IMCOM RAIL SAFETY RULES

01 APR 2010

IMCOM Safety Policy

It is the policy of IMCOM that operations be conducted in a safe manner. As an integral part of this policy, the Garrison Command leadership believes that:

- **All injuries can be prevented.**
- **We are committed to provide a safe work environment for all personnel and Soldiers.**
- **Personnel and Soldiers of all levels are accountable for ensuring their own safety and the safety of their co-workers, preventing injuries and accidents, and having a positive safety attitude.**
- **Performing work functions in a safe manner is more important than meeting deadlines, production schedules, and other non-safety criteria.**

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INTRODUCTION

The IMCOM Safety Rules apply IMCOM wide unless modified by System Special Instructions. All employees working, operating, or maintaining equipment, facilities, track, or structures, including contract employees must review and understand the applicable section of the Rail Safety Rules, rail General Operating Orders, Operating Circulars and Installation Bulletins.

The IMCOM Rail Safety Rules document is divided into four sections: General, Rail Crew, Maintenance of Equipment, Maintenance of Way and Loading. The General section applies to ***ALL*** personnel who work on or about tracks (within 4 feet of the field side of the rail). The following sections will apply to all personnel working in that craft. The personnel and management are responsible to ensure that all Employee/Soldiers are familiar with and have a copy of these Safety Rules.

CARDINAL SAFETY RULES

Cardinal Safety Rules are safety rules that, if violated, have been determined to often result in severe personal injuries. These rules apply everyday and in every job we do. They will guide and direct us in maintaining a safe work environment.

DESCRIPTION	RULE
➢ JOB BRIEFING	70.1.1
➢ PERSONAL PROTECTIVE EQUIPMENT	71.0
➢ CROSSING THROUGH RAIL EQUIPMENT	70.25.10
➢ THREE STEP PROTECTION	74.15
➢ COUPLER-KNUCKLE ADJUSTMENT	74.16.3
➢ CROSSING OVER RAIL EQUIPMENT	70.25.10
➢ COMMUNICATION BETWEEN CREWS SWITCHING	GCOR 7.2
➢ GETTING ON OR OFF EQUIPMENT	75.4
➢ BLUE SIGNAL PROTECTION OF WORKERS	GCOR 5.13
➢ LIFTING AND MOVING MATERIALS	70.12
➢ OPERATING SWITCHES AND DERAILS	76.0
➢ HAND BRAKES	75.7

GENERAL (SECTIONS 70-73)

70.0 GENERAL SAFETY INSTRUCTIONS

70.1 Safety Responsibilities

Personnel are responsible for their personal safety and are accountable for their behavior as a condition of employment. Personnel will take every precaution to prevent injury to themselves, other personnel, and the public. Personnel will report any dangerous condition or unsafe practice.

Personnel will be aware of and work within the limits of their physical capabilities and not use excessive force to accomplish tasks. Good judgment is required in fulfilling job responsibilities safely.

Past practices that do not conform to the rules are unacceptable.

70.1.1 **Job Briefing**

Before performing a task that requires the coordination of two or more personnel, everyone will conduct a job briefing for all personnel, including contractors and military, involved to make sure everyone understands the task to be performed and their individual responsibilities.

Discuss the following information in the job briefing:

- Updates or changes to Special System Instructions, General Orders or Cardinal Rules, General Code of Operating Rules, Safety Rules, Hazardous Material (HAZMAT) or Air Brake Train Handling (ABTH)
- Job(s) to be done or move(s) to be made
- Responsibility of each employee
- Additional instructions due to an unusual situation
- Specific reminders due to hazardous condition, unusual practices or processes.
- Method of protecting work performed on or near the track and the time when the protection will be in effect

If necessary, conduct additional job briefings as the work progresses or as the situation changes.

70.1.2 **Accidents/Incidents**

Report all incidents accidents and vehicle damage to the proper manager/authority, no matter how minor.

70.1.3 **Complete and Accurate Reporting of All Accidents, Incidents, Injuries, and Occupational Illnesses Arising from the Operation of Installation Rail**

IMCOM is committed to complete and accurate reporting. All installation personnel will follow procedures for the reporting of all Accidents, Incidents, Injuries, and Occupational Illnesses associated with on duty rail operations, IAW AR385-40 and DA PAM 385-40. Harassment or intimidation of any person that is calculated to discourage or prevent such person from receiving proper medical treatment or from reporting an accident, incident, injury, or illness has not and will not be permitted or tolerated.

IMCOM installations require all personnel to take a responsible, safe approach to their duties in safeguarding the public trust. Steps taken to enhance a sense of personal responsibility for safe work practices, including training, coaching, and counseling personnel found to have engaged in unsafe work practices or rules violations are not a violation of this policy.

Further, holding personnel accountable, through reasonable disciplinary actions, for rules violations reinforces the serious nature of their actions. This good faith assessment of discipline does not violate this policy.

70.1.4 **Timely Incident Reporting**

IMCOM Rail Safety Rules require timely reporting of all injuries and incidents. Every employee has an absolute right and obligation to report injuries and incidents to the appropriate authority. At no time shall any person be subjected to harassment or intimidation to discourage or prevent such person from receiving proper medical treatment or from reporting an accident, incident, injury or illness.

Any person who feels he or she has been the subject of harassment or intimidation in violation of the reporting policies is encouraged to use the chain of command without fear of harassment or reprisal. Personnel who report violations of this policy will not be subject to harassment or reprisal for making the report.

70.2 Warning Signs

Personnel will label damaged or defective rail cars, engines, machines, switches, valves, or other apparatus with a danger sign, tag, or banner. The employee who placed the sign will remove it when safe to do so.

Never operate rail cars, engines, machines, switches, valves, or other apparatus with attached danger signs, tags, or banners.

70.3 Drop or Throw Objects

When on trains, equipment, scaffolds, or other high places, personnel will not drop or throw objects that might cause fire, personal injury, or equipment or property damage.

70.4 Building Safety

The following rules apply to all buildings including offices, shops, crew rooms, towers or similar structures.

70.4.1 Opening or Closing Doors

When opening or closing doors, personnel will always use the door handle and keep their hands clear of the door side or edge.

70.4.2 Turning on Power

Inspect affected areas and make sure no one will be injured before turning on electricity, gas, steam, fuel oil, air, water, or putting any machinery in motion.

70.4.3 Electrical Cords

Permanent installations with telephone or other electrical chords that are in walking areas will be encased and secured to prevent a tripping hazard. Inspect electrical cords often and make sure they are in good condition and have a good ground. Follow these guidelines for using cords:

- Use cords in an approved manner.
- Do not remove the grounding prong from the plugs for any reason
- Do not overload electrical outlets.

70.4.4 Electrical Panels

In shop areas, the floor in front of electrical control boxes will be kept clear of any obstruction.

Circuit breakers will be properly labeled as to the circuit controlled.

70.4.5 Drawers and Filing Cabinets

Drawers on file cabinets, desks, toolboxes, etc., will be closed when not in use. Contents of filing cabinets will be arranged and distributed so as not to make the cabinet top heavy. Do not have more than one drawer open at one time.

70.4.6 Stairs

Personnel will not run up or down stairs, through halls or passageways, or around corners. They will never ascend or descend stairways with their hands in their pockets and will use the handrail where provided.

70.4.7 Chairs and Benches

Do not stand on chairs or benches. Unsafe chairs or benches will not be used. Chairs will not be repaired or altered in any way except by an authorized repair service. While seated in a chair, all chair legs will remain in contact with the floor.

70.4.8 Defects

Report sharp edges, splinters or defective parts of office furniture or equipment so repairs can be made. If unsafe, appropriate action will be taken to prevent injury.

70.5 Overhead Hazards

Personnel will avoid overhead hazards and will not work, walk, or stand under workmen (ladders, platforms, or scaffolds) from which objects could fall. Personnel who are required to work under overhead hazards will wear the proper protective equipment (e.g. hard hats).

70.6 Protruding Objects

Personnel will remove or flatten protruding nails or screws when removing boards or timbers or when they notice protruding nails or screws while performing duties.

Other protruding objects

Personnel will remove protruding nails, screws, staples, or loose ends of metal bands or wire before removing materials or supplies from or placing them in a keg, barrel, or box.

70.7 Refuse Disposal

Personnel will dispose of garbage, bottles, ashes, or other refuse material at designated locations. Do not discard aerosol cans in containers that may be incinerated.

70.8 Stacking and Storing Materials

When stacking or storing materials and freight:

- It will be placed safely, securely, and where it will not create hazardous conditions.
- Do not store heavy materials on top of fragile or crushable materials.
- Store heavier, bulkier materials at a height between the shoulders and mid-thigh to minimize lifting effort from bending or reaching too high.
- Place in locations where people will not step on, trip over or fall on them.
- Keep out of walkways and passageways, doorways, fire lanes and truck spaces.
- Keep a safe distance from the edge of pits, ledges and platforms.
- Place it where it will not block access to fire extinguishers, electrical panels, emergency eye washes, showers or exits.
- Material stored higher than 6 feet from the ground will be palletized and should be retrieved with a forklift whenever possible.
- Do not overload storage racks or areas.

70.9 Bars and Levers

Personnel will not sit or stand on or straddle a bar or lever while it is in use.
Personnel will place bars, levers, or tools properly and while using them:

- Appropriately brace themselves
- Be alert to the bar or lever slipping or moving unexpectedly
- Not over exert themselves

70.10 Safe Working Space

Personnel working in groups will conduct job briefings to be aware of the work and movement of other group members.

Swinging Tools

When assisting or working near an employee using a swinging tool, safely position yourself to avoid injury. When possible, be at least twice the length of the handle away from the tool.

70.11 Unloading Materials

Personnel will not work on the ground near cars when other personnel are unloading ties, timbers, or other materials. Personnel unloading such materials will ensure that no one is on the ground near the car being unloaded.

70.12 Lifting and Moving Materials

Do not lift materials beyond your normal capabilities. Obtain additional help or mechanical assist device(s) to lift or handle heavy objects.

All personnel will observe the following principles of correct and safe lifting:

- Ensure secure footing and a good grip on the materials.
- Keep the object close to your body.
- Keep you upper body erect.
- Lift smoothly – do not use jerky motions.
- Do not lift and twist at the same time.

70.12.1 Steps for Safe Lifting

All personnel will observe the following steps when lifting any items:

- Check the load for size, weight, stability, and grip.
- Examine the area and working surface for slipping and tripping hazards.
- Inspect the unlift areas for a clear unlift, preferable at knuckle height, without reaching.

