

FRIENDS OF THE
COOPERSVILLE AND
MARNE
RAILWAY COMPANY

GENERAL OPERATING
SAFETY RULES

2023

INTRODUCTION

This guide is a compendium of safety rules adopted by Class I railroads which reflects the Friends of the Coopersville and Marne Railway Company's concern for safety in the railroad industry. Constant vigilance and compliance with the rules will result in a safe working environment. Safety and teamwork go hand-in-hand and are essential to creating and maintaining an injury-free work place.

Complacency on the job can often lead to a false sense of security resulting in a fatal injury or accident. It is everyone's responsibility to ensure that all volunteers adhere to safe work practices. Volunteers must be aware of the mental vacation that can often result in a serious incident. Railroad equipment has no conscience and is unforgiving. Avoid shortcuts! The time you save may be the difference between life and death.

These rules cannot represent every situation that a railroad operation may encounter, but should be used as a guide in formulating safety rules that will conform with operation needs.

The Friends of the Coopersville and Marne Railway Company

GENERAL NOTICE

The safe work practices in this booklet are to assist you in performing your duties as a professional railroader. By adhering to them, staying alert and never taking your work environment for granted, you will avoid injury to yourself and others.

Developing good work habits is important. Never take short cuts and avoid taking a mental vacation from safety. Follow these "safe work practices" and avoid personal injuries.

You must be conversant with the safety rules contained herein and have access to a copy while on duty.

In case of doubt or uncertainty the safe course must always be taken.

"SAFETY IS OF THE FIRST CONCERN"

GENERAL SAFETY RULES

1. **SAFE COURSE:** In case of doubt or uncertainty the safe course must be taken; in all cases, the safest available methods must be followed.
2. **TAKING PRECAUTION:** Volunteers must take every precaution to prevent injury to themselves and other persons under all conditions not provided for by the rules.

Volunteers must not rely entirely upon others, but must protect themselves when their own safety is affected.

3. **SIGNALS:** Hand and/or lantern signals must be used to control switching or shoving movements whenever practicable.
4. **WALKING IN YARDS:** When walking, pay attention to footing and other conditions which affect your safety. When you refer to a switch list, consist or timetable, do so standing still and clear of tracks.

Use an established route or path to or from office, stations, shop or other work location. When walking and it is necessary to turn your head or look backwards – Stop, before proceeding.

Exercise caution when walking out of or from behind an engine, car, building or other structure and look in both directions before stepping foul of any track. If it is necessary to obtain a clear view of the track in both direction – Stop, then proceed.

5. **WALKING BESIDE TRACKS:** When duty requires walking beside tracks: keep a sharp lookout in both directions for approaching cars and engines and never stand or walk between rails or on ends of ties when practicable to avoid it.

Always keep a safe distance from passing cars, engines and trains to avoid being struck by falling or projecting objects. Do not sit, stand, stop, or walk on rail, frog, switch, guard rail or other part of track structure.

6. **WALKING BETWEEN OR CROSSING TRACKS:** To avoid being struck by moving equipment, determine that track is clear by looking both ways before fouling, walking between or crossing tracks. Perform task quickly and get in the clear.

7. **LIFTING:** Lifting beyond normal physical capabilities is prohibited. Avoid jerking or twisted positions and obtain help to lift or handle heavy or cumbersome objects. When lifting: Have a secure footing, bend the knees and keep the back erect, take a firm grip on object and slowly straighten legs.

When necessary for two or more persons to handle heavy or bulky materials or objects such as drawbar, knuckles, chains, or lading by hand, the following precautions must be taken.

Designate one person to give commands for all movements (lifting, walking, lowering or throwing). When practicable, place him/her on one end of the object behind handled and fully inform those assisting just what is to be done and what words of command will be. Lift or make other movements only on command.

Place crew according to size, strength and experience.

8. **FIRST AID KITS:** Know the location of first aid kits and ensure they are easily accessible and properly supplied.
9. **SAFETY GLASSES:** Safety glasses should be worn at all times in areas where there is a risk of eye injuries.
10. **EAR PROTECTION:** Hearing protection should be used when loud or continuous noise may cause hearing damage.
11. **PROPER FOOTWEAR:** Footwear is an important factor when developing good walking habits. Where ankle support work boots/shoes with soles and heels firmly attached and heels that are not excessively worn over.
12. **HARD HATS:** the wearing of company approved hard hats is recommended for all volunteers working in the mechanical and maintenance of way departments. Also by all personnel when entering designated hard hat areas and when working around or observing work being performed by the aforementioned departments.
13. **TRIPPING HAZARDS:** All equipment must be secured in proper location and position. Never place objects or materials on floors or walkways where they may become a tripping hazard.
14. **STOVES:** Starting stoves must be done in accordance with instructions. The use of flammable materials, including fuses, to start stove or intensify fire is prohibited.

