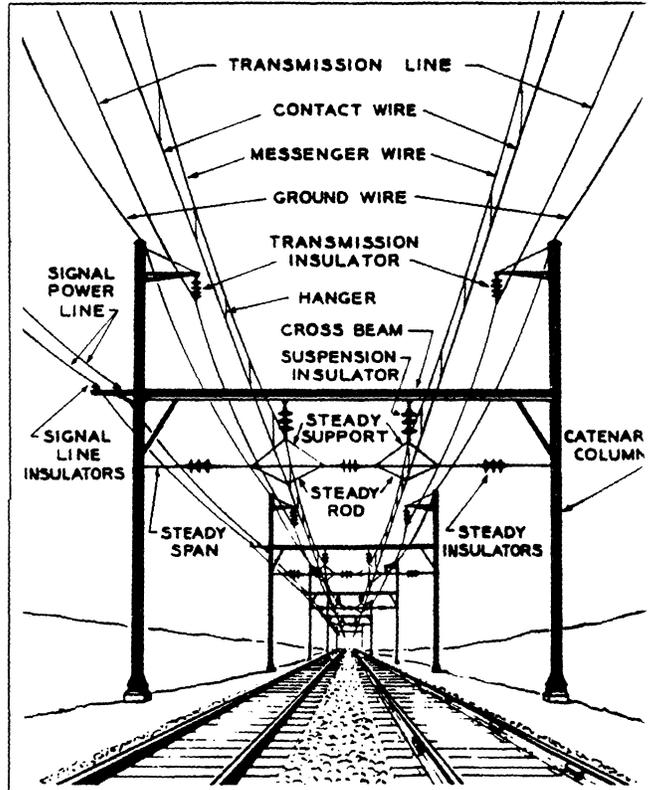


Figure 1. Overhead Electrification.

APPENDIX "L"

SECTION 7. CATENARY TO RAIL CLEARANCE AT BRIDGES.			
7.1 AIRPORT LINE			
Location	Single Track	No. 1 Track	No. 2 Track
58th Street	16'-0"		
Lindbergh Blvd.	18'-5¼"		
61st Street		19'-1¾"	19'-1¾"
63rd Street		19'-1"	19'-0"
70th Street		19'-0"	19'-0"
Island Road		18'-6"	18'-2"
84th Street		20'-3"	20'-6"
Ramp "A" Airport		17'-0"	17'-0"
Ramp "L" Airport		16'-6"	16'-6"
Pedestrian Bridge "A" to end of track		16'-0"	16'-0"
7.2 CHESTNUT HILL EAST LINE			
Location		No. 1 Track	No. 2 Track
Mt. Airy Avenue		17'-2"	17'-5"
Gravers Lane		17'-2"	17'-0"
Gowen Avenue		16'-5"	16'-10"
Summit Avenue		16'-4"	16'-9"
Evergreen Avenue		Not Attached	

7.3 CHESTNUT HILL WEST LINE			
Location	No. 1 Track	No. 2 Track	
Budd Building	18'-6"	18'-9"	
Abbotsford Avenue	17'-6"	17'-5"	
Wissahickon Avenue	15'-10"	15'-10"	
Queen Lane	16'-3"	16'-3"	
Queen Lane Foot Bridge	Not Attached		
Coulter Street	15'-6"	15'-10"	
Morris Street	16'-0"	16'-0"	
School House Lane	16'-3"	16'-7"	
Chelton Avenue	16'-3"	16'-3"	
Walnut Lane	16'-2"	16'-1"	
Wayne Avenue	16'-0"	16'-0"	
Foot Bridge	16'-7"	16'-5"	
Johnson Street	16'-5"	16'-5"	
Allen Lane	16'-0"	16'-1"	
Willow Grove Avenue	15'-8"	15'-4"	
Hartman Lane Foot Bridge	15'-11"	16'-3"	
Highland Avenue	16'-2"	16'-7"	
7.4 CR TRENTON/FOX CHASE LINE			
Location	Single Track	No. 1 Track	No. 2 Track
Olney Avenue		19'-1"	19'-2"
Levick Street		20'-8"	20'-11"
Martins Mill Road/ Old Soldiers Road	17'-8"		
Pine Road	18'-9"		

