

RAILTOWN STATE HISTORIC PARK

Railroad Operations Safety Manual

INTRODUCTION

This manual describes the safe work practice rules that govern you in the performance of your duties as a volunteer railroader. You must be familiar with and comply with them.

Constant vigilance and compliance with these and other rules is essential to the your safety and the safety of others. Safety and teamwork go hand-in-hand and are essential to creating and maintaining an injury-free work place.

Complacency on the job tends to instill a false sense of security, which can result in accidents and serious injuries. The railroad equipment preserved at this Park has no idea that volunteers now handle it for the purpose of demonstrating its former working role to the public. It has no conscience and can injure, maim and kill just as easily now as it could during its service life. Avoid short cuts! The time you save may be the difference between life and death.

The use of the term "Employee" in this manual applies equally to both Park staff and volunteers.

1.0 GENERAL SAFETY RULES

1.1 SAFE COURSE: In all situations, the safest course of action must be taken. Employees must take every precaution to prevent injury to themselves or others under all conditions not provided for by the rules. Employees must protect themselves when their own safety is affected and not rely upon others.

1.2 PREVENTING INJURIES: Employees must conduct themselves in a manner so as to avoid actions that could cause an injury to persons or damage to property. Employees must report to the proper authority or take action to correct known conditions that could cause injury. If unable to do so, necessary protection must be provided and the unsafe condition must be reported promptly to the proper authority.

1.3 JOB BRIEFINGS: To ensure a clear understanding of the work or tasks to be performed and each persons' role or responsibilities, conduct a job briefing with all affected personnel under any or all of the following circumstances:

- a) At the beginning of a shift before performing any work;
- b) Before beginning a new job or a task;
- c) Whenever the job, work, task, conditions, situation, or circumstances change from the initial job briefing;
- d) Whenever new personnel become involved in the job, work or task.
- e) Any time it is required to provide for the safety of employees or the public.

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- 1.4 SAFETY GLASSES:** Safety glasses should be worn at all times when performing tasks or in areas where there is a risk of eye injury.
- 1.5 HEARING PROTECTION:** Hearing protection should be used when duties or work will expose you to loud or continuous noise.
- 1.6 PROPER FOOTWEAR:** Wear ankle support work boots/shoes with soles and heels firmly attached and heels that are not excessively worn over.
- 1.7 HARD HATS:** OSHA-approved hardhats must be worn by all employees while working within designated hardhat areas, or when the task or conditions require.
- 1.8 FIRST AID KITS:** Be familiar with the location of first aid kits. Inspect them regularly to verify they are easily accessible and properly supplied. Report any discrepancies to the proper supervisor.
- 1.9 WORKING ALONG TRACKS OR IN YARDS & SHOPS:**
- a) Do not foul any tracks unless duties or the task at hand specifically requires. When required to foul a track, stay alert for movements approaching from either direction. Do not stand or walk between rails or on ends of ties when practicable to avoid it.
 - b) Pay close attention to footing and other conditions that can affect your safety. Whenever practicable, use an established route or path.
 - c) Exercise caution when stepping out from behind equipment or structures. Look both directions to obtain a clear view before fouling a track.
 - d) Whenever necessary for safety, stop moving in order to orient yourself to the surroundings or obtain a clear view of the area before proceeding.
 - e) Always keep a safe distance from passing cars, engines and trains to avoid being struck by falling or projecting objects. Do not sit, stand, step, or walk on rail, frog, switch, guardrail or other part of track structure.
- 1.10 CLEAN & SAFE PREMISES:** Keep your work area in a clean, orderly and safe condition. Secure tools and equipment in their proper location and position. Avoid placing objects or materials on floors or walkways where they may create a hazard. If necessary to place objects where they may create a hazard, take precautions to warn or protect others. Promptly report to the proper supervisor any known hazardous condition that cannot be rectified promptly with reasonable effort.
- 1.11 CLOSE CLEARANCES:** When necessary to extend any part of your body beyond the side of standing or moving equipment, maintain a careful lookout in both directions for close clearances and for equipment on an adjacent track.
- Do not ride on the side of the car or outside of the locomotive cab when entering an area of impaired clearance and the rails of the track are obscured with debris, such as snow, ice, water, mud, etc.