70.12.2 Lifting with Two or More Personnel

When a lifting task involves two or more personnel:

- All personnel involved in the lifting project will discuss in a Job Briefing the responsibilities and techniques for the type of lift being performed.
- One employee will give commands for all movements (lifting, walking, lowering, or throwing). When possible, place this employee at one end of the object being lifted.
- Personnel will avoid walking backward.

70.13 Aligning Holes

Personnel will use the proper equipment to determine if holes are in proper alignment and will not use their fingers.

70.14 Torpedoes and Fusees

70.14.1 **Torpedoes**

The possession or use of torpedoes is not authorized.

70.14.2 **Fusees/Flares**

A. Fusees/Flares will be stored:

- In approved containers in motor vehicles and other designated equipment.
- In flagging kits or racks in engines
- In the original shipping container in a storage cabinet.

B. Fusees/Flares will be:

- Used for signaling purposes only.
- Placed by hand. Fusees/Flares may be dropped off moving trains in emergencies or under flagging conditions.
- Kept away from high temperatures, fire or open flames.

C. Fusees/Flares are not to be placed in locations where they may become wet. Fusees/Flares showing evidence of having been soaked in water, oil, etc. or otherwise damaged will not be used, but disposed of properly.

70.14.3 **Lighting Fusees/Flares**

When lighting fusees/flares, hold the end to be lighted down and away from your body, striking away from the body to prevent burns or fire dropping on your hands, feet, or clothing.

Do not place lighted fusees/flares on open bridge decks, trestles, approaches, wood decked cars or use them near flammable or combustible material.

Extinguish the fusee/flares after giving hand signals. If possible, extinguish it by tapping the lighted end on a rail.

70.15 Ladders, Platforms, and Scaffolds

Use ladders, platforms, or scaffolds for their intended purpose. Use of wooden ladders is prohibited.

A. Safety Inspection

Personnel will inspect ladders, platforms, and scaffolds for defects and ensure that they are properly secured, blocked, or held to prevent slipping or falling. Loose ends or ropes will be secured and not hang free.

B. Positioning and Locking of Portable Ladders

Before using a ladder, an employee will place the base of the ladder about one-fourth of its length from the wall or supporting object and make sure the ladder is locked and secured.

C. End and Back Stops

Scaffold plank or loose board platforms will be equipped with end and back stops.

D. Metal ladders or Scaffolds

Personnel will not use portable metal ladders or scaffolds when working on or near energized electrical wires.

70.15.1 On or Off Ladders

When climbing on or off ladders, personnel will:

- Squarely face the object.
- Use both hands.
- Have secure hand holds and firm footing.
- Not lean a ladder against an unstable object or unstable base.
- Not use a ladder in a horizontal position as a runway or scaffolding.

Do not carry tools, materials, or any object that prevents a secure hold with both hands or interferes with safe movements while climbing.

70.16 Falling, Fouling, and Stumbling Hazards

Personnel will observe safety practices that eliminate or help avoid falling, fouling, and stumbling hazards. Do not work on bridges, elevated structures or the roofs of cars or locomotives without proper authority.

70.16.1 Avoiding Objects and Slip, Trip, and Falling Hazards

Personnel will avoid objects, obstructions, holes, and openings and be alert to underfoot conditions that might contribute to slipping, tripping, or falling.

70.16.2 Avoiding Fouling Hazards

Personnel will not leave machines, tools, or other objects near tracks where:

- They could be struck by trains.
- They would create a close clearance.

OR

- People might stumble over them.

Tools and other objects will not be left between rails when trains are approaching. If unable to move such items, immediately stop the train and report the hazard to the supervisor, or yardmaster.

A. If Fouling Occurs

When machines, tools, or other equipment may foul adjacent tracks, personnel will notify the yardmaster, supervisor, or another supervisor. They will arrange to restrict movement on the affected track(s) until the work is completed and the fouling hazard is eliminated.

B. Unobstructed Aisles

Aisles and walkways will be kept free of tools, trucks, materials, and other equipment obstructions.

70.17 Three Points of Contact

Maintain three-point contact when getting on or off vehicles, equipment, and machinery, and when ascending or descending ladders or platforms. Three-point contact consists of both feet and one hand or both hands and one foot.

70.18 Jumping

Personnel will not jump from equipment or structures (for example, docks, trucks, rail cars, station platforms, etc.).

70.19 Entry Procedures

Personnel will use caution when entering confined spaces such as Locomotive engine compartments, maintenance pits, tunnels.

70.20 Avoiding Ditches and Pits

Personnel will not step or jump across ditches, pits, manholes, or other openings.

70.20.1 Safe Distance from Edge

Personnel will keep a safe distance from the edge of inspection pits, turntables, or other pits or trenches. Personnel will exercise caution when duties require them to work near inclines. When pits are not in use, safety rails/chains shall be in place.

70.21 Weather Hazards

Personnel will take precautions to avoid slipping on snow, ice, wet spots, or other hazards caused by inclement weather. When hazards underfoot conditions exist:

- Keep your hands free while walking, and keep them out of pockets for balance.
- Take short, deliberate steps with toes pointed outward.
- When stepping over objects, such as rails, be sure your front foot is flat before moving your rear foot.

70.22 Working at Night or Low Light Levels

Personnel will exercise care to avoid hazards caused by shadows resulting from low light or night environment.

Personnel should carry a flashlight or lantern when working at night or where there is a low or inadequate level of lighting.

70.23 Equipment Precautions

70.23.1 **Tool Placement**

Personnel will place tools in safe, secure locations and avoid doing the following:

- Placing objects where they are likely to fall or be knocked off.
- Placing tools or other objects on ladder rungs, hand holds, running boards, steps, uncoupling levers, or other safety appliances.

70.23.2 **Defective Safety Appliances**

Personnel will visually inspect equipment and not use defective safety appliances, such as loose, damaged or missing hand holds, ladders, grab irons, sill steps, or crossover platforms.

When a defective safety appliance is observed, warn other personnel and report the defect to the yardmaster, or supervisor.

Defective safety appliances will have Bad Order Tag applied by qualified carman or other employee qualified to inspect railroad equipment.

Defect/Bad Order cards will not be removed from defective safety appliances except by qualified carman or other employees qualified to inspect railroad equipment.

Never operate machines, switches, valves, or other apparatus with attached danger signs, tags, or banners.

70.24 Riding on Equipment

Without proper authorization, personnel will not ride on cranes, ditchers, other machines, or rail cars on which machines are mounted.

70.25 Precautions Around Tracks and Moving Equipment

70.25.1 Walking On or Near Track

Personnel will walk straight across tracks when possible.

Keep a careful lookout in both directions for moving equipment and do no rely on hearing the approach of a train or equipment.

Do not stand or sit on, walk, fouling, or walk between rails of the track unless required by assigned duties.

70.25.2 Look Both Directions

A. Personnel will look in both directions before crossing or stepping into the foul of a track.

B. Personnel will look in both directions and know the way is clear when walking out of doorways leading across tracks or around corners or obstructions.

70.25.3 Crossing Tracks

Personnel will step over and not on top of the rail, frog, switches, or guardrails when walking near or crossing tracks.

70.25.4 Passing Trains

When personnel are near passing trains or equipment, they will:

- Move away from the track to avoid being struck by car doors or protruding or falling articles.
- Stand clear of all tracks when trains are approaching or passing in either direction. They will not stand on one track while trains are passing on an adjacent track.
- Not rely on other personnel to notify them of an approaching train, engine, or other equipment unless the other employee's duties include providing warnings.

Working near Tracks

When standing, walking, or working between or near tracks, personnel will keep a careful lookout for trains, locomotives, cars or other moving equipment and expect movement at any time, on any track, in either direction.

Removing Unauthorized Persons

Unauthorized person on Installation property will be told to leave the premises, unless confronting the person(s) would be unsafe. If the person(s) refuse to leave, or if confronting the person(s) would be unsafe, request assistance from local law enforcement authorities immediately. Notify the designated supervisor.

Alertness Required

Foreman or others in charge of personnel working on or about the tracks will require the personnel to be alert and watchful and to keep out of danger.

70.25.5 Sufficient Distance

Personnel will maintain a safe distance from equipment and not:

- Cross or step foul of tracks closely in front of or behind equipment or close to the end of equipment.
- Go between equipment if the opening is less than 50 feet.
- Cross track in front of or behind standing equipment unless there is at least 20 feet between the employee and the equipment.

70.25.6 Motioning Vehicles at Grade Crossings

- At crossings that the Installation Commander determines are hazardous beyond the current markings/protection (R15, R15 with lights, or R15 with lights and gates), only Law Enforcement personnel shall perform traffic control duties.
- When necessary to flag crossings, do not allow vehicles to proceed over grade crossing unless it is properly flagged. Employee flagging will be the only one giving directions.

70.25.7 Bells and Whistles

Bells and whistles will be used before occupying Grade crossings.

70.25.8 Keep Clear of Track

After giving a signal to stop the movement, personnel will keep clear until the equipment has stopped.

70.25.9 Use Specified Crossing

Except when duties require, personnel will not cross tracks at a location other than specified crossings.

70.25.10 Crossing Through Equipment

Personnel will not get on, cross through, crawl, sit, or lie under cars, regardless of whether cars are standing or moving, unless duties require and proper protection is provided.

A. Standing Equipment

When duties require personnel to cross through a standing train or cut of cars, they will:

- Choose equipment carefully, using only cars with ends equipped with a crossover platform and hand holds.
- Keep your hands free of objects.
- Be prepared for sudden movement at any moment, maintaining a three-point contact (two feet and one hand or both hands and one foot) while walking across the end of the car.
- Do not step or place hands or feet on coupler, coupler lever or sliding sill.

B. Moving Equipment

Follow these requirements for crossing over moving equipment:

- Do not cross over moving equipment except for engines, cabooses or tank cars with end sill platform.
- When crossing over the platform, do not loiter.
- Maintain a firm hand hold on railings and grab irons, while remaining aware of your position.
- As you detrain on the opposite side, be alert for movement on adjacent tracks.

70.26 Criminal Activity

Immediately contact local law enforcement authorities to report any type of criminal activity or suspected criminal activity on government property. This includes, but is not limited to, trespassing, theft, burglary, assault, vandalism, switch tampering, traffic violations at grade crossings, or arson.

70.27 High-Voltage Wires

70.27.1 Broken or Crossed Wires

Personnel will immediately report wires found broken, crossed, or on the ground to their supervisor. Do not consider any wire dead until positive information has been received that it has been de-energized and is safe to handle. Only authorized and trained persons are allowed to handle electric power and light or high-voltage wires.

70.28 Air Contaminants

Personnel will take all necessary precautions when working around gases, fumes, mists, vapors, or dusts emitted by equipment, vehicles, or work processes.

Personnel will never enter a suspected or confirmed contaminated area without notifying their supervisor.