7.5 MAIN LINE/DOYLESTOWN LINE				
Location	No. 1 Track	No. 2 Track	No. 3 Track	No. 4 Track
Broad and Lehigh	16'-10½"	16'-9"	16'-8"	16'-8"
Glenwood Avenue	18'-4"	18'-7"	18'-4"	17'-0"
American Express	17'-1"	17'-8"	17'-6"	16'-9"
Amtrak Main	16'-5"	16'-4"	16'-2"	16'-1"
Chestnut Hill West (Lower)	16'-3"	16'-5"	16'-1"	16'-1"
Indiana Avenue	16'-5"	16'-4"	16'-1"	16'-4"
Chestnut Hill West (Upper)	16'-1"	16'-0"	16'-4"	16'-2"
66th Avenue	16'-10"	16'-5"		
Oak Lane	17'-4"	17'-1"		
Prospect Avenue Foot Bridge	20'-8"	20'-6"		
Union Avenue	20'-8"	20'-6"		
Church Road	20'-11"	20'-3"		
Summit Avenue	17'-7"	17'-4"		
Bridge Street, Oreland	18'-2"	18'-3"		
Bethlehem Pike, Ft. Washington	17'-2"	17'-5"		
Church Road, N. Wales	16'-11"	17'-0"		
PA Avenue, N. Wales	19'-6"	19'-10"		
	Single Track			
Route 152 (Main Street, Chalfont)	16'-6"			
7.6 IVY RIDGE LINE				
Location	Single Track			
City Line Avenue	17'-9"			
Union Avenue	17'-8"			
Montgomery Avenue	18'-1"			
Belmont Avenue	20'-3"			

7.7 NESHAMINY LINE/CR TRENTON LINE				
Location	No. 1 Track	No. 2 Track	Siding Tracks	Single Track
Walnut Street	21'-0"	20'-11"	21'-2"	21'-2"
York Road	16'-10"	16'-11"		
Huntington Pike	20'-3"	20'-1"		
Bustleton Pike	20'-0"	19'-10"		
PA Turnpike	22'-6"	22'-1"		
Street Road	22'-2"	21'-2"		
Old Street Road	21'-2"	20'-2"		
Humeville Road	20'-0"	20'-0"		20'-0"
Route 213	20'-4"	20'-3"		20'-4"
I-95/Route 1 Connection	21'-4"	21'-0"		21'-7"
CR Trenton Cut-Off	17'-8"	17'-11"		18'-3"
I-95 South	20'-5"	19'-7"		
I-95 North	20'-6"	20'-3"		

7.8 NORRISTOWN LINE			
Location	No. 1 Track	No. 2 Track	
Indiana Avenue	16'-0"	16'-0"	
Fox Street	16'-7"	16'-8"	
Henry Avenue	17'-8"	17'-7½"	
Calumet Street	16'-10"	16'-10"	
Ridge Avenue	17'-3"	17'-3"	
Dawson Street Foot Bridge	16'-11"	16'-10"	
SEPTA Ivy Ridge Line	17'-2"	16'-9"	
Fayette Street, Conshohocken	21'-6"	21'-6"	
Allenwood Steel	Not Attached	Not Attached	
Norristown HSL	18'-11"		
Route 202	21'-7"		
CR Bridge, Norristown	20'-3"		

