

WPNSTAEINST 11230.1C

**RAILROAD OPERATIONS
STANDARD OPERATING
PROCEDURE**



ENCLOSURE 1

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REFERENCES:

- a. WPNSTAEINST 11230.1C: Railroad Operations and crane/railroad trackage
- b. NAVFAC P-301: Navy Railway Operating Handbook
- c. NAVSEA Ordnance Pamphlet (OP) 5, Volume 1: Ammunition and Explosives Ashore safety Regulations for Handling, Storing, Renovation and Shipping
- d. WPNSTAEINST 5100.1: Station Safety Manual
- e. WPNSTAEINST 5510.5: Station Police Standing Orders
- f. WPNSTAEINST 5530.14: Naval Weapons Station Earle Physical Security and Loss Prevention Manual
- g. NAVSEA OP 3681: Technical Manual: Motor Vehicle & Railcar Shipping Inspector's Manual for Ammunition, Explosives, and other Hazardous Materials.
- h. NAVFAC INSTRUCTION 11230.1d: Inspection, Certification, and Audit of Crane and Railroad Trackage
- i. NAVSEA SW023-AG-WHM-010: On Station Movement of Ammunition and Explosives by Truck & Railcar (formerly OP 4461)
- j. NAVFAC P-306: Testing and Licensing of Weight Handling and Construction Equipment Operators
- k. WPNSTAEINST 11320.4A: Fire Regulations and Safety Requirements for Contractors

2. STANDARD COMMENTS:

2-1. **STATEMENT OF SAFETY POLICY:** It is NWS-Earle policy that all rail operations must be conducted in a safe manner. All injuries and property damage can be prevented. Management and employees are responsible for maintaining safe working conditions and preventing mishaps. Carrying out work functions in a safe manner is more important than meeting deadlines and production schedules. Every NWS-Earle employee is an active member of the Station safety team.

2-2. **STATEMENT OF STANDARD CODE POLICY:** Operation of Navy-owned Railroad Systems are comprised primarily of yard and transfer movements of freight cars. Passenger service is not provided nor is movement controlled by timetables. Main line type functions are limited to activity tracks traversing short distances between various areas/sub-sections of the station complex. The Navy railroad system is a captive system but, it does interface with the commercial carrier railroad system. Commercial freight cars do operate within Navy activities, however, Navy-owned railroad rolling stock do not normally operate on commercial systems. The operating procedures prescribed by the commercial railroad industry were developed over many years and have been refined as a result of lessons learned from mishaps, injury, derailments, accidents and fatal accidents. As a result, The Standard Code of Operating Rules has been developed by the Association of American Railroads (AAR) to govern railroad operations. The Standard deals primarily with main line passenger and freight operation, the movement of which is authorized and operated by timetables. This standard code or some variation of the code has been adopted by the major commercial railroads throughout the United States. It is appropriate that operating rules and procedures governing the operation of the Navy-owned system be consistent with the rules of the commercial system. However, the Standard Code is not applicable to Navy operations in all cases. Portions are appropriate, and the general operating principles apply. This SOP has adopted the Standard Code where possible. Some rules have been modified, expanded and/or reworded to provide meaning within the context of the Navy railroad operating situation.

2-3 **MOVEMENT REQUIREMENTS:** The Railroad Section, Operations Branch, Transportation Division, at PWC Site Earle is responsible for executing all rail movements developed and requested by other organizational elements of the Station. In order for railroad service to be performed in an orderly and efficient manner, the following guidelines are prescribed to coordinate processing of movement requirements:

2-3.1 Authority for requesting railroad car movements and placement shall be limited to department heads or their designated representatives. Car moves shall be requested by telephone, memorandum, intercom, or two-way radio from the Railroad Section Supervisor/dispatcher on duty.

2-3.2 Individuals requesting car movements shall furnish the Railroad Section supervisor/dispatcher with the following information: authority for the move, car number, general description of the contents of the car (explosives, inert material, empty), status of blocking and bracing, status of seals, location, time to be picked up, destination (building number, door number, track or spot number), and time to be delivered.

2-3.3 **MOVEMENT OF RAILCARS OVER NON-CERTIFIED TRACKAGE:** Refer to Procedure # 16 of the Method Description of this SOP for detailed instruction for conducting such movements.

2-3.4 One engineer and one trainman are permitted to conduct certain non-explosives bearing "short draft" train operations. Short draft trains are normally not permitted to transport ammunition & explosives.

2-3.5 Occasionally, a member of the crew must act as a safety observer while the train is moving. In this situation, the safety observer shall dedicate all of his attention to observing the train movement. Railroad operations must be conducted by the remaining crewmembers. If the safety observer is required to execute a task (such as throwing a switch), then the train must cease movement while the safety observer is so engaged.

2-4. **LICENSING & CERTIFICATION REQUIREMENTS:** All Engineers, Conductors and Braker-Switchers who operate ammunition and explosive laden trains at Naval Shore Stations must have two separate and distinct operating authorization documents; an operator's license and an explosive handling certification.

2-4.1 **LICENSING** All personnel serving as a train crew member are required to be trained and licensed in accordance with reference (). This includes the engineer, the conductor and the braker-switcher. Each of the three train crew positions requires a separate set of tests and license annotation.

2-4.1.1 Each prospective operator shall be examined with respect to the rules and regulations governing equipment operation and shall be given a performance test to insure the proficiency level necessary to safely operate the equipment. per reference (j).

2-4.1.2 If considered qualified; an operator's permit shall be issued. The permit authorizes the operation of equipment on the rails when and as required, and only after specific permission has been obtained from the Railroad Section supervisor/dispatcher in each instance.

2-4.1.3 The licensing process is performed using written tests, performance tests, physical examinations and other processes leading to the issuance of the license.

2-4.1.4 The person giving the license performance examination must be licensed in the position for which he is giving the examination.

2-4.1.5 Heavy Equipment and Railcar Maintenance Personnel shall be licensed to operate equipment incidental to maintenance only.

2-4.1.6 In addition, reference (j) requires that the activity commanding officer designate the official and organization responsible for management and administration of the program and for licensing of the railroad equipment operators.

2-4.1.7 The person giving the license performance examination shall be appointed in writing by the Base Civil Engineer. He shall hereinafter be referred to as the "Licensing Examiner."

2-4.1.8 The Licensing Examiner shall schedule all renewals and conduct procedures for new issues. All licenses records shall be maintained by the Licensing Examiner at the Railroad Tower.

2-4.2 **CERTIFICATION REQUIREMENTS:** Reference (c) specifies that individuals engaged in operations involving ammunition, explosives and like hazardous material must be qualified and certified to perform their assigned duties. The

purpose of this certification requirement is to ensure that personnel who are involved with the handling of explosives have been carefully instructed in the safety precaution and regulations governing the function, task, or evolution they are to perform.

2-4.2.1 **Qualification/Certification of Personnel:** All railroad operations personnel involved in explosive ordnance shall be qualified and certified in accordance with reference (c). The Railroad Section supervisor shall ensure that they receive their initial certification and are scheduled for annual recertification.

2-4.2.2 Since the Railroad Section supervisor/dispatcher has a direct effect on the operation equipment and must have an explosive handling certification.

2-4.2.3 **Decertification of Personnel:** Railroad equipment operators may be decertified for:

2-4.2.3.1 Failing to obtain recertification.

2-4.2.3.2 Failing to follow this SOP or its references without the approval of appropriate authority. The PWC Operations Superintendent shall determine what levels of authority are required to deviate from the policies outlined in this SOP.

2-4.2.4 Decertification shall be approved at a level not lower than the PWC Operations Manager.

2-5. **RAILROAD OPERATIONS:** Operations are primarily yard and transfer movements; i.e., train breakdown and make up, movement of trains for shipment and storage operations throughout the station to and from interchange yards, inspection points, barricades, storage magazines, segregation and transfer points, piers, and maintenance facilities. Main line operations are limited to on-station trackage between sub-divisions of the station. The various organizational functions defined in reference (b) have been consolidated into a more compact organization at Public Works Center, Earle Area Site.

2-5.1 **Work Area:**

2-5.1.1 There are approximately 132 miles of track and approximately 456 switches serving the magazine areas, production buildings, transfer depots, etc.

2-5.1.2 The mainline trackage which joins the two parts of the Station, does so without interfacing with a commercial railroad. At-grade crossings along the mainline allow off-station road traffic to cross the tracks.

2-6 **Equipment Types:**

2-6.1 Diesel-electric railway locomotives.

2-6.2 Various types of standard railway cars such as flat, box, and tank.

2-7 **CONDITION OF PREMISES AND EQUIPMENT:** Railroad premises and equipment must be kept in neat, clean, and orderly condition. Any condition which might endanger safety of railroad personnel shall be reported promptly.

2-8 **EQUIPMENT INSPECTION AND CONDITION:** Locomotive railroad cars, and track maintenance equipment shall be inspected and maintained in a safe and serviceable condition in accordance with reference (b). → NAUFAC P301

2-9 Commercial railroad access to the Station is required in order to drop off or pick up railcars. Access may be obtained through a controlled gate to a chain-link security fenced area that is large enough to hold a number of railcars.

2-10 Many of the Station's railcars are equipped with cast iron rail wheels. Cast iron wheels are prone to flange breakage at high rail stress points or as the result of a car derailment. Cars equipped with cast iron wheels may be used to transport explosives at Weapon Station Earle. However, as the cast iron wheels wear out, they shall be replaced by steel wheels.

2-11 Specific duties are assigned to the Public Works Heavy Mobile Equipment Maintenance Foreman under Procedure 6 of this SOP.

2-12 Specific duties are assigned to the Public Works Railroad Track Inspector under Procedures 13 and 14 of this SOP.

2-13 Specific duties are assigned to the Public Works Contract Inspector under Procedures 13 and 15 of this SOP.

2-14 **USE OF GOVERNMENT PROPERTY:** Employees must exercise care and economy in the use of Government property. Upon demand by proper authority, they must return property entrusted to them.

2-15. **GENERAL ORGANIZATION:**

2-15.1 The operating organization consists of the PWC Transportation Superintendent, Crane Operations Supervisor, Railroad Section supervisor/Dispatcher and the train crew. The train crew members shall be licensed in accordance with applicable procedures in reference (j) and qualified/certified to handle hazardous material in accordance with reference (h). Operations oversight is provided by the Weapons Station Earle Base Civil Engineer (BCE), the Weapons Station Earle Safety Director, and the Atlantic Ordnance Command, Site Earle Explosives Safety Officer.

2-15.2 Safety is the primary consideration when performing and discharging assigned duties, Strict adherence to rules is essential to safety and is required. Rules cannot be written to cover every possible situation that may arise in connection with each and every individual task connected with your work. Therefore, certain definite responsibilities rest upon you, namely:

2-15.2.1 Protection of yourself.

2-15.2.2 Protection of your fellow employees.

2-15.2.3 Protection of the public.

2-15.2.4 Protection of property.

2-15.2.5 Expect the movement of train, locomotives or cars on any track, at any time, in either direction.

2-15.2.6 Report to your immediate supervisor any dangerous condition, violation of these rules or unsafe practice where such is found to exist.

2-15.3 Civil, gentlemanly deportment is required of all employees in their dealings with other station employees, their subordinates, and each other. Courtesy and attention are demanded 2-15.3 Individuals whose duties are prescribed by these rules, must have a copy of this SOP and shall have it available for reference while on duty.

2-15.4 The foreman shall advise train crew members of special instructions and notices daily. The foreman shall maintain a log of the instructions and

notices given. In addition, notices and instructions shall be placed in the log book or on the bulletin board.

2-15.5 All crews shall read their respective bulletin boards at the beginning of the shift and initial any changes or new notices. If instructions and notices are not understood, these questions shall be brought to the attention of the foreman and clarified prior to starting work.

2-15.6 **TRACK CERTIFICATION AND CONDITION:** The station track system shall be maintained and certified in accordance with Procedure 14 of the Method Description of this SOP.

2-15.6.1 The Conductor shall immediately stop the train and inform the Railroad Section supervisor/dispatcher under the following conditions:

2-15.6.2 When track clearances are impaired by obstructions.

2-15.6.3 When defects are found in tracks or equipment.

2-15.6.4 Upon discovery of any unusual condition which may affect safe and efficient train or locomotive operation.

2-15.7 In the above case the Railroad Section supervisor/dispatcher shall take necessary action to have warning devices installed immediately or have the obstruction removed.

2-15.8 **Operating on Out-of-Service Tracks:** The Railroad Section supervisor/Dispatcher shall not schedule trains to operate on out-of-service tracks. However, if it becomes necessary to run a train on an out-of-service track, Procedure 16 of the Method Description of this SOP must be strictly observed.

2-15.9 Accidents, mishaps, or personal injuries must immediately be reported to the foreman.

2-15.10 The use of intoxicants, illegal drugs, narcotics or other substance that affects alertness, coordination, reaction, or response by employees while on duty is prohibited and is sufficient cause for dismissal. Disciplinary action shall be taken against any employee reporting to work while under the influence of intoxicants or narcotics.

2-15.11 Smoking is permitted in designated areas only.

2-16 **Train Crew Size Requirement:** 1 The standard train crew consists of an engineer, conductor, and braker/switcher. This SOP shall refer to the members of the crew, other than the engineer, as trainmen. Trainmen make the required connections to couple or uncouple railcars and also serve as the eyes of the engineer. When cars are being pushed ahead of the locomotive or are being backed for transit or spotting, the engineer cannot see the left side of the trains and may not be able to see ahead of the lead car. By riding the cars or standing on the ground, the additional crew members may pass information back to the engineer in the form of visual or radio signals to facilitate safe movement of the train.

2-17 Each supervisor or acting supervisor of this explosive process must conduct a review of this SOP, and sign the PROCESS SUPERVISOR'S STATEMENT OF ACKNOWLEDGMENT AND UNDERSTANDING (enclosure (1) of this SOP) prior to assuming supervisory duties over this process.

2-18 All Railroad operations personnel must receive a Type I Hazard Control Briefing prior to performing any operations under this SOP. The Type I Hazard Control Briefing encompasses the Type II hazard control Briefing and Emergency Response and Contingency Plan. It is contained in Section 13, 14 & 15 of this SOP.

2-19 The attendees and the individual giving the briefing must complete a dated TYPE I HAZARD CONTROL BRIEFING CERTIFICATION SHEET, at Appendix 2 of this SOP. Replacement personnel must be given this briefing before being allowed to conduct Railroad Operations under the SOP.

2-16 Individuals performing operations under this SOP must receive a Type II Hazard Control briefing per section 14 of this SOP every thirty days while operations under this SOP are ongoing; prior to re-starting operations which have been interrupted for 30 days or more; or if a change is made to the SOP.

2-17 Railroad supervisors currently hold a stand up safety meeting weekly, one meeting per month shall be a Type II Hazard Control Briefing. To certify completion of this briefing, the attendees and the individual giving the briefing must complete a date TYPE II HAZARD CONTROL BRIEFING CERTIFICATION SHEET (Enclosure (3) of this SOP). ALL Railroad Operations personnel must sign the certification sheet at this time. The signed original must be placed in the SOP **EACH TIME THE BRIEFING IS PRESENTED.**

2-18 **WAIVERS:** NONE

3. DEFINITIONS:

3-1 **AA&E:** Arms Ammunition and Explosives

3-2 **AAR:** Association of American Railroads

3-3 **Auto Railer:** A self-propelled vehicle with two sets of wheels which can operate either on the railroad track or on the highway at the option of the operator.

3-4 **Barricaded Siding:** A siding or dead-ended railroad spur which is barricaded from adjacent sidings or buildings with mounds of earth or other material along the sides and usually at one end. Barricades are designed to control the effect of an explosion occurring in a railcar and are used for the temporary storage of ammunition and explosives.

3-5 **BCE:** Base Civil Engineer.

3-6 **Braker-Switcher:** Individual responsible for setting hand brakes, chocking railcars, aligning switches, acting as flagman, and performing other work related to the operation of a train as directed by the conductor.

3-7 **Blue Signal Protection:** A blue flag or blue light warning signal to alert railroad employees that individuals are working in, on or under railcars.

3-8 **Bullpen:** Interchange yard, usually fenced in, with gates at both ends, connecting the activity rail system with the commercial rail system.

3-9 **Certifying Official:** Individual for carrying out the requirements contained in NAVFACINST 11230.1D which establishes the requirements for track inspection and certification. At Weapons Station Earle the Certifying Official is the Base Civil Engineer (BCE).

3-10 **Classification Yard (Class Yard):** An area of interconnected tracks used for receiving, dispatching, switching, classifying, and storing of railcars, make up of trains, and other related purposes.

3-11 **Conductor:** Individual responsible for the movement and safety of the train. Reports directly to, and receives operating instructions from the Railroad Section supervisor/dispatcher.

3-12 **Cut of Railcars:** Two or more railcars coupled together.

3-13 **Engineer:** Individual responsible for operating the locomotive in response to directions from the Conductor or the Braker-Switcher.

3-14 **Flagged Crossings:** A road or highway railroad crossing where railroad crossing warning signals are either not working or not present. The train crew is required to manually flag the crossing.

3-15 **FRA:** Federal Railroad Administration

3-16 **Grade Crossings:** Where a train crosses government-owned, or public roads. (The double track which parallels Normandy Road and links the inland Mainside and pierside sub-divisions of the station has 9 public at-grade road crossings.) Two sub-categories are:

3-16.1 **Grade Crossings Protected by Signals, Bells and Gates:** The protective devices are automatically actuated when trains approach.

3-16.2 **Unprotected Grade Crossings use Passive Signs.**

3-17 **Holding Yard:** An area of interconnected railroad tracks at a location used for holding groups of railcars for interim periods prior to storage or shipment.

3-18 **Interchange Yard:** An area of interconnected railroad tracks set aside for the exchange of railcars between the commercial carrier and the activity.

3-19 **Licensing Examiner:** The individual responsible for carrying out the requirements contained in NAVFAC P-306 for written tests, performance tests, physical examinations and other processes leading to the issuance of the license for each of the three train crew positions. The Licensing Examiner must be a Journeyman in the craft licensed. The Licensing Examiner must be appointed in writing by the Base Civil Engineer.

3-20 **Locomotive (or Engine under The AAR Standard Code):** A self-propelled unit powered by any form of energy or combination of such units operated from a single control that moves on railroad tracks and is designed to move railcars.

3-21 **Main Line:** A track extending through yards and between specific subdivisions within the activity and used for regular train or locomotive movements other than switching upon which trains are operated.

3-22 **Main Line Operations:** For the purpose of this SOP, Main Line Operations shall mean Railroad Operations on the double tracks between the Mainside and Pier sub- divisions of the station.

3-14 **MSDS:** Material Safety Data Sheet

3-15 **NEW:** Net Explosive Weight. The total weight of explosive material in the explosive device (in pounds).

3-23 **Obstruction:** Something that impedes railroad operations. Obstructions include individuals, animals, or any inanimate object that impedes railroad operations.

3-24 **Public Highway:** Any street, road or highway used by the general public for any vehicular traffic.

3-25 **Push Car:** A non-self-propelled car or truck which may be manually moved to or from the track.

3-26 **Railroad Cars:** Non-self-propelled units for hauling cargo. Includes all types such as box, flat and tank cars.

3-27 **Railroad Dispatcher:** Individual responsible for ordering the movement of trains and the proper distribution of cars. Maintains records on railcar locations.

3-28 **Railroad Operations:** The movement of locomotives, railcars, track maintenance equipment, and any other equipment that travels on railroad tracks.