1.12 RAIN, SNOW & ICE HAZARDS: Employees must take extra precaution during cold or rainy weather to avoid falls caused by slipping on snow, ice, wet spots or other hazards, and must not pass under icicles but must remove them or promptly report condition to proper authority.

Steps on engines, cars, cabooses, roadway equipment, structures, transfer plates, skids and other equipment must be kept free of snow, ice and other slipping hazards. If necessary, salt, sand or sawdust must be used to prevent slipping. If unable to correct, the condition must be reported to proper authority. When underfoot condition requires, moving equipment must be stopped before employees get on or off.

1.13 LIFTING: When necessary to lift heavy objects or materials, assess the lift first and secure assistance from other employees when the situation requires. When performing a lift alone or with others, ensure the following:

- a) Footing and grip are secure;
- b) Start with the knees bent and the back straight and erect;
- c) Lift by slowly straightening the legs.
- d) When two or more persons work together to effect a lift:
- e) Designate one person to direct all movements.
- f) Conduct a job briefing to determine how the lift will be conducted.
- g) Place crew according to size, strength and experience.
- h) Lift or make other movement only on command.

1.14 USE OF FUSEES: Use of fusees in Railtown operations or on the Sierra Northern Railway is prohibited.

1.15 PASSENGER SAFETY: Passengers must not be allowed to occupy places where their safety would be endangered. When assisting passengers to board or alight a train, advise each passenger to "Please watch your step".

1.16 VESTIBULES, CURTAINS & END GATES:

- a) Side and trap doors of vestibules must be kept closed while train is in motion, except when attended by a crewmember. When in use at a station, open only the side from which passengers will be received or discharged.
- b) Side curtains must be secured between cars during passenger operations.
- c) When so equipped, the end gate must be secured in the closed position across the inter-car walkway on the rear of train. If a car is not so equipped, a chain, crossbar or other effective device must be used.
- d) When cuts are to be made between occupied passenger cars while switching, trainmen must know that curtains, end gates or chains are in proper position at the end of each car where cut is to be made.

2.0 WORKING ON, WITH OR AROUND ROLLING EQUIPMENT

2.1 GETTING ON OR OFF EQUIPMENT: Before boarding standing or moving equipment, observe its condition and look for defects such as bent, loose or missing stirrups, ladder rungs or brake platforms. When alighting equipment other than from passenger car vestibule or caboose steps, always face the equipment and be alert for movement, obstructions or poor footing conditions before detraining.

MOVING EQUIPMENT: Only qualified train crewmembers (Engineer, Fireman, Conductor, Brakeman) are permitted to get on or off moving equipment and then only as required by their duties. Other employees are prohibited from getting on or off moving equipment except in case of an emergency.

While getting on and off of moving equipment is permitted for qualified train crew members, it is not required. There is nothing wrong with stopping the movement first in order to board or alight the equipment. When getting on or off moving equipment in non-emergency conditions, be governed by the following:

- a) **Know Your Own Capabilities & Limits:** Boarding and alighting moving equipment requires critically-timed and precisely-executed physical effort with little margin for error. Be realistic and honest with yourself in assessing your capabilities to consistently perform the task safely. There is nothing wrong with stopping the movement first in order to board or alight the equipment.
- b) **Know Your Surroundings:** Never attempt to get on or off equipment without first assessing the ground conditions. Whenever practicable, board or alight moving equipment where the ground conditions are even, flat and devoid of obstacles such as boulders, switchstands, cattle guards, tie debris or rattlesnakes. Where ground conditions are less than optimal, consider the actual need to get on or off the equipment while it is moving. Remember: there is nothing wrong with stopping the movement first. Exercise prudently cautious judgement in these situations.
- c) **Speed of Movement:** Under the most optimal conditions the speed of the movement must be no greater than 4 mph – equivalent to a brisk walk. If movement is too fast and/or footing conditions are less than optimal, slow or stop the movement before boarding or alighting.
- d) **Where to Board:** When practicable, board only the leading steps of a car or engine unless no other equipment is trailing. Do not board the trailing stirrup of a car unless there is no other equipment trailing that car.