70.28.1 Internal Combustion Engines

Personnel will avoid excessive exposures to exhaust fumes from internal combustion engines. Such engines will not be allowed to run unless ventilation exists.

Avoid exposing fresh air intake systems to gasoline engine exhaust.

70.29 Medical Conditions

All personnel are responsible to ensure their personal medical condition does not interfere with their ability to safely perform their duties.

Personnel with medical conditions (such as uncontrolled diabetes, high blood pressure, sleep disorders including apnea, visual impairment, hearing impairment, etc.) that may adversely affect their ability to work safely will inform their medical practitioner of their job duties.

The medical provider will determine that any prescribed treatment including medication will not impair the employee from safely performing their job duties. The employee will notify their physician/medical provider if prescribed treatment and/or medication is affecting their ability to safely perform their job duties.

71.0 PERSONAL PROTECTIVE EQUIPMENT

71.1 General Guidelines

Personnel will wear government-approved personal protective equipment (PPE) when working in designated areas, performing designated duties, or when specified by a supervisor. Personnel entering designated areas or working near personnel wearing safety equipment will also wear the required safety equipment.

71.2 Hearing Protection

Personnel will wear approved hearing protection devices in areas designated by signs or outstanding instructions, or as specified by a supervisor. In some cases, personnel are required to wear dual protection devices, which consist of ear plugs and ear muffs.

71.2.1 Service, Repair, and Mechanical Facilities

When working in or around the following service, repair, or mechanical areas, personnel will wear hearing protection under the following conditions:

A. Car and Locomotive Shop Buildings. When working in open-sided or enclosed locomotive shop buildings.

B. Car Repair or Service Track Buildings. When working in open-sided or enclosed areas where cars are repaired or locomotives are fueled or serviced.

C. Load Testing, Sand Blasting, or Grit Blasting Areas. When working close to or within areas where load testing, sand blasting, or grit blasting equipment is in operation.

D. Mechanical Facilities. When working in or around mechanical facilities designated by a sign or instructions.

EXCEPTION:
Personnel working in offices with doors closed to these areas would not require hearing protection.

71.2.2 **Moving or Standing Locomotives**

When working within 100 feet of moving or standing locomotives, personnel will wear hearing protection under the following conditions:

A. Engine Room or Air Compressor Doors Open. When on an idling locomotive and any engine room or air compressor doors are open, or when inside any engine compartment.

B. Inside Cab and Whistle Blowing. When inside the cab of a moving or standing locomotive with any window or door open or partially open, and a whistle is blowing or required to be sounding, including whistles of approaching or passing trains.

C. Around Locomotive and Whistle Blowing. When at locations where a locomotive whistle is likely to blow, such as:

- On the locomotive nose or platform.
- On the ground within 100 feet in front or to the side of the locomotive.
- On the side of a car within two car lengths of the locomotive.
- At a crossing being flagged.

EXCEPTION: If personnel are in the cab with the doors and windows closed, hearing protection is not required.

71.2.3 **Roadway or Work Equipment**

Personnel will wear hearing protection when within 100 feet of operating roadway or work equipment.

71.2.4 **Jet Blowers or Pile Drivers**

Personnel will wear hearing protection when within 150 feet of operating jet blowers or pile drivers.

71.2.5 Other Equipment and Tools

Personnel will wear hearing protection when operating or within 15 feet of any of the following equipment or tools in operation:

- Air-operated tools.
- Air or air/hydraulic jack.
- Welding or cutting equipment (oxy-fuel, gas, or electric).
- Abrasive wheel grinder or sander (pedestal, bench, or portable).
- Air lance or nozzle (for blowing compressed air)
- Chain saw
- Nail gun (air or power-operated).
- Power saw, planer, router, or joiner.
- Other equipment or tools powered by:
    - Air
    - Combustion engine
    - Electric
    - Hydraulic
    - Pneumatic
    - Steam

71.3 Gloves

All trainmen, enginemen, switchmen/brakemen, Carmen, maintenance of way or other personnel required to operate in, around, under, or on rail equipment or tracks will wear appropriate leather work gloves.

Personnel will wear appropriate gloves at all times while working in glove-designated areas and when handling materials that may injure the hands (e.g., loading timber and working with chains and pulleys, chemicals, diesel fuel, etc.).

71.4 Hard Hats

Hard hats will be worn at all Locomotive, Car and Maintenance of Way facilities and work sites, where active rail car loading is being accomplished, and in other designated hard hat areas as specified by the supervisor.

Hard hats are not required in:

- Office areas and lunch rooms.

- Vehicles or equipment that provides overhead protection against falling objects.

- Areas exempted with documentation by the appropriate supervisor.

- For Train, Yard, and Engine (TY&E) personnel except when performing work or service with Maintenance of Way, at derailments and overhead work is being performed.

Only liners that do not interfere with fit and function of the hardhat can be worn. Baseball or similar type caps will not be worn under hardhats. Altering of hardhats or hardhat suspensions is prohibited. Hardhats will not be worn backwards, unless attachments being used are designed for such use and suspension is reversed.

Bump caps will not be used to fulfill hardhat requirements.

71.5 Eye Protection

Personnel will wear Installation approved eye protection in all designated areas or when specified by a department, except when personnel are in a closed: motor vehicle, locomotive cab, lunch room, or office building.

71.5.1 Areas that Require Eye Protection

A. Safety Glasses. Personnel will wear spectacle or wrap around type, 100 percent safety glasses (IAW OSHA Standards) when on duty at locomotive or car repair and servicing facilities and maintenance of way work sites, shops, and facilities. Personnel requiring corrective lenses will wear either Installation approved prescription safety glasses, shatter-proof prescription glasses with side shields or coverall type safety goggles. When performing procedures specified in outstanding instructions, personnel will wear face shields and coverall type safety goggles or safety glasses with side shields.

B. Other Glasses. Train, engine, yard, and all other personnel on duty and in an area where rail operations may occur will wear prescription glasses with side shields (as noted in 71.5.1.A) or nonprescription safety glasses.

C. Eye Protection in Hazardous Areas. Personnel will wear eye protection when working in or near areas designated as hazardous to eyes (e.g., derailment cleanup areas and areas where wrecking crews or maintenance gangs are performing duties that may be hazardous to eye).

D. Dark Lenses. The wearing of dark lenses under insufficient lighting conditions is prohibited, except when engaged in an operation requiring dark lenses.

E. Contact Lenses. Personnel will not wear contact lenses when working in areas where welding or chemicals may cause a splash, mist, or vapor hazard. Under other

conditions, personnel may wear contact lenses with OSHA approved wrap around safety glasses.

71.5.2 Additional Eye Protection Requirements

- Personnel will use face shields in addition to eye goggles when performing certain designated operations, such as handling hazardous chemicals (i.e., acids and caustics) and participating in abrasive wheel grinding.

- Personnel will not face or watch electric or oxy-fuel welding or cutting operations unless wearing approved eye protection.

71.6 Proper Attire

Personnel will wear clothing that allows you to perform your duties efficiently and safely. Clothing will not interfere with vision, hearing and free use of hands and feet.

A. Do not wear excessively loose or ragged clothing, neckties, finger rings, or other jewelry while operating or working with machinery. Hair, including beards, will be worn in a manner to permit safe performance of duties.

B. Personnel should wear a suitable shirt that provides protection from sun, insects, abrasions or scratches. Shirts will have at least quarter-length sleeves and cover the back, shoulders, chest and abdomen. Shirts will not be unbuttoned, torn or baggy. Anyone working around equipment or moving machinery in which a shirt might become entangled will have their shirt tails tucked into their trousers. Shirts should be loose enough to allow freedom of movement, but not too loose so that they will snag easily or catch on cars, engines, tools, machinery or other equipment. When working outside and/or around cars, engines, equipment or machinery, wear trousers, which cover the legs. Short trousers (cut-offs, shorts, etc.) are prohibited and will not be worn while on duty.

C. Enhanced-visibility work wear

Enhanced-visibility work wear is to be worn at all times when working in, on, around rail equipment, tracks, active mechanical shops, at derailment sites, grade crossings, on work trains, or at intermodal facilities.

- Acceptable enhanced visibility work wear is defined as:
  - Vest, shirt, jacket, sweatshirt, raincoat, radio waist belt/harness, radio belt, striping, welding jacket, hard cap/hat with reflective markings or high visibility cover.

- Enhanced visibility work wear when worn at night is to be retro reflective.

- Roadway workers working on or near track, will wear at least one item of enhanced visibility work wear and when:
  - Performing highway flagging operations
  - Setting on and setting off hy-rail vehicles at grade crossings,
  - Working around mobile equipment (off-track) unless separated from the equipment by a natural or manmade barrier.

- **Exceptions**
  Personal protective equipment (PPE) is not required:
  - When performing office tasks in office areas
  - Inside highway or hi-rail vehicles when windows are completely closed
  - Inside passenger-carrying rail cars

71.7 Appropriate Footwear

Personnel who routinely work in the field, on uneven terrain, on or near tracks, on cars, engines, or other rail equipment will wear "lace-up" footwear that covers their ankles and has a defined heel. Footwear that covers the ankle will be a boot of approximately 6 inches or more in height. A "defined heel" means that the back of the heel is at an approximate right angle from the sole of the shoe and from the ground when standing. The front of the heel will not be at an angle of less than 45 degrees from the sole of the shoe to the ground. Footwear with heels commonly called "riding heels" are not appropriate footwear and do not satisfy this requirement.

Personnel working on bridges are required to wear safety steel-toe footwear that conforms to the American National Standards Institute (ANSI) and FRA footwear requirements.

Unless personnel work exclusively in the office, they will not wear:

- Thin-soled or high heeled shoes.
- Sandals.
- Athletic (sports) or similar type shoes.

71.8 Respirators

When conditions require wearing a respirator, you will receive a proper fit test and instructions, including demonstrations and practice on how the respirator should be worn, how to adjust it, and how to determine if it fits properly. Respirators will provide a good face seal. Respirator users will not have facial hair that protrudes under the respirator seal or interferes with respirator valve functions.

72.0 FIRE PREVENTION, EMERGENCY RESPONSE, AND HAZARDS

72.1 Sounding Alarm

Personnel will sound the fire alarm and summon help, when available, before trying to control and extinguish a fire.

72.2 Operating Fire Equipment

Every employee will know how to operate the fire protection equipment at the work location.

72.3 Buildup and Debris

Personnel will report to their supervisor:

- Excessive buildup of grass, weeds, and underbrush around buildings, structures, bridges, trestles, and approaches.

OR

- Accumulation of combustible materials and debris.