3-29 **Railroad Section supervisor:** The first line supervisor of members of the Railroad Operations Branch.

3-30 **Railroad Operations Personnel:** Railroad Section supervisor/dispatcher, Conductor, Engineer, Braker-Switcher, and any other person assigned duties as a trainee or member of a train crew and railroad maintenance personnel involved in locomotive, railroad car, and track maintenance equipment movement.

3-31 **Safety Observer:** Individual qualified to oversee the rail movement of non-explosives laden railcars over non-certified trackage. Safety Observers must be trained & qualified by the Public Works Railroad Track Inspector, and designated in writing by the BCE prior to performing Safety Observer Duties.

3-32 **Siding:** A section of trackage which is accessible from both ends, auxiliary to the main track and used to meet or pass a train.

3-33 **Single Track:** A track upon which trains are operated in both directions.

3-34 **Short Draft:** A locomotive and not more than three cars.

3-35 **Short Draft Operations:** Operating a short draft train with a two man crew (an Engineer and a Braker/Switcher). Short draft operations are permitted for

non-explosives loaded cars when demanding or complex switching operations are not expected to be required.

3-36 **Slow Speed:** A speed not exceeding 20 miles per hour.

3-22 **SOP:** Standard Operating Procedure

3-24 **Spot:** To place and detach from the train one or more railcars at a specific location.

3-25 **Spot Sheet:** The document that provides the authority for the movement of trains and provides instruction to the conductor on where to spot cars.

3-37 **Standard Code of Operating Rules:** Was developed by the AAR to govern railroad operations. This standard code, or some variation of the code has been adopted by the major commercial railroads throughout the United States. Most operating rules and procedures governing the operation of the Navy-owned system are consistent with the rules of the commercial system. However, the Standard Code is not applicable to Navy operations in all cases.

3-40 **Spur:** A dead end track or auxiliary to a main track or siding usually in front of a building or magazine equipped with loading platform. A section of trackage accessible from one end only.

3-42 **Trackage:** The term includes rails, ties, rail accessories, switches, crossovers, ballast, roadbeds, support structures, subgrade, foundations, cut and fill slopes, ditches, road crossings, culverts, bridges, trestles, overpasses and underpasses, grade separations, tunnels, signals, signs and markings.

3-43 **Track Car:** A motor car or a push car.

3-44 **Track Inspector:** Individual responsible for inspecting railroad trackage and recommending certification and decertification of track to the Certifying Official. Also, the person primarily responsible for overseeing rail movement over non-certified trackage. The Track Inspector must be appointed in writing by the BCE.

3-45 **Track Maintenance Railroad Equipment:** All track maintenance equipment traveling on the railroad tracks.

3-46 **Train:** A locomotive and one or more cars coupled together or two or more locomotives coupled together with or without cars.

3-47 **Train Crew:** Individuals assigned to operate locomotives or trains (Engineer, Conductor, Braker-Switcher(s)).

3-48 **Trainman:** The Conductor, Braker-Switcher or any other person assigned duties as a trainee or member of the train crew.

3-49 **Wye:** An arrangement of three tracks connected in the form of a closed "y" to permit locomotives or cars to be turned.

4. **PRODUCTION SELF-CHECK POINTS:** NONE

5. CANCELLATION: SOP 050-0199-ER

6. SAFETY REQUIREMENTS: The safety instructions for this process are specified within the procedural steps of this SOP; in the Type I & Type II Hazard Control Briefings (sections 13 & 14) of this SOP; in the Emergency Response and Contingency Plan (section 15) of this SOP; in references (a) & (c) and as follows:

6-1 Operators of railroad equipment shall have sufficient operations experience and be qualified to use the equipment and shall be :

6-2 AUTHORIZED PERSONNEL: Individuals normally authorized to embark on trains are: the assigned crew; Railroad Section supervisor/dispatcher; equipment maintenance personnel; PWC Transportation Director; PWC Area Manager; Public Works Officer; and safety or security personnel. The Railroad Section supervisor/dispatcher must approve any additional riders.

6-3 All locomotives and railway cars shall be maintained in a proper and safe condition while in service and be equipped with proper grab irons, steps, and hand and footholds while in service.

6-4 A portable fire extinguisher must be carried in the engine at all times during the railroad operations process.

6-4.1 The extinguisher shall be used on small debris fires.

6-4.2 Railroad operations personnel must report all fires to the Railroad Section supervisor/dispatcher and/or fire department by the most expedient means possible.

6-5 Workers shall not cross, walk along, or remain upon railroad tracks at any time unless it is necessary to do so in their line of duty. At such times the following rules shall be observed:

6-5.1 Always look in both directions for approaching locomotives, or cars before crossing tracks, and step OVER the rails, never on them.

6-5.2 Never cross, loiter, or stand near moving equipment.

6-5.3 When crossing tracks always keep at least 20 feet away from the end of a standing train, locomotive, or other rolling equipment; never cut through a train or under the couplers.

6-6 When working in and around diesel locomotives crewmembers should wear snug-fitting clothing to avoid entanglement with moving parts.

6-7 Trainmen must not rely on others to warn them of an approaching train. ALL trainmen must expect trains to run at any time, on any track, in either direction and be prepared to take whatever safety precautions are necessary to safeguard themselves.

6-8 The conductor and engineer are responsible for the safety of the train and the observance of the rules, and, under conditions not provided for by the rules, they must take every precaution that good judgment and common sense dictates to prevent accidents. In cases of doubt or uncertainty, the Railroad Section supervisor/dispatcher shall be immediately informed.

6-9 In addition to the safety practices/prohibitions already discussed in this SOP; the following unsafe practices by employees are prohibited:

- 6-9.1 Mounting the leading end of a locomotive or railcar as it approaches.
- 6-9.2 Going between moving cars to couple, uncouple, open, or arrange knuckles of couplers.
- 6-9.3 Remaining near the track when trains are passing, as stones, car doors, wire, banding, or other articles are liable to fall or protrude from the train.
- 6-9.4 Working on the side of cars or trains where there are buildings, sheds, or other projections without ample clearance.
- 6-9.5 Allowing unauthorized individuals to ride railroad equipment.
- 6-9.6 Riding on drawbars, journal boxes, and brake wheels.
- 6-9.7 Riding on the ends of cars with loads which may shift.
- 6-9.8 Riding on top of boxcars.
- 6-9.9 Moving cars or locomotives over track supported by jacks.
- 6-9.10 Mounting or dismounting when equipment is moving at a speed greater than five miles per hour.
- 6-9.11 Carrying hazardous or explosive materials on a locomotive is prohibited except when specifically authorized by the PWC Area Manager.

6-10 Safe Operations of Diesel-Electric Locomotives:

6-10.1 **Generation of High Voltage:** Diesel-electric locomotives are capable of developing significant voltage. Contact with the electrical source might result in a shock that could prove fatal. The main power plant can generate from 500 to 1,000 volts of direct current during normal operations and up to 3,000 volts during sudden reversals or transition periods.

- 6-10.1.1 Unauthorized individuals must keep away from the electrical system while the power is on or when the locomotive is moving.
- 6-10.1.2 No work shall be performed on any electrical equipment by anyone wearing a wristwatch, ring or other metallic article.
- 6-10.1.3 If a fuse blows, the operator shall not change it unless he has been trained to do the work safely.
- 6-10.1.4 The locomotive shall not be operating when electrical equipment is being serviced.

6-10.2 **Vee Belts:** Operators shall not install or adjust any Vee belts while the equipment is running.

6-10.3 **Spark/Flame Control Devices:** Per reference (c), all locomotives used within a Navy shore activity shall be designed and equipped to prevent the starting or communicating of fires. Diesel or gasoline powered and other self-propelled rail vehicles shall have spark arresters properly installed on the exhaust stack or in the exhaust manifold. Only Department of Forestry approved spark/flame control devices shall be mounted on the locomotive exhaust stack. These devices shall be kept in operational condition. Locomotives shall not be operated without an operational control device mounted on the stack.

6-11 Safety Inspections shall be performed in accordance with procedure 1 of the Method Description of this SOP.

6-12 **Reporting Defects:** All cases of defective trackage or equipment shall be reported to the Railroad Section supervisor/dispatcher in accordance with procedures 6 & 14 of the Method Description of this SOP.

6-13 Bad Orders Cars shall be handled in accordance with procedure 6 of the Method Description of this SOP.

6-14 Outbound cars shall be delivered to Conrail via the receiving yard. The conductor shall report the car number of each outbound car to the Railroad Section supervisor/dispatcher.

6-15 Going Between Cars and Equipment: Before any crewmember goes between standing locomotives or railcars he shall:

6-15.1 Signal the engineer, per procedure 8 of the Method Description of this SOP.

6-15.2 Wait for acknowledgment from the engineer

6-15.3 To protect against unexpected movement:

6-15.3.1 Apply brakes.

6-15.3.2 And then wait for the slack to adjust.

6-15.4 Look in both directions to see whether locomotive or railcars are approaching on adjacent track before going between railcars or locomotive and railcar.

6-15.5 When emerging from between railcars, look in both directions to avoid being struck by equipment in motion on adjacent tracks.

6-16 Riding on Railroad Equipment: Personnel must be prepared at all times to avoid injury from sudden starts, stops, lurches, or jerk of locomotive, railcars or train. Trainmen shall ride facing the direction that the train is moving; and by bracing and holding themselves, moving only when necessary for the performance of duty.

6-16.1 **Riding Shoved Cars:** When a locomotive shoves railcars, the conductor or braker-switcher shall take a conspicuous position on the side nearest the forward end of the lead boxcar or loaded flatcar.

6-16.2 **Riding Flat Cars:** When required to ride empty flat cars, crewmember shall position themselves on the car bed well back from the forward end. Flat cars should only be ridden when it is impractical or unsafe to walk beside the lead car.

6-16.3 Boarding or Leaving Equipment:

6-16.3.1 Employees must face the locomotive when descending steps.

6-16.3.2 It is forbidden to board or depart from equipment moving faster than five miles per hour.

6-16.3.3 Whenever practical, moving equipment shall be boarded from the rear step.

6-16.3.4 Before boarding or leaving moving equipment, crewmembers should look in both directions to avoid contact with structures or obstructions along the side of the track or with equipment on adjacent tracks.

6-16.3.5 When boarding rolling stock of any description, put your body in motion in the direction in which the equipment is moving. Then, get a firm grasp on a convenient grab iron or tread of the side ladder and swing the foot nearest the equipment onto the lower tread of the ladder.

6-16.3.6 Trains shall be brought to a full stop when personnel other than railroad operating employees board or leave the equipment.

6-16.3.7 When departing from standing equipment, retain a handhold until a foot is firmly placed to avoid falling, slipping, tripping, or turning an ankle.

6-16.3.8 When leaving moving equipment, place the inside foot on the lower tread of the sill step. Then, grasp a convenient tread of the handhold, remove the foot from the sill step, and with the body inclined slightly backward and legs partly flexed, alight on the foot farthest from the equipment, using the other foot to overcome momentum.

6-16.3.9 No trainman shall jump from a moving or standing railcar or locomotive on one track to a moving or standing railcar or locomotive on another track or to a platform.

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METHOD DESCRIPTION: PROCEDURE # 1: SAFETY INSPECTIONS

1. Prior to the movement of one or more railcars by the train crew the cars should be given a visual check by the crew to ensure that they are physically ready to be moved.

1-1 The visual check should be for the entire length of the train initially and then for any cars which are added.

1-2 The check should be thorough enough to ensure that there is no physical abnormality which could cause an accident or a derailment.

1-3 This includes a visual inspection for unsecured cargo, equipment dangling from the car and/or other obvious defects (such as missing or damaged equipment, broken or dragging components) of the:

1-3.1 couplers,

1-3.2 wheels,

1-3.3 general undercarriage,

1-3.4 brake rigging.

1-4 Empty box cars and all flat cars shall be checked to ensure that decking is complete and without holes or rot. Car decks in poor condition (i.e. protruding nails, holes) shall not be used.

1-5 All railcars shall be checked to ensure that cars with expired maintenance dates are not used.

1-6 In addition, the air system should be checked in accordance with procedure 5 of this SOP.

1-7 All cases of defective equipment of any kind shall be immediately reported in accordance with procedure 6 of this SOP.

2. Per reference (g), all railcars used for off-station A&E movement shall be inspected in accordance with items the Railroad Car Inspection Report (NAVSEA FORM 8023/3) prior to being staged for loading.

2-1 All railcars used for on-station A&E movement shall be inspected for serviceability, per reference (c), prior to being staged for loading.

2-2. All doors of all rail cars containing hazardous materials shall be securely sealed. The cargo compartment of the vehicle shall be secured with US numbered seal(s). The seal is a permanent lock device with an identifying serial number (See reference (c) for additional information on seals).

2-3. **CERTIFICATION OF A&E LOADED RAILCARS:** Reference (i) stipulates that the blocking and bracing of an explosive load must be inspected, by a qualified and certified individual, after the conveyance is loaded and ready for transit. Upon completion of the inspection, each railcar loaded with A&E shall have a Movement Certification Tag affixed/hanging outside each door handle. It must be affixed near the hazard indicator placards for flat railcars. The Movement Certification Tag certifies that the explosive load has been properly blocked and braced in

accordance with current Navy Policy and that the railcar is safe for movement. The blocking/bracing crew leader will complete all lines of the Movement Certification Tag. The "certified by" line of all Movement Certification Tags must be signed by an individual who has been properly Qualified/Certified to block and brace explosives.

2-4 Prior to movement, the Conductor shall ensure that the following is inspected to ensure that the car is loaded properly and safe to move:

2-4.1 Are all railcar doors closed and locked?

2-4.2 Are all doors of rail cars containing hazardous materials securely sealed with US numbered seal(s)? The seal is a permanent lock device with an identifying serial number (See reference (j) for additional information on seals

2-4.3 Does the car have a properly completed Movement Certification Tag affixed/hanging outside each railcar door handle areas or near the side(s) hazard indicator placards for flat railcars? For further information, Figure 12-2 of reference (c) has an example of a Movement Certification Tag.

:WARNING:

THE TRAIN CREW WILL NOT TRANSPORT AN A&E LOADED RAILCAR/CUT OF RAILCARS WITHOUT VERIFYING THAT THE RAILCAR(S) HAVE PROPERLY COMPLETED, CERTIFIED MOVEMENT CERTIFICATION TAGS.

2-4.4 Are flatbed conveyances loaded so that the entire load lies within the horizontal outline of the cargo area of the conveyance without any hangover or projections?.

2-4.5 Do the car numbers coincide with the cars that are supposed to be moved?

2-4.6 Have blue flags been removed?

:WARNING:

BLUE FLAGS OR SIGNALS ARE PLACED AT BOTH ENDS OF A CAR OR CUT OF CARS IF BOTH ENDS OF THE TRACK ARE OPEN; OR AT THE END OF A CAR OR CUT OF CARS AT THE OPEN END OF A RAILWAY SPUR WHEN PERSONNEL ARE WORKING IN, ON, OR UNDER CARS. THE CAR OR CARS SHALL NOT BE COUPLED OR MOVED WHILE THE FLAGS ARE DISPLAYED.

2-4.7 A no to any of the above questions indicates that the car is not ready to be moved.

3. Prior to movement, the conductor must ensure that each A&E laden railcar is placarded in accordance with chapter 12-5.3.5 of reference (c). The placards shall be located on each side, on the front, and on the rear of the vehicle. All A&E laden railcars shall be properly placarded while on station.

7. Dunnage Inspections shall be made to flat cars to insure that dunnage exists and the load is safe for transport.

7-1 Trainmen shall inspect the following:

7-1.1 Dunnage must consist of whole pieces of lumber without rot or gross cracks.

7-1.2 Fasteners must be evident, and not have missing heads.

7-1.3 Steel Strapping shall be taut, passed through or around stake pockets or rub bars, with two seals double crimped on strap ends.

7-1.5 Chains and Loadbinders: Chain shall be taut, passing through or around stake pockets or rub bars, and hooked with bill pointing inward to the center of the car. Loadbinders shall be safety wired.

7-1.6 Webbing Straps shall be uncut and unworn. Date stamped on weight certification shall not be overdue. Strapping shall be taut and hooked into stake pockets or rub bars with bill pointing inward to the center of the car. Ratchet buckle shall be closed.

7-2 Discrepancies from the above shall be directed to the Railroad Section supervisor/dispatcher who shall contact the Ordnance Area Foreman for resolution.

8. Prior to movement, the Railroad Section supervisor/dispatcher shall ensure that the total weight of the load does not exceed the load capacity of the conveyance. Railcar load capacity may be restricted by station waivers or requirements.

9. The Trainman who placed the blue flags, shall ensure that the blue flags are removed prior to movement. The car or cars shall not be coupled or moved while the flags are displayed.

10. Prior to movement, of all trains, a strobe light shall be mounted on the roof of the locomotive. The strobe light shall be turned on to emit a bright flashing signal and enhance visibility of the locomotive from all directions, especially at night or during inclement weather. The purpose of the strobe light is to present an eye catching light both day and night which alerts the public of the presence of the train.

11. At every opportunity while moving, train crew members must examine their trains for possible defects of the running gear, brake rigging, and draft rigging, giving special attention to hot journals, sticking brakes, and sliding wheels. If the train is moving when the defect is discovered, a signal shall be given to the engineer to stop. If possible, the defect should be remedied, but if this cannot be done, the car should be set out and the Railroad Section supervisor/dispatcher notified.

12. Trainmen must, so far as practicable, observe passing trains for defects. Should there be any indication of conditions endangering the train, they must take such measures for its protection as may be practicable.

13. Railroad Section supervisor/dispatcher shall be immediately notified of any defect or condition which might cause an accident.

14. When cars with defects are picked up, a report must be promptly made in accordance with procedure 6 of this SOP.

15. After movement, when a car or string of cars is uncoupled and left standing (especially cars with explosive material), they shall be given

METHOD DESCRIPTION: PROCEDURE # 2: MOVEMENT OF TRAINS

1. Operations of railroad equipment by Public Works Center, Site Earle personnel, shall be in accordance this SOP, as well as the documents referenced in this SOP.
2. Prior to moving, Train crews shall test air brakes in accordance with Procedure 5 of the Method Description of this SOP.
3. During movement, if the brakes become inoperative; refer to Procedure 6 of the Method Description of this SOP for resolution.

:WARNING:

RAILCARS SHALL NOT BE COUPLED OR UNCOUPLED WHILE IN MOTION. SPECIAL CARE MUST BE TAKEN TO AVOID ROUGH HANDLING OF CARS. DROPPING, BUMPING, OR THE USE OF THE FLYING SWITCH ARE PROHIBITED. THE CUTLEVER SHALL BE USED TO COUPLE AND UNCOUPLE RAILCARS. IF THE CUTLEVER DOES NOT OPERATE EASILY, THE TRAINMEN SHALL USE EXTREME CAUTION BEFORE OPERATING THE PIN OR KNUCKLE BY OTHER MEANS TO AVOID UNEXPECTED MOVEMENT THE RAILROAD SECTION SUPERVISOR/DISPATCHER SHALL BE NOTIFIED OF FAULTY CUTLEVERS

TRAINMEN SHALL NOT STAND OR RIDE ON THE CUTLEVER OR DRAW BAR. TRAINMEN SHALL NOT PLACE A FINGER IN THE HOLE AT THE BOTTOM OF COUPLER TO ADJUST THE LOCK PIN.