When boarding engines, cabooses or passenger cars, face the approaching equipment with your back to the direction of movement. Reach forward from your standing point with your leading hand in direction of movement and grasp the leading grab iron. Once your grasp is assured quickly place your leading foot onto the step and pull yourself up. Rotate towards the equipment and let the momentum lift you off the ground. Grasp the trailing grab iron while lifting your trailing foot up onto the step.

- e) **Alighting:** Always face the moving equipment when alighting. Cross your trailing foot forward, behind your leading leg, towards the direction of movement. Be looking forward to visually select the exact spot where you will step down. When that spot is just ahead of you in the direction of movement, firmly plant your trailing foot onto that spot then immediately release your grip on the leading grab iron. As your trailing foot crosses behind your leading leg, lift your leading foot off the step and then release your grip on the trailing grab iron. As you do this, rotate your body slightly to face the direction of movement. This way the momentum will carry you away from the equipment. Use extra precaution at in darkness or in wet meteorological conditions.
- f) **Both Hands Free:** Never attempt to get on or off moving equipment while carrying anything in your hands. Before boarding or alighting anything you are carrying must be handed to another crewmember already safely on the equipment or on the ground, or slid onto a gangway, platform or vestibule or dropped onto the ground, where it can safely be retrieved later.
- g) **Tanks & Flats:** Never attempt to get on or off of a moving tank car or flatcar. Don't try it. You'll end up flat on your face in the rocks.

2.2 RIDING FOOTBOARDS: Do not board a footboard on moving equipment. If necessary to ride a footboard, ride only the trailing footboard of a movement. Never ride a leading footboard or on footboards between coupled equipment.

2.3 RIDING SIDE OF CAR: Look in direction of movement, maintaining a firm grasp of ladder rung with feet solidly placed in stirrup or on ladder rung.

Be vigilant of conditions in direction of movement or ahead for impaired clearances, such as fence posts, gates, loading docks, sides of buildings, or cars or materials fouling the track.

When riding the leading car in a shoving movement, use the side ladder if so equipped and keep alert for changing conditions in the direction of movement.

When riding car across street crossing, ride only on a car that will permit you sufficient elevation to avoid being struck if hit or sideswiped by vehicular traffic. If such car is not available, dismount and walk across street crossing with caution.

Riding on end ladders or other end parts of moving cars is prohibited.

2.4 SLACK ACTION: Be alert for conditions that can cause slack action including, but not limited to, train brake operation, change in grade, or change in speed.

Protect yourself from slack action by remaining seated as much as possible. When necessary to stand, do so with feet shoulder-width apart, one foot slightly ahead of the other and keep at least one hand free at all times to brace yourself

2.5 CROSSING OVER BETWEEN EQUIPMENT: Use only end platforms with handrails provided for that purpose to cross over between coupled or closely standing equipment. Do not cross over between coupled or closely standing equipment if not equipped with proper crossover platforms.

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2.6 MOVEABLE DRAFT SILLS & CUSHIONING DEVICES: Do not place any part of your body between any part of the coupler or draft gear and the end sill of car. Sliding draft sills, end-of-car cushioning devices or other moveable center sill devices can move without warning. Employees near cars so equipped must take precautions to avoid injury in case of movement.

2.7 BENEATH EQUIPMENT: Unless duties require and proper protection is provided, do not crawl, sit, or lie under, or cross beneath, equipment.

2.8 CLEAR OF STANDING EQUIPMENT: To avoid being struck by unexpected movement, be alert and maintain at least 20 feet of clearance when crossing tracks near standing equipment.

2.9 APPLYING CHOCKS, CHAINS or BLOCKING MATERIAL: When applying chocks, chains or other blocking material to engine or car wheels, check head clearance before crouching to apply and again before rising. Afford yourself sufficient clearance so that hands and fingers are not caught between the chocking and the wheel, brake rigging or rail.