15. **PASSENGER SAFETY:** Passengers must not be allowed to occupy places where their safety would be endangered.
16. **BOARDING PASSENGERS:** As a precaution against injuries to passengers, crew members will use the words "Please watch your step" when passengers are boarding or alighting from train.
17. **VESTIBULES, CURTAIN AND END GATES:** Side and trap doors of vestibules must be kept closed while train is in motion, except when attended by a member of the crew. When in use at station, they must be open only on the side where passengers are received or discharged.

Side curtains must be operational and in place during passenger operations.

An end gate must be placed at the rear of the last car in a train when such car has a vestibule. When a car does not have a vestibule, a chain or crossbar must be used.

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 the cut is to be made.

18. **USING FUSES:** When lighting fuses, the end to be lighted must be held down and away from the body. Use a striking motion away from the body to prevent burns or fire dropping on hands, feet or clothing. Lighted fuses must not be thrown.

To extinguish fuse: strike lightly above some low object until burning portion drops off. Keep away from weeds, grass or other flammable material. Protect eyes and body from burning portions.

Fuses must not be left where they are subject to use by unauthorized persons. Avoid breathing fuse fumes.

19. **PREVENTING INJURIES:** Anything that may cause an injury or damage to equipment and/or property must not be dropped or thrown from an engine, train or equipment.
20. **CLEAN PREMISES:** Railroad premises must be kept in a clean, orderly and safe condition. Railroad buildings, facilities or equipment must not be marred or defaced. Only such information as is authorized by proper authority or required by law may be posted in or upon railroad property.

Volunteers must correct any condition which may cause injury to themselves or others. If unable to do so, necessary protection must be provided and the unsafe condition must be reported promptly to the proper authority.

21. **REMOVING PERSONS TO PLACES OF SAFETY:** When persons who are evidently intoxicated or mentally impaired are in the vicinity of tracks or other places where they may be in danger of injury, they must be guarded from engine movements or other dangers and the proper authority must be notified.
22. **REMOVAL OF UNAUTHORIZED PERSONS:** When unauthorized persons are seen in the vicinity of track or on bridges or on other company property where they may be in danger of injury or their presence interferes with normal operations, they must be asked to leave the premises. If unable to remove them to a place of safety the proper authority must be notified.
23. **RAIN, SNOW AND ICE HAZARDS:** Volunteers must take extra precaution during cold and 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.

24. **MAKING INSPECTIONS:** When required, volunteers making inspections, records, applying or removing placards, or performing other duties requiring them to climb about cars or engines, must know that proper protection is provided and must stay off moving equipment.
25. **APPLYING CHOCKS, CHAINS, BLOCKING MATERIALS:** When applying chocks, chains or other blocking material to engine or car wheels, check head clearance when 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 chains, grasp each handle rod at its center, then lay one chain portion over the top of the rail clear of the wheel and brake rigging. Keeping hand in the clear, slide the chain along the rail to a solid contact against the wheel. Repeat the process with the other chain portion.

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

Always store chains on the hooks provided. Never store chains or other items on steps or walkways.

If a locomotive and/or cars are left standing on a grade, always chain/block lead axle on engineer's side on descending end of locomotive or car

26. **CAR DOORS:** Before operating side door of car, be certain door is properly tracked. If door is off track, take precautions to safeguard its use and notify proper authority.

While opening or closing car doors, keep fingers clear of the edge or jamb of door, casting or rail on which door travels. Keep body clear of opening made by door to avoid falling freight.

27. **PASSING TRAINS:** When trains or equipment are passing, volunteers must not remain near the track where they may be struck by car doors or other articles that may protrude or fall.

When standing, walking or working on cars or engines, between or near tracks, volunteers must keep a careful look out for trains, engines, cars or other moving equipment and expect movement at any time, on any track, in either direction.