FOR A&E LOADED RAILCARS FLYING SWITCHES (KICKING OR DROPPING OF CARS) ARE PROHIBITED. EMPTY RAILCARS MAY BE KICKED OR DROPPED ONLY WITH THE PERMISSION OF THE RAILROAD SECTION SUPERVISOR/DISPATCHER.

4. SECURITY ESCORT: The Weapons Station Earle Security Officer is responsible for providing an armed escort of certain A&E trains. These requirements are set forth in procedure 10 of the Method Description of this SOP, and references (e), (f), and (l). Per the aforementioned references, the Railroad Section supervisor/dispatcher shall request a security escort, when appropriate for A&E laden trains traversing Normandy Road.

5. While moving, Radio Communications must be conducted in accordance with Procedure 9 of the Method Description of this SOP.

:WARNING:

DURING ADVERSE ENVIRONMENTAL CONDITIONS SUCH AS STORMS, FOG, ETC. LOCOMOTIVES SHALL BE OPERATED WITH EXTRA CAUTION AND SPEED SHALL BE REDUCED TO ENSURE SAFETY.

WHEN A CREWMEMBER IS BETWEEN RAILCARS OR LOCOMOTIVE AND RAILCAR, THE ENGINEER SHALL NOT ACT UPON A SIGNAL GIVEN BY ANYONE EXCEPT THAT PARTICULAR TRAIN CREWMEMBER.

ONE OF THE MOST HAZARDOUS AREAS OF RAILROAD OPERATIONS ARE AT-GRADE CROSSING WHERE THE POSSIBILITY OF A COLLISION WITH AN AUTOMOBILE OR TRUCK EXISTS. THE LOCOMOTIVE AND TRAIN SHALL BE UNDER FULL CONTROL WHEN APPROACHING AT-GRADE CROSSINGS SPEED SHALL BE REDUCED TO FACILITATE EMERGENCY STOPS WHEN REQUIRED.

:WARNING:

NO ONE SHALL GO BETWEEN OR PASS IMMEDIATELY IN FRONT OF MOVING LOCOMOTIVES OR RAILCARS.

AT INTERSECTIONS WHERE TRAFFIC IS PRESENT, AND AUTOMATIC SIGNALS AND GATES HAVE NOT BEEN INSTALLED, THE USE OF A FLAGMAN TO STOP TRAFFIC IS MANDATORY. A FLAGMAN IS ALSO MANDATED AT INTERSECTIONS WHERE AUTOMATIC SIGNALS AND GATES ARE INSTALLED, BUT ARE NOT WORKING.

6. When moving from one location to another, the Conductor shall assign a Trainman to keep constant watch of the track ahead and/or back of the locomotive or train.

6-1 The number of cars being pushed shall never prevent visual contact between the train crew member riding the front end and the engineer. When and if the Engineer loses sight of the train crew member, the train must stop until the condition is corrected.

6-2 When a train stops in such a manner that it may be overtaken by another train:

6-3 The Conductor shall immediately contact the Railroad Section supervisor/dispatcher by radio.

6-4 When unable to raise the Railroad Section supervisor/dispatcher, the Conductor must contact other train crews to inform them of the train location and any other information needed to ensure safety of both trains and crews.

Note: Radio Communications must be conducted in accordance with Procedure 9 of this SOP.

6-5 In the event of radio failure, the Conductor must assure flag protection for the train until contact is made with the Railroad Section supervisor/dispatcher.

7. **HOT BOXES ON RAILCARS:** Many of the railcars used at Naval Weapons Station Earle are equipped with old style "journal bearings." These bearings are lubricated by a wick and wiping action from the journal box oil sump. The lack of sufficient lubrication, contaminated journal oil or the overloading of the car could cause the journal bearing to overheat, resulting in a "hot box".

7-1 **PROCEDURES FOR RAILCAR HOT BOXES:** If an overheated journal bearing is found on the train must be quickly stopped and the following procedure must be followed:

7-1.1 The Railroad Section supervisor/dispatcher shall be notified and give the location of the train.

7-1.2 The Engineer shall reduce speed, not to exceed 10 MPH, and shall move the train to a road crossing, or other easily accessible point, where the Fire Department can get to the car.

7-1.3 The Railroad Section supervisor/dispatcher shall immediately notify the Fire Department and the Maintenance Branch supervisor.

7-1.4 A trainman, armed with a Carbon Dioxide or Dry Chemical fire extinguisher, shall inspect the surrounding equipment for the presence of fire.

7-1.5 If smoke, but no fire, is issuing from the journal box,

7-1.5.1 Trainman shall stand by the car.

7-1.5.2 Prepare to signal Engineer, if necessary.

7-1.5.3 Engineer shall stand ready to respond to signals.

7-2 Under no circumstances shall a suspected hot box be opened by Railroad personnel. The sudden influx of air may ignite the bearing oil, causing flames and hot oil to erupt from the journal box.

7-3. **HOT BOX & TRAIN FIRES:** If a fire is discovered issuing from the journal box, or any other part of a railcar or locomotive the first priority is the protection of personnel. This includes the residents of the surrounding community. The second priority is the protection of Government and other property.

7-3.1 In case of fire, the Conductor shall determine if the train crew is able to combat the fire.

7-3.2 If so, the Trainmen shall use fire extinguishers on the journal box exterior and surrounding equipment to control the spread of the fire.

7-3.3 If the fire cannot be fought or if it spreads, the car following the burning car, and any trailing cars, shall be cut away and the train shall vacate the area. However, DO NOT cut away a burning railcar near a hazardous location such as the Transfer Depot or a Production Building (such as E-13) if explosives operations are being conducted there.

8. A locomotive or train shall not pass through an open fence gate until the Conductor ensures that the person opening the gate has secured it so the gate cannot swing closed.

WARNING

DURING ADVERSE ENVIRONMENTAL CONDITIONS SUCH AS STORMS, FOG, ETC.. LOCOMOTIVES SHALL BE OPERATED WITH EXTRA CAUTION AND SPEED SHALL BE REDUCED TO ENSURE SAFETY. NO ONE SHALL GO BETWEEN OR PASS IMMEDIATELY IN FRONT OF MOVING LOCOMOTIVES OR RAILCARS. WHEN A TRAIN CREW MEMBER IS BETWEEN RAILCARS OR LOCOMOTIVE AND RAILCAR, THE ENGINEER SHALL NOT ACT UPON A SIGNAL GIVEN BY ANYONE EXCEPT THAT PARTICULAR TRAIN CREW MEMBER.

9. **Speed:** Locomotives, trains and track maintenance equipment shall operate at a speed to insure safety of personnel and property. The following maximum speed limits shall apply:

9-1 Mainline (Between southbound C-50 turn-out & Brewster's Crossing) - 25 MPH.

9-2 Intra-Station Trackage - 15 MPH.

9-3 All Grade Crossings - 10 MPH.

9-4 Classification yard and receiving yards Special Limit is 10 MPH.

9-5 Special Limit at the pier & trestle complex is 10 MPH.

9-6 During adverse weather conditions, poor visibility, traffic congestion, slow orders, or any other condition which make operation at maximum speed limits unsafe, speed limits must be reduced.

9-7 If the Engineer feels that the speed of the train is too fast for the grade, or conditions at hand, he must take immediately action to slow down the train and obtain safe control.

9-8 Whenever freeze conditions exist where standing water or ice is present in the proximity of at grade or below-grade trackage, the crew shall proceed with the locomotive (only) across the suspect trackage to ensure the rail is free of ice before attempting to transport accompanying cars through the area.

9-9 **Special Flagging:** Proceed across the crossing at a speed not exceeding the normal pace of a crew member preceding the train, on foot, with a red flag by day or a white lantern by night.

10. Lights: The headlight shall be displayed to the front of each train at night, during heavy storms or fogs, and at any other time when visibility is restricted.

10-1 The headlight of a locomotive facing boxcars coupled to it may be dimmed or extinguished while so coupled. The headlight shall be extinguished when a train turns out to meet another train and has stopped to clear the main track or the track on which the opposing train is operating. When a headlight fails, a white light shall be used in its place and the Railroad Section supervisor/dispatcher shall be notified immediately. The headlight shall be dimmed when approaching a train working on the same or adjacent tracks and when traveling parallel to a highway with motor vehicle traffic approaching from the opposite direction.

10-2 Lights shall be checked prior to night operation; all trains must have adequate lights, fore and aft.

10-3 The revolving or flashing amber or white warning light shall be operated while the locomotive or train is in motion. Inoperative warning lights shall be reported to the supervisor. The locomotive shall not be used with an inoperable warning light without specific permission from the Railroad Section supervisor/dispatcher.

10-4 During shoving train movements, the end of a pushed string of cars shall be protected by a trainman with a white lantern under the following conditions:

10-4.1 Movements being made between sunset and sunrise.

10-4.2 Movements being made at any time of day during rain, Snow or fog conditions.

11. Brakes: All locomotives and track cars shall be equipped with hand or air brakes and complete brake rigging. Before placing the equipment in operation, crews shall check and test the brakes.

11-1 Air Brakes:

11-1.1 Each train must have operating air brakes. Train crews shall test air brakes in accordance with Procedure 5 of this SOP.

11-1.2 If, during movement, the brakes on a loaded car become inoperative; it may be hauled to the next place to be spotted. It must then be dealt with in accordance with Procedure 6 of this SOP.

11-2 HAND BRAKES AND WHEEL CHOCKS:

Note: Wheel chocks are small, tapered, soft wooden devices cut to the contour of the wheel, from four-by-four block, with slats of one-by-two fastened on each side to hold the chock on top of the rail.

11-2.1 A common cause of accidents involving railcars has been cars rolling away from where they were spotted.

11-2.2 A major cause of unattended cars rolling is failure of the train crews to set the hand brakes on a sufficient number of cars.

11-2.3 When single cars are spotted, the hand brakes shall be set and the wheels chocked with two chocks, one on either side of the same set of wheels. The railcar is improperly chocked if motion in either direction is possible.

Note: An exception to this rule is railcars containing explosives on piers or wharves do not require chocking.

11-3 The following procedure for the use of hand brakes and wheel chocks are in effect at Public Works Center, Site Earle :

11-3.1 When operating hand brakes, crew members shall take proper position on the car according to the type of brake to be operated.

11-3.1.1 They should be sure that they have firm foot and handholds to prevent slipping, falling, or experiencing a sprain or strain from losing their hold, footing, or balance.

11-3.1.2 While operating the brake they should put pressure on the wheel or lever steadily (never with a jerk), especially when going from a light to a heavy pressure.

11-3.1.3 Using any part of an adjoining car for a foot rest when applying or releasing the brake is prohibited.

11-3.2 When single cars are spotted, the hand brake shall be set and the wheels properly chocked.

11-3.2.1 When more than one car is spotted and the locomotive detached, the hand brake shall be set on a sufficient number of cars or a cut of cars to assure that sufficient brakeage is provided.

11-3.2.2 The hand brakes shall be set from the downgrade end of the cut of cars. Reliance shall not be placed on the automatic air brakes to hold spotted cars.

11-3.2.3 The last train crew to switch, spot, or handle cars in any manner shall be responsible for properly chocking and securing spotted cars.

11-3.3 If the use of hand brakes is anticipated while switching or moving cars; then the brakes shall be checked for proper operation prior to the movement of the cars or their release from the train.

11-3.4 Cars left standing in yards, receiving yards, barricades, sidings, magazines and buildings must be secured with sufficient hand brakes and wheel chocks with the exception of ungraded sections of the Classification yard and the East Yard during set-up.

12. Track Clearance: No material and/or equipment shall be placed closer than 8 feet 6 inches from the edge of the rail, or 10 feet from the center of the track. Anything found closer to the tracks shall be reported immediately to the Railroad Section supervisor/dispatcher.

13. **Derail Service:** Derailing railroad equipment is an emergency action. Derailing usually only becomes necessary because of human failure to follow safe operating practices and established rules.

13-1 Derails are devices installed on sidings, branch line tracks, or spurs to protect main tracks against locomotives and/or cars from entering the main tracks when uncontrolled movement is place.

13-2 Derails can also be configured to protect equipment, facilities, or workmen from unauthorized intrusion by locomotives and/or cars from the main or other tracks.

13-3 Derails must be located far enough from the switch or facility it protects to insure that, when set in the derailing position, any equipment moving over the device will derail and, under most conditions, will stop before fouling the switch or hitting workmen or facilities it is intended to protect.

13-4 Derails shall normally be set in the derailing position and locked (when so equipped).

13-5 Train crews shall remain alert for derails in order to avoid derailing the locomotive or cars accidentally.

13-6 Trainmen shall not open derails unless authorized to do so by the Railroad Section supervisor/dispatcher.

13-7 Railcars shall not be left standing over derails at any time.

13-8 Derails shall be maintained in proper working order and painted to maintain good visibility.

13-9 Derail Types:

13-9.1 The hinged block derail (the most frequently used type) has the grooved derailing block positioned on the tread of the rail while in the normal, derailing position.

13-9.1.1 The block is very prominent in this position and, if it is kept freshly painted in the normal colors of international orange or chrome yellow no sign should be necessary, provided it is clearly visible from the siding switch stand.

13-9.1.2 Block Derails need no signs under most circumstances. But, if the derail has a switch type stand to operate it, visibility can be improved if the stand has proper targets on it.

13.9.2 A split rail derail is very much like a switch with one switch point and the frog missing.

13-9.2.1 In rare instances, especially on heavy grades, a full switch may be used in place of a derail to divert a runaway train or cars into a "runaway catch track" and a sand bunker trap.

13-9.2.2 In most cases the switch shall be of the spring type set for the trap and shall require:

13-9.2.2.1 The train to stop.

13-9.2.2.2 And, a trainman to exit the train.

13-9.2.2.3 Then, temporarily set the switch for main line.

13-9.2.2.4 Then, the train must proceed past the switch.

13-9.2.2.5 Then, the trainman must return the switch it to "runaway diversion" position.

13-9.2.3 Split rail derailleurs or switches are normally controlled by a standard switch stand or a ground throw, either of which can and should be equipped with appropriately colored and shaped targets on the switch stand.

13-9.2.4 Split Rail Derails normally need no signs if proper targets are maintained on the switch stands.

METHOD DESCRIPTION: PROCEDURE # 3: TRAIN/AUTO INTERFACE

1. Locomotives and trains have the right of way over all vehicles at station crossings with the exception of emergency vehicles with flashing red lights. Despite this, drivers of automobiles often demonstrate a disregard for train traffic at rail crossings.
1-1 Trains cannot stop as fast as automobiles. Collisions between trains and automobiles usually result in extreme damage to the latter. The potential for serious personal injury to occupants of automobiles in train/auto accidents is very high. The diligence of train crews is necessary to prevent accidents.

WARNING

ONE OF THE MOST HAZARDOUS SITUATIONS IN THE OPERATION OF THE RAILROAD IS AT AN AT-GRADE CROSSING WHERE THERE IS THE POSSIBILITY OF A COLLISION WITH AN AUTOMOBILE OR TRUCK. THE LOCOMOTIVE AND TRAIN SHALL BE UNDER FULL CONTROL WHEN APPROACHING AN AT-GRADE CROSSING. THE SPEED OF THE TRAIN AND LOCOMOTIVE SHALL BE REDUCED TO A MAXIMUM OF 10 MILES PER HOUR (MPH) IN ORDER TO ENSURE THAT EMERGENCY STOPS CAN BE MADE WHEN REQUIRED.

1-2 At unprotected grade crossings, locomotives shall approach under full control, and the speed reduced to a maximum of 10 miles mph. The whistle shall be sounded and the bell rung continuously until the locomotive has cleared the crossing.

1-3 When cars are shoved over an at-grade crossing, a Trainman shall be located on the leading end of the movement and shall signal the Engineer of vehicles approaching the crossing.

1-4 Locomotives and trains must not block main roadway crossings for a longer period of time than necessary.

1-5 The locomotive bell shall be rung when a locomotive is approaching and passing over an at-grade crossings.

1-6 In case of whistle failure:

1-6.1 The speed must be reduced and the bell rung continuously when approaching crossings, congested areas, and curves.

1-6.2 The Railroad Section supervisor/dispatcher shall be notified promptly of the defective whistle.

WARNING

AT INTERSECTIONS WHERE TRAFFIC IS PRESENT, AND AUTOMATIC SIGNALS AND GATES HAVE NOT BEEN INSTALLED, THE USE OF A FLAG MAN TO STOP TRAFFIC IS MANDATORY. A FLAG MAN IS ALSO MANDATED AT INTERSECTIONS WHERE AUTOMATIC SIGNALS AND GATES ARE INSTALLED, BUT ARE NOT WORKING.

2. Flagging:

2-1 When approaching the following crossings, whether traffic is present or not, trains shall stop prior to the crossing and a trainman shall dismount and "flag" highway traffic to stop before train proceeds through intersection.

2-1.1 Maccassar Rd (1 track).

2-1.2 Esperance Rd, South end of the Classification Yard (2 tracks).

- 2-1.3 Asbury Avenue, Pine Tree lead (1 track).
- 2-1.4 When automatic gates and warning flasher light signals at the Normandy Road crossings are out of order.
- 2-2 When flagging, the following procedure shall be followed:
 - 2-2.1 Before the crossing, the engineer shall stop the train.
 - 2-2.2 A crewman (normally the braker-switcher) shall be equipped with a red flag (day time) or a white lantern (at night).

Note: Hereinafter, this crewman shall be referred to as the "flag man."

- 2-2.3 The flag man shall dismount from the train and station himself in the crossing.
- 2-2.4 The flag man shall flag all approaching traffic to a stop.
- 2-2.5 When all approaching traffic has stopped, the flag man shall signal the engineer to proceed.
- 2-2.6 Upon signal from the flag man, the engineer shall ring the bell and blow the whistle then proceed across the crossing.
- 2-2.7 The flag man may reboard the train once the train enters the crossing and is even with the flag man.
- 2-2.8 The engineer shall continue ringing the bell until cleared of the crossing.

3. Emergency Vehicles:

- 3-1 While trains have the right of way over vehicle road crossings, an exception to the rule is emergency vehicles flashing red lights.
- 3-2 Train crews must stop when they observe emergency vehicles. However, due to terrain features they cannot always see the vehicles in advance of the road crossing. The following notification requirement will help to provide an early warning system.
- 3-3 It is the duty of the Security Department dispatcher to notify the Railroad Section supervisor/dispatcher when emergency vehicles are moving.
- 3-4 It is the duty of the Railroad Section supervisor/dispatcher to notify train crews when emergency vehicles are moving.
- 3-5 It is the duty of the train crew to be vigilant and stop the train and remain clear of road crossings when emergency vehicles with flashing red lights are observed.
- 3-6 Lack of notification does not relieve the train crew of the requirement to be attentive to approaching emergency vehicles.

METHOD DESCRIPTION: PROCEDURE # 4: RAILCAR COUPLING

1. After receiving train orders from the Railroad Section supervisor/dispatcher, the Trainman shall maneuver the locomotive to the railcar(s) to be picked up and shall stop approximately three to five feet from the car(s).
2. A trainman shall inspect the cars, per procedure # 1 of this SOP, for safety deficiencies.
3. If deficiencies are discovered, follow Procedure 6 of this SOP.

WARNING

WHEN A TRAIN CREW MEMBER IS BETWEEN RAILCAR(S), OR A LOCOMOTIVE AND A RAILCAR, THE ENGINEER SHALL NOT ACT UPON A SIGNAL GIVEN BY ANYONE EXCEPT THAT PARTICULAR TRAIN CREW MEMBER.