When using other blocking material, use a long enough piece to enable the material to be placed under the brake rigging and against the wheel without catching hands or fingers.

2.10 ALIGNMENT OR ADJUSTMENT OF COUPLERS: If necessary to adjust coupler alignment, separate equipment by at least 50 feet and:

- a) Conduct a job briefing with the engineer and other crewmembers to ensure a clear understanding of the work to be performed and the protection required;
- b) Ensure equipment is not moving before stepping in between;
- c) Place back to coupler, get as close as possible keeping back straight. Grasping bottom of coupler with your hands behind you, lift with your leg muscles and move coupler to desired position;
- d) Do not use excessive force. Never jerk, kick or use foot to adjust coupler alignment. If coupler does not move, obtain help.

2.11 REPLACING COUPLER KNUCKLE:

- a) Separate equipment by at least 50 feet; secure with hand brakes or other means.
- b) Conduct a job briefing to ensure a clear understanding with engineer and other crewmembers involved of the work to be performed and protection required.
- c) Keep feet away from where the knuckle may drop. Open the defective knuckle, and remove the knuckle pin from the coupler. Set the pin within easy reach.
- d) If knuckle does not drop from the coupler body, remove it by grasping and holding it as close to your body as possible. Dispose of it where it won't be a tripping hazard. If knuckle drops to the ground, squat down and, keeping your back straight, lift it up by straightening your knees and lifting with your legs.
- e) Holding cut lever up, move knuckle thrower back into the coupler recess as far as it will go. Position the replacement knuckle to avoid any unnecessary

maneuvering while fitting it into the coupler body. Lift replacement knuckle into place and insert the knuckle pin into the top of the coupler body. Close the knuckle and check to see that the pin drops and knuckle locks.

2.12 UNCOUPLING CARS & ENGINES: Operate uncoupling (“cut”) lever while standing next to equipment and facing the direction of movement. Be alert for pinch points. Always place your hand on portion of cut lever that is designed as the handle. Never operate a cut lever on a car or engine while standing on another car or engine.

Some passenger equipment and locomotives are equipped with locking cut levers which must be lifted vertically to unlock before they can be operated to release the coupler. If a cut lever does not operate freely, do not jerk on it. Determine whether or not it is a locking cut lever and operate it accordingly. If a cut lever does not operate as intended, do not force it and report it to the proper supervisor or manager.

2.13 HANDLING AUXILIARY CONNECTIONS: Auxiliary electrical power, air, steam heat and other connections must not be uncoupled by hand until power is removed, and/or all valves or cocks controlling pressure to the line(s) have been closed. Whenever possible, bleed pressure off before uncoupling connection. Use care to avoid being struck or burned.

2.14 HANDLING AIR BRAKE & SIGNAL LINE HOSES:

- a) Before coupling or uncoupling air hoses, communicate with the engineer either verbally or by hand signal and receive an acknowledgement before stepping between the equipment.
- b) When handling air hoses, crouch down and place only one foot between the rails. Keep the other foot outside the gauge of the rails in case it becomes necessary to quickly get clear of the equipment. In an emergency, simply roll backwards onto the foot outside the rail to get into the clear.
- c) To couple hoses, lean forward on the foot between the rails and securely grasp the end of each hose near the base of the metal glad hand. Lift hoses upward, match the connection portions and push the joint to its lowermost position.
- d) Air hose joints may appear visually to be tight but could be loose or misaligned, and the hoses could whip apart violently when the line is first pressurized. If this occurs, the metal glad hands on the ends of the air hoses could cause serious injury if one strikes you. Before opening angle cock(s), take precautions to avoid injury in the event the air hoses suddenly come apart. When practicable, stand and place a foot on top of the glad hands as you open the angle cock(s) in order to prevent the hoses from whipping backwards if they part. If this is not possible, position yourself so that if the hoses suddenly part they will not strike you.
- e) Open the first angle cock slowly and listen for air leaking from the glad hands. An audible leak indicates the coupling may be faulty and could fly apart. If a leak is heard, protect yourself from the possibility of being struck and close

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both angle cocks. Allow pressure in the hoses to deplete before attempting adjustment or repairs.