72.4 Questionable Fire Hazards

Immediately inform the supervisor if you question the safe condition of gas connections, motors, wiring, gasoline or oil burning devices and vehicles, or tools and equipment.

72.5 Fire Protection Devices

Fire protection devices will be provided, inspected and maintained as required by local, state, and federal fire codes and regulations. Tampering with such devices is strictly prohibited.

72.6 Locomotive Fires

Stop the locomotive as soon as possible, and evacuate the crew if a fire occurs on a locomotive.

72.7 Right of Way Fires

Crew members will promptly report fires on or near the right-of-way unless the fire is being controlled.

If crew members think the fire may spread to a bridge or other structure, they may stop the train and help extinguish the fire, if this action will not endanger the crew or train.

If personnel know that a train has started a fire, they will promptly notify a supervisor and engineer.

72.8 Fueling Track Motor Cars, Roadway Machines, and Automotive Units

When dispensing gasoline to gasoline fueled equipment. Personnel will:

A. Move motor cars, roadway equipment, and work equipment out of the motor car house or garage before fueling the vehicle. (This does not apply to equipment in the shop for repair).

B. Stop the vehicle's engine before refueling.

C. Make sure the hose nozzle on the refueling can is always touching the side of the fill opening of a tank to prevent a hazardous static electricity charge. If personnel use a gasoline can, it will be equipped with a standard pouring spout.

D. Avoid spilling fuel. If fuel does spill, allow it to dissipate before starting the engine.

E. If artificial light is necessary to fill the fuel tank, use an electric lantern or flashlight.

Smoking or setting fires near the equipment being fueled is prohibited.

72.8.1 Fueling Portable Railroad Type Power Equipment

When fueling is necessary during use, the engine will be stopped and sufficient time allowed for engine to cool. Tools will be removed from the immediate work area and placed where fuels cannot spill on any hot surfaces or ignition sources. Move fuel containers at least 20 feet from the work area before starting engine.

73.0 EXPLOSIVES

73.1 Authorized Personnel for Explosives

Use, possession, or transporting of explosives not presented for shipment is not authorized.

73.2 Transporting Explosives

When transporting explosives in railroad cars, trucks, automobiles, or other vehicles, use proper care and follow Department of Transportation (DOT) and ATF instructions.

73.3 Caution Open Flames

Use an electric flashlight or electric lantern if artificial light is necessary around any placarded rail car.

73.4 No Smoking

Do not smoke around explosives.

OPERATIONS (SECTIONS 74-79)

74.0 WORKING ABOUT CARS, ENGINES, AND EQUIPMENT

74.1 Engines, Working On or About

74.1.1 General Requirements

While working on or about engines, personnel will:

- Know that all workmen are in a safe position before starting an engine.
- Keep safety guards in position and fastened.
- Keep engine room, cab, running boards, catwalks, steps, and grab irons clean and free from oil, grease, rags, debris, obstructions, snow, ice, sand, etc.
- Place material or equipment on engines where it will not create a hazard while being transported.
- Open the control switch and main battery switch, remove the starting fuse, and block the contactors open before repairing switches, contactors, or other high-voltage equipment.

74.1.2 Restrictions

Personnel will not:

- Use metal-cased lights when working on electrical equipment.
- Put face or hands near the main generator or any high voltage equipment while it is working under load.
- Add oil to the crankcase while the engine is running.
- Smoke or have an open flame in the engine room.
- Work on electrical equipment while wearing a ring or wristwatch.
- Pull fuses while they are under load
- Open ground relay protective knife switches when ground relay is tripping.

- Manually operate high-voltage contactors while the engine is in motion, even though the power plant supplying that particular cabinet is shut down.

- Use hands, feet or improvised objects to close or open contacts while under electrical load.

- Open high-voltage cabinet when the engine is running, other than idling.

EXCEPTION: This does not apply to mechanical force for inspection purposes.

74.2 Tools Left

After performing engine maintenance, make sure no tools are left lying near electrical or rotating equipment.

74.3 Keep Hands Out

Keep hands out of radiator shutters and all other equipment that engages automatically.

74.4 High Potential Tests

When conducting high potential tests:

- Place warning signs at each corner and each entrance of the engine being tested.

- Before conducting the test, remove from the engine all portable lamp cords attached to a power source other than the engine.

- Do not touch the engine while standing on the ground.

- Do not touch the ground while standing on the engine.

- Keep unauthorized personnel away from the engine while performing the test.

74.5 Air Brake Rigging

While working on air brake rigging on engines, cars, or other equipment, personnel will cut out the air brakes until repairs are complete.

74.6 Making Inspections

Personnel will know that protection is provided and stay off moving equipment when making inspections or records, applying or removing placards, or performing other duties that require them to climb around cars or locomotives.

74.7 Securing Supply Apparatus

When supplying a train with fuel, water, and/or sand, personnel will replace and secure the apparatus in a position clear of tracks.

74.8 Moving Equipment

74.8.1 Signals for Movement

Personnel will not give a signal to move an engine or car if he/she is between two cars, between two engines, or between a car and an engine.

74.8.2 Cars in Motion

Personnel will not break seals, remove hasps, open or close freight car doors, or perform other work while cars are in motion.

74.9 Moving Equipment in Locomotive and Car Repair Facilities

Before moving any equipment, all personnel involved in the move will thoroughly understand what will happen and what the hand signals mean.

When repositioning cars with a car mover in response to hand signals:

- The person giving hand signals will always have visual contact with the operator of the car mover associate with the move.
- The operator will immediately stop the move if the person giving the hand signals disappears from view.
- Cars will be coupled to or chained to the car mover.

74.10 Within Mechanical Facilities

While within the limits of a designated mechanical facility, when crossing between standing equipment that is not under blue flag protection:

Personnel may cross within 20 feet of standing equipment, provided:

1. Speed limits for all equipment on the track is 5 MPH or less, and;
2. Check for movement is made prior to crossing track, and;
3. Distance is sufficient to allow safe passage should there be unexpected movement, and;
4. Designated walkways are used, when available.

74.11 Wheel Chocks

Use proper wheel chocks in all cases where required. When chalking cars:

1. Wait until movement stops and the slack adjusts before placing the chock.
2. Place the chock while standing to the side of the equipment.
3. Keep fingers and hands clear of the wheel tread, top of the rail, and other pinch points.
4. Use only a sound wooden chock, metal chock or chock made from plastic or composite material designed for chocking cars. Do not use a track spike.
5. Do not chock moving rail equipment, except in an emergency.

74.12 Dump Doors

Personnel will observe these rules when dumping loads or working around dump doors:

- Before opening the dump door on a car, ensure that all persons are clear on both sides and that no one is inside the car.
- Do not close dump doors of empty cars while cars are in motion.
- Do not be on or inside a car when it will be “shaken” or bumped to loosen gravel or material.
- Do not ride in air dump cars.

74.13 Defective Car

Do not move a defective car except to clear the track. Ensure that the movement will not cause any personal injury. Promptly report defective cars to the supervisor or yardmaster.

74.14 Car Doors

When opening or closing doors, keep fingers clear of the edge or door jamb, casting, or rail on which the door travels. Keep your body clear of the door opening to avoid injury from falling freight.

Make sure the door is properly tracked before opening it. If the door is off track, take precautions before opening it.

NOTE: Car doors must be closed and secured prior to movement unless deemed to be safe to move by mechanical personnel to shop track

74.15 Three Step Protection

Whenever there is a need for a crew member to step between standing equipment, the locomotive engineer will be advised and then provide the following actions:

- Center the Reverser
- Apply the Air brake(s)
- Generator Field Switch to the OFF position

The engineer will ACKNOWLEDGE that all of these steps have been performed. The crewmember requesting the protection will not enter the area between rolling equipment unless the acknowledgement has been received. The crewmember requesting the three step will notify the engineer to release from three step. Once the three-step protection has been removed, the crewmember WILL request the protection again if he should need to re-enter the area between rolling equipment.

NOTE: Three Step Protection applies only to the person requesting the protection

74.16 Coupling and Uncoupling

74.16.1 Going Between Cars

Personnel will not go between or in front of a moving engine or car to uncouple, open, close, or arrange knuckles or couplers; to manipulate other appliances; or for any other reason.

74.16.2 **Coupler and End Sill**

Never place any part of the body on or between a coupler and car's end sill, even if the car is equipped with standard draft gear arrangements, sliding sill arrangements, or an end-of-car cushioning device.

Personnel near cars equipped with movable center sills will take precautions to avoid injury in case of movement, even though the car is standing.

74.16.3 **Coupler-Knuckle Adjustment**

Before adjusting couplers, knuckles, or lock pins on cars or engines, personnel will make sure all movement has ceased and that the cars are spaced apart by at least 50 feet, or further if necessary. Always guard against unexpected car movement.

Never use feet to adjust couplers and knuckles.

A. Adjusting Couplers (Drawbars)

Note: When manually adjusting couplers, personnel will carefully follow the procedures outlined in Rule 70.13 (Lifting and Moving Materials). Avoid lifting the full weight of the couplers.

1. Adjusting Coupler Without Using a Device

Before adjusting a coupler, personnel will make sure that the coupler will move without applying excessive force. If not, obtain assistance, which may include using a coupler alignment strap.

To adjust a mismatched coupler without using a device, follow this procedure:

a. Stop the movement.

b. Allow at least 50 feet of working room between the equipment and obtain positive confirmation of protection from train movement in all directions.

c. Wait for the movement to stop completely and for the slack to adjust and settle. (Be alert for unexpected movements from liquids sloshing in tank cars)

d. Check for other equipment movements on the same track.

e. Adjust the coupler as follows:

1. Establish good footing and hand holds to avoid stumbling, and keep fingers and hands clear of pinch points.

2. Make sure the knuckle is secured. (Keep your feet clear of the area beneath the knuckle unless the knuckle is secured.)
3. Stand to the side of the knuckle and lean against it. Do not lift

f. Step clear of the equipment (without fouling the adjacent track), then signal the person controlling the engine to proceed with the coupling.

2. Using a Coupler Alignment Strap

Follow this procedure when using a coupler alignment strap:

a. If necessary, set a sufficient number of hand brakes to secure the stationary car(s).

b. Separate misaligned couplers by at least 50 feet.

c. Keeping one foot outside the rail, close the knuckle on the stationary car and place one end of the strap on top of the coupler and stand clear.

d. Move the locomotive or other cars toward the stationary car(s) and stop movement within 3 feet.

e. After movement has stopped, keeping one foot outside the rail, place the other end of the strap around the second knuckle and again stand clear.

f. Slowly separate the cars once again to remove slack from the strap and align the couplers. Quickly stop the movement when the alignment is complete to avoid breaking the strap.

g. If necessary, provide for slack in the strap and, while keeping one foot outside the rail, remove the strap. Stand clear of the movement and couple cars.

h. Release any hand brakes set for this procedure.