Volunteers must stand clear of all tracks when trains are approaching or passing either direction. They must not stand on one track while trains are passing on the other.

Except when volunteers have been specifically assigned to provide warning, volunteers must not rely on others to notify them of the approach of a train, engine or other equipment.

28. **MAINTAIN LOOKOUT:** when necessary to extend any part of body beyond side line of engines or car, whether standing or moving, a careful lookout must be maintained in both directions for trains, engines or cars on adjacent track, and for other close clearances.

29. **IMPAIRED CLEARANCES:** When entering an area of impaired clearance and the rails of the track are obscured with debris, such as snow, ice, water, mud, etc., volunteers must not ride on the side of the car or engine exterior next to the structure or position themselves between the structure and the moving car or engine.
30. **RIDING ON EQUIPMENT:** Volunteers must not ride on moving equipment unless their duties require or they have proper authority. Riders must ride only in space provided for that purpose.
31. **DEFECTIVE CAR:** A car that is in unsafe condition must not be moved except to clear the track, and then only if movement can be made without personal injury or damage. A report of such car must be made promptly to the proper authority.

WORKING AROUND EQUIPMENT

32. **ASCENDING OR DESCENDING FROM EQUIPMENT:** Observe condition of equipment, looking for defects such as bent, loose or missing stirrups, ladder rungs and brake platforms. Face equipment and use side ladder only. Be alert for unexpected movement and observe for obstructions before detrainning.

Never place lantern on your arms while ascending or descending equipment. Hold lantern at base of thumb between thumb and index finger.

33. **GETTING ON MOVING EQUIPMENT:** Assure yourself speed is not greater than four (4) MPH. If you feel movement is too fast and/or footing conditions undesirable, stop or slow movement before boarding.

Stand sufficient distance from car, engine or caboose to avoid being struck. Face equipment as it approaches you and determine that stirrups and hand holds are not excessively bent, hanging loose or missing.

Board only stirrup on leading end of car unless the car is the last in cut. Steps may be boarded on either end of an engine, caboose or passenger car.

When boarding engines, cabooses or passenger cars, first grasp the leading grab iron with leading hand in direction of movement. Then step up with your trailing foot as you grasp trailing grab iron. Put your trailing foot in trailing corner of step, let the movement lift you off the ground and place leading foot on step.

When boarding box cars, grasp lower ladder run with leading hand in direction of movement, then place trailing foot in trailing side of stirrup. Next, grasp the next higher ladder run with trailing hand, let the movement lift you off the ground and place leading foot in stirrup.

When working at night, shine your lantern on stirrup, steps or ladder rungs and/or grab irons before mounting, assuring yourself they are not defective or missing. Hold lantern at base of thumb between thumb and index finger.

Never place lantern on your arm when ascending or descending equipment. Hold lantern at base of thumb between thumb and index finger.

Never board a moving engine or caboose while carrying a grip.

34. **DETRAINING FROM EQUIPMENT:** Assure yourself speed is not greater than four (4) MPH. If you feel movement is too fast and/or footing conditions are undesirable, stop or slow movement before detraining.

Observe condition of stirrup, ladder rungs and grab irons and turn to face equipment. Maintain a secure grip on the hand holds and place feet solidly in stirrup or ladder rungs.

If detraining from as caboose or engine with steps, walk down steps facing away until reaching the bottom step – then turn and face equipment.

If detraining from moving equipment, place trailing foot in the direction of movement on the ground and release hand hold with you leading hand. After trailing foot has made a solid contact with the ground, step down with the leading foot while releasing hold with your trailing hand.

Always observe the area where you plan to detrain – look for obstructions and holes. Use extra precaution at night or in poor lighting conditions.

35. **RIDING SIDE OF CAR:** Look in direction of movement, maintain a firm grasp or ladder rung and have feet solidly placed in stirrup or on ladder rung.

Remain aware of conditions in direction of movement or ahead for impaired clearances, such as gate posts, gates, loading docks, sides of buildings, or fouling cars or materials on adjacent 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.

36. SEATED OR STANDING IN AN ENGINE OR CABOOSE: Be alert for conditions that can cause slack action. Examples: train brake operation, change of grade, or change in speed, particularly entering and leaving yards.

Protect yourself from slack action by remaining seated as much as possible. When seated on an engine, position both feet on floor or on foot rest. If in a caboose, place one or both feet on wall in front of seat or firmly on floor at base of wall in front of you.