4. A trainman shall also observe brake piston extension to ascertain if brakes are still applied from the last separation.
5. A Trainman shall:
 - 5-1 Open the coupling lever.
 - 5-2 Observe that the locking pin is raised.
 - 5-3 And, align the coupler.

6. The Trainman shall give the engineer a signal to complete the coupling.

WARNING

RAILCARS SHALL NOT BE COUPLED OR UNCOUPLED WHILE IN MOTION: BEFORE COUPLING TO OR MOVING CARS, THE CONDUCTOR MUST ENSURE THAT THE CAR(S) ARE PROPERLY SECURED AND CAN BE COUPLED AND MOVED SAFELY. SPECIAL CARE MUST BE TAKEN TO AVOID ROUGH HANDLING OF CARS. DROPPING, BUMPING, OR THE USE OF FLYING SWITCHES (KICKING OR DROPPING OF RAILCARS) ARE PROHIBITED.

THE CUTLEVER SHALL BE USED TO COUPLE AND UNCOUPLE RAILCARS. IF THE CUTLEVER DOES NOT OPERATE EASILY, THE TRAINMEN SHALL USE EXTREME CAUTION BEFORE OPERATING THE PIN OR KNUCKLE BY OTHER MEANS TO AVOID UNEXPECTED MOVEMENT. FAULTY CUTLEVERS SHALL BE REPORTED TO THE RAILROAD OPERATING PROCEDURES FOREMAN/DISPATCHER.

TRAINMEN SHALL NOT STAND OR RIDE ON THE CUTLEVER OR DRAW BAR.

TRAINMEN SHALL NOT PLACE THEIR FINGERS IN THE HOLE AT THE BOTTOM OF COUPLER TO ADJUST THE LOCK PIN.

7. The Engineer shall proceed at a slow speed to couple the engine/train to the car. The amount of force used shall be no greater than the force needed to complete the coupling.
8. The Trainman shall observe:
 - 8-1 The closure of the coupler.
 - 8-2 And, the dropping of the locking pin.

9. The Trainman shall:

9-1 Connect all air hoses.

9-2 And, open angle cocks.

10. In order to ensure that the lock is set, the coupling must be stretched. Therefore the Trainman shall give the Engineer the signal to stretch the coupling.

11. The Engineer shall stretch the coupling.

12. After coupling, air brakes must be tested in accordance with procedure 5 of this SOP.

METHOD DESCRIPTION: PROCEDURE # 5. RAILCAR AIR BRAKE TESTING

1. The air brake system on railcars utilizes compressed air from the locomotive as the motivating force. Air from the locomotive air compressor (about 90 psi) flows to the railcars via an interconnecting "brake pipe". Each railcar contains an auxiliary air reservoir which charges from this main air pipe. The air from these individual car reservoirs actually apply the railcar brakes upon a signal from the locomotive. Proper functioning of the train brake system requires that:

- 1-1 All railcar air hoses be manually interconnected.
- 1-2 The air valves on all connected cars are opened.
- 1-3 With, the last valve closed to retain the pressure.
- 1-4 And, with the car reservoirs charged.

2. Reservoirs do not charge instantaneously. Charge time depends on the amount of residual air in the reservoirs. From an empty condition, the charging rate is approximately three to five minutes for the first car and an additional 30 seconds for each additional car.

3. Full brake pipe and auxiliary reservoir pressure is not required prior to train movement, however, 65% of full pressure should be achieved before the train is started. This will be achieved if the three-minute plus 15-second per car rule is observed. If the train is known to be precharged this time can be reduced.

Note: If the cars have not had their air hoses properly connected or if the train has not been charged with air, the train brakes will not apply and the only stopping force is the locomotive brakes. While locomotive brakes may be sufficient for yard switching and train make-up of empty cars; speed of movement is critical and caution must be observed.

4. The Train Crew shall not move a train having locomotive brakes alone.

5. This prohibition also applies to yard switching.

6. There are three categories of train movements. Railcar Air Brake testing procedures differ for each type of movement. The three categories of train movements are as follows:

- 6-1 Switching movements within the Classification Yard
- 6-2 Transfer movements between the Classification Yard and Barricades/Magazine Groups
- 6-3 Transfer movements between the Classification Yard and the Waterfront Area or the Transfer Depot.

7. Personnel shall apply the proper Railcar Air Brake testing procedure to the movement to be performed.

8. Procedures for Switching Movements:

8-1 Trainman shall connect air hoses and turn air into the cars. During coupling procedures, the Trainman observes brake piston extension to ascertain if brakes are still applied from last application.

8-2 Trainmen shall:

- 8-2.1 Allow the brakes to charge.
- 8-2.2 Observe the release of the brakes.
- 8-2.3 Remove the chocks.
- 8-2.4 And, release the hand brakes.

8-3 If the brakes do not release, the Trainmen shall note the deficiency and follow Procedure # 6 of the SOP.

8-4 Engineer shall move train upon signal from the Trainman.

9. Procedures for Transfer Movements between the Classification Yard and Barricades/Magazine Groups

9-1 Trainmen shall:

- 9-1.1 Connect air hoses.
- 9-1.2 And, turn air into the cars.

9-2 During coupling procedures, the Trainman observes brake piston extension to ascertain if brakes are still applied from last application.

9-3 Trainmen shall:

- 9-3.1 Allow brakes to charge.
- 9-3.2 Observe release of the brakes.
- 9-3.3 Remove chocks.
- 9-3.4 And release hand brakes.

9-4 If the brakes do not release, the Trainmen shall note the deficiency and follow Procedure # 6 of the SOP.

9-5 The Engineer shall:

- 9-5.1 Make a service reduction of the brakes to insure the system is operating.
- 9-5.2 Then, release the brakes.

9-6 The Engineer shall move train upon signal from a Trainman.

10. During transfer movements between the Classification Yard and the Waterfront Area or the Transfer Depot:

10-1 A Trainman shall:

- 10-1.1 Connect all air hoses.
- 10-1.2 And, turn air into the cars.

1

10-2 The Trainmen shall charge cars for:

- 10-2.1 Approximately 3 - 5 minutes for the first car.
- 10-2.2 And, 30 additional seconds for each additional car.

Note: For trains returning from the pier, brakes shall be tested at the last pick-up point.

10-3 At the end of the required time, a Trainman shall signal for brake application.

10-4 The Engineer shall:

10-4.1 Make a 15 pound reduction of the brakes.

10-4.2 And, perform a brakepipe leakage test.

10-5 Upon completion of the test, the Engineer shall:

make a full service reduction of the brakes.

Then sound one short signal on the whistle.

10-6 Beginning at the locomotive end of the train, a trainman shall observe the extension of pistons for application of brakes.

10-7 A car shall be considered a "bad order car" if it has:

10-7.1 Brakes that do not apply.

10-7.2 Or a piston with travel greater than 9 inches.

10-8 The Trainmen shall handle bad order cars in accordance with Procedure 6 of this SOP.

10-9 Upon reaching end of the train, the trainman shall install the end of train marker.

10-10 Then, the trainman shall signal for brake release.

10-11 While walking from the end of the train to the locomotive, the trainman shall:

10-11.1 Observe the release of the brakes.

10-11.2 Remove the chocks.

10-11.3 And, release the hand brakes.

10-12 If brakes do not release, the car shall be considered a "bad order car" and the trainman shall follow Procedure 6 of this SOP.

10-13 The Engineer shall move train upon signal from the trainman.

METHOD DESCRIPTION: PROCEDURE # 6. REPORTING DEFECTS & MOVING BAD ORDER CARS

1. When a trainman discovers a defect or improper brake operation are observed, a report must be promptly made to the Railroad Operations Foremen/dispatcher.

1-1 The report must list:

1-1.1 The car number.

1-1.2 The nature of the defect,

1-1.3 And any other information needed to expedite repairs.

Note: If the car was received from another railroad, it should be stated in the report.

1-2 The Railroad Section supervisor/dispatcher shall inform the Public Works Heavy Mobile Equipment (HME) Foreman of deficiencies.

1-3 The HME Foreman shall assign a Heavy Mobile Equipment Inspector

1-4 The HME Inspector shall inspect the car.

1-5 The HME Inspector shall produce a "shop repair order" (SRO) which delineates the work necessary to repair the car.

1-6 The HME Foremen shall receive the SRO from the HME Inspector.

1-7 The HME Foreman shall dispatch an HME Mechanic.

2. The HME Mechanic shall attempt to repair the car on-site.

2-1 If successful, follow Procedures 4 and 5 of this SOP.

2-2 If repairs are not successful:

2-2.1 The Railroad Section supervisor/dispatcher shall:

2-2.1.1 Decide whether the train can be safely moved with the identified deficiencies.

2-2.1.2 And, shall set appropriate speed and travel limitations.

3. Proceed to step 7 of this procedure if:

3-1 The deficiencies are determined to be minor.

3-2 Or, no more than 15% cars of the train have improper brakes.

WARNING

NO EXPLOSIVES LADEN RAILCARS SHALL BE DISPATCHED TO THE WATERFRONT WITH REPAIR DEFICIENCIES

4. The affected cars shall be set out for off-loading and repair if:

7-1 Major deficiencies are present.

7-2 Or, more than 15% cars of the train have improper brakes.

5. The Railroad Section supervisor/dispatcher shall notify the Ordnance Production Planner of the problem with the car.

5-1 The Production Planner shall schedule an off-load of the car.

5-2 The Production Planner shall inform the Railroad Operations Foremen/dispatcher.

5-3 Loaded bad order cars shall be moved as directed by the Railroad Operations Foremen/dispatcher.

5-4 The Railroad Section supervisor/dispatcher shall mark the railcar location card to show that the car is "bad order."

METHOD DESCRIPTION: PROCEDURE # 7 SETTING OUT & CONTROL OF RAILCARS

1. Types of Car Employment. It is necessary that the Railroad Section supervisor/dispatcher know:

- 1-1 the location,
- 1-2 employment,
- 1-3 and condition of every operating car on the station.

2. A simple record system has been established to supply this data.

Note: The Ordnance Traffic Officer is responsible for the physical inspection of incoming and outgoing DOT cars and their contents.

3. The following are the major types of car employment at Public Works Center, Site Earle :

3-1 Incoming Department of Transportation (DOT) certified cars:

3-1.1 Incoming DOT cars are delivered by Conrail.

3-1.2 Conrail access is controlled by the Security Department.

3-1.3 The control processing of these cars is the responsibility of the Ordnance Department Traffic Officer.

3-1.4 Inbound DOT cars shall not be moved until:

3-1.4.1 The Traffic Branch Hazardous Materials Inspector has inspected each car.

3-1.4.2 And, the Hazardous Materials Inspector has rendered a written inspection report to the Railroad Section supervisor/dispatcher on the Railroad Car Inspection Report, WPNSTAE form 11230/8 (Rev 2/89).

Note: The Railroad Section supervisor/dispatcher shall keep the necessary cards and records with respect to all inbound and outbound cars.

3-2 **Outgoing DOT cars:**

3-2.1 Outgoing DOT cars are picked up by Conrail.

3-2.2 Conrail access is controlled by the Security Department.

3-2.3 The control processing of these cars is the responsibility of the Ordnance Department Traffic Officer.

Note: The Traffic Officer shall furnish the Railroad Section supervisor/dispatcher with advice on outgoing cars as far in advance of their release as possible. This permits arrangements to be made for the timely pickup and delivery of these cars to Conrail.

3-2.4 Outbound DOT cars shall be placed in Ry.

3-2.5 Then, the Hazardous Material Inspector shall inspect them.

3-2.6 Then, the Hazardous Material Inspector shall render a written inspection report to the Railroad Section supervisor/dispatcher on WPNSTAE form 11230/8 (Rev 2/89).

3-2.7 Then, the car(s) shall be moved to outbound (OB).

3-3 **Intra-activity Movement and Employment:** The key to efficient dispatch control and employment of railcars on station is through frequent communication by all key personnel as well as through proper maintenance of essential records. The usual practice is to rely on voice authorization of the Railroad Section supervisor/dispatcher

rather than on formal train orders for car and locomotive movements. These authorizations, in lieu of train orders, must be acknowledged by the recipient, usually the Conductor or Engineer. This acknowledgment and acceptance means that the verbal orders of the Railroad Section supervisor/dispatcher are viewed as, and have all the force of, train orders.

3-4 Control Records. Because of the reliance placed on the use of voice communication, essential control records must be maintained as proof of authority for movement and employment, and to furnish data needed for operational control. The following records are authorized for use Earle to support dispatch control records:

- 3-4.1 Ammo RR Movement Control WPNSTAE 11230/11 (Rev 11-59)
- 3-4.2 Railroad Drag Sheet WPNSTAE 11230/4 (Rev 3-82)
- 3-4.3 Ships Berth Spot Sheet WPNSTAE 3171/1 (Rev 8-78)
- 3-4.4 RR Car Report- Location WPNSTAE 11230/2 (Rev 11-60)
- 3-4.5 RR Car Inspection Report WPNSTAE 11230/8 (Rev 2-89)
- 3-4.6 Locomotive Checklist Form/(P-301)
- 3-4.7 Locomotive Condition Report WPNSTAE 11230/17 (Rev 6-81)
- 3-4.8 Derailment Report WPNSTAE 11230/29 (Rev 3-83)

4. Placing or Spotting Railcars:

Note: Railcars or cuts of railcars shall be placed or spotted in accordance with procedure 6 of this SOP. The exception to this is at the pier where railcars shall be placed or spotted in accordance with procedure 11 of this SOP.

Note: While switching railcars from classification yards, spur tracks, barricaded sidings, and other sidings; then the railcars may be left standing temporarily with the wheels chocked in both directions and the air brakes set

Note: When it is necessary to set out bad order cars, the cars shall be moved in accordance with procedure 6 of this SOP.

4-1 Railroad equipment shall not be spotted in such a manner as to foul crossover switches or derail devices.

4-2 Locomotives shall not remain in front of buildings containing explosives or dangerous materials longer than necessary to spot railcars for loading or unloading.

4-3 Railcars at buildings should be located so that employees in the building shall not have to run the length of the building or dock to evacuate should an emergency arise.

4-4 Where loading dock area permits, and to the maximum extent practicable, railcars shall not be spotted with doors opposite magazine doors or on the spot when cranes are in use.

4-5 Railcars, or cuts of railcars placed in barricades or barricaded sidings shall be located so that:

4-6.1 The railcars do not extend beyond the barricade.

4-6.2 The leading or point railcar is no closer than five feet from the railcar stops

4-7 Suspect cars shall be placed in the isolation area AA-33 barricade pending disposition determination.

4-8 Railcars shall not be placed on the pier approaches except as required during switching operations.

4-9 When trains or locomotive are required to clear the main track, the "clear track" report must not be made until the switch has been secured in the normal position.

4-10 Explosives laden railcars shall not be spotted:

4-10.1 On tracks,

4-10.2 In open areas,

4-10.3 Or between earth-covered magazines.

4-11 Explosives laden railcars shall be placed in classification yards so they are subjected to a minimum of handling.

4-12 Explosives laden railcars shall be placed in classification yards so they may be easily removed from danger of fire.

4-13 Explosives laden railcars must not be placed under bridges.

4-14 Explosives laden railcars must not be placed where locomotives would stand opposite or near them on parallel tracks.

5. Explosives laden railcars shall not be left overnight in classification yards.

6. Switching Procedures:

6-1 Conductors are responsible for the position of the switches used by them and their crews.

6-2 When practical, the engineer must see that switches near the locomotive are properly lined.

6-3 When operating a ground lever switch:

6-3.1 The Trainman must keep all parts of the body clear of the line of lever travel.

6-3.2 To avoid being struck by the lever or ball, the fingers and thumb should be under the lever when releasing it from its keeper. 6-3.3 The hands and feet must be kept in a position where they shall not be struck by the lever or ball.

6-4 When using a switch where the switch target is imperfectly displayed or absent the Trainman must inform the Railroad Section supervisor/dispatcher.

6-4.1 The Railroad Section supervisor/dispatcher shall notify the track Inspector that the switch needs repair.

6-4.2 The switch shall be carefully inspected before the train runs over the switch.

6-5 When not in use:

6-5.1 Switches equipped with locks must be locked.

6-5.2 Switches equipped with hooks must be hooked.

6-5.3 Switches equipped with latches must be latched.

6-6 Switches and derails shall be properly realigned after use.

6-7 A switch shall not be left open for another train or locomotive unless a trainman from that locomotive is in charge of the switch.

6-8 All switches shall be left aligned for the main track, unless otherwise directed by the Railroad Section supervisor/dispatcher.

6-9 When attending a main track switch:

6-9.1 Personnel must not be within 20 feet of the switch stand while a train is approaching or passing over the switch.

- 6-9.2 When practical, they should take a position on the opposite side of the track.
- 6-9.3 When attending a main track switch for a train or locomotive exiting a siding, do not go beyond the fouling point until after any opposing trains have passed.
- 6-10 When manipulating switches, before signaling the Engineer to move, trainmen shall assure:
- 6-10.1 That the switch is properly set.
- 6-10.2 And, that the points fit properly.
- 6-11 A train or locomotive shall not foul a track unless:
- 6-11.1 Switches connected with the movement are properly aligned.
- 6-11.2 And, there are no conflicting movements.
- 6-12 Neither switch of a crossover may be opened when railroad equipment is closely approaching either switch.
- 6-13 When a crossover movement is to be made, both switches shall first be opened before movement commences.
- 6-14 Switches shall not be restored to normal position until movement is completed or clear of the track involved.
- 6-15 If a locomotive or railcar has partially run through a spring switch, the movement must be continued.

WARNING

MAKING A REVERSE MOVEMENT AFTER PARTIAL RUNNING THROUGH A SPRING SWITCH WILL RESULT IN A DERAILMENT

- 6-16 When a spring switch (or any other self-throwing type switch) is being passed through or over:
- 6-16.1 The train shall make a complete move through the switch.
- 6-16.2 The Trainmen shall examine the switch points to ensure that the switch has been properly aligned
- 6-16.3 Then, the train may reverse movement through the switch.
- 6-17 When a switch is damaged:
- 6-17.1 a report shall be made immediately to the Railroad Section supervisor/dispatcher.
- 6-17.2 The Railroad Section supervisor/Dispatcher must report the damaged switch to the Track Inspector so he can secure the switch.
- 7. Shifting, Switching, and Spotting of Equipment:**
- 7-1 Dropping, humping, kicking, or flying of explosives laden cars over switches is strictly prohibited.
- 7-2 When shifting equipment at building, train crew members shall see that all bridge plates, pallets, skids, dunnage, and any other material is clear of the equipment, hand brakes are set, wheels are chocked, and there are no blue flags on the equipment before coupling to and/or moving the equipment.
- 7-3 No person other than a train crew member shall couple or uncouple cars or locomotives.
- 7-4 When couplings are being made or equipment is being moved, crew members shall practice extreme care and be cognizant of their positioning on the ground or in the cars/engine. Specifically, crew members shall NOT stand with one foot on the locomotive or car and the other on the ground, or ride between cars or between the locomotive and

- a car with one foot on one car or locomotive and the other foot on the adjoining equipment.
- 7-5 Train crews should take care that all materials on open cars are properly and securely loaded to prevent it from shifting or falling from the cars.
- 7-6 When switching and where it is necessary to disturb cars that are being loaded or unloaded, verbal notice must first be given to all individuals in or about the cars that are to be moved. Work on those cars must cease and blue flags must be removed. After cars are moved, they must be resecured and their hand brakes set, wheels chocked and blue flags reset.
- 7-7 When coupling loaded cars, the cars shall be coupled with just enough impact to complete coupling.
- 7-8 Established walkways, roadways, and cross-traffic areas must be left clear.
- 7-9 Before coupling to or moving cars, it must be known that the cars can be moved safely. Cars shall not be moved until it is ascertained that all individuals and/or obstructions are clear.
- 7-10 When switching and where locomotives may be working at both ends of a track, movements must be made carefully and communications maintained with the other train crews involved to guard against accidents.
- 7-11 When switching or placing cars, Trainmen must know that cars are not left standing so close as to not fully clear passing cars on adjacent tracks or to cause injury to Trainmen riding on the side of cars. Clearance shall be gauged by standing alongside rail with arm extended. If fingers can contact equipment on adjacent track, it does not clear and the train shall not be moved until proper clearance is obtained.
- 7-12 In leaving cars spotted on side tracks, they must be left clear of streets, highways, or crossings and as far back from the crossings as practical.
- 7-13 Railcars left on tracks adjacent to a crossing at grade shall be placed at least one railcar length from crossing when conditions permit. Railcars shall have wheels chocked in both directions, hand brake set, and air set.
- 7-14 When switching, it must be known that the cars are properly secured before they are uncoupled.
- 7-15 When cars are being pushed by a locomotive, a train crew member shall take a conspicuous position on the leading car. The only exception to this rule is when the train crew is switching or making up trains in yards and personnel are properly positioned on the ground and are serving as signalmen for the engineer.
- 7-16 When a train is moving in switching operations, all crew members must be with the train at all times.
- 7-17 When spotting railcars, the spots shall number consecutively from switch to block as the building is faced.
- 7-18 When spotting at multi-track buildings, spots numbers shall be painted on docks or doors.
- 7-19 Railcars are not to be spotted closer than 12 inches from the bumper.
- 7-20 A railcar or cut of cars shall not be coupled or moved while displaying blue flags.