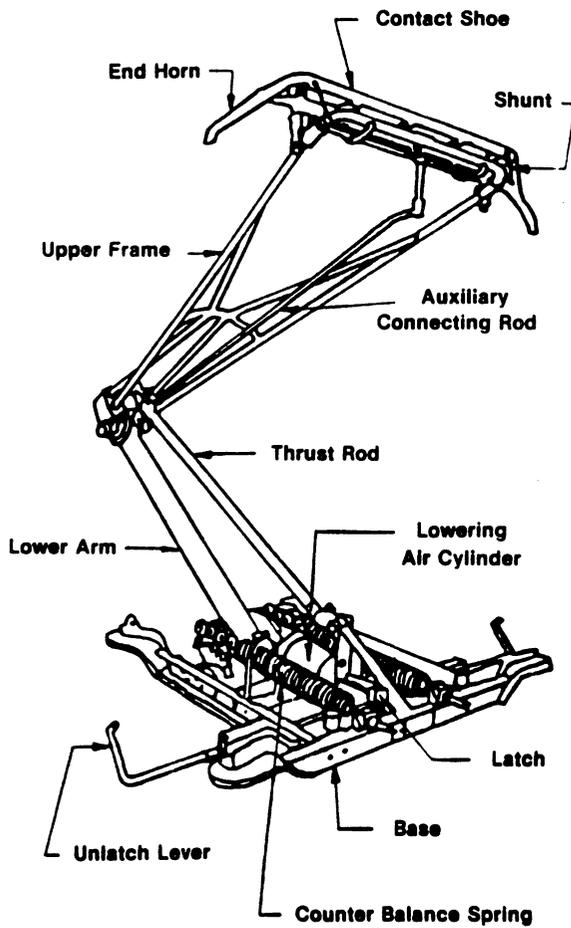
7.9 WARMINISTER LINE	
Location	Single Track
CR Trenton Cut-Off	17'-5"
PA Turnpike	Not Attached
Welsh Turnpike	Not Attached

7.10 WEST CHESTER LINE			
Location	Single Track	No. 1 Track	No. 2 Track
47th Street		17'-5"	17'-8"
Woodland Avenue		16'-8"	16'-8"
Kingsessing Avenue		16'-5"	16'-7"
49th Street		16'-8"	16'-5"
Chester Avenue		16'-5"	16'-4"
Warrington Foot Bridge		17'-1"	17'-2"
52nd Street		16'-9½"	17'-2"
Whitby		17'-0"	16'-10"
Thomas Avenue		17'-9"	17'-10"
57th Street		18'-0"	17'-7½"
58th Street		18'-5"	17'-8"
Church Road		18'-3"	17'-10"
Lansdowne Avenue		20'-7"	20'-6"
College Avenue		17'-6"	18'-0"
Wallingford Foot Bridge		19'-6"	19'-5"
Providence Road		16'-11"	16'-9"
Orange Street	17'-7"		
Mermaid Lane	17'-2"		
Route 352	22'-6"		
Route 452	18'-3"		
Westtown	16'-10"		
Route 202	19'-6"		
Off Bolar Road	17'-1"		

APPENDIX "M"