When duties require you to stand, stand with feet shoulder width apart, one foot slightly ahead of the other, with hands braced on wall or grab iron when available.

When you are required to move from your seat, do so expecting slack action and have firm hand hold on grab rails, edges of bulkheads, and/or overhead grab rail to prevent injury.

When ascending or descending to or from seats in cupola-type cabooses, use hand holds and steps provided for the side being used.

37. CROSSING OVER STANDING EQUIPMENT: Use engines, cabooses or cars equipped with end platforms and hand rails.

Never place any part of body on or between coupler and end sill of car, regardless of whether the car is equipped with standard draft gear arrangements, sliding sill arrangement or end-of-car cushioning device. Volunteers near cars equipped with movable center sills must take precautions to avoid injury in case of movement.

38. CROSSING OVER MOVING EQUIPMENT: When crossing over moving equipment, maintain firm hand holds on railings and grab irons, remaining aware of footing conditions.

39. CROSSING THROUGH EQUIPMENT: Unless duties require, volunteers must not get on, cross through, crawl, sit or lie under cars, regardless of whether cars are standing or moving.

When necessary in the discharge of duty to cross through a standing train or cut of cars, volunteers must choose equipment carefully, use only those cars with ends equipped with crossover platforms and handholds, must not encumber hands, and must be prepared for movement at any time.

40. # STANDING EQUIPMENT: To avoid being struck by unexpected movement, be alert and give yourself at least twenty five (25) feet of clearance when walking around equipment.

41. EQUIPMENT SEPERATION: To avoid injury, separate cars and engines at least fifty (50) feet and be sure equipment is stopped before walking between.

42. ALIGNMENT OR ADJUSTMENT OF COUPLERS: If it becomes necessary to make a coupler alignment or adjustment, be sure cars are separated by at least fifty (50) feet and ensure that cars are stopped before stepping between.

Have a clear understanding with the engineer and other crew members involved of the work to be performed and protection required.

Face the coupler, get as close as possible keeping back straight. Lift with leg muscles and move coupler to desired position. If coupler does not move to desired position, obtain help.

Position one person as previously described and the second person on the side of the coupler prepared to push.

Practice good body mechanics by keeping back straight, knees bent and lifting with leg muscles. Lift and push as a team.

Never jerk, kick or use foot to make a coupler adjustment or alignment.

43. REPLACING A KNUCKLE IN A COUPLER: Make sure cars are separated by at least fifty (50) feet and secured with hand brakes if required.

Have a clear understanding with engineer and other crew members involved of the work to be performed and protection required.

Keep feet in the clear and making sure knuckle pin is in place, open the defective knuckle, remove pin from coupler and set it within easy reach.

Remove knuckle from coupler. Holding defective knuckle as close to body as possible, dispose of it where it won't be a tripping hazard to yourself or others.

Holding cut lever up, move knuckle thrower back into the coupler recess as far as it will go. Position knuckle so that no unnecessary maneuvering will be required while fitting it into the coupler. Lift, place it into the coupler and insert the knuckle pin into the top coupler pin hole. Close the knuckle and check to see that the pin drops the knuckle locks.

44. **UNCOUPLE CARS OR ENGINES:** Operate uncoupling lever with hand next to equipment and face direction of movement. Be alert for pinching points. Always place your hand on portion of cut lever that is designed as the handle.

Never use uncoupling lever on car or engine while riding on another car or engine.

Never jerk on uncoupling lever.

45. **COUPLING AIR HOSES:** Communicate to the engineer, orally or with agreed-upon signal, and receive an acknowledgment before stepping between the cars.

When coupling air hoses place only one foot between the rails, and securely grip the end of each hose at the bottom. Lift hoses upward, match the connection portions and slowly push the joint to its lowermost position.

46. **WORKING WITH COUPLED OR UNCOUPLED AIR HOSES:** Open angle cock slowly listen for air escaping which will indicate coupling is faulty and may fly apart. If a leak is heard, close both angle cocks and make sure pressure in hoses is fully depleted before attempting adjustment or repairs.

Before opening angle cock to an uncoupled air hose, grasp hose at the glad hand, clear of vent port. Brace glad hand firmly against thigh, turn face away from glad hand and slowly open angle cock.