B. Uncoupling Lever

Always use an uncoupling lever to uncouple cars.

Never operate an uncoupling lever on a car or engine while riding on another car or engine.

Never operate an uncoupling lever with your foot

C. Opening Knuckles

Use the uncoupling lever to open knuckles when possible. If you will use hands to open the knuckle on standing equipment, keep both feet from between the rails if possible. Make sure the knuckle pin is in place before putting your hand on the knuckle.

D. Replacing Knuckles

When replacing a coupler knuckle, unless other safeguards are provided, such as blue signal protection, follow this procedure:

1. Separate the equipment by at least 50 feet.

2. Make sure the equipment is stopped and secured.

3. Communicate with the engineer and other crew members to understand the work.

4. Make sure the knuckle pin is in place and open the knuckle while keeping feet clear of the area under the coupler.

5. Remove the pin and set it within easy reach.

6. Remove the knuckle from the coupler.

7. Dispose of the knuckle, holding it as close to the body as possible, where it will not become a tripping hazard.

8. Holding the uncoupling lever up, move the knuckle thrower back into the coupler recess as far as it will go.

9. Obtain the correct knuckle type.

10. Lift the knuckle carefully and place it into the coupler pocket.

11. Insert the knuckle pin into the pin hole, close the knuckle, and make sure it locks properly.

74.16.4 Opening and Closing Angle Cocks

Personnel will close both angle cocks or valves before manually uncoupling brake pipe or air hoses. Avoid being struck or burned when coupling or uncoupling air, auxiliary air hoses.

When required to open an angle cock to exhaust air or reduce brake pipe pressure:

1. Firmly grip the air hose near the glad-hand.

2. Place the air hose against your thigh.

3. Turn your face away and open the angle cock slowly.

Note: Do not turn the angle cock on moving equipment.

74.16.5 **Coupling Air Hoses**

Personnel will not try to couple air hoses unless:

- The equipment has stopped
- Crewmember has requested three step protection.
- The engineer has acknowledged.

Personnel handling air hoses will anticipate unexpected movement and place one foot between the rails and the other foot outside of the rail for balance.

74.17 Rail Under Tension

Close observation will be made to determine whether rail is too tight to safely perform work:

- At point where there has been a derailment.
- In periods of high temperature.
- At location where rail is kinked or damaged.
- Before beginning to renew rail or to remove part of fastenings from one or more rails.

75.0 ON TRAINS, ENGINES, AND EQUIPMENT

DO NOT GET ON OR OFF MOVING EQUIPMENT, EXCEPT IN EMERGENCY TO AVOID INJURY

75.1 Riding on Moving Equipment

Personnel will not ride on moving equipment unless their duties require or they have proper authority.

75.1.1 Designated Riding Places

When riding on cars, engines, or other equipment, personnel will ride on designated steps, ladders, or platforms.

When riding on the side of an engine, car, or other equipment, face the direction of the movement and maintain a three point contact.

Do not ride on the ends of moving cars except when operating hand brakes or when side clearances are too close.

Do not sit with feet projected over the sides or ends of cars or equipment.

When moving over a street or highway crossing, do not ride on sill step, lower rung or ladders, or engine steps. Position yourself high enough on the side of the equipment so not to be struck by a highway vehicle that does not stop at a highway grade crossing.

75.2 Placing Feet

Personnel will not place feet on knuckles, the uncoupling lever, drawbar assembly, or any cushioning drawbar device.

75.3 Close Clearances

75.3.1 Avoid Fouling Hazards

Do not leave cars or engines standing where they will foul equipment on adjacent tracks or cause injury to others riding on the side of a car or engine. When machines, tools, material or other equipment may foul adjacent tracks, notify the proper authority immediately. They will arrange to restrict movement on the affected track(s) until the work is completed and the fouling hazard is eliminated.

NOTE: Installations are responsible for clearly defining clearance points and publishing in Operating Bulletin or Timetable

75.3.2 Maintain Lookout

Keep a careful lookout in both directions for trains, engines or cars on adjacent tracks. Look for other close clearances when duties require any part of the body to be extended beyond the side of a moving or standing engine or car.

75.3.3 Impaired Clearances

Do not ride on the side of a car or engine that is next to a structure. Do not position yourself or knowingly allow others to position themselves between a structure and moving car(s) or engine(s) when clearance is minimal and debris, such as snow, ice, water, mud, etc., prevents clear observation of the track condition.

75.4 Getting On or Off Equipment

75.4.1 Getting Off Equipment in Emergency

When getting off equipment in emergencies, personnel will observe ground conditions to ensure safe footing. Do not alight between the rails, on tie ends, or immediately ahead of switches. When alighting, make sure you are clear of the engine or car.

When getting off moving equipment (in emergencies only), the trailing foot (foot opposite from the direction of movement) will strike the ground first, directing you away from the equipment.

75.4.2 Getting On or Off Stationary Equipment

Personnel will follow these precautions when getting on or off equipment:

- Always use the provided safety appliances (sill step, side ladders, handholds) for getting on and off equipment.
- Guard against injury by looking out for unsafe footing, obstructions, or equipment moving on other tracks.
- Keep hands free of all objects that may hinder a secure handhold. Always maintain a secure grip on the handholds on engine platforms or while using appliances on the equipment. Be prepared for sudden movements.
- When practical, get on or off equipment on the side away from the main track or close clearances
- Face the equipment and use the side ladder or steps, maintaining a three point contact. Feet will be securely placed.

- Observe ground conditions to ensure safe footing when stepping off equipment. Use extreme care during wet, muddy, snowy, or icy conditions and at night in unlit areas.

- Stop equipment before getting on or off

- When getting off equipment, do not step between rails, on tie ends or immediately ahead of switches. When getting off, make sure you are clear of the engine or cars.

- Do not step or jump from one freight car to another, moving or standing.

Employees will not step from one moving freight car to another.

75.5 Face Ladders or Steps

When getting on or off engines, cars, or other equipment, personnel will always use sill steps, ladders, or hand holds and:

- Face ladders or steps and have a secure hold on grab irons.

- Keep hands free of tools, grips, or other materials that may hinder a secure hand hold.

75.6 Maintain Secure Hand Hold

Personnel will maintain a secure hand hold when on an engine platform or rail cars.

75.7 Hand Brakes

Personnel operating hand brakes will inspect the pawl, ratchet, and brake wheel for defects. Personnel will have firm footing and hand hold to prevent slipping, falling, or injuries (e.g., sprains, strains).

Safety Precautions

Personnel climbing on cars or applying hand brakes will maintain at least a three-point contact with the car. Three-point contact consists of both feet and one hand or both hands and one foot touching the car.

While applying or releasing vertical type hand brakes on box cars, personnel will:

- Not use end ladders to go up or down the car.
- Not step directly from the side ladder to the brake step, nor from the brake step to the side ladder without first placing feet firmly on the end ladder tread.
- Not brace any part of their body against another car.
- Have one hand securely grasping the hand hold while the other hand is operating the brake.
- Place the left foot on the end ladder tread and the right foot on the brake platform.
- Obtain firm footing and never place feet in a wheel or on a hand brake lever or pawl.
- Not place stress on hand brakes at the moment when coupling impact may move the car.
- Not hold brake tension on a moving car by hand without using a pawl and ratchet.
- Use caution when releasing hand brakes. Obtain help when necessary. Avoid being struck by the brake wheel when the pawl is released. Avoid having their clothing or hand caught in spinning brake wheel.

While applying or releasing vertical type hand brakes on flat cars, personnel will:

- Not brace any part of their body against another car.
- Ascend the side ladder on the car.
- Place the left foot on the side ladder tread and the right foot on the brake platform.
- Have one hand securely grasping the hand hold while the other hand is operating the brake.
- Obtain firm footing and never place feet in a wheel or on a hand brake lever or pawl.
- Not place stress on hand brakes at the moment when coupling impact may move the car.
- Not hold brake tension on a moving car by hand without using a pawl and ratchet.
- Use caution when releasing hand brakes. Obtain help when necessary. Avoid being struck by the brake wheel when the pawl is released. Avoid having their clothing or hand caught in spinning brake wheel

Do not place undue strain on your body which may cause physical injury.

75.8 Slack Action

When on engines, cars, cabooses, or other equipment, personnel will anticipate and protect themselves from sudden stops, starts, slack action, or unexpected motions. Personnel will keep out of cars being or about to be switched and notify all occupants before switching cars.

75.9 Train Yard or Utility Type Vehicles

Only authorized drivers are permitted to operate train yard vehicles. Compliance with other vehicle rules, i.e., speed, inspections, etc., also apply to operating this type of vehicle. When rules for operation and care are furnished by the manufacturer, they will be observed. Reckless or careless driving is prohibited.

Riders shall not be permitted on vehicles unless provided with a seat. Riding sidesaddle on yard vehicles is prohibited. Vehicles designed for one person will not be occupied by more than one person. Where provided, seat belts will be worn.

Do not make adjustments or disable any speed limiting device.

75.10 Riding on Tank Cars

Personnel will avoid riding on tank cars. If necessary, use extreme caution by positioning themselves on the outer edge of the crossover platform and maintain a three point of contact. Do not ride on the side ladder of a tank car.

75.11 Riding Flat Cars or Intermodal Car

Personnel will not ride on flat cars or bulkhead flat cars. with single vertical handholds or rail cars equipped with in-deck handholds (ie., DODX).

Personnel may ride on flat cars with dual vertical handholds (ladder type).

Do not get on or off a flat car while it is moving.

Personnel will not ride on the deck of a loaded flatcar. Personnel may ride on the deck of an empty flat car by: facing and looking in direction of movement, sitting or kneeling in the center of the car.

Use extreme caution and be prepared for slack action or unexpected movement.

75.12 Riding Bulk Head Flat Cars

Do not ride on loaded bulkhead flat cars. When riding empty bulkhead flat cars, position yourself on the side of the deck behind the bulkhead, using provided safety appliances. Maintain a three point contact with a firm grip on the grab iron and face the direction of movement.

75.13 Avoid Shifting Lading

Personnel will not ride, stand, or place any part of their body on or between the side or end of a car and lumber, pipe, or other lading that could shift. Personnel will not be in a position where they can be struck by improperly or non-secured drop ends that may fall inward. Personnel will not use the end gate of a gondola for a hand hold.

75.14 Riding Locomotive Cranes

Personnel will not go out on a ledge, running board, or any other outside part of moving locomotive cranes or other roadway equipment.