4

FAIVELEY PANTOGRAPH

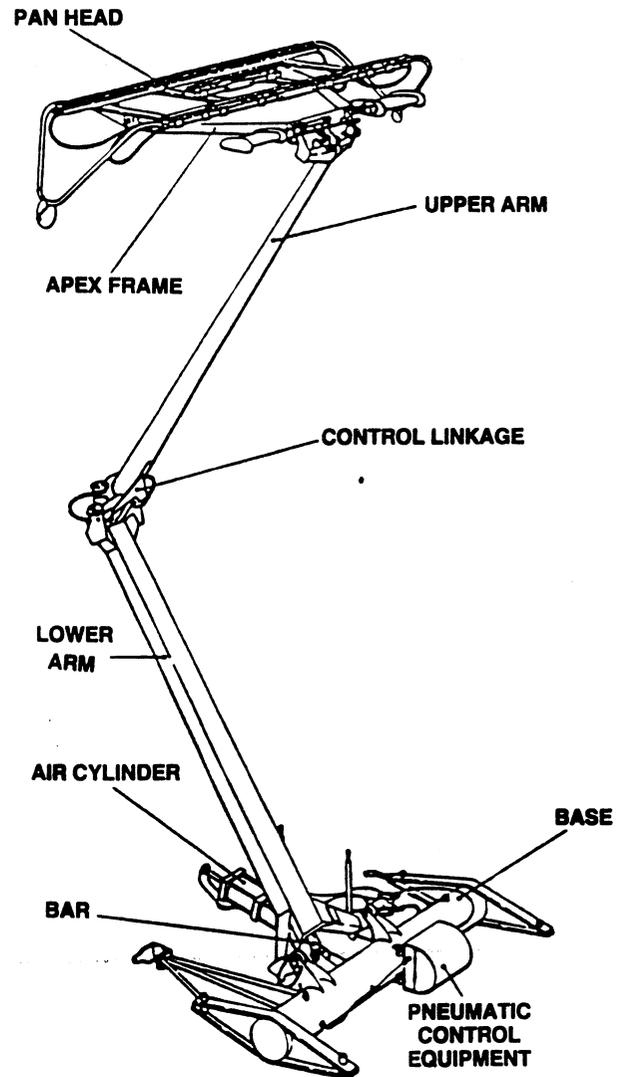


EQUIPMENT APPLICATION:

1. SILVERLINER II (BUDD)
2. SILVERLINER III (ST. LOUIS)
3. SILVERLINER IV (GENERAL ELECTRIC)

5

BRECKNELL-WILLIS HI-SPEED PANTOGRAPH



EQUIPMENT APPLICATION:

1. AEM 7 LOCOMOTIVE

RROC EMERGENCY RESPONSE INCIDENT REPORT FORM

INSTRUCTIONS: This form is to be completed by STO or designee only for events involving an emergency situation where *one or more outside emergency response organization(s) has been notified and responded, or has responded without notification.* This includes any response by police, fire, medical, or rescue services (including persons who may coincidentally be on board train or on property, such as doctors or off-duty police officers.) This form must be completed for incidents that include, but are not limited to, the following types of events: 1) on-board or on-property illness or injury to passenger or employee, 2) suicides or striking trespasser, 3) derailments or collisions, 4) incidents of fire or smoke, 5) train evacuations, 6) security situations.

CHECK or ENTER APPROPRIATE INFORMATION AS FOLLOWS (If not applicable, enter N/A):

Date of Occurrence:	Time of Occurrence:	Location of Occurrence (indicate if on-board train including train number, at a station, etc.):
If on board passenger train, was train <input type="checkbox"/> en route <input type="checkbox"/> standing when report was received?		
Indicate type of emergency:		
Who initiated report of occurrence? <input type="checkbox"/> on-board crew member <input type="checkbox"/> other employee <input type="checkbox"/> non-employee Name (if known):		
How was notification made to RROC? <input type="checkbox"/> on-board train radio <input type="checkbox"/> railroad telephone <input type="checkbox"/> public telephone <input type="checkbox"/> cell phone <input type="checkbox"/> other If other, explain:		
Did RROC notify emergency response organization(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate who was notified:		
Was information from reporting individual(s) accurate enough to initiate appropriate response? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, explain:		
Estimated time that elapsed between actual occurrence of the event and notification to RROC:		
Estimated time that elapsed between RROC receiving notification and notification to emergency responder(s):		
Estimated time that elapsed between RROC notification to emergency responder(s) and actual response:		
Was a fire extinguisher discharged? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate by whom:		
Was train evacuated? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, did STO make decision to evacuate? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate by what method (train-to-train, train-to-roadbed, etc.):		
Was power de-energized? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate approximately how long:		
Was train significantly delayed awaiting response? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate approximate time of delay:		
OTHER PERTINENT INFORMATION:		