If necessary to uncouple air hoses by hand, place one foot between the rails, close both angle cocks and securely grip each hose near the bottom join. Slowly raise the hose join until air pressure is depleted, then continue raising the join until it separates. Then return hoses to lowermost position instead of allowing them to drop.

Do not reach over the coupler at any time to operate an angle cock from the opposite side. If necessary, cross over equipment to do so, but do not step or stand on coupler in doing so.

When an angle cock handle is in a closed position, do not depend on pressure being depleted in hose.

Never open an angle cock on the end of moving equipment except in emergency.

Never kick, strike or shake pressurized hose couplings in an effort to stop leaks.

47. UNCOUPLING/COUPLING CONNECTIONS: Air hoses must not be uncoupled by hand until both angle cocks or valves have been closed. Volunteers coupling or uncoupling air hoses must use care to avoid being struck.

HAND BRAKES

48. LEVER BRAKES (PUMP HANDLE): To release, place pawl lever or weight in OFF position and apply stress. Retain a secure handhold and place the handle in DOWN position until brake released.

If brake does not release leave handle in DOWN position, re-engage the pawl lever or weight in ON position and report condition to proper authority.

To apply brake put the pawl lever ON and pump lever up and down. Operate only if observation indicates that handle stop is not defective or missing.

Always use leg muscles to do the work, keeping the back straight.

49. VERTICAL WHEEL-TYPE BRAKES (APPLYING): Observe condition of ladders, steps, grab irons and brake steps before mounting car. Always be on the left side of hand brake during operation. Have both feet securely placed with the left foot on ladder rung at or near the same level as brake platform and the right foot firmly on the brake platform. When setting brake on a tank car, have both feet securely placed on end platform. Have firm grasp of ladder rung or grab iron with left hand. Operate the wheel with the right hand gripping in such a manner to always have your thumb on the outside of the wheel rim.

Wind slack out of the chain by turning the wheel in a clockwise direction until resistance is felt. Be prepared for unexpected bunching or slipping of brake chain. With legs slightly bent keeping back straight as possible, pull upward using short, steady strokes, with leg muscles doing the work, until reasonable force has been applied to the wheel.

Never use wheel spokes to apply brake.

Never jerk or lunge on a brake wheel.

Never apply a vertical wheel hand brake from the ground.

Never use a brake club or other leverage device on a geared hand brake.

50. VERTICAL WHEEL-TYPE BRAKES (RELEASING): Stand on the left side of the hand brake, have both feet securely place with the left foot on the ladder rung at or near same level as brake platform and the right foot firmly on the brake platform. Inspect the release lever for proper method of operation by its design or any instructions stamped on the gear case. Firmly grasp ladder rung or grab iron with the left hand and operate the wheel with the right hand, gripping in such a manner as to always have your thumb on the outside of wheel rim.

When brake is equipped with a quick release, keep your back straight, arms straight and lift with your leg muscles. If no quick release, grasp the wheel in such a manner as to have thumb on outside of wheel rim. Release the brake by pulling in a counter-clockwise movement. Keep all parts of your body clear of the wheel in case it should spin during release.

Never jerk or kick handle.

Never use wheel spokes to release brakes.

Never release hand brakes from ground.

Never place your foot in the wheel spoke to release a vertical wheel-type hand brake.

51. **STAFF-TYPE BRAKES (APPLYING):** On a staff brake wheel, use both hands when applying the brake. Push with the left hand and pull with the right hand. This method places you close to and applying pressure toward the car. Always pull or push, so your body moves toward the car. Apply steady pressure on the wheel or club and keep firm hold of the wheel with both hands. If your feet slip, you can still hang onto the wheel and avoid falling.

On a staff brake lever, have both hands on the brake lever, placing one hand at the outward extreme of the lever and the other near the pivot point. Apply steady pressure on the lever.

Never apply pressure with a jerk.

52. **STAFF-TYPE BRAKES (RELEASING):** To release staff, lever or wheel brake with or without brake club: Apply only sufficient stress to release pawl without forcing it from ratchet. If not sufficient stress in the above, obtain help. Release brake not more than 3 notches at a time to permit slack to adjust before completing the release, and be prepared to re-engage the pawl instantly to prevent wheel spinning.

Switches

53. **SWITCH USE:** Switches must not be unlocked or handled by unauthorized persons.

54. **HIGH STAND RIGID SWITCHES:** Observe switch points for any obvious obstruction, including spiked switches.