7-21 Prior to spotting a car:

- 7-21.1 Trainman shall dismount the train and observe the spot location for obvious defects to the track or potential hazards to the train.
- 7-21.2 Then he shall signal to position the train.
- 7-21.3 The Trainman shall spot the car(s) at the designated position.
- 7-21.4 Then he shall signal for and observes the application of the brake.

7-22 Then the Trainman shall perform the following, in sequence:

- 7-22.1 Set chocks on the down-grade end of the car truck.
- 7-22.2 Set the hand brake.

Note: Chocks and hand brakes shall not be set on cars at the piers.

- 7-22.3 Close air valve on the engine side of the cut.
- 7-22.4 Lift coupling lever.
- 7-22.5 Observe that the locking pin is raised.
- 7-22.6 Step away from the train and signal for the train to cut away.

7-23 Then the Engineer shall release the brakes and moves the train away from the cut-off car(s), thereby parting the air hoses and causing the cut-off car(s) to apply an emergency brake application.

8 Holding Tracks: Train crews shall keep all cars coupled when placing or removing cars from any holding tracks and class yards.

9. Rail Yard Track Assignments shall be as follows:

9-1 At the Mainside Classification Yard (From the tower):

- Northbound Mainline
- Southbound Mainline
- Track 1 - Trains ready to depart for pier
- Track 2 - Mixed Holding for following workday
- Track 3 - Empty cars for inspection
- Track 4 - Inert Storage Cars
- Track 5 - Empty 50' Boxcars
- Track 6 - Inert Storage or empty boxcars
- Track 7 - Shop Cars
- Track 8 - Flatcars

9-2 At the Mainside East Yard (Across the Street from the Tower):

- Track 1 - Miscellaneous
- Track 2 - Miscellaneous
- Track 3 - Miscellaneous
- Track 4 - Miscellaneous
- Track 5 - Running Track

9-3 At the Receiving Yard (From West to East):

- Track 1 - Running Track
- Track 2 - Holding Track for DOT & outbound Rehab cars

9-4 At the Waterfront PC Yard (From the Mainline to Road):

- Track 1 - Miscellaneous

METHOD DESCRIPTION: PROCEDURE # 8 SIGNALS

1. **GENERAL:** The railroad operations communication system is a combination of:
 - 1-1 Hand.
 - 1-2 Lantern.
 - 1-3 And, radio signals.

2. **Readiness:** Personnel whose duties may require them to give signals shall have all the necessary devices and appliances:
 - 2-1 They must be kept in good order.
 - 2-2 They must be kept ready for immediate use.

3. Personnel giving signals shall locate themselves so the signals can be clearly understood.
 - 3-1 Signals shall be used per reference (b), and this procedure.
 - 3-2 The disappearance of an individual giving signals or a light by which signals are given shall be constructed as a stop signal unless the movement is otherwise protected whenever a train is being:
 - 3-2.1 Backed.
 - 3-2.2 Or shoved.
 - 3-3 Any object waved violently by anyone in or near the train is a signal to stop.
 - 3-4 When day signals cannot be seen plainly because of weather or other conditions, night signals must be used.

4. **Alertness for Signals:** All train crew members and others concerned shall be constantly on the alert for signals.
 - 4-1 They must exercise the utmost care to avoid taking signals that may be intended for other trains or locomotives.
 - 4-2 They must not act until they are convinced that they understand the signals and the situation correctly.

5. **Personnel Involved:** Through the use of lookouts and signals, every precaution shall be taken by train and locomotive crews to prevent damage to property and injury to individuals in the crew or to other personnel working nearby.
 - 5-1 The Conductor shall instruct the crew as to the proper signals to be used and ensure that the signals are not carelessly made.
 - 5-2 Improper signals are to be considered stop signals.
 - 5-3 The Engineer must stop the train upon receipt of an improper signal.
 - 5-4 The Engineer shall not move the locomotive or train until the meaning of the improper signal is understood.
 - 5-5 Except in an emergency, an Engineer shall not act on a starting signal given by anyone other than a member of his particular train crew. **BUT A STOP SIGNAL FROM ANYONE SHALL BE ACTED UPON.**

6. Upon giving a signal to stop, a train crew member, shall not step on the track or in front of the locomotive or railcar until all movement of the train has ceased.
7. Precedence. Fixed signals take precedence over:
 - 7-1 Hand.
 - 7-2 Flag.
 - 7-3 Or, lamp signals.
8. **Hand Signals:** Train crew members shall give hand signals on the right or Engineer's side of the train whenever practicable.
 - 8-1 At points where there are close clearance or other situations which make it desirable to work on the left or fireman's side of the train, a train person shall be assigned to act as fireman.
 - 8-2 This fireman shall assume a position in the locomotive cab to receive signals and communicate them to the engineer.
9. **Acknowledgment:** When any signal (except a fixed signal) is given to stop a train, it must be acknowledged by one short sound of the locomotive whistle.
10. **Imperfect Signals:** A signal imperfectly displayed, or the absence of a signal at a place where a signal usually is shown, must be regarded as the most restrictive indication that can be given by that signal.
11. The Railroad Section supervisor/dispatcher shall be notified promptly when a signal:
 - 11-1 Is imperfectly displayed.
 - 11-2 Or is absent at a place where a signal usually is shown.
12. Sharing Information Among Train Crew Members. When practical, all members of train crews must inform each other of the name and indication of each signal observed that affects the movement of their train or locomotive.
13. Crews shall call out the position of switches and condition of:
 - 13-1 Grade crossings.
 - 13-2 Flashers.
 - 13-3 Traffic in or approaching grade crossings
 - 13-4 Or any condition presenting a possible hazard to the train.
14. **Standard Signals:** Hand, Flag, and Lamp.
 - 14-1 STOP. Lamp swung horizontally across the track.
 - 14-2 REDUCE SPEED. Lamp held horizontally at arm's length.
 - 14-3 PROCEED. Lamp raised and lowered vertically.
 - 14-4 BACK. Lamp swung vertically in a circle at half-arm's length across the track.
 - 14-5 APPLY AIR BRAKES. Lamp swung horizontally above the head when standing.

14-6 RELEASE AIR BRAKES. Lamp held at arms length above the head when standing.

14-7 HAND AND FLAG SIGNALS. Hand and flag signals are the same as outlined for lamps except that the stop signal may be given above the shoulder.

15. **Lanterns:** All individuals required to give signals shall be provided with lanterns. Personnel shall be responsible for the lantern being kept in an operating condition at all times.

16. **Backing:**

16-1 When backing or shoving a train, locomotive, or railcars, the disappearance from view of the train crew member, or light by which signals are given at the point of the train, shall be considered a stop signal and the Engineer shall stop the train. The only exception to the rule shall be by the prearranged communication by radio between the Engineer and Trainmen defining the reason for the out of sight move and its duration.

16-2 When backing or shoving a train, locomotive, or railcar, the Conductor is responsible for ensuring that the Trainmen can relay all signals to the Engineer. If visual contact cannot be maintained, the Engineer shall stop the train. This is particularly important when shoving into barricades.

17. **Flags.** Flags of the prescribed color must be used by day, and lights of the prescribed color and type by night.

18. **Flagging Signals.** The following signals shall be used when performing flagging duties:

18-1 DAY SIGNAL: A white flag.

18-2 NIGHT SIGNAL: A white light.

18-3 **AN OBJECT WAVED VIOLENTLY BY ANYONE ON OR NEAR THE TRACK IS A STOP SIGNAL.**

18-4 Day signals must be displayed from sunrise to sunset, but when day signals cannot be plainly seen and during periods of inclement weather and fog, night signals must be used in addition. Night signals must be displayed from sunset to sunrise.

19. **WARNING SIGNALS:**

19-1 **Red Signal Protection:** The red flag or red light shall be displayed on tracks that are out of service or where track work is being done.

19-1.1 The red signal shall be displayed at locations where the train must stop short of the red signal and not proceed until authorized to do so.

19-1.2 Red signals shall be placed approximately 200 feet from the out of service track section.

19-1.3 The red signal shall be displayed on both ends of the section of track which is out of service.

19-1.4 If the track is a dead-end, the signal need only be displayed on the switch end of the out of service track.

19-1.5 The red signal shall be displayed between the rails of the track affected.

19-1.6 Red signals need not be placed past switches unless so directed by the Railroad Section supervisor/dispatcher.

19-1.7 No one except the person, or by the authority of that person, who placed the signal shall remove it.

19-2 Yellow Signal Protection: The yellow flag or yellow light shall be displayed:

19-2.1 In advance of locations where train movement may be restricted.

19-2.2 Or where the train may have reduced visibility for one reason or another.

19-2.3 When the yellow signal is displayed and restriction is not specified:

19-2.3.1 The train must reduce speed.

19-2.3.2 And be prepared to stop short of any flagman, red signal, or men and/or equipment fouling the track.

19-3 Blue Signal Protection: A blue flag or blue light shall be displayed for the protection of workmen engaged in inspection, testing, loading, unloading, repair and servicing of rolling equipment.

19-3.1 The blue signal must be placed by authority of the supervisor of each group of workmen who are in, on, under or between rolling equipment, whenever such work subjects them to the danger of personnel injury posed by any movement of such equipment. Blue flags must be placed by each work crew that works on the equipment and shall be stenciled with the work crew name (i.e. PW HME Shop).

19-3.2 At locations which may be entered from more than one direction the blue signal must be displayed at each end of the equipment. Blue flags shall be inserted into knuckles. At locations which may be entered from only one direction, the blue signal shall be placed at the front of the rolling equipment toward the switch.

19-3.3 No equipment shall be spotted on the same track so as to obscure the blue signal.

19-3.4 Equipment protected by a blue signal MUST NOT be coupled or moved while the blue signal is displayed.

19-3.5 When a train must run adjacent to a track displaying a blue signal, the train crew shall take extreme care to avoid injury to personnel and materials. Prior to passing the adjacent track, the locomotive bell and whistle shall be sounded.

19-3.6 Blue signals shall not be removed by anyone except by, or by authority of, the person who placed the signal there and only after the danger of injury to personnel is no longer present.

20. Crossing Flasher Lights: Switches must not be left open nor cars left standing longer than necessary on tracks within the operating limits of flasher lights (automatic warning devices).

21. The Locomotive Bell shall be rung when a locomotive is:

21-1 About to move.

21-2 Approaching & passing over public crossings at grade.

21-3 Moving through populated areas and otherwise when necessary as a warning signal.

22. **The Locomotive Whistle:** The locomotive whistle must be sounded accurately at all places required by rule or regulation, or to prevent accidents. Whistle signals must be sounded and the bell rung by the leading locomotive when double-heading. All Engineers, in addition to the regular use of the whistle, shall sound their whistles one or two short blasts when approaching sharp curves or any place where sight distance is restricted.

23. **Whistle Failure:** In case of whistle failure, speed must be reduced and the bell rung continuously when approaching highway crossings, congested areas, and curves. The Railroad Section supervisor/dispatcher shall be notified promptly.

24. **Unnecessary Use:** Locomotive whistles and bells shall be used only when necessary. Unnecessary use is disturbing and unsafe.

25. **Locomotive Whistle Signals:** The following locomotive whistle signals are illustrated by "o" for short sound and by "-" for longer sounds.

25-1 The sound of the whistle should be distinct, and its intensity and duration proportionate to the distance that the signal is to be conveyed.

25-2 When two or more locomotives are coupled, only the leading locomotive shall give and answer signals.

26. LOCOMOTIVE WHISTLE SIGNALS:

SOUND INDICATION

- o Apply brakes, Stop.
- - Release brakes, Proceed.
- o o Answer to any signal not otherwise provided for.
- o o o Back, when standing.
- o o o o Call for signals.
- - o - Approaching main road crossings at grade. To be prolonged or repeated until crossing is reached. Also to be used when view is restricted by weather, curves or other unusual conditions.
- o o o Protect rear of train.
- o o o - Protect front of train.
- - - - Call in Trainman from South or North.
- - - - - Call in Flagman.

Succession of
short sounds Alarm for individuals on or near the track.

27-1 WHISTLE SIGNS AT VEHICLE GRADE CROSSINGS

27-1.1 The purpose of whistle signs is to give the locomotive engineer a point of reference to start sounding the whistle in order to provide adequate warning.

27-1.2 The sign also provides the engineer with a reminder that he is approaching a public grade crossing or an area where warning of an approaching train required.

METHOD DESCRIPTION: PROCEDURE # 9 RADIO COMMUNICATION FOR RAILROAD OPERATIONS

1. The Railroad Section supervisor/dispatcher must have control of all equipment movement over or near the rail system trackage. Two-way radio communication between the Railroad Section supervisor/Dispatcher, railroad operating crews and track maintenance crews is essential for a safe and efficient operation.
2. The use of a two-way radio is an ideal means by which to accomplish the coordination required to efficiently operate the railroad system.
3. A dedicated two-way radio frequency has been established for Public Works Center, Site Earle railroad operations.
4. The conductor may be equipped with a portable radio to monitor instructions between the engineer and dispatcher.
5. The Braker Switcher may also be equipped with a portable unit.
6. The use of additional radios shall be determined on an "as needed" basis.

Note: The term "radio communications" refers to the transmission and reception of voice communications by radio. The radio shall be used only for official business associated with Railroad Operations. No employee shall knowingly transmit a false emergency communication; or, any unnecessary, irrelevant or unidentified communication, or utter any obscene, indecent, or profane language via radio.

7. No equipment shall be allowed to operate on the Station's Railroad without a two-way radio.
 - 7-1 These two-way radios must be compatible with the Railroad Section supervisor/dispatcher's system.
 - 7-2 Each member of the railroad crew must be capable of using the radio, if necessary, while on duty.
 - 7-3 The Railroad Section supervisor/dispatcher shall loan a radio to all contractor personnel operating equipment on the rails.
 - 7-4 Each radio which is used in connection with railroad operations shall be tested at least once during each shift.
 - 7-4.1 The person assigned the radio is responsible for testing the radio to verify that it is operating properly.
 - 7-4.2 Any radio found to be operating improperly shall be reported to the dispatcher and removed from service until it has been repaired and tested.
 - 7-4.3 When radios are attended, they must be turned on, set to the appropriate channel, with volume adjusted to receive communication.
 - 7-5 No movement shall be made on any rail unless:
 - 7-5.1 Clearance has been obtained from the Railroad Section supervisor/dispatcher.
 - 7-5.2 And, clearance has been acknowledged by the crew.
 - 7-5.3 Clearances shall normally be from point to point.
 - 7-5.3.1 When a movement has been completed, new clearances must be obtained before moving to another point.

7-5.3.2 When too much time elapses in moving between points, the dispatcher, at his discretion, shall contact the crew to ascertain the cause for the delay.

7-5.3.3 All instructions included in the clearance shall be strictly followed.

8. Emergency Calls: Any emergency call shall be preceded by the word "Emergency" repeated three times.

8-1 Such calls shall contain as complete information as possible and be used only to cover initial reports of:

8-1.1 Derailments,

8-1.2 collisions,

8-1.3 storms,

8-1.4 washouts,

8-1.5 fires,

8-1.6 obstructions to track,

8-1.7 or other matters which would cause:

8-1.7.1 serious delays to traffic,

8-1.7.2 damage to property,

8-1.7.3 or injury to personnel.

8-2 All Trainmen shall give absolute priority to communication from a station in distress, and except in answering or aiding that station shall refrain from transmitting in order to keep the channel clear until there is assurance that no interference will result.

9. **Transmitting:** Before transmitting, any railroad personnel operating a radio must:

9-1 Listen a sufficient interval to be sure the channel is not already in use.

9-2 The individual initiating the transmission must provide their identification to the receiving station.

9-3 Then, the individual initiating the transmission must wait for acknowledgment from the receiving station.

9-4 After the receiving station has acknowledged the call, the individual initiating the transmission may proceed with the transmission

9-5 In the interest of security, transmission by radio shall be short and to the point. All radio messages must be concise, spoken clearly, using standard railroad terms and natural phrasing.

9-6 After the transmission, the individual initiating the transmission must listen for acknowledgment from the person for whom the transmission was intended.

9-7 Directives transmitted over the radio should be repeated back to the sender then written down.

9-8 Messages to be passed to another station or person shall be written down if they cannot be communicated immediately.

10. Radio calls must be promptly acknowledged; acknowledgment may be delayed if it would interfere with other duties relating to safety.

11. When radio communication is used in lieu of hand signals in connection with switching, backing, or pushing railroad equipment:

METHOD DESCRIPTION: PROCEDURE # 10 SECURITY ESCORT UNIT OPERATIONS

1. The Security Officer is responsible for providing an armed escort of certain Ammunition & Explosive (A&E) trains.
 - 1-1 Armed guard escort is required while transporting Sensitive Category I II, III, and IV A&E from storage magazines to pier areas.
 - 1-2 Other movements shall require escort:
 - 1-2.1 In accordance with reference (f).
 - 1-2.2 As directed by the Commanding Officer.
 - 1-2.3 In accordance with this procedure.
2. These requirements are set forth in references (a) and (e) of this SOP.
3. The Railroad Section supervisor/dispatcher & rail crews shall coordinate with Security for escort of the train.
4. The Security Department Dispatcher shall notify the Railroad Section supervisor/dispatcher of any threat conditions.
5. The following responses shall apply to the following designated threat conditions:
 - 5-1 **ALPHA** Maintain awareness and report all observances of unusual conditions to the supervisor.
 - 5-2 **BRAVO** Maintain awareness of unusual conditions and request Security Department escort for all off-station explosive shipments.
 - 5-3 **CHARLIE** All railroad operations shall require Security escort.
 - 5-4 **DELTA** All railroad operations shall CEASE.
6. **CONFRONTATIONS BY DEMONSTRATORS:**
 - 6-1 In the event that demonstrators are observed on the railroad tracks; the Engineer must stop the train as far back as possible.
 - 6-2 The Railroad Section supervisor/dispatcher must be immediately notified of the situation.
 - 6-3 The Railroad Section supervisor/dispatcher must notify the Security Department Dispatcher of the situation.
 - 6-4 If the demonstrators attempted to board the train before Security forces arrived, the train crew must:
 - 6-4.1 Stay in the locomotive cab.
 - 6-4.2 Block the door.
 - 6-4.3 And, shut down the engine.
 - 6-5 If the demonstrators appear to be aggressive, the Conductor shall order the Engineer to reverse the direction of the train to move away from the demonstrators, if possible.
7. The Security Officer shall provide security briefings to Railroad operations personnel when necessary.
8. The briefing shall cover the current threat assessment of potential demonstrators.