FORWARD COMPLETED FORM WITHIN 3 WORKING DAYS TO: Director - Railroad Administration and Finance, 14th Floor, 1234 Market Street, Philadelphia, PA 19107

APPENDIX "N" - Original 10/31/98

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY RAILROAD DIVISION

**RECORD OF DEBRIEFING AND CRITIQUE SESSION
HELD IN ACCORDANCE WITH 49 CFR 239.105**

PART ONE - General Information

<input type="checkbox"/> Actual Passenger Train Emergency Situation To Which Emergency Response Was Initiated <input type="checkbox"/> Passenger Train Emergency Simulation Drill Conducted In Conjunction With Outside Agencies	
Date of Event:	Location of Event:
Date of Debriefing & Critique Session:	Location of Debriefing & Critique Session:
Names and Titles of Participants Attending Debriefing & Critique Session (Attach Additional Sheet If Necessary)	
Name and Title:	<input type="checkbox"/> employee <input type="checkbox"/> non-employee
Name and Title:	<input type="checkbox"/> employee <input type="checkbox"/> non-employee
Name and Title:	<input type="checkbox"/> employee <input type="checkbox"/> non-employee
Name and Title:	<input type="checkbox"/> employee <input type="checkbox"/> non-employee
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Name and Title:	<input type="checkbox"/> employee <input type="checkbox"/> non-employee
Name and Title:	<input type="checkbox"/> employee <input type="checkbox"/> non-employee
Name and Title:	<input type="checkbox"/> employee <input type="checkbox"/> non-employee

PART TWO - Summary of Effectiveness of Emergency Preparedness Plan

(Summary must include, but is not limited to, functional capabilities of on-board communications, timeliness of notifications, efficiency of responders, emergency egress of passengers where initiated):

(SEE ATTACHMENT)

APPENDIX "O" - Original 10/31/98

(NOTE: This record must be held for two calendar years following the calendar year to which it relates.)

Bucks County	
Agency Name	Agency Number
Bensalem Police Department	:215-639-3700
Bristol Boro Police Department	:215-788-7813
Bristol Township Police Department	:215-785-4040
Buckingham Police Department	:215-794-8811
Calfont Boro Police Department	:215-822-2606
Doylestown Township Police Department	:215-348-4200
Huimeville Police Department	:215-757-1700
Langhorne Police Department	:215-757-5911
Langhorne Boro Police Department	:215-752-5072
Lower Makefeild Police Department	:215-493-4055
Lower Southampton Police Department	:215-357-1234
Middletown Township Police Department	:215-949-1000
Morrisville Police Department	:215-295-8111
New Britan Police Department	:215-345-1080
New Britan Township Police Department	:215-8221919
Newtown Township Police Department	:215-968-5085
Newtown Police Department	:215-356-0602
Northampton Police Department	:215-322-6111
Northampton Boro Police Department	:215-262-2424
Penndel Police Department	:215-757-5151
Springfield Police Department	:610-3467600
Tinicum Police Department	:610-982-5411
Tullytown Police Department	:215-945-0999
Upper Makefeild Police Department	:215-968-3020
Upper Southampton Police Department	:215-357-8900
Warminster Police Department	:215-443-5000
Warrington Police Department	:215-343-3311
Warwick Police Department	:215-343-0100
Wrightstown Police Department	:215-794-8812
Bucks County Sheriff's Office	:215-348-6124
Bucks County Court House	:215-348-6271
Chester County	
Agency Name	Agency Number
Doylestown Boro Police Department	:610-269-0263
East Whiteland Police Department	:610-647-2100
Salisbury Police Department	:610-797-1447
Weast Whiteland Police Department	:610-363-0200
Chester County Sheriff's Office	:610-344-6850
Chester County Court House	:610-344-6000

APPENDIX "P"