- f) Before opening an angle cock feeding an uncoupled air hose, grasp the glad hand clear of its opening. Brace glad hand firmly against your leg, turn your face away and slowly open the angle cock.
- g) If necessary to uncouple charged air hoses by hand, close both angle cocks and securely grip each hose near the base of the glad hand. If possible, keep the coupler body between your face and the air hoses. Keeping a firm grip, slowly raise the hose joint vertically until air begins to bleed from the joint and pressure is depleted. Once depleted, continue raising the joint until it separates.
- h) Always treat coupled air hoses as if they are fully charged until you positively confirm that the air pressure is depleted. This is true even if the train is parted elsewhere or an angle cock feeding a coupled pair of air hoses is closed.
- i) Do not open an angle cock on the end of moving equipment except in an emergency situation.
- j) Never kick, strike or shake pressurized couplings in an effort to stop leaks.

2.15 HAND BRAKES: Observe condition of ladders, steps, grab irons and brake platforms before mounting car. Position yourself securely on the brake, crossover or other suitable platform, a step or stirrup. Do not operate a hand brake from a location that requires excessive reaching or leaning. Never jerk a brake wheel or lever. Do not use a brake club or other leverage device on a geared hand brake, or attempt to operate a vertical wheel hand brake from the ground.

VERTICAL LEVER OPERATED (PUMP HANDLE): To apply brake, ensure pawl or locking mechanism is engaged and pump lever up and down. Use leg muscles to do the work, keeping your back straight. Operate lever only if observation indicates that handle stop is not defective or missing.

To release a hand brake equipped with a pawl lever or weight, rotate the lever or weight into the OFF or RELEASE position. Return the lever or weight to the ON or ENGAGED position after brake releases.

To release a hand brake equipped with a release handle, pull the handle outwards in a single, swift motion until the brake releases.

If brake does not release, check to see if it was set in the first place. If set, restore the locking mechanism to the ON or ENGAGED position, ensure brake is still securely set, and report condition to proper supervisor or manager.

VERTICAL WHEEL-TYPE: Position yourself to the left side of the hand brake wheel during operation. Firmly grasp the ladder or grab iron with your left hand and operate the wheel with your right hand, gripping the wheel so that your thumb is on the outside of wheel rim.

To apply, wind slack out of the chain by turning the wheel in a clockwise direction until resistance is felt. As the chain tightens, be prepared for sudden slipping as bound-up brake rigging breaks free. With legs slightly bent, keep back

as straight as possible and pull the wheel upward using short, steady strokes, allowing the leg muscles to do the work.

To release a brake equipped with a quick release lever, keep your back straight, arms straight and lift with your leg muscles. If no quick release, turn the wheel in a counter-clockwise movement. Keep all parts of your body clear of the wheel in case it should spin during release.

STAFF-TYPE BRAKES: Whenever possible, allow air brakes to set before attempting to apply a staff-type hand brake.

To apply, grasp the wheel with both hands, pushing with the left hand and pulling with the right hand so that your body moves toward the car. Apply firm, steady pressure on the wheel or club and keep a firm hold on the wheel with both hands. Should you slip, your grip on the wheel should prevent you from falling off the car. To apply a staff-type lever brake, grasp the brake lever with both hands, placing one hand at the outward extreme of the lever and the other near the pivot point. Apply steady pressure on the lever until brake is applied. Once applied, tap the locking pawl into the gear at the base of the staff with your toe.

To release, tighten the brake just enough to unload the pawl, then tap the pawl free of the locking gear with your toe. If unable to obtain enough slack to release the pawl, use a brake club or obtain help.

3.0 ENGINES

3.1 TRAPS: Be aware, and keep fingers and hands out of traps created by the operation of: seat adjuster mechanisms, sliding windows, cab doors, hatches, engine compartment doors and hand brake operating and releasing levers.