METHOD DESCRIPTION: PROCEDURE # 11 PIER OPERATIONS

1. The pier area, during normal duty hours, is generally highly congested with personnel and vehicles. This condition is at it's worst during the morning and evening rush hour periods. When a train is required to operate on the pier during these highly congested periods, a definite safety hazard exists.
2. The greatest risk involved in operating during these congested periods is the high potential of a person or vehicle being struck by a train. To complicate the problem, these trains are almost always delivering or picking-up ammunition which greatly increases the risk of casualties if an explosive accident would occur.
3. All railroad personnel must be aware of this safety hazard when the pier is congested and must increase their vigilance accordingly.
4. All railroad personnel must ensure that the Special Speed Limit at the pier & trestle complex (5 MPH) is strictly observed.
5. Pursuant to railroad operations safety, the Port Services Officer shall:
 - 5-1 Ensure that the requirements of this SOP are disseminated to the Commanding Officer, or designated representative of each home ported ship.
 - 5-2 Ensure that the requirements of this SOP are disseminated to the Commanding Officer or designated representative of each naval or merchant vessel during the arrival conference.
 - 5-3 During the conference, emphasize the safety precautions to be exercised during railroad operations.
 - 5-4 Ensure that traffic cones and caution signs, as required are placed to direct pedestrians from ship to bus stops, and back.
 - 5-5 Ensure that caution signs are installed on all doors on pier buildings which exit directly onto the railroad tracks.
 - 5-6 After operating hours, the Port Services Officer shall control pier railroad movement and pedestrian walkways.
6. Pursuant to railroad operations safety, the Waterfront Operations Superintendent shall:
 - 6-1 Ensure that the pier safety requirements of this SOP are disseminated to the Commanding Officer, or designated representative of each naval or merchant vessel during the ship arrival boarding conference (arrival conference) prior to the start of waterfront explosives handling operations.
 - 6-2 Ensure that Safety Observers are assigned to monitor pier railroad operations. During these operations, safety observers shall wear REFLECTIVE VEST(S) indicating their position.
7. Pursuant to railroad operations, Safety Observers shall:
 - 7-1 Report for briefing to the Port Services Officer by 0500 each day railroad operations will be conducted on the piers.
 - 7-2 Accept daily pier assignments
 - 7-3 Report to duty stations, wearing the required REFLECTIVE VEST.

- 7-4 Provide pedestrian and vehicular control.
- 7-5 Interface between the railroad crew & pedestrians/vehicles.
- 7-6 Cease railroad movement on the pier or trestle, until pedestrians/vehicles are under control.
- 7-7 Ensure all vehicles, equipment, debris, etc. are cleared from tracks to create a minimum safety zone of 6 feet on each side of the tracks prior to the start of railroad operations.
- 7-8 Report violators of this policy in writing to the Port Services Officer.
- 7-9 Remain at the duty station, wearing the required REFLECTIVE VEST, until the completion of railroad operations, or until operations are secured by the Port Services Officer.
- 7-10 Ensure that the requirements of this SOP are followed.

8. Railroad Operations Personnel have the primary responsibility for the safe and efficient transportation of ordnance by rail. Pursuant to this responsibility, Railroad Operations Personnel shall:

- 8-1 Stop the train if pedestrians or vehicles are noted to be in violation of this SOP.
- 8-2 Coordinate all movements between Mainside and the Waterfront Area with the Security Officer and, when applicable, do not begin the movement without escort.
- 8-3 Exhibit maximum attention to safety during railroad movements.
- 8-4 Coordinate all pier area movements with Port Services personnel.
- 8-5 Report traffic problems to Port Services personnel for resolution.
- 8-6 Stop the train if pedestrian or vehicles are noted to be in violation of this policy.

9. Pursuant to pier safety, the Safety Director shall:

- 9-1 Monitor Railroad Operations safety.
- 9-2 Monitor Pier Safety.
- 9-3 Recommend changes to vehicle and pedestrian traffic flow plan, as required, to the Safety Policy Committee for review and approval by the Commanding Officer.
- 9-4 Establish safety related controls for both pedestrian and vehicular movement throughout the Station, but especially on the piers and trestles.

10. **REQUIREMENTS FOR STAND-BY LOCOMOTIVES AT PIER:** Per Reference (c), during all ship loading or unloading evolution's at the Weapons Station Earle pier complex; a stand-by locomotive and crew shall be stationed at the pier complex.

11. **RAILCAR SPOTTING AT THE PIER COMPLEX:**

- 11-1 At Weapons Station Earle, railcars containing explosives on piers or wharves do not require chocking but shall be placed so the maximum number of cars can be quickly removed in the event of fire or other emergency.
- 11-2 On Weapons Station Earle piers or wharves, railcars containing explosives shall have their air brakes set but shall not have their hand brakes set, nor shall they be chocked.

METHOD DESCRIPTION: PROCEDURE # 12 EXERCISING JOURNAL BEARING RAIL CARS

1. Many railcars are kept loaded and barricaded for extended periods of time.
2. The weight of a railcar is supported by eight bearings which fit between the axle ends and the truck frames. These are flat, solid brass bearings with Babbit metal bearing linings which are lubricated by wick and wiping action from the journal box oil sump.
3. When a car sits without movement for an extended period of time, the weight of the car forces out the lubricant from between the bearing and axle surfaces, allowing metal to metal contact. This is detrimental in two ways;
 - 3.1 Galvanic corrosion and erosion of the bearing and axle surfaces.
 - 3.2 And, high friction damage due to lack of initial lubrication when the car is moved.
4. This in turn, may cause hot boxes, bearing failures and extensive maintenance.
5. Although bearing corrosion problems are slow and insidious, extended car storage or idle time probably contributes to journal bearing wear.
6. To prevent or at least inhibit this type of bearing damage, it is standard practice to periodically move railcars with journal bearings to permit the wick wiping action to restore the oil film between the bearing and axle surfaces.
7. The Railroad Section supervisor/dispatcher must keep a running record of railcar movements and be able to determine which cars have not been moved recently.
8. The Railroad Section supervisor/dispatcher must ensure that each railcar be moved in accordance with the following policy:
9. In accordance with Reference (b), All railcars with journal bearings (plain bearing) shall be moved at least five car lengths back and forth to restore oil film under the bearings and thus minimize pitting and rusting of the journal bearings every 45 days.

Note: Rail crews shall accomplish this effort between periods of operational car moves.

METHOD DESCRIPTION: PROCEDURE # 13 AUTO RAILER, TRACK CAR & MAINTENANCE OPERATIONS

1. Operators of auto railers, track cars as well as all other rail equipment needed to perform track maintenance shall be governed by this SOP and shall follow the procedures herein.

2. Auto railers, track cars as well as all other rail equipment needed to perform track maintenance shall be operated by individuals who have been instructed and qualified to use the equipment and may be used only on official railroad business.

3. The Railroad Section supervisor/dispatcher shall qualify all Station personnel who operate railroad equipment.

4. The Public Works Contract Inspector shall ensure that Contractor personnel are qualified to use track cars, as well as all other rail equipment needed to perform track maintenance.

5. Prospective operators shall be examined regarding the rules and regulations governing the operation of equipment on the rails.

5-1 Each prospective operator shall be given a performance test to insure the applicant has achieved the proficiency level necessary to safely operate the equipment.

5-2 If considered qualified, a prospective operator shall be issued an operator's permit.

5-3 The permit shall authorize operation of equipment on the rails. 5-4 The Railroad Section supervisor/dispatcher must grant specific permission each time that any rail equipment is operated on the rails.

Note: Auto railers shall be moved on the highway whenever possible. Rail operation of auto railers, shall be restricted to cases where operation on the rail, (vice road) are necessary.

6. Before placing any equipment on the rails, the operator must contact the Railroad Section supervisor/dispatcher and state:

6-1 The location where the vehicle will be placed on the rails;

6-2 The area where the vehicle will be operated;

6-3 The length of time that the vehicle will be operated.

6-4 The same procedure shall be observed prior to moving the vehicle to another location by rail.

6-5 The same procedure shall be observed each time the operator moves the vehicle to another location by rail.

7. Operators shall notify the Railroad Section supervisor/dispatcher when removing equipment from the rails.

8. Operators shall not replace equipment on the rails without following the procedure prescribed above.

9. Before placing equipment on the track, or taking it off:

9-1 The motor must be shut off.

9-2 Each axle bearing housing must be held by at least two bolts with nuts and nut locks.

- 9-3 Excessive side play in bearing housings must be taken up before the auto railer or track car is operated.
- 9-4 Equipment with worn or broken parts that are liable to cause accidents shall be promptly repaired.
- 9-5 Action in Emergency. Before starting, there must be a thorough understanding as to what each passenger of the auto railer or track car must do should an emergency arise that would necessitate the quick removal of the vehicle from the track.
10. The auto railer or track car must be thoroughly inspected before each use for: loose bolts, nuts, leaky gasoline tanks, axles, wheels, bearings, brakes, and proper lubrication.
11. Brakes must be tested immediately after starting the auto railer or track car to insure that they are in proper working order.
12. Track cars shall never enter on the main line without being sure that the track is clear and shall not proceed closer than 1,000 feet to railroad locomotives and cars when moving on the same track.
13. All track cars must have a flagman in addition to the operator.
14. Pushing of any cars must be done from the rear end only.
15. Auto railers and track cars must be under complete control when approaching and passing over street or highway crossings. Rail traffic has the right of way but caution must be exercised at all crossings.
16. Permissible speed for auto railers and track cars in congested areas or where view is partially obstructed, proceed as you see or KNOW the way to be clear do not exceed 10 miles per hour.
17. Permissible speed for auto railers and track cars on straight track and light curves shall not exceed 15 miles per hour.
18. Loaded push cars or trailers must not be run down-grade at a speed in excess of the braking power required to bring the cars to a quick and safe Stop.
19. Greater distance and more time is required to stop auto railers when the rails are wet or frosty or when there are weeds or leaves on the rail. Trainmen operating cars must give consideration to such conditions to prevent sliding into obstructions ahead.
20. When running track cars through locations where there are work crews on the track, the car must be under complete control and proper care exercised to prevent accidents.
21. Operators of auto railers and track cars shall be in attendance at all times unless the equipment has been set at a safe distance off the rails or safely spotted on a spur track.

22. Operational Restrictions:

22-1 Motors shall not be run in a closed car house, as carbon monoxide gas is generated through the exhaust and IS LETHAL.

22-2 Except in emergencies, railroad equipment shall not be used during stormy or foggy weather or at night without lights.

23. Radios. The operators of All railroad equipment shall maintain radio contact with the Railroad Section supervisor/dispatcher. Operators of equipment without installed radios shall use a hand-held radio. Contractor personnel Must use the radio provided (no loan) by the Railroad Section supervisor/dispatcher.

24. Coupling:

24-1 When push cars or trailers are to be coupled to motor cars, the standard 18-inch couplers must be used.

24-2 When handling long material on track cars, it is permissible to use an approved special-length coupler with standard end connections and pins.

24-3 Motor cars shall be to the front of track cars coupled to them during transit. Pushing of track cars with a motor car may be permitted only to move to the nearest switch where changing of cars can be accomplished.

25. When passengers ride cars:

25-1 Tools and employees shall not be transported on the same trailer or car unless a compartment is provided for the tools.

25-2 The operator shall face the direction in which the car is moving and the passenger keep a constant lookout to the rear.

25-3 When track cars are coupled together, trainmen must sit so that their legs are not between the cars.

26. Tools and equipment shall be properly secured on all cars.

27. Equipment shall be turned off while being fueled, If a carrying can is used, it must be grounded to the fuel tank before gasoline is poured. Spark producing devices, smoking, or flames are forbidden near fueling operations.

28. Gasoline containers shall in all cases be Fire Dept. inspected, safety approved, painted red and marked "Gasoline." Gasoline shall not be transported in the personnel compartment of an auto railer.

**METHOD DESCRIPTION: PROCEDURE # 14 TRACK CERTIFICATION & NOTIFICATION
OF CHANGING CONDITIONS**

1. Over a period of time a significant number of changing conditions affecting railroad operations can occur.

1-1 Examples are:

1-1.1 Unstable track conditions.

1-1.2 Changes in speed limits.

1-1.3 The start or completion of track repairs.

1-1.4 Changes in flagging or signaling requirements.

1-1.5 And numerous other items which may modify train crew action.

1-2 This type of information must be passed to the train crew in a positive manner to ensure that all crew members have been notified.

1-3 Passing this type of information merely by word of mouth does not ensure all train crew members will be notified and can lead to controversy on what was actually said.

1-4 A formal system is required whereby:

1-4.1 The required information about the change in conditions is posted by the railroad supervisor

1-4.2 And, acknowledged by signature of all train crew members.

1-4.3 The acknowledgment of crew members who have been absent for a period of time due to leave, or another reason, is also required.

2. The following formal Out-of-Service Procedures shall be followed:

2-1 An Out-of-Service Log shall be maintained by the Railroad Section supervisor/dispatcher. Only the Railroad Section supervisor/dispatcher or the Shift Supervisor may make an entry into the Log.

2-2 Log entries shall consist of two parts:

2-2.1 Part 1: A summary of all out-of-service conditions as existing as of close-of-business of each Friday.

2-2.1.1 This summary shall be posted on Monday morning at 0800.

2-2.1.2 All train crew personnel shall read and initial the summary sheet at the start of their first shift after the posting.

2-2.1.3 No one shall be permitted to operate as a train crew member if they have not initialed the log.

2-2.1.3 The Railroad Section supervisor/dispatcher shall make copies of this summary available to the train crews and the Public Works Railroad Inspector.

2-2.1.4 Train crew members shall take one copy of the summary and carry that copy while conducting operations.

2-2.2 Part 2: A daily update of changes in the "Railroad bulletin orders," also known as, and hereinafter referred to as the out-of-service log.

2-2.2.1 The Railroad Section supervisor/dispatcher shall log changes as they happen.

2-2.2.2 The Railroad Section supervisor/dispatcher shall advise the train crews in the field of the changes by radio.

2-2.2.3 Train crews shall acknowledge radio transmission of changes in the Out-of-Service Log.

2-2.2.4 The Railroad Section supervisor/dispatcher shall ensure that changes are acknowledged.

2-3 In order to facilitate the updating of the out-of-service log: all Railroad Operations Personnel shall immediately contact the Railroad Section supervisor/dispatcher and report:

2-3.1 Any track obstructions.

2-3.2 Any change in track status caused by storms.

2-3.3 Any change in track status caused by accidental damage.

2-3.4 Or, damage by any other means.

2-4 An Out-of-Service map shall be maintained in the Railroad " Tower" building

S-13. The Railroad Track Inspector shall update this map when necessary.

2-4.1 The Railroad Section supervisor/dispatcher's shall balance the Out-of- Service Log against the map on a bi-weekly basis.

2-4.2 The Railroad Section supervisor/dispatcher's shall immediately contact the Railroad Track Inspector to reconcile any perceived differences between the map and the Out-of-Service Log.

3. The following formal Train Crew Notice Procedure shall be followed:

3-1 The Railroad Section supervisor/dispatcher shall daily notify all railroad personnel of track status.

3-2 There are two basic categories for servicing railroad trackage:

3-2.1 Planned maintenance/repairs.

3-2.2 And, noted unsafe conditions.

3-3 **Planned Track Maintenance/Repair:** Whenever an in-service section of track needs maintenance, the Railroad Section supervisor/dispatcher and the Railroad Track Inspector must ascertain how the maintenance operation will interfere with train movement.

3-4 When the determination is made, then the Railroad Foreman/dispatcher shall enter the out-of-service trackage in the Out-of-Service Log.

3-5 The Railroad Foreman/dispatcher shall also radio the train crews in the field to advise them of changes in track status and location of the maintenance/repair crew.

3-6 The Railroad Foreman/dispatcher shall also include a signed copy of the inspection report in the Out-of-Service Log.

3-6 For planned maintenance/repair of trackage, work crews may work on a section of track as long as the following precautions have been taken:

3-6.1 The work crews must place red flags or cones not less than 200 feet from an active work site

3-6.2 However, red flags or cones shall not be placed farther than the switch leading into that section of track.

3-6.3 Red flags or cones shall remain in place until the work is complete and the track has been recertified.

3-6.4 No one may remove a red flag or cone, except by the authority of the person who placed it.

4. Track Certification is the responsibility of the Track Certifying Official.

4-1 However, unsafe railroad trackage should be removed from service as soon as possible. Pursuant to this, anyone discovering an unsafe track condition shall immediately report it to the Railroad Foreman/dispatcher by radio or at extensions 2356 or 2357.

4-2 The Railroad Section supervisor/dispatcher shall immediately notify all train crews that this section of trackage is suspect. He shall also notify the Railroad Track Inspector for a determination of track status.

4-3 The Railroad Track Inspector shall inspect the track. If the track conditions warrants, he shall recommend the decertification of the section of track to the Certifying Official.

4-4 If the track condition warrants, the Certifying Official shall decertify the section of track via a signed inspection report to the Track Inspector.

4-5 The Track Inspector shall provide a signed copies of the inspection report to the Railroad Section supervisor/dispatcher.

4-6 The Railroad Section supervisor/dispatcher shall:

4-6.1 Log the change in the Out-of-Service Log.

4-6.2 Advise the train crews, by radio, of the track out of service status.

4-6.3 Ensure that the change is noted in the weekly summary of out-of-service conditions.

4-7 Concurrently, the Railroad Track Inspector shall determine the proper method for correcting the problem.

4-8 Regardless of the effort needed, out-of-service tracks shall have switches leading into those sections locked-out within 24 hours of their discovery.

Note: Pier switches are physically unable to be locked out.

4-9 The track shall remain out-of-service until repaired.

4-10 Once repair or maintenance work is complete, the Railroad Track Inspector shall inspect the work. If warranted, he shall recommend the recertification of the section of track to the Certifying Official.

4-11 If the track condition warrants, the Certifying Official shall recertify the section of track via a signed certification report to the Track Inspector.

4-12 The Track Inspector shall provide a copy of the certification report to the Railroad Section supervisor/dispatcher who shall log the change in condition in the Out-of-Service Log.

4-13 The Railroad Section supervisor/dispatcher shall radio the train crews in the field to advise them of the change in status.

METHOD DESCRIPTION: PROCEDURE # 15 TRACK MAINTENANCE

1. Weapons Station Earle railroad trackage maintenance is performed by contractor support personnel. The Public Works Contract Inspector must ensure that maintenance is performed in a manner which does not interfere with safe, efficient railroad operations. Pursuant to this, the Contract Inspector presents a pre-contract award briefing during which contractor personnel are instructed on procedures to be followed during maintenance operations.