Position yourself at the switch, clear of arc or line of travel of handle, and remove the keeper or lock. Place one hand on the target staff and with the other hand, take a full grasp at the end of the switch handle. Have feet approximately shoulder width apart, firmly on the ground, with one foot placed slightly in front of the other.

Keep back as straight as possible and legs bent, and with a steady pull, lift the handle out of the slot, using your legs and not your back. Pull the handle smoothly through its arc of travel until switch has moved to desired position. Press handle into holder and secure with lock or keeper.

If handle stops at any point as you are pulling it through its arc of travel, reset handle to its original position and inspect switch points for foreign objects. If foreign objects are found, remove them with a stick or similar object, and complete movement. Report hard to throw switches to proper authority.

Never jerk or lunge on a switch handle.

Never kick or otherwise use your feet to move switch handle.

Handling Switches and Derails: Be familiar with the type of switch that is to be lined. Keep constantly in mind that the ease with which a switch operates will change depending on weather, temperature, maintenance and other operating conditions.

Before attempting to line a switch, visually inspect it, and ascertain that it is not damaged, locked or spiked, and that the points are not fouled by ballast, ice, snow or other material.

Keep hands and feet in the clear to avoid being caught or struck by switch lever handle or ball while handling switch or derail.

Avoid undue stress that would cause physical injury to the body.

Operating Ground Throw Switch: Before operating switch, take a firm stance and be alert for conditions that may cause loss of footing. Stand parallel to handle movement, with stance centered over the lever arm handle. If switch is equipped with foot latch, keep foot on latch until the lever is moved towards the one-half position.

Stand as close as possible to the lever arm and place one hand on the knee or on top of the switch staff for support. Place other hand on handle and lift slowly and smoothly. Once lever had traveled at least to the straight up position, feet and hands must be repositioned so that lever movement may be completed with a pushing motion. If necessary, last six inches of movement may be completed by placing one foot near the end of the lever handle and stepping down until arm is latched.

Use hand or secure arm during wet, ice, or snow conditions, or if oil, grease, or other such contaminants are present on lever handle.

ENGINES

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

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

59. **STANDING ENGINES:** Engines must not be left without an volunteer in charge, except when authorized and must not be left standing so they will block or foul adjacent tracks.

60. **MOVING IN AND OUT:** Always use door handles or grab irons to open and close doors. Keep hands and fingers clear of door edges and door jambs. Always grasp grab irons, railings or other secure fixtures to prevent being thrown about in case of sudden movement.

Keep all electrical and other compartment doors securely latched. Report all defective latches and doors that won't stay closed.

Watch your footing closely. Engines vary in step and ladder arrangement. Know your equipment. Don't allow tools, chains or other items to be placed where you step.

If you observe oil or other foreign substances on ladders, steps or walkways, warn other crew members and if practicable, avoid using that part of the equipment until the unsafe condition is corrected. Be sure you report it promptly if you cannot correct it yourself.

61. **WORKING AROUND OR ON ENGINES:** Place and keep clothing, material, rags, supplies, tools or other items in a designated cabinet, container or location. Do not place on equipment platform, hand rail, ladder, step, walkways, throttle, reverse lever, brake stand, 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.

Before operating engine on which work has been performed, be sure that all tools, material and other items are clear of moving parts, overhead areas and other hazardous positions.

Enginemen must have a non-metallic case flashlight in good working order available to them at all times.

Never use other than standard chains or cables.

Never use pipe, valve, instrument panel, glass surface or any other such part of engine for foot rest.

62. FUELING ENGINES: Fires, open flame lanterns, and smoking around fueling stations are prohibited.

Know the location and how to use fire extinguisher. When using fire extinguisher, avoid inhaling fumes as much as possible. Crew members must familiarize themselves with the operation and location 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.

63. ENGINE MOVEMENTS: Hostlers and others who are authorized to move engines at terminals must, by inspection, know before moving them in shops that blue flags have been removed, the air brakes cut in and operative and in condition to be moved. Be positive that no one is working beneath or around engine who might be injured.

Due warning under all conditions must be given by ringing the bell before engine is moved.

64. STARTING ENGINES: Before starting a diesel engine make sure that: all volunteers have been notified and are in a safe position; crankcase and airbox covers are in place and secured; cocks, valves or other appurtenances are in proper position and all proper starting procedures have been observed.