Delaware County

Agency Name	Agency Number
Aston Police Department	610-566-2800
Avondale Police Department	610-268-8501
Chester Township police department	610-494-0211
Chester Police Department	610-447-7935
Clifton Heights	610-623-3242
Collingdale Police Department	610-586-0502
Darby Police Department	610-586-1100
Darby Township Police Department	610-583-3245
Eggestone Police Department	610-8749325
East Lansdowne	610-259-2308
Folcroft Police Department	610-522-1300
Glenolden Police Department	610-565-6500
Lansdowne Police Department	610-565-6500
Lower Providence Police Department	610-539-5900
Marcus Hook Police Department	610-485-1611
Marpie Police Department	610-356-1500
Media Police Department	610-565-6655
Millbourne Police Department	610-352-1450
Nether Providence Police Department	610-566-4516
Newton Township Police Department	610-356-0602
Norwood Police Department	610-461-2308
Radnor Police Department	610-688-0500
Prospect Park Police Department	610-534-2222
Ridley Park Police Department	610-532-9631
Ridley Police Department	610-532-4000
Sharon Hill Police Department	610-237-6200
Springfeild Police Department	610-544-1100
Swarthmore Police Department	610-543-0122
Tinicum Police department	610-521-3830
Trainer Police department	610-494-7399
Upland Police Department	610-872-3040
Upper Darby Police Department	610-352-7050
Upper Dublin Police department	610-646-2100
Yeadon Police Department	610-623-1500
Sheriff's Office	610-891-4296
Delaware County Court House	610-891-4000

Montgomery County

Agency Name	Agency Number
Abington Police Department	215-884-2700
Ambler Police Department	215-643-6444

Cheltenham Township Police Department	215-885-1600
Conshohocken Police Department	610-828-4031
Downingtown Police Department	610-269-0263
Hatboro Police department	215-675-4400
Hatfield Police Department	215-855-0903
Horsham Police Department	215-672-2800
Jenkintown police Department	215-884-1200
Lansdale Police Department	215-368-1800
Lower Moreland Police Department	215-947-3131
Montgomery Township Police Department	215-362-2300
Narbeth Police Department	610-664-2840
North Wales Police Department	215-699-9279
Norristown Police Department	610-272-1111
Peribrook Police Department	610-863-4181
Plymouth Police Department	610-279-1900
Telford Police Department	215-723-4858
Upper Merion Police Department	610-265-3232
Upper Moreland Police Department	215-659-1600
West Norriton Police Deptatment	610-630-1700
Whitemarsh Police Department	610-828-8000
Whitpain Police Department	610-275-1222
Sheriff's Office	610-278-3331
Montgomery County Court House	610-278-3000

Philadelphia Police Districts

1st District	215-686-3010
2nd District	215-686-3020
3rd District	215-686-3030
4th District	215-686-3040
5th District	215-686-3050
6th District	215-686-3060
7th District	215-686-3070
8th District	215-686-3080
9th District	215-686-3090
12th District	215-686-3120
14th District	215-686-3140
15th District	215-686-3150
16th District	215-686-3160
17th District	215-686-3170
18th District	215-686-3180
19th District	215-686-3190
22nd District	215-686-3220
23rd District	215-686-3230
24th District	215-686-3240

25th District	:215-686-3250
26th District	:215-686-3260
35th District	:215-686-3350
39th District	:215-686-3390
Philadelphia Court House	:215-686-1776
Philadelphia Sheriff's Office	:215-686-1776
Philadelphia D.A's office	:215-686-8000
Philadephia Police Civil Affairs	:215-592-5657
Septa Transit Police Zone H.Q.	
Zone-1	:#3943/3950
Zone-2	:#5749/5803
Zone-3	:#8162/8163
Zone-4	:#4972/4973
Zone-5	:#5749/5803
Zone-6	:#5071/5073
Zone-7	:#5235/5236
Zone8	:#7313/7693
Radio Room Emergency	:#4131/4132
Radio Room Non-Emergency	:#8111/4487