2. The Contract Inspector must provide contractors with a copy of reference (k) and instruct them to strictly adhere to it to ensure that every precaution is taken to prevent fire.

2-1 Certification of railroad trackage at Weapons Station Earle shall be in accordance with reference (a).

2-2 Railroad crews shall be notified of track certification and maintenance per procedure 14 of this SOP.

3. Welding and cutting operations must be approved daily by the Station Fire Chief as well as the Contract Inspector.

4. The Contract Inspector must emphasize the requirement that workers must cease work and clear the track immediately when warned of approaching trains. In addition he must:

4-1 Approve tool equipment and safety appliances for welding units before they are used.

4-2 Ensure that only welding hoses in good condition may be used. Tape must never be wound over a bad spot in the hose.

4-3 Ensure that only employees experienced in the use of welding or cutting equipment shall be allowed to use same.

4-4 Emphasize the prohibition against using oxygen instead of compressed air.

4-5 Emphasize that throwing, dropping, or rough handling of compressed gas cylinders is extremely dangerous and is prohibited.

4-6 Ensure that tanks are tied up or properly secured by a chain and/or cable in an upright position while in use.

4-7 Ensure that approved welder's goggles are used for oxyacetylene cutting and welding. Helpers working near welding or cutting operations must wear the same type of goggles as the welder.

4-8 Ensure that oil or any other form of lubricant are not used on welding equipment.

METHOD DESCRIPTION: PROCEDURE # 16 OPERATING ON NON-CERTIFIED TRACKAGE

1. The Railroad Section supervisor/dispatcher shall not normally schedule trains to operate on non-certified trackage. However, if it becomes necessary to do so, the Railroad Section supervisor/dispatcher shall coordinate this need with the Railroad Track Inspector to ascertain the safety of the movement.

1-1 The Railroad Track Inspector shall personally oversee the movement of trains containing A&E over non-certified trackage.

1-2 The Railroad Track Inspector shall personally oversee the movement of trains containing fuel oil over non-certified trackage.

2. When practicable, the Railroad Track Inspector shall personally oversee all other rail movement over non-certified trackage.

2-1 However, properly trained and designated "Safety Observers" may oversee rail movement of railcars containing inert material over non-certified trackage.

2-2 Safety Observers must be trained and qualified by the Railroad Track Inspector, and designated in writing by the Base Civil Engineer.

3. Prior to movement over non-certified trackage, communication between Safety Observer and crew must be established per procedure 8 or 9 of this Manual.

3-1 **Visual Signals:** The engineer shall stop the train if the Safety Observer disappears from view.

3-2 **Radio Signals:** The engineer shall stop the train if he loses radio contact with the Safety Observer.

3-3 Upon receipt of an improper or unintelligible signal or radio communication, the engineer must immediately stop the train.

3-4 The train shall not move again until the meaning of all signals are understood and/or communication is reestablished.

4. Operating on Non-Certified Trackage:

4-1 Non-certified trackage shall be locked-out per procedure 14 of this Manual.

Note: Pier switches are physically unable to be locked out.

4-2 Locks may only be removed by the Track Inspector.

4-3 The engineer shall not move the train over non-certified trackage until he receives permission from the Safety Observer.

4-4 Locks shall be immediately reinstalled once the train has passed through.

4-5 When traversing multiple (continuous) catastrophic defects, no more than two cars may be moved at once. Additional cars must be placed on certified track.

4-6 When traversing sporadic catastrophic defects, the number of cars shall only be limited by the distance between the defects.

4-7 While the train traverses non-certified trackage, the safety observer must be attentive to observing the train. If he is required to execute a task (such as throwing a switch) then the train must cease movement while it is so engaged.

4-8 The safety observer shall visually observe every axle of the entire train while it traverses any area of non-certified track.

4-9 During night movements, the safety observer shall employ adequate lighting to facilitate inspection.

4-10 The speed of the train shall not exceed the normal walking pace of the safety observer. But in no case shall the train exceed the speed limit set forth in Procedure #14 of this Manual.

4-11 The safety observer shall immediately stop the train at the first sign of unusual movement or jerkiness in railcar or engine. Or if he/she has any question about operational safety.

4-12 In the event that the train is stopped for any of the above reasons, the Railroad Section supervisor/Dispatcher shall be informed and the Railroad Track Inspector shall be immediately summoned. No further movement of the train shall take place until the arrival of the Railroad Track Inspector.

CONSOLIDATED TOOL, EQUIPMENT AND CONSUMABLE SUPPLIES INDEX:

HAND & PORTABLE POWER TOOLS:

DESCRIPTION	SPECIFICATIONS	QUANTITY
1. Radio, Two Way Local, Safety Approved		As Required
2. Key, Switch, Lock GSA		As Required
3. Flag, Red, Signaling GSA		As Required
4. Lights, White Colored, Signaling GSA		As Required
5. Lantern, Signaling Local, Safety Approved		As Required
6. Chocks (vehicle)	local manufacture	As Required
7. Documents: OP 5, Volume 1	1 Ea; PWC SOP	1 Ea
8. Flashlights		2 Ea

EQUIPMENT:

DESCRIPTION	SPECIFICATIONS	QUANTITY
1. Locomotive	120 ton	5
2. Locomotive	80 ton	1
2. Boxcar		259
3. Flatcar		53
4. Tankcar		47
5. Speed Recorder		1 each locomotive

SAFETY EQUIPMENT

DESCRIPTION	SPECIFICATIONS	QUANTITY
1. Glasses, Safety (WITH SIDE SHIELDS)		1 PAIR PER CREWMAN
2. Shoes, safety, steel-toed FSC 8430/Commrcl		1 PAIR PER CREWMAN
3. Gloves, leather palmed, 415-00-634-4658		As Required
4. Ear Protection Local, Safety Approved		As Required

CONSUMABLE SUPPLIES

DESCRIPTION	SPECIFICATIONS	QUANTITY
1. Battery, six volt	Local Purchase	As Required
2. Pens, Ballpoint	Local Purchase	As Required
3. Rags, Cotton	7692-00-205-1711	As Required

CHEMICALS

DESCRIPTION	SPECIFICATIONS	QUANTITY
1. Diesel Fuel	AUTOMOTIVE	As Required

Items not showing quantity requirements are used on an as needed basis.

10. **FLOOR AND FLOW PLANS:** Due to the nature of this operation, specific Floor & Flow diagrams are not included in this SOP.

11. **SITE DIAGRAMS:** Due to the nature of this operation, specific Site diagrams are not included in this SOP.

12. This section of the SOP contains the hazard control briefings as

well as emergency response, and contingency plans associated with the process.

13. THE TYPE I HAZARD CONTROL BRIEFING

13. THE TYPE I HAZARD CONTROL BRIEFING describes the hazards and control methods the operator MAY encounter. The Type I HCB shall be presented prior to employee assignment as operator or trainee. No employee shall be assigned to work within the scope of this SOP prior to receiving the Type I Hazard Control Briefing.

13-1 A TYPE I HAZARD CONTROL BRIEFING CERTIFICATION SHEET (enclosure (2) of this SOP) must be completed by all attendees. The supervisor shall maintain a file of signed attendance sheets that shall be subject to audit.

13-2 This SOP shall be available while transporting A&E by rail at Weapons Station Earle.

13-3 Notification of Track Status:

13-3.1 The Railroad Section supervisor/Dispatcher shall notify all railroad personnel of track status daily.

13-3.2 Railroad operating personnel shall immediately report any track obstructions, or damage to the Railroad Section supervisor/Dispatcher in accordance with procedure 14 of the Method Description of this SOP.

13-3.3 Damaged track shall be considered to be suspect until the track is inspected by the Railroad Track Inspector.

13-4 Individuals performing Railroad Operations shall comply with all general safety requirements contained in this SOP.

13-5 **CERTIFICATION REQUIREMENT:** Individuals who perform Railroad Operations functions shall be qualified/certified in accordance with reference (c). Standard Comment 2-3 of this SOP has further information on Qualification and Certification.

13-6 Railroad operations personnel shall immediately report to the Railroad Section supervisor/Dispatcher any of the following:

13-6.1 Discovery of an open or unsecured railcar or conveyance containing ammunition or explosives.

13-6.2 Appearance or suspicion of the loss, misplacement, theft, or recovery of ammunition or explosives.

13-6.3 Malfunctioning or inoperable high security lock.

13-7 The odor of ether or alcohol in or near a smokeless powder railcar may indicate that the powder containers are leaking. In sufficient quantity, ether in the air is highly flammable and explosive and is readily ignited by sparks, static discharge, or excessive heat or friction. Railroad Operations personnel shall be alert for ether or alcohol odors near railcars containing smokeless powder. When discovered, this situation must be immediately reported to the Railroad Section supervisor/Dispatcher so the railcar can be ventilated to dissipate the ether/alcohol vapors.

13-8 Operations must be conducted in strict compliance with the Electrical/Thunderstorm Safety requirements contained in reference (c) which states: At the approach of an electrical storm, railcars or motor vehicles containing ammunition or explosives shall, if possible, be placed in an area equipped with lightning protection. If this is not possible, the railcars and motor vehicles shall be moved to areas where detonation of their contents will not cause loss of life, and damage to adjacent areas will be minimized. Loading or unloading is prohibited during electrical storms.

13-9 **FIRE:** The Emergency Response and Contingency Plan (Section 15 of this SOP) shall be followed in the event of a fire on any train.

13-9.1 Train crewmembers must report the presence of fires on or near the right-of-way to the Railroad Section supervisor/Dispatcher immediately. They must be prepared to stop and assist in extinguishing the fire, provide radio communication or other services.

13-9.2 The Railroad Operation Foreman/Dispatcher shall stop all railroad movements over road crossings that might hinder fire equipment on route to the scene. Train crews shall stand by to respond immediately if it becomes necessary to make any railcar movements at the scene.

13-9.3 **Fire Prevention General Precautions:**

13-9.3.1 **Emergency Equipment:** Each crew person must know the location and use of fire extinguishers and any gear that might be necessary in an emergency.

13-9.3.2 **Use of Flammables to Clean Locomotives:** NEVER use gasoline or other flammable liquid to clean locomotives or to wipe the engine. Some of the liquid might be trapped in the engine, diluting the crankcase when the engine is started.

13-9.4 **Access to Hydrants and Fireplugs:** At no time shall transportation equipment be left standing or material placed at crossings in such a way as to obstruct the passage of fire apparatus to any hydrant or fireplug.

13-9.5 **Preventing Fires in Diesel-Electric Locomotives:**

13-9.5.1 When fuel for diesel-electric locomotives is being transferred, the engine shall be shut down, the battery switch shall be opened, and fuel tanks shall be bonded and grounded.

13-9.5.2 Diesel-electric locomotives shall be equipped with carbon dioxide or powder fire extinguishers of the type approved for use in Class B and C fires.

13-9.6 **PROCEDURES FOR RAILCAR HOT BOXES:** If a journal box is noticed to be smoking or on fire, the emergency response and contingency plan (section 15 of this SOP) shall be followed

13-10 **PROCEDURES FOR ACCIDENTS AND DERAILMENTS:**

13-10.1 The conductor shall immediately report any accidents and any injuries to the Railroad Section supervisor/Dispatcher.

13-10.2 All railroad equipment involved in the accident shall not be moved (except to alleviate personnel injuries) prior to the onset of an investigation. **EXCEPTION: FOR AN EXPLOSIVE LOADED RAILCAR, THE CAR MAY BE MOVED IF EXPLOSIVE OR FIRE DANGER IS IMMINENT.**

13-10.3 All pertinent accident personal injury report forms shall be completed in ink by all members of the train crew, and submitted to the Railroad Section supervisor/dispatcher, before leaving work.

13-10.4 The locomotive speed recorder shall be accessed and a read out of the record of locomotive speed, elapsed time and distance traveled during the previous 48 hours of operation shall be provided to the accident investigator. Even if the recorder is inoperative, secure it and provide it to the investigator. Do not "tape over" it.

13-10.5 If railroad trackage may have contributed to the cause of the accident, notification of the Track Inspector shall be made and a trackage investigation report shall be prepared.

13-10.6 **ACCIDENT PREVENTION:**

13-10.6.1 Railroad yards are considered explosive areas, so, general explosives safety precautions regarding smoking, fire, and placarding apply to railroad yards.

13-10.6.2 Railroad cars loaded with explosives or other hazardous materials are prohibited in the vicinity of the Admin Area, C-50, C-16, C-18, C-21, and Waterfront Area West of the main line tracks.

13-10.6.3 Explosive loaded cars shall never be secured under overhead electrical and communication transmission lines.

13-10.6.4 Supervisors shall conduct safety briefings with their crews on a weekly basis. The Railroad Section supervisor shall keep the record of safety topics and employee attendance.

13-10.7 **DERAILMENTS:** Occur when one or more wheels of a locomotive or railcar disengage from the track. A defective siding, track or switch out of adjustment normally causes them. Usually, if the train is moving slowly, a few wheels come off the tracks. There are usually no personal injuries. This could be compared to a flat tire on a large truck or trailer moving on the station. Derailments that may occur at ordnance activities are usually very minor.

13-10.7.1 Derailments should not be treated lightly as they may indicate problem areas. The reporting of all derailments when they occur is essential. Therefore, upon occurrence of any derailment, the Railroad Section supervisor/Dispatcher must be notified.

13-10.7.2 The Railroad Section supervisor/Dispatcher must immediately follow the guidelines set forth in the Emergency Response and Contingency Plan located in chapter 15 of this SOP.

13-10.7.3 Except in case of emergency, the Railroad Section supervisor/Dispatcher must notify the Track Inspector so he can inspect the scene of the accident before any cars are authorized to be moved.

13-10.7.4 The PWC Waterfront Superintendent is responsible for determining the cause of the derailment and if corrective action is necessary. The Superintendent must ensure that investigations are conducted and formal reports are prepared for each accident or derailment that takes place on the railroad.

13-10.7.5 Derailed equipment shall not be re-railed until approved by the PWC Site Manager or authorized representative. However, the Commanding Officer may order re-railment at anytime.

13-10.7.6 The details of the investigation will vary depending on the circumstances, however, it is important that the cause of the derailment be addressed in order to ensure that corrective action is taken. Then number of derailments has a direct relationship to track maintenance and is an important management tool.

13-11 **HAZARD CONTROL PROCEDURES FOR PIER OPERATIONS:** Operations conducted at the piers frequently involve the transfer of large quantities of material between piers and ships. Pier activity involves numerous and varied tasks performed by both ship and station personnel. In addition, there is the movement of rail equipment, trucks, cranes, materials handling equipment, and ship cargo handling gear. This combination of activity creates a hazardous environment requiring constant vigilance by all persons involved or present on the piers.

13-11.1 Railcar switches occur several times a day when loading or unloading operations are being conducted and continue daily until operations are completed. A key element of the Station Safety Program is to inform personnel of known hazards. Further, it is necessary to take measures to segregate railroad operations from vehicle pedestrian traffic.

13-11.2 Railroad operations provide the opportunity for individuals to commit serious unsafe acts. Transiting between coupled railcars, or jumping on and off trains are dangerous practices that could result in serious injury or death.

13-11.3 In order for Railroad Operations to be conducted in a safe manner on the piers and trestles, it is necessary to establish and enforce vehicular and pedestrian traffic routes while railroad cars are being moved on the pier. These policies are outlined in Procedure 11 of the Method Description of this SOP.

13-12 Natural Disasters. Trains shall proceed at reduced speed when there are indications of a severe storm, high water, fire, or any other condition that threatens the condition of the track or train. If the train is threatened, the crew shall attempt to remove the train from the situation and shall report, via radio, to the dispatcher for further instructions.

13-13 **SAFETY HISTORIES:** The Type I Hazard Control Briefing shall include a reading of these incident reports.

13-13.1 A forklift operator at a Naval Weapons Station was lifting two palletized bombs in a railroad boxcar when one bomb detonated low order. This accident occurred while bombs were being transferred from a boxcar to a commercial ship for further transport. There were 48 aerial bombs remaining in the boxcar. At the time of the low order detonation there were another 1,500,000 pounds of explosives on the pier and on the vessel being loaded.

13-13.2 The boxcar then caught on fire but was quickly extinguished. Pieces of the bomb and sections of the boxcar were spread over a wide areas. The forklift operator sustained minor injuries and the boxcar was a total loss. Minor damage also occurred to the forklift and adjacent equipment.

13-13.3 No cause could be assigned. Conceivably, the bomb that detonated was highly unstable in some manner, and required only the degree of shock induced by normal handling to produce a low order detonation. Surprisingly, the results were relatively minor.

13-13.4 However, had the bomb detonated high order, it is quite possible that the pier, ship, and surrounding area would have been demolished.

13-13.5 At a Naval Weapons Station, a boxcar rolled down a grade and rammed another boxcar that was being unloaded. The first car had 75,000 pounds of TNT and the second had 20,000 pounds of TNT.

13-13.6 One Civil Service employee suffered minor injury. One conveyor being used to unload the car that was hit, was destroyed.

13-14 **SECURITY REQUIREMENTS:** Security is the direct responsibility of every person employed at this command, which includes all persons in the Naval Service and civilians. It is also the responsibility of all command employees, this includes contractor and/or tenant personnel, to report to their immediate supervisor or command security any and all incidents involving pilferage, fraudulent use or abuse of government material and/or equipment.

13-14.1 **TEMPORARY STORAGE OF ARMS AMMUNITION & EXPLOSIVES (AA&E) IN RAILCARS:** AA&E material contained in railcars shall not be left unattended or unsecured outside of restricted areas. A numbered seal that meets specification MIL-S-23769 (latest series) shall be secured to each door of each railcar. Protection shall be provided for stocks of numbered seals and seal inventory records to prevent theft or alterations to documents which accompany movements and shipments to points inside and outside the station. AA&E material temporarily contained in railcars must be attended or observed by duty personnel or guards and parked in designated restricted areas.

13-14.2 **ON-STATION MOVEMENT:** On-station movement of arms and CATEGORIES (CAT) I and II A&E by railcar shall not be started until entries are made in logbooks or production records, or until receipt forms have been initiated. Receipt documentation shall accompany the railcar. All documentation shall include amount and type of arms and CAT I & II A&E, date and time for transfer, and signature of the person receiving custody.

13-14.3 **SECURITY PROCEDURES.** The Weapons Station Earle Security Officer shall notify the Railroad Section supervisor/dispatcher of any threat conditions. The following responses shall apply to designated threat conditions:

13-14.1 **ALPHA-** Maintain awareness and report all observances of unusual conditions to the supervisor.

13-14.2 **BRAVO-** Maintain awareness of unusual conditions. Security Department escorts for all off-station explosive shipments.

13-14.3 **CHARLIE-** Security escort for all railroad operations.

13-14.4 **DELTA-** All railroad operations shall CEASE.

13-14.5 Security Escort Units shall operate in accordance with Procedure 10 of the Method Description of this SOP.

13-14.6 **CONFRONTATIONS BY DEMONSTRATORS** shall be handled in accordance with Procedure 10 of the Method Description of this SOP.

14. TYPE II HAZARD CONTROL BRIEFING:

14. THE TYPE II HAZARD CONTROL BRIEFING describes the hazards and control methods that personnel WILL encounter. Individuals who perform Railroad Operations shall comply with all specific safety requirements contained in this SOP, and references (a), (d) & (e).