65. DIESEL MAIN GENERATOR: Generator field switch must be in "OFF" position while inspecting main generator, track 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.

66. ELECTRICAL CABINETS: Electrical cabinet doors must be kept closed and latched while engine is under load. Open high voltage cabinet only after engine for that circuit has been isolated, unless observed from a distance of not less than two (2) feet.

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

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

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

67 FUSES AND BREAKERS: Remove or renew fuse only after switch to that circuit has been opened.

To operate open-type switch or circuit breaker, grip handle while standing at arm's length and turn face away from the switch while doing so.

Place engine throttle in idle position before resetting the ground relay.

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

Never pull fuses while they are under load.

Never open ground relay protective knife switch to prevent repeated tripping of ground relay.

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

69. 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, hot bearing, or it is apparent engine has bearing seizure, engine must not be restarted nor crank-case opened. In all cases the Mechanical Department must be notified as soon as possible.

70. **TRACTION MOTORS:** Before making a check of traction motors or apparatus under the locomotive while engines are running; put field generator 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.

71. **ENGINE COMPARTMENT:** Keep hands out of radiator shutters or any equipment which 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.

Protect fingers with cloth or paper towels when wiping oil from bayonet-type gauge stick.

72. **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.

73. **DOORS:** Engine cab doors must be kept closed when engine is in motion. Volunteers shall not step out side doors, except in order to perform assigned duties.

74. **SERVICING ENGINE:** When fueling, watering, standing or otherwise servicing engine: have throttle in “IDLE” or “OFF” position, generator field switch off, reverser lever centered/neutral (removed, if applicable) and independent brake fully applied.

Take a position that will ensure being in the clear of servicing applications, as well as associated engine parts. Keep hands, feet and other body parts clear of pinch points when removing or replacing servicing devices and also when opening or closing lids or fastenings.

When servicing is completed make sure that all servicing devices are removed from engine and secured clear of track.

75. **WHEN TAKING CHARGE OF OR OPERATING ENGINE:** Observe overhead clearance at doorway and take necessary precautions to prevent striking head. Be sure that safety chains are in proper position between coupled units and ensure bridge plates are in down position if equipped.

76. 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.

Observe blue flag rules.

77. PASSING EQUIPMENT: When practicable, while in engine, move away from the side of the engine which is adjacent to a track on which other equipment is passing.

FIRE PREVENTION

78 PROTECTION: All volunteers are required to give constant and personal attention to the subject of protecting railroad property from damage by fire and/or vandalism.

Every volunteer should exercise care and due observance of the rules prescribed for the prevention of fires.

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.

79. GIVING ALARM: Volunteers must sound the alarm and summon help, when available, before undertaking the control and extinguishing of a fire.

80. OPERATION OF FIRE EQUIPMENT: Every volunteer must familiarize themselves with the proper operation of fire protection equipment provided at each work location.

81. FIRES: Fires are divided into three classifications, with the type of extinguishing medium necessary to extinguish each noted. These are:

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.

CLASS "B" FIRES: Fires in flammable and combustible liquids, such as gasoline, oil, and grease and also gases. Use ordinary or multipurpose dry chemical, Halon 1211, carbon dioxide foam or foam fire extinguisher, all rated for Class B fires. Sand and dirt may also be used. Do not use water.

CLASS “C” FIRES: Fires in energized electrical equipment. Use only non-conducting extinguishing agents rated safe for Class C fires such as ordinary or multipurpose dry chemical, Halon 1211, carbon dioxide. Electrical equipment involved in a fire should be de-energized as quickly as possible. Do not use water.

82. RIGHT OF WAY FIRES: The presence of fire on or near the right of way must be reported promptly to the proper authority unless such fires are being controlled. If there is danger of fire spreading to a bridge or other structure, trains must be stopped and delegated members of the crew must assist in extinguishing the fire.

It is important that cause of fire be ascertained in each case and promptly reported.

Volunteers must notify the proper authority of fires which may have been started by a train.

83. STOVES WITH FIRES: When not in service, cabooses or other cars which contain stoves with fires burning must be placed in yards or at stations where the danger of fire will be minimized to the greatest extent practicable.

84. IGNITED FUSEES: Ignited fuses must not be left on open bridge decks or trestles, approaches nor in close proximity to any combustible material.