75.15 Overheated Wheels and Journals

If overheated wheels are detected, personnel will stop the train to allow the heat to equalize throughout the wheels. Check the journal to ensure that it is not overheated and that no fire danger to the car's floor or body exists. Notify the supervisor so that the car can be properly inspected.

75.16 Scale Test Cars, and Roadway Equipment

Scale test cars and roadway equipment will not be cut off while in motion, either singly or while coupled to other cars.

76.0 Operating Switches and Derails

76.1 Handling Switches and Derails

All personnel will be on the lookout for derails on all sidings or other tracks.

Switches have different physical operating characteristics, and personnel will be familiar with the procedures for properly lining each type of switch.

Personnel will follow these general rules when handling switches and derails:

- Always remember that the ease with which a switch operates will change depending on weather, temperature, maintenance, and other operating conditions.
- Before lining the switch, visually inspect it, and make sure it is not damaged, locked, or spiked and that points are not fouled by ballast, ice, snow, or other material.
- While handling a switch or derail, keep hands and feet clear to avoid being caught or struck by the switch lever handle or ball.

76.2 Unlocking Switches

Switch locks are installed on certain track switches at the base or the pedestal of the rail and locked with a switch lock. Should a switch lock not work properly, do not use hand, feet or other object to release mechanism, report condition to the proper authority.

Unauthorized persons will not unlock or handle switches.

76.3 Operating Switch by Hand

When a switch is to be operated by hand, equipment will not pass the following limits:

Trailing Point Movement: Stop movement not less than 50 feet from switch points to prevent tension being placed on switch points and switch handle.

Facing Point Movement: Stop movement a sufficient distance from the switch points to prevent binding of switch points.

76.4 Defective Switches

If any switch is found hard to operate, defective, or in need of maintenance, do the following;

- Report the switch to the proper authority, including its exact location and problem to determine if the switch in question should be taken out of service until repairs can be made.
- Properly label the defective switch with a warning tag describing the defect.

The switch will remain out of service until an inspection and repairs can be completed.

CAUTION: The Switch handle may be under compression and may swing up or around when released from the keeper slot.

76.5 Spiked Switches

Spike and apply the "Switch Out of Service" tag to any inoperable switch or switch requiring maintenance.

CAUTION: Do not rely solely on tags for identifying spiked switches. Report the switches to a supervisor or supervisor.

76.6 Operating High-Stand Switch

Before operating a switch, take a firm stance and be alert for conditions that might cause loss of good footing. Place one foot slightly in front of the other.

Use either the two-hand or the mast-support method to lift the lever handle out of the base.

A. Two-Hand Method

When using the two-hand method:

1. Stand facing the switch stand and place both hands near the end of the handle.
2. Lift up the switch handle, keeping your back as straight as possible and your legs bent.
3. After lifting the handle (by either method), keep your body clear of handle movement.

B. Mast-Support Method

When using the mast-support method:

1. Stand beside the handle away from the handle movement.
2. Place one hand on the mast and the other hand on the end of the handle.
3. Stand parallel to the handle and slowly pull the handle through the line of travel
4. After completing the above move, stand as close to the handle as possible, leaving room for the handle to clear the body, and push the handle down.
5. Once the handle is down, secure it with a lock or hook, whichever applies.

Never use your feet to operate this type of switch or to secure the handle.

76.7 Operating Ground-Throw Switch

Before operating a ground-throw switch, take a firm stance and be alert for conditions that might cause loss of footing. Then, do the following:

1. Stand parallel to handle movement, with your stance centered over the lever arm handle. If the switch is equipped with a foot latch, keep your foot on the latch until you move the lever toward the one-half position.

2. Stand as close as possible to the lever arm, placing one hand on your knee or on top of the switch staff for support.

3. Place your other hand on the handle and lift up slowly and smoothly

4. Once the lever has traveled at least to the straight up position, reposition your feet and hands so that lever movement may be completed with a pushing motion.

5. If necessary, complete the last 6 inches of movement by placing one foot near the end of the lever and stepping down until the lever arm is latched.

CAUTION: Avoid using your feet to push the lever arm down during wet, ice, or snow conditions, or if oil, grease, or other such contaminants are present.

76.8 Spring Switch

Do not manually operate a spring switch when springs are compressed by the wheels, except in an emergency. In an emergency, personnel will keep clear of the handle when it is released.

76.9 Switch Heaters

Avoid contacting switch heaters or switch rails with any part of body when heaters are operating.

77.0 Reserved

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MAINTENANCE OF EQUIPMENT

80.0 MACHINERY AND TOOLS

80.1 Use of Machinery and Tools

Give the operation of tools, equipment and machinery your full, undivided attention and wear required personal protective equipment (PPE). Use the correct tool or equipment for the task to be accomplished in accordance with the manufacturer's operating instructions. Improvised, altered or shop-made tools or equipment are prohibited unless approved through departmental procedures. Unauthorized use of tools, equipment and machinery is prohibited.

1. Do not operate machinery equipped with safety guards unless the safety guard is in the proper place and in good condition.
2. Portable power tools, machinery and equipment will not be operated without required safety guards.

80.2 Inspection of Tools and Machinery

Personnel will be familiar with the manufacturers and/or the governmental inspection/operating procedures and specific safety rules for the tools and equipment to be used. Prior to use, tools and equipment will be inspected for conditions that might cause the tool or equipment to fail. Conditions to inspect for include, but are not limited to:

- Broken, bent, frayed, deformed, cracked, loose, improperly wedged, or damaged handles (wooden handles will not be taped).
- Cracks, burrs or mushrooming.
- Excessive wear or cuts.
- Missing guards or parts.
- Exposure to excessive heat (as noted by difference in color, warped, etc.) that could affect the hardness or temper of the equipment or tool.
- Damage from welding or cutting (as noted by cut marks, pits, gouges, etc.).

Chip detectors will be used on track chisels, drift pins, or similar struck tools.

80.3 Servicing Machines

Personnel will follow manufacturer's recommendations for servicing machinery.

80.4 Lockouts

Personnel will lock out electrical switches that control circuits before working on them.

80.5 Assigned Places

Personnel will keep tools, materials, and supplies in assigned places. Tools and equipment will be returned to storage positions when work has been completed. Tools, equipment and materials will be safely and neatly arranged in storage areas, tool bins or designated locations. Hoses and extension cords will be arranged so they will not be a tripping hazard.

Place tools in safe, secure locations and avoid doing the following:

- Placing objects where they are likely to fall or be knocked off.
- Place tools or other objects on ladder rungs, hand folds, running boards, steps, or uncoupling levers or other safety appliances.
- Sharp edged tools should not be left lying on benches or in other places where they may cause injury, i.e., under scrap paper or rags or among tools in drawers or tool boxes.

80.6 Throwing Tools

Personnel will not throw or pitch any tool or material to other personnel.

Never throw tools or material from or to cars, engines, or trucks.

80.7 Tool Guidelines

Personnel will follow these tool guidelines:

Chisel Guards. Use a rubber guard on track chisel heads.

Soft Metal Hammers. Use soft metal hammers to strike reamers, taps, drills, cutters, or other hardened steel tools.

Spike Maul. Do not use spike mauls instead of sledges for striking chisels, drift pins, punches, lining bars, or similar tools. Spike mauls will be used only for setting and driving railroad spikes.

Burred Heads. Do not use spike mauls, chisels, or other tools with burred or split heads.

Sledge Hammers. For use on hardened steel. When using a sledge hammer to remove rail anchors, place your foot on top of the rail anchor to prevent the anchor from fling and causing an injury.

Tie Tongs. Use tie tongs when handling individual ties. Tongs will be set firmly and a steady force applied.

Claw Bar. Utilized to loosen and pull rail spikes. Do not strike the handle of a claw bar with another tool.

Grinding Wheels. Visually inspect the parts of a grinding wheel and perform a ring test before fastening the wheel to the grinder. Immediately report and replace broken or missing shields. Do not use welding gloves or rags to hold material while grinding.

Nail/Hilti/Staple Guns. Treat powder-actuated tools with the same respect extended to firearms. Keep nail/staple guns pointed away from the body and other person. Ensure that no one is located behind the object being nailed or stapled.

Wrenches. Do not use any objects as a shim between the wrench jaws and the nut and bolt head, or use another object to make the wrench fit. Brace your body securely to avoid over-balancing in case the wrench slips or the wrench, bolt, nut, or other objects fails. Do not add pipes or extensions to wrenches for additional leverage.

Impact Wrenches. Do not use hand sockets on impact wrenches. Nails, wire or cotter pins will not be used to hold sockets in place.

Circular Saws. Exercise caution while operating. Do not operate circular ripsaws with the hood, spreaders or kickback devices removed or rendered inoperative. Provide an adjustable stop to prevent the forward travel of the blade beyond the position necessary to complete the cut in repetitive operations. Do not reach over circular saws.

Use a push stick of sufficient length to feed short wood pieces or the end of a long wood piece through and clear of a circular bench saw. NEVER USE FINGERS

80.8 Jacks

80.8.1 Using Jacks

Only approved jacks will be used to lift cars or locomotives. When necessary to jack a locomotive, car or other heavy equipment in order to remove trucks, wheels, couplers, etc., it will be determined that the jacks are of sufficient capacity. Only jacks and jack-stands that are properly inspected, tested, and marked shall be used.

Follow these precautions when using jacks:

- Ensure that sufficient footing exists.

- Use sufficient sized blocking under the jack.

- Ensure that the jack is properly placed and level.

- Do not jack metal against metal, except when using track jacks or vehicle jacks. When mechanical, hydraulic or air jacks are used, a piece of wood, a minimum of one-half inch and maximum of one inch thick, large enough to cover the jack head, will be inserted between the jack head and the load. Special rubber pads, may be used when using stationary jacks.

- Fully insert the handle into the jack socket. Remove it from the socket after completing the operation.

- When in the process of jacking, do not crawl or place any part of your body under the load or in the line of applied force.

- Block or crib load incrementally as it is raised. Position yourself in a manner that will keep you clear of the load, and will not allow your hands between the load and cribbing.

80.8.2 **Blocks Under Jacked Equipment**

Follow these precautions when jacking up equipment:

- Chock the wheels, to prevent movement, before jacking up the end of the car, locomotive, locomotive crane, etc. On stationary floor jacks, wheel blocking shall be placed immediately after the lift before other work commences.

- After jacking, place the stand or blocks under the load where there is sufficient strength to support the car, locomotive, locomotive crane, etc.

- Lower load until a portion of it rests on the stand or blocks. If self-locking mechanism or load holding rings are used, additional blocking is not required.

- Do not work on or go under equipment that is not protected by stands, blocks, load rings or positive locking.

When trucks are under car, use the proper tool to remove or position the center pin.