3.2 BODY PROTECTION: Always wear gloves and natural fiber clothing to protect body and hands from burns.

3.3 STANDING ENGINES: Do not leave running or live engines without a qualified employee in charge.

3.4 WORKING ON OR AROUND ENGINES:

- a) Always use door handles or grab irons to open and close doors. Keep hands and fingers clear of door edges and doorjamb.
- b) Maintain a grip on grab irons, railings or other secure fixtures to prevent being thrown about in case of sudden movement.
- c) Keep all electrical and other compartment doors securely latched. Report defective latches and doors that won't stay closed.
- d) Watch your footing. Step and ladder arrangements vary, so know your equipment. Do not allow tools, chains or other items to be placed where you step.
- e) If you observe oil or other foreign substances on ladders, steps or walkways, warn other crewmembers and, if practicable, avoid using that part of the equipment until the unsafe condition is corrected. Report any condition promptly you cannot correct yourself to the proper supervisor or manager.

- f) Place and keep material, rags, supplies, tools or other items in a designated cabinet, container or location. Do not place on equipment platform, footboards, hand rail, ladder, running board, step, walkways, blackhead, throttle, reverse lever, brake stand, lubricator or any other location that interferes with walking or working. All tools that belong with the engine must be in their proper place and in good condition.
- g) Before operating engine on which work has been performed, be sure that all tools, material or other items are clear of: moving parts, overhead areas and other hazardous positions.
- h) Extreme care must be taken to keep clear of hot or moving engine components. Be on guard against exhaust steam from the cylinder cocks, blow-down valve muffler or injector.
- i) Never use pipe, valve, instrument panel, glass surface or any other such part of engine for footrest.

3.5 FUELING ENGINES: Fires, open flame lanterns, or smoking around fueling facilities is prohibited.

Know the location and how to use fire extinguishers. Crewmembers must familiarize themselves with the operation and locations of the emergency fuel cutoff buttons, pull rings or handles. In case of a fire on the engine any of the pull rings or handles should be pulled to shut off the supply of fuel oil, thus preventing the fire from entering the fuel oil tank. The fuel oil transfer pump should also be shut off. Avoid spillage when fueling engines. If spillage occurs notify proper authority.

3.6 STARTING ENGINES: Before starting a diesel engine:

- a) Warn any employees working nearby and ensure they are in a safe position;
- b) Ensure crankcase and airbox covers are in place and secured;
- c) Ensure cocks, valves and other appurtenances are in proper position and all proper starting procedures have been observed.

3.7 DIESEL MAIN GENERATOR: Generator field switch must be in "OFF" position while inspecting main generator, traction motors or power circuits. Avoid putting face or hands near main generator, or any high voltage equipment, while it is working under load. A flashover may cause burns or shock.

3.8 ELECTRICAL CABINETS: Electrical cabinet doors must be kept closed and latched when engine is under load. Open high voltage cabinet only after engine for that circuit has been isolated, unless observed from a safe distance.

Before working on any switch or other electrical equipment, stop engine and open control and main battery switch.

No work will be performed on any electrical equipment by anyone wearing a ring, necklace or wristwatch. Either of them could come in contact with electrical equipment and cause a severe burn or shock.

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Use only approved devices or tools and flashlights with non-metallic case about or within electrical cabinet, apparatus or equipment.

- 3.9 FUSES & BREAKERS:** Remove or renew fuse only after all power to that circuit has been removed. Never pull fuses while they are under load.

Isolate the engine before resetting the ground relay. Never open ground relay protective knife switch to prevent repeated tripping of ground relay.

Flagstaff or other object must not be used in closing or opening contacts on engine while under electrical load.

- 3.10 BATTERIES:** Do not place wrenches or any metal objects over batteries where they might fall. Battery acid is corrosive. Do not permit acid to come in contact with skin or clothing.

- 3.11 ENGINE PROBLEMS:** When an engine develops unusual noise, smoke, flame, or condition other than ordinary heating, immediately shut it down, preferably from a remote position.

When necessary to shut down an engine on account of pounding or hot bearing, or it is apparent engine has bearing seizure, engine must not be restarted nor crankcase opened. In all cases isolation switch must be tagged noting conditions observed.