14-1 The Type II Hazard Control Briefing shall be repeated every thirty (30) days of continuous operation, or before restarting operations that have been shut down for thirty (30) consecutive days, or longer.

14-2 A TYPE II HAZARD CONTROL BRIEFING CERTIFICATION SHEET (enclosure (3) of this SOP) shall be completed by all attendees. The supervisor shall maintain a file of signed attendance sheets that will be subject to audit by the PWC Engineering Technician and/or Weapons Station Earle/Atlantic Ordnance Command Explosives Safety Personnel.

14-3 In all ammunition and explosives handling, directly and/or indirectly, SAFETY must be the first consideration. All functions shall be reviewed for applicable safety instructions prior to the start of operations. At no time shall safety instructions, devices, (lock-outs, barriers, safety hooks, etc.) be violated or by-passed.

The following safety regulations, precautions, and cautions shall be adhered to during, and in all areas of railroad operation(s).

14-3.1 All locomotives shall be equipped with "dead man" controls.

14-3.2 Diesel or gasoline powered and other self-propelled rail vehicles shall have spark arresters properly installed on exhaust stacks. The spark arresters shall be adequately maintained.

14-3.3 A Portable fire extinguisher must be carried on all locomotives and self-propelled vehicles.

14-3.4 Locomotives shall not remain in front of buildings containing ammunition or explosives any longer than is necessary to position railcars for loading and unloading operations.

14-4 Operations shall be conducted in accordance with this SOP and governing references. Deviation from the step-by-step procedures described in this SOP IS NOT ALLOWED without proper approval.

14-5 Incoming commercial conveyances shall be inspected by certified ordnance inspectors from the Scale House per reference (i).

14-6 The train crew shall have the primary responsibility for the safe and efficient transportation of ordnance material by rail and shall operate in compliance with this SOP.

14-7 **SUMMARY:** This briefing is intended to make operating personnel aware of some of the hazards that may be encountered during normal railroad operations. It is also a means of giving guidance in taking preventive actions and measures to reduce these hazards. Safety should be uppermost in the mind of all operating personnel. If you are not sure of what you are doing, STOP WHAT YOU ARE DOING and notify the supervisor immediately for guidance and/or the appropriate action(s).

14-8 **SPECIAL SAFETY REQUIREMENTS:** Special Safety Requirements are included throughout the SOP. They are defined as follows:

14-9 **WARNINGS** are descriptions of processes that may cause personal injury or death, damage or destruction to materials or facility. **WARNINGS** are in upper case bold letters preceding the step to which they apply.

14-10 **NOTES** contribute useful, but non-essential information to workers for improving operational efficiency and effectiveness and precede the applicable step. Notes **NEVER** relate to dangerous or hazardous situations

14-11 **MATERIAL SAFETY DATA SHEET (MSDS) STATEMENT:** Prior to handling or utilizing any hazardous material (chemicals, solvents, paints, etc.), ensure that an MSDS is available. An MSDS shall be available in the work area for all hazardous material expected to be encountered during the process. No hazardous material shall be utilized without the proper MSDS, or equivalent, readily available.

15. **EMERGENCY RESPONSE & CONTINGENCY PLAN**

15. This Emergency Response & Contingency Plan is applicable to all individuals who are involved directly, or indirectly, with railroad operations and railroad maintenance.

15-1 The primary use of the railroad is for the movement of large quantities of ordnance from magazines in the inland area to the pier area and between pier and ship. In addition, there is the movement of rail equipment, trucks, cranes, materials handling equipment, and ship cargo handling gear. This combination of activity creates a hazardous environment requiring constant vigilance by all persons involved or present on the piers, or anywhere near the railroad.

15-2 All individuals must practice railroad operations safety. Constant vigilance is required by all involved in rail operations to avoid errors in judgment caused by familiarity or inattention to everyday repetitive tasks.

15-3 The probability of a hazard-event (such as an explosive incident) occurring during Railroad Operations is extremely remote. However due to the frequent exposure of nearby communities to Railroad Operations, the severity of the consequences of a hazard event could be catastrophic. Therefore, in order to minimize the risk of specific aspects of Railroad Operations, railroad operations personnel must follow the following emergency response and contingency plans.

15-4 **RESPONDING TO EMERGENCIES AND ACCIDENTS:**

15-4.1 **TRAIN CREW:** In case of an emergency (e.g. accident, terrorist attack, bomb threat, obstruction of tracks, natural disaster or fire), the Train Crew must make quick, on-the-spot decisions. They are expected to make such decisions based on a thorough knowledge of operating procedures, safety and security regulations, and they shall make every reasonable attempt to protect life and property.

15-4.2 The Railroad Section supervisor/dispatcher or, in his/her absence, the Duty Officer (Ext.2500) shall be immediately notified, of any emergency or incident involving railroad equipment or crew. The Train Crew shall remain at the scene with the train, if possible, until released, except when, in the Conductor's judgment, remaining there will cause further injury to personnel or damage to property. In such cases, the Train Crew shall report the incident, move away to a safe location, notify the Railroad Section supervisor/dispatcher of their location and wait until released.

15-4.3 The Railroad Section supervisor/dispatcher shall immediately notify the PWC Operations Manager during normal working hours (0730-1600). After 1600 hours, the Duty Officer (Ext.-2500) shall be notified and in turn, he/she shall recall:

15-4.4 The PWC Operations Manager

15-4.4 The PWC Transportation Superintendent.

15-4.5 The PWC Heavy Equipment Maintenance supervisor.

15-4.6 The Weapons Station Earle Safety Director

15-4.7 The Explosives Safety Officer

15-4.8 There shall be no movement or re-railing of equipment until all departments have conducted an on-site investigation and safety evaluation of the accident, incident or derailment. After the on-site investigation is complete, re-railing operations will start when approved by the PWC Operations Manager or his designated representative. The Commanding Officer may order re-railment at any time.

15-4.8.1 No action shall be taken until assigned or directed by the PWC Heavy Equipment Maintenance Foreman. Only persons involved in the re-railing operations shall be on the site during the re-railing. The PWC Heavy Equipment Maintenance Foreman shall give all orders, to assure a safe operation.

15-4.8.2 If railroad trackage may have caused the accident, the Track Inspector shall be notified.

15-4.8.3 In the above case, the Track Inspector shall inspect the track and prepare a trackage investigation report.

15-4.8.4 All pertinent accident or personal injury reports shall be completed in ink by all members of the train crew and submitted to the Railroad Section supervisor/dispatcher, before leaving the Station.

15-4.8.5 The Safety Department shall be furnished copies of all reports concerning the incident. The report shall be used to build a database in accident reporting in regard to rail mishaps.

15-4.8.6 Within 24 hours of any derailment involving A&E laden railcars, the Safety Director, &/or the AOC Explosives Safety Officer must notify: Southern Division, Naval Facilities Engineering Command, (NAVFAC) Code 164 (at DSN 583-7056 or commercial 803-820-7056) and Naval Ordnance Center Code N7134 (at DSN 354-6081 extension 123 or commercial 301-743-6081). If the accident does not involve A&E then the PWC Transportation Director must notify NAVFAC.

15-5 **GENERAL:** If a hazardous situation is encountered, and the hazardous situation requires immediate attention to be stabilized, and if the situation can be stabilized safely, then Railroad Operations personnel are authorized to stabilize the situation. The hazardous condition must be reported to the area foreman as soon as practical.

15-5.1 If a hazardous situation is encountered, and the hazardous situation can not be stabilized safely, then all personnel shall be evacuated from the immediate area to a safe place and the area foreman must be notified immediately.

15-5.2 General Information: The following actions are not in the order of execution. The actual order shall depend on existing conditions and may be concurrent. The emergency response and contingency plan for this procedure follows:

15-5.3 Keep calm, avoid panic and confusion. Spread the alarm and pass the word to people in adjacent work areas.

15-5.4 Restrict sources of ignition (open flame, internal combustion engines, smoking etc.) if flammable vapors are present or suspected.

15-5.5 Stop source and prevent spill/fire from spreading (if such actions can be accomplished without the risk of personal safety).

15-5.6 If a fire develops, use proper equipment on hand to extinguish the fire, pending arrival of the Station Fire Department

15-5.7 Do not assist in fire control unless properly trained.

15-5.8 Rescue any injured individuals when possible without risking your own safety.

15-5.9 The Conductor must quickly determine the need to evacuate and notify the Trainmen if evacuation is necessary. Trainmen shall be familiar with these procedures before the need to evacuate arises. Trainmen shall know safest and quickest way out of the locomotive.

15-5.10 If there is a spill or fire, evacuate to a safe distance (as listed on the next page), upwind and upgrade from the spill, smoke or fumes. Avoid contact with liquid and fumes.

15-5.11 If explosive hazards are present, the following evacuation distances apply.

TYPE OF EXPLOSIVE INVOLVED	EVACUATION DISTANCE
CLASS 1 DIVISION (IN A RAILCAR)	5000 FEET
CLASS 1 DIVISION 1	4000 FEET
CLASS 1 DIVISION 2	2500 FEET
CLASS 1 DIVISION 3	600 FEET
CLASS 1 DIVISION 4	300 FEET

15-5.12 In case of evacuation, the Conductor must conduct a head count and be prepared to report if anyone is missing.

15-5.13 Do not interfere with emergency operations. Keep out of the way, stay clear of the facility.

15-5.14 The Fire Department must be notified whenever any fire, no matter how small, occurs.

15-6 Possible Incidents:

15-6.1 Explosive Device Fires: Immediately report the emergency by the most expeditious means available (i.e., voice, radio, telephone, etc.) to the Railroad Section supervisor/dispatcher. Whenever possible, give the following information if known or can reasonably be determined. Do not wait until all information is available.

15-6.1.1 Your name.

15-6.1.2 Your Location.

15-6.1.3 Number and type of injuries (if applicable)

15-6.1.4 Type of emergency (fire, spill, medical, etc.)

15-6.1.5 Type and estimated amount of explosive material.

15-6.1.6 Status of incident (reactions, leaks, fire, etc.)

15-6.1.7 Approximate time when incident occurred

15-6.1.8 The Railroad Section supervisor/dispatcher must call:

EOD - X2258/2340
PWC Site Manager - X2275/2230
PWC Waterfront Superintendent - X7090
Fire Department (if needed) - X2911
Explosives Safety 2386
Station Safety 2624
Railroad Track Inspector - x2793

15-6.2 **Hazardous Material/Waste Spill Procedures:** Any individual causing or discovering a spill, or a situation that may lead to a spill of hazardous materials shall immediately take the following action. The order of these actions will depend upon, but are not limited to, the nature and amount of material spilled and existing conditions.

15-6.2.1 If the spill is leaking from the locomotive or one of the cars: stop the train. If possible, stop upwind and upgrade from the spill. However, avoid stopping the train on a trestle or upgrade of wetlands.

15-6.2.2 If diesel fuel is leaking from the locomotive: shut down the locomotive.

15-6.2.3 Inform the Railroad Section supervisor/dispatcher of:

15-6.2.3.1 The nature of the problem.

15-6.2.3.2 The location of the incident.

15-6.2.4 Do not allow unauthorized persons to enter the area.

15-6.2.5 Restrict all sources of ignition (i.e., smoking, internal combustion engines, open flames, etc.)

15-6.2.6 Wait for the Safety Department (Fire and Environmental Divisions) to arrive and direct them to the spill.

15-6.2.7 Provide information and assistance as instructed.

15-6.2.8 The Railroad Section supervisor/dispatcher must immediately report the spill to the Fire Department (extension 2911). Whenever possible, give the following information if known or can reasonably be determined. Do not wait until all information is available:

Your name and telephone number

Location of the incident

Number and type of injuries (if applicable)

Identify, and estimate the amount of spilled material

Source of spill (drum, tank, container, etc.)

Behavior of spilled material (reactions, fumes, etc.)

Approximate time when spill occurred

Anticipated movement of spill

Actions currently being taken.

15-7 **HOT BOXES ON RAILCARS:** Many of the railcars used at Weapons Station Earle are equipped with old style journal bearings. These bearings are lubricated by a wick and wiping action from the journal box oil sump. The journal brass could overheat without sufficient lubrication, or contaminated journal oil, or the overloading of the car thus resulting in a hot box.

15-7.1 **PROCEDURES FOR RAILCAR HOT BOXES:** If a hot box is suspected,

15-7.1.1 Any member of the Train Crew shall notify the Railroad Section supervisor/dispatcher, giving him the location of the train.

15-7.1.2 The Engineer shall reduce speed, not to exceed 10 MPH, and shall move the train to a road crossing, or other easily accessible point, where the Fire Department can get to the car. However, DO NOT, under ANY circumstances, stop a train with a Hot Box in ANY of the following locations:

15-7.1.2.1 Under the Garden State Parkway, under the Commercial Rail Line or at any other underpass.

15-7.1.2.2 On or near the Route 34, 35 or 36 overpass, or any other overpass.

15-7.1.2.3 Anywhere near the high school.

15-7.1.2.4 Near any Main Line traffic intersections.

15-7.1.2.5 Near the Transfer Depot if explosives operations are being conducted there.

15-7.1.2.6 Near any Production Building (such as E-13) if explosives operations are being conducted there.

15-7.2 The Railroad Section supervisor/dispatcher shall immediately notify the Fire Department and the Heavy Mobile Equipment Shop.

15-7.3 A trainman, armed with a Carbon Dioxide Dry Chemical fire extinguisher, shall inspect the surrounding equipment for the presence of fire.

15-7.4 If smoke, but no fire, is issuing from the journal box:

15-7.4.1 Trainman shall stand by the car.

15-7.4.2 Prepare to signal Engineer, if necessary.

15-7.4.3 Engineer shall stand ready to respond to signals.

15-7.5 Under no circumstances shall Railroad personnel open a confirmed or suspected hot box. The sudden influx of air may ignite the bearing oil, causing flames and hot oil to erupt from the journal box.

15-8 HOT BOX & TRAIN FIRES: If a fire is discovered issuing from the journal box, or any other part of a railcar or locomotive the following priorities shall govern Emergency Procedures:

15-8.1 The first priority is the protection of personnel. For Main Line Operations, this includes the residents of the surrounding community.

15-8.2 The second priority is the protection of explosives and other ordnance.

15-8.3 The third priority is the protection of Government and other property.

15-8.4 In case of fire, the Conductor shall determine if train crew is able to combat the fire.

15-8.5 If so, the Trainmen shall use fire extinguishers on the journal box exterior and surrounding equipment to control the spread of the fire.

15-9 If the fire can not be fought, or if it spreads, the following plans shall be followed:

15-9.1 For a Hot Box or locomotive/car fire on an explosive laden train within the Mainside Explosive Area or Waterfront Pier explosive Arc: the burning car, and any trailing cars, shall be cut away and the train shall vacate the area. However DO NOT, under ANY circumstances, cut away a burning railcar at ANY of the following locations:

15-9.1.1 On or near the Route 34 overpass.

15-9.1.2 Near the Transfer Depot if explosives operations are being conducted there.

15-9.1.3 Near any Production Building (such as E-13) if explosives operations are being conducted there.

15-9.2 For a Hot Box or locomotive/car fire on an explosive laden train during Main Line Operations: the burning car, and any trailing cars, shall be cut away and the train shall vacate the area. However DO NOT, under ANY circumstances, cut away a burning railcar at ANY of the following locations:

15-9.2.1 Under the Garden State Parkway, under the Commercial Rail Line or at any other underpass.

15-9.2.2 On the Route 35 overpass, or on any other overpass.

15-9.2.3 Anywhere near the high school.

15-9.2.4 Near any traffic intersection on the Main Line.

15-9.3 For a Hot Box locomotive/car fire on an explosive laden train at the Waterfront but not within the explosive Arc: the burning car, and any trailing cars, shall be cut away and the train shall vacate the area. However, DO NOT, under ANY circumstances, cut away a burning railcar at ANY of the following locations:

15-9.3.1 On the Route 36 overpass.

15-9.3.2 Anywhere near the Waterfront Administration Area.

15-9.3.3 Near a heavily trafficked intersection.

15-10 In the event of a fire, or Hot Box, ask the Railroad Section supervisor/Dispatcher to summon the Fire Department immediately.

15-10.2 The crew shall use the fire extinguisher to extinguish flames, if possible, until the fire department arrives.

15-10.3 When all of the above efforts have been exhausted and it has been determined that the fire is out of control then the burning car shall be cut away and the train shall vacate the area.

15-11 If the burning car has an uninvolved explosive loaded car(s) behind it; the trainmen shall (if possible) cut away the uninvolved car(s).

15-11.1 Move the engine and remaining cars to a safe location.

15-11.2 Cut away the burning car.

15-11.3 Then, the train (and any remaining uninvolved cars) shall quickly vacate the area.

15-12 If necessary, the car leading (or trailing) the burning car may be part of the cut string if it is unsafe to make the cut at the burning car.

15-13 The train shall not return to the site until it is safe to do so and the Railroad Section supervisor/dispatcher so directs the movement upon clearance from the On-Scene Fire Chief.

15-14 During the emergency, the Engineer shall stand ready to respond to and execute signals.

15-15 **Upon arrival of the Fire Department:**

15-15.1 Railroad personnel shall stand clear.

15-15.2 The On-Scene Fire Chief shall direct movements of the train as appropriate.

15-16 Upon conclusion of the situation,

15-16.1 The On-Scene Fire Chief shall give clearance to the Railroad Section supervisor/Dispatcher.

15-16.2 The PWC Heavy Equipment Maintenance Mechanic shall inspect the car and make repairs, if necessary, or direct the car to be set out for return to the Repair Shop. Movement of the car shall be handled using Procedure 6 of the Method Description of this SOP.

15-17 The Railroad Section supervisor/dispatcher shall then resume direction of the train's movements.

15-18 **Reporting Fires:** Train crews must immediately report the presence of any fires on or near the right of way to the Railroad Section supervisor/dispatcher.

15-19 The Railroad Section supervisor/dispatcher shall immediately notify the Fire Department of the location. The Conductor shall immediately proceed to protect his train.

15-20 **Fire Alarm:** When the Railroad Section supervisor/dispatcher receives information of a fire or other emergency at a building or locations, he/she shall immediately inform the train crews. The Railroad Section supervisor/dispatcher shall also stop all railroad movements over highway crossing that might hinder fire equipment on route to the scene. Train crews shall be prepared to respond immediately if it becomes necessary to make any railcar movements at the scene.

15-21 **Fire Prevention.**

15-21.1 **General Precautions:**

15-21.1.1 Each Train crewmember must know the location on the train, the fire extinguisher, and any gear which might be necessary in an emergency. They must also know how to properly use them.

15-21.1.2 The use of flammable liquids to clean a locomotive engine or to wipe the engine while it is running is prohibited.

15-21.1.3 At no time shall transportation equipment or material be left standing in such a way as to obstruct the passage of fire apparatus to any hydrant or fireplug.

15-21.2 **Preventing Fire in Diesel-Electric Locomotives:**

15-21.2.1 When fuel for diesel-Electric Locomotives is being transferred, fuel tanks shall be bonded and grounded. At all other times, fuel openings shall be kept closed.

15-21.2.2 Diesel-electric locomotives shall be equipped with fire fighting appliances of the type approved for use in Class B and C fires.

15.22 **PERSONNEL INJURY:** In case of personnel injury, notify the Railroad Section supervisor/dispatcher who shall notify emergency personnel for immediate action. Other than flushing out chemical contamination of the eyes, applying direct pressure to a wound to stop profuse bleeding, or ensuring that the injured person has been made as comfortable as possible. Operating personnel shall render no medical/first aid.