80.9 Track Jack

Mechanical track jack or step jack will not be used by Locomotive or Car Departments.

Track jack will be inspected before using:

- Cracked base.
- Broken pawl lever.
- Missing ratchet or operating lever pins.
- Any debris in the ratchet mechanism.

When operating a Track jack, worker will:

- Not strike the jack with tools to force it under a load.
- Be placed on an even and firm surface to prevent shifting or kicking out.
- Place lifting surface fully under the load.
- Use only a lining bar to operate a mechanical track jack.
- Not straddle, sit or stand on the lining bar.
- Keep clear of pinch points.
- Not operate the jacking lever with more than two people.

80.10 Starting Nails and Spikes

Nails and track spikes will be well started before a full blow is struck.

80.11 Holding for Striker

Do not stand on the same side as striker when holding a bar, cutter, or punch.

80.12 Removing Chips

Do not use your hands to remove chips, cutting, or scale from drills, hammers, presses, or other machines.

80.13 Compressed Air

Personnel will only use compressed air equipment for authorized tasks. Air connections will be secured and will not be uncoupled without first closing the air valve and relieving line pressure, unless equipped with quick disconnect. Whip checks or hoses equipped with check valves in both ends will be used. Wire will not be used in air or hydraulic couplings in place of clip pins.

Air lines used to blow dry or clean, shall be restricted to no more than 30 psi.

Personnel will not:

- Direct air jets toward any person.
- Apply an air nozzle or jet against the body of anyone.
- Use compressed air or gas for cleaning clothing.

80.14 Banding Tools

Use caution when handling banding materials and tools. When applying banding, have a firm grip on the banding tool and do not apply undue tension to the bands. Do not stand in direct line of bands under tension.

Bands will be cut back, secured or removed to prevent cutting or tripping hazards. Scrap banding will be placed in suitable containers for disposal or moved to a safe area. Band cutters will be used to cut band. When cutting bands from bundles, position yourself so that you will not be struck should material fall from the stack.

81.0 OPERATING MOBILE EQUIPMENT USED TO LIFT AND HANDLE MATERIALS

81.1 Authorized Personnel

Only authorized personnel are permitted to operate cranes, hoists, and mechanical lifting/pulling devices. Before authority is granted, personnel will be trained in the rules and procedures regarding the equipment's operation and use.

When rules for operation and care are furnished by the manufacturer, them will be observed.

81.2 Raising Personnel

Do not use cranes and derricks to raise or lower personnel or any personnel platforms. Only raise and lower personnel in an approved aerial basket designed for that purpose.

81.3 Inspection

All hoisting equipment will be inspected daily before use and periodically as required. If defects are found, they will be corrected or equipment will be removed from service. Maintain a record of inspections on equipment and have records available upon request.

Operators will be familiar with the safe lifting capacity, at minimum and maximum radius and with or without outriggers, as specified on the placard. The operator will not handle loads that exceed the loads specified at various radii.

81.4 Hoisting Material

81.4.1 Working With Hoisting Material

When working with or around equipment or material being hosted by a crane, rope, cable, or other tackle, personnel will:

- Use only cranes with valid inspections/load tests.
- Use only cable or slings with valid inspection tags.
- Not go under the load or boom.
- Maintain a safe distance to avoid being hit by flying parts if the equipment breaks or the magnetic crane fails.
- Not step over or straddle wire ropes or cable that might be tightened at any moment.

81.4.2 Daily Inspection of Lifting Devices

Personnel using chain and wire rope lifting devices will inspect the device daily for defects that might make them unsafe for service. Personnel will immediately report any defects to the supervisor in charge. Correct any defects before using the lifting devices again. If using chains continuously and operating them over sheaves or pulley, lubricate the chains as often as possible.

Conditions such as the following are reason for replacement:

- Wear, nicks, cracks, breaks, gouges, bends and weld splatter.
- Elongation: Will not exceed 15%.
- Discoloration from excessive temperature and throat opening of hooks.
- Chain links and attachment do not hinge freely to adjacent links.
- Latches on hooks, if present, do not hinge freely, seat properly or are permanently distorted.
- Missing or unreadable sling identification tag.

81.4.3 **Alloy Steel**

All lifting devices, such as chains, inks, pins, etc., will be made of alloy steel.

Do not use lifting devices made of mild steel or rolled steel under any circumstances.

81.4.4 **Kinks and Twists in Chains**

Keep chains free of twists or kinks, and make sure grab hooks fit the chain and are placed on the hitch so that no side strain occurs during the lift.

Do not use “patent links”, “repair links”, or “figure eight” links when repairing lifting chains.

Do not use welding to repair chain links, grab hooks, sling hooks, or rings.

81.5 Dragging Loads

Operators will not attempt to drag the load from outside of the boom radius.

81.6 Handling Loads with Chains

Remove buckets and magnets from machines when handling heavy loads using chains or slings.

81.7 Signals

Use the approved hand signals while operating pile drivers and cranes. The operator of the machine is governed by these signals.

81.8 Signalman

When a crane or similar unit is being used, the helper or supervisor in charge will act as the signalman or assign a competent ground man to the machine. When the machine is near pole lines, structures, or workmen, the ground man will direct each machine movement by giving signals to the operator to ensure safe work.

The signalman should know all approved signals and should use only those signals.

81.9 Ground man

The ground man is responsible for directing and safe-guarding all machine movements and will always be visible to the operator. Before signaling boom or machine movement, the ground man will see that the load, cab, or boom will not come in contact with nearby wires, structures, or other objects and persons. However, the machine operator and supervisor are still jointly responsible for safe operation.

The signalman should know all approved signals and should use only those signals.

81.10 Positioning of Ground man

When working with cranes or other hoisting devices, the ground man and those in the vicinity will:

- Position themselves where they cannot be caught between the load being handled and an obstruction
- Stay clear of loads being suspended.
- No be under the crane boom or similar machine when it is lifting or suspending a load.
- Not stand near or in line with a cable, rope or chain under tension or one that might be tightened at any moment.
- Not walk or stand in the path of a load being handled by a crane, hoist or wrecker.

When equipment is being handled by chains, cables, or wire ropes, care will be taken to avoid injury in case of breakage. Loads will not be suspended from booms unless the work requires. In such cases, keep the load secured and as close to the ground as possible. Loads being transported from one point to another will be landed on a flat car or other conveyance to release the weight from the boom during transit.

81.11 Emergency Stop Signals

Anyone can give emergency stop signals. The operator will immediately recognize and act upon the signal.

81.12 Safety During Lifts

When any unusually heavy pull, drag, or lift is started, personnel working with or near the machine will be a sufficient distance away from the machine to prevent being injured by failing rope, chain, cable, sling, or tackle.

81.13 Clear of Lifts

Personnel will stay clear of loads being suspended and carried and will not ride on loads or lifting tackle.

Personnel will not be under the crane boom, dragline, or similar machine when it is lifting or suspending a load.

81.14 Suspended Loads

Do not carry loads suspended from booms unless the work requires. In such cases, keep the load secured and as close to the ground as possible. Loads being transported from one point to another will be landed on a flat car or other conveyance to release the weight from the boom during transit.

81.15 Operator at Controls

The operator will not leave the machine controls during the lift nor leave the load suspended when absent from the machine. The operator will never leave the machine with the master clutch engaged.

The operator should know all signals described in Rule 77.5 (Signals)

81.16 Raising and Lowering

The operator will raise or lower the load steadily and gradually and not drop or jerk the load or tackle.

81.17 Forklifts

81.17.1 **Operating a Forklift**

Only authorized personnel may operate a forklift. Inspect forklift prior to operation.

Forklift operators will comply with the following:

- Operate at a speed that will permit stopping short of objects or persons.
- Cross tracks diagonally.
- A forklift with a load will be backed down ramps or inclines.
- Highway vehicles and rail cars will have wheels blocked and brakes set before loading or unloading.
- Travel with load as low as practical, against mast. Load will not be lifted while traveling. For clear vision, travel backwards with bulky loads.

- Watch for impaired overhead clearance and read end swing, avoiding sudden stops, jerks, turns and rough terrain.
- Keep forklifts clear of edge of loading docks, platforms and gang boards.
- Do not use forklifts as a platform to raise of lower personnel.
- Only the operator is allowed to ride a forklift, except where a second seat or an approved cage is provided.
- Getting on or off a moving forklift is prohibited. When stopping to open or close gates or doors, adjust loads, etc., the forklift will be stopped in the clear with the hand brake set and the forks lowered to the floor or grounded.

81.17.2 **Unattended Forklift**

A forklift is unattended when the operator is more than 25 feet from the machine or the operator is not in view of the machine. If the forklift is to be left unattended:

- Lower forks to ground
- Shut off engine
- Apply hand brake
- Leave automatic transmission in "Park" or leave manual transmissions in low gear
- Do not park close than ten (10) fee to any tracks
- Do not park on inclines

81.18 Boom Positioning During Inspection

Machines with live booms, such as locomotive cranes, draglines, etc., will lower the boom for inspections, oiling, and repairs.

81.19 Handling Equipment in Work Train

When equipment with booms, leads, wings, or other attachments is being handled in a work train, the operator will remain on the machine during all movements of the train unless the machine has been securely blocked to protect against swinging or other movements that may cause an accident.

Properly block machines mounted on top of or working from flat cars to prevent the machine from moving when cars are being switched or moved. Do not block the machine when it is being used and is under the control of an operator.

81.20 Operation with Trains Passing

While trains are passing on adjacent tracks, operators will make sure:

- They do not operate pile drivers, wrecking cranes, wrecking derricks, roadway machines, or work equipment when trains or other movements are passing on an adjacent track.
- Swing brakes on machines (so equipped) are set.
- Tongs, buckets, loads, or lines come to rest on the ground or car.

EXCEPTION: Machines or equipment specifically designated by the OIC of the work gang may continue to operate while trains are passing on an adjacent track only after direct coordination and an understanding of movements has been agreed upon between the OIC and train crew.

81.21 Wire Ropes, Lifting Chains, Ropes, Slings and Capacities

All shall be used, inspected, tested and marked IAW TB 43-0142, Safety Inspection and Testing of lifting devices.

82.0 HIGH-VOLTAGE WIRES AND ELECTRICAL

82.1 Wire Line Clearances

When performing work near electrical power lines, the clearance shown below will be maintained between personnel, their tools and equipment, and the nearest power line. When booms are used in the vicinity of power lines, Rule 78.3 (Booms Near Power Lines) applies.

Operating Voltage	Distance In Feet
0-5,0000	4
5,000-15,500	6
15,500-25,0000	7-$^{1}/_{2}$
25,000-35,000	9
35,000-50,000	12

Note: For voltages over 50,000 volts, add ½ inch for each 1,000 volts.