- 3.12 DIESEL ENGINE PROTECTION DEVICES:** Diesel engine protection devices unload or shut down the main engine when they detect a fault or problem. Reset these devices only as follows:

- a) **Overspeed:** Shuts down main engine. May be reset as many times as required.
- b) **Hot Engine:** Unloads and idles engine (EMD) or shuts down main engine (ALCO). May be reset twice. Additional resets may be authorized by a qualified Mechanical Dept. employee.
- c) **Low Water:** Shuts down main engine. May be reset twice. Additional resets may be authorized by a qualified Mechanical Dept. employee.
- d) **Crankcase Overpressure:** Shuts down main engine upon sensing accumulation of explosive gases in crankcase. **TRAIN CREW MUST NOT RESET UNDER ANY CIRCUMSTANCES.** May only be reset by qualified Mechanical Dept. employee.

- 3.13 TRACTION MOTORS:** Before making a check of traction motors or apparatus under standing engine while engines are running; put generator field switch in "OFF" position; make sure that the independent and hand brakes are fully applied; remove reverse lever from control stand and observe blue flag rules.

- 3.14 ENGINE COMPARTMENT:** Keep hands out of radiator shutters or any equipment that operates automatically. On engines equipped with pressure cooling system do not remove cap without first relieving pressure from system. After pressure has been depleted, remove cap immediately to avoid build up of pressure.

- 3.15 SAFETY GUARDS:** All safety guards must be kept in place and securely fastened. When coupling or uncoupling engines, know that platforms and safety chains are in proper position.
- 3.16 DOORS:** Doors leading from cab to engine room must be kept closed and removable steps from cab to engine room must not be removed without providing adequate protection. Slide doors in engine rooms and end doors must be kept closed when engine is moving. Employees shall not step out side doors while engines are in motion.
- 3.17 SERVICING ENGINE:** When fueling, watering, sanding or otherwise servicing engine: throttle must be in "IDLE" or "OFF" position, generator field switch off, engine switch in ISOLATE, reverse lever centered/neutral (removed, if applicable) and independent brake fully applied.
- Keep hands, feet and other body parts clear of moving engine components and pinch points when servicing components, and when opening or closing inspection and/or access covers.
- When servicing is completed make sure that all servicing tools and equipment are removed from engine and secured clear of the track.
- 3.18 BRAKE RIGGING REPAIR:** Cut out air brakes at truck. Apply hand brakes if practicable, or use any other means necessary to secure engine against movement. Ensure proper protection is provided.

4.0 FIRE PROTECTION

- 4.1 PROTECTION:** All employees are required to give constant and personal attention to the subject of protecting Park property from damage by fire.
- Cleanliness and good housekeeping, together with utmost vigilance are the fundamentals in effective fire prevention; and will do more to eliminate destructive fires than any other activity. Grass, weeds and other combustible material must be kept away from all buildings, structures, bridges, and trestles.
- 4.2 SOUNDING ALARM:** Summon help and, if available, activate the fire alarm, before attempting to fight a fire.
- 4.3 OPERATION OF FIRE EQUIPMENT:** Employees must familiarize themselves with the proper operation of fire protection equipment provided at each work location.
- 4.4 FIRES:** Fires are divided into three classifications, with the type of extinguishing medium necessary to extinguish each noted. These are:
- a) **CLASS "A" FIRES:** Fires in ordinary combustible materials such as wood, fabrics, paper, plastics, etc. Extinguish with water, multipurpose dry chemicals or any fire extinguisher rated for Class A fires.

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- b) **CLASS "B" FIRES:** Fires in flammable and combustible liquids or gases, including gasoline, oil and grease. Do not use water; use ordinary or multipurpose dry chemical, Halon 1211, carbon dioxide or foam extinguisher rated for Class B fires. Sand or dirt may also be used.
- c) **CLASS "C" FIRES:** Fires in energized electrical equipment. Do not use water; use only non-conducting extinguishing agents rated as safe for Class C fires such as dry chemical, Halon 1211 or carbon dioxide. De-energize electrical equipment involved in a fire as quickly as possible.