82.1.1 Measuring Overhead Clearance

Do not throw steel or cloth tapes, ropes, or strings over wire line to measure overhead clearance. An engineer is required to measure overhead clearances using the proper instruments.

82.2 Power Supply Turned Off

When necessary to perform work that will not permit maintaining the clearance outlined, notify the Installation power or controlling authority and have them turn off the power supply for the affected district. Do not start any work until authorized by the installation power or controlling authority. Do not turn the power back on until authorized by a supervisor.

When performing work near a 2,400-volt or greater signal line that will not permit the clearance outlined, notify the signalman to switch the power off that portion of line. Do not start work until the signalman says that the power has been switched off. Make sure the signalman understands not to switch power on again until advised by the supervisor in charge of the work.

If the power will be switched off, equipment will be kept at least one half the clearance distance indicated, but in no case may the clearance be less than 4 feet.

82.3 Booms Near Power Lines

Do not operate booms over power lines at any time. Do not operate them under power lines unless proper clearance is maintained.

If proper clearance cannot be maintained, shut off the power and ground power lines before performing work.

A. Proper Clearances

If booms will be operated near energized lines, the following clearances will be maintained.

- For lines rated 50KV (50,000 Volts) or below, minimum clearance between the lines and any part of the crane or load will be 10 feet.
- For lines rated over 50 KV, minimum clearance between the lines and any part of the crane or load will be 10 feet plus ½ inch for each 1 KV over 50 KV, or twice the length of the line insulator.
- If in transit with no load and boom lowered, the equipment clearance will be a minimum of 8 feet for voltages less than 15 KV and 10 feet for voltages 15 to 50 KV. For voltages 50 to 470 KV, the clearance will be increased ½ inch per KV in excess of 50 KV.

B. Designated Observer

A person will be designated to observe equipment clearance and give timely warning for all operations when it is difficult for the operator to observe clearance.

C. Stationary Worksites

At stationary worksites, crane operators will place at least three orange cones along the minimum clearance line to mark the minimum safe working distance to overhead power lines.

82.4 Handling Wires

Personnel will not handle an electric light, power, or wire if it is or is suspected to be in contact with other electric light or power wires. If an emergency requires personnel to separate live electrical wires, the personnel will be able to grab onto a **dry** hand line or other dry rope while standing on a **dry** board or pole and will not get closer than 5 feet to the wire being handled.

82.5 Energized Circuits

Personnel will avoid working on energized circuits whenever possible. Use proper safeguards if duties require work on energized circuits.

Use only approved nonmetallic cased flashlights around electrical equipment. Conductive articles of jewelry and clothing will not be worn in locations with exposed energized parts. Examples of conductive articles are metal watches, rings, bracelets, metal headgear or clothing with conductive thread.

82.6 Lockout-Tag

Personnel will lockout or tag a disconnected electrical switch before doing maintenance or repair work. Do not remove a tag or lock unless authorized by the person who placed it.

82.7 Grounding Dead Wires

Dead wires can accumulate an induced current of high voltage or become crossed with live wires. Personnel will ensure that presumably dead wires are thoroughly grounded at the point where work will be done.

Do not start work until it is verified that wires are properly grounded

83.0 Reserved

84.0 Reserved

MAINTENANCE OF WAY SECTION

The purpose of these rules is to define procedures to prevent Maintenance of Way/Roadway Workers (both government employees/Soldiers and contractors working at IMCOM installations) from injury by railroad cars, locomotives, track units or other equipment while performing their duties. These rules have been prepared in accordance with Federal Railroad Administration Regulations found in Code of Federal Regulations CFR Title 49, Part 214, and the General Code of Operating Rules. Any Federal Regulations pertaining to the engineering of track will be found in the UFC 4-806-03.

For the purpose of these rules, the terms Maintenance of Way worker, contractor and Roadway Worker, irrelevant of their status, i.e. military, DOD employee or contractor, are interchangeable and will be referred to only as Maintenance of Way (MOW). Additionally, the terms supervisor, Foreman and worker (in order of authority) will be used throughout the document and the terms apply to all government civilians and Soldiers performing MOW work.

85.0 Rules Compliance and Employee Responsibility

IMCOM Maintenance of Way employees are responsible for complying with the General Code of Operating Rules, IMCOM Safety Rules, and IMCOM Maintenance of Way Rules. Employees will maintain a copy of stated rules in close proximity to include the most current changes, amendments, and General Orders. All changes will be annotated in the corresponding rule book.

All motorized equipment operating on the rail will be treated like engine, engines or train. The General Code of Operating Rules applies to motorized equipment as does engines or trains.

Compliance of IMCOM MOW Rules includes Maintenance of Way, roadway worker, lone worker, gang of workers, or contractors (not necessarily associated with the railroad) that during the course of their duties, work on or must have equipment within 4 feet of the nearest rail (fouling the track).

85.1 Appearance (Supplement to GCOR 1.8)

Maintenance of way employees will not wear red clothing when their duties require them to be on or near tracks.

85.2 Protection Against Defects (Supplement to GCOR 6.21.1)

Broken Rail - Trains, engines, and on-track equipment will not pass over broken a rail. If a track defect is discovered under standing equipment or if equipment can not be stopped before passing over the broken rail, equipment will not proceed until a qualified MOW Foreman determines it is safe and can watch the movement. The MOW Foreman will

specify the speed to move the equipment over the rail, but not to exceed 5 MPH. The MOW Foreman will be in a position in which he can observe the train movement, condition of track and signal the equipment to stop if necessary.

Curved Track - When broken rails are located on a curve, do not permit a train to pass over the break unless the break has been secured on both sides of the rail with joint bars or approved clamps.

Straight Track - When broken rails are located on straight track, stop the train at least 200 feet before the broken rail and notify the engineer when it is safe for train movement.

85.3 Foremen

Each Foreman is responsible for their gang and must:

- Supervise and can engage in all work performed by their gang
- Ensure work does not:
    - Result in an unstable or unsafe track condition.
    - Create a hazard to employees working on or near the track.
    - Result in a negative environmental impact.
- Make required reports.
- Call on other Foremen for assistance, if necessary.

85.3.1 Leaving Gang

When called away from work unexpectedly, the Foreman must:

- Assign the most reliable person to be in charge.
- Provide definite instructions as to the work to be performed.
- Notify the supervisor.
- Clearly identify the form of MOW protection provided.

Work that would make a track or structure unsafe must not be performed until a qualified employee has taken charge.

85.3.2 Coordinate Track and Signal Work

When track work will affect the operation of signals, notify a signalman in advance.

When performing work near track circuits, take precautions to avoid damaging:

- Bond wires
- Underground wiring
- Other signal appliances

In addition, avoid short-circuiting tracks and report any signal component damage to the signalman.

86.0 Equipment Operation

86.1 Speed

On-track equipment will not exceed 10 MPH except as provided by rule MOW 41.3.

On-track equipment moving over a hand-operated switch will not exceed 5 MPH or track speed, which ever is more restrictive, looking out for rocks or unforeseen obstructions and be prepared to stop should the route unexpectedly change.

86.2 Hi-Rails

86.2.1 **Designated Employees**

Only workers qualified on the GCOR, IMCOM Safety Rules and IMCOM Maintenance of Way Rules may operate hi-rails on track. In addition, employees must be qualified on the safe operation of the hi-rail by a designated supervisor.

Contractors

The operation of a contractors' hi-rail equipment must include an installation qualified pilot.

86.2.2 **Hi-Rail Inspection**

To prepare a hi-rail for on-track operation, visually inspect the guide wheel arrangement to ensure:

- There is no uneven or undue wear of the guide wheels
- Safety pins and other wearing parts are in good condition
- Guide wheels turn freely

All hi-rail equipment will be inspected IAW 49 CFR 214.523.

Do not use guide wheel assemblies that have been damaged or that have uneven flange wear until they have been inspected and repaired.

After placing a hi-rail in the on-track position:

- Walk around and inspect the vehicle to ensure all guide wheels are down on the rail with flanges inside the rail
- Ensure all safety pins are locked in place
- Secure the front tires in the straight-ahead position using the steering wheel lock located on the steering column

86.2.3 **Headlights, Radios and Seat Belts**

While operating a hi-rail vehicle on track:

- Ensure that headlights are on.
- Turn on rotating amber lights (if equipped).
- Ensure that the equipment's radio is on and set to the proper channel.
- Fasten seat belts.

86.2.4 **Operation of Hi-rail Vehicles with Track Shunts**

Track shunts are not always effective in maintaining a shunt in the track circuit and cannot be depended on to actuate block signals, interlocking signals or highway crossing signals. Therefore, do not use track shunts for protection while operating on track.

When working in the approach to a grade crossing equipped with automatic warning devices, operators of hi-rail vehicles may turn off their shunts, if equipped, and if the vehicle is stopped in the approach to allow employees to perform work.

86.3 Main Line

On-track equipment may be operated as a train if all of the following conditions are met:

- The on-track equipment consists of at least 4 axles and is capable of fully shunting the track circuits
- All rules governing the movement of trains and engines apply
- The worker (site employee) is qualified on the rules applying to the movement of trains and engines (GCOR, IMCOM Safety, IMCOM MOW) and accompanies the movement
- A supervisor or their appointed designee approves the movement

On track equipment will be prepared to stop when approaching railroad crossings, drawbridges, and the end of multiple main tracks not protected by signal appliances. Movement may proceed only in accordance with the GCOR and these rules.

86.4 Mandatory Directives

Before acting under the authority of a Track Warrant, Track and Time Permit, or other written authority to occupy a main track, the MOW Foreman of that work gang will read the authority aloud to the worker to make them aware of its contents. When traveling in convoy under one authority, the MOW Foreman will hold a job briefing with all operators and include information contained in the authority.

Should any operator including the MOW Foreman fail to comply with a written authority, any worker who has been made aware of the contents of the authority will immediately remind the operator or Foreman of the contents.

86.5 Switches

When approaching and moving over a switch or a crossing, on-track equipment will be under full control and prepared to stop quickly. A lookout will be kept for rocks or unforeseen obstructions and be prepared to stop should the route unexpectedly change.

On-track equipment will not be operated through a spring switch or variable switch in trailing position. The switch will be operated by hand and the rules governing hand operated switches apply.

86.6 Crossings at Grade

On-track equipment will not obstruct a road crossing until the way is seen to be clear by the operator of the on-track equipment.

On-track equipment will be brought to a full stop before proceeding over a road crossing where the view of the approach is obstructed, or where the traffic is heavy, such that the operator of the on-track equipment, at the point where a stop will be initiated, cannot determine that the way is clear. At such crossings, on-track equipment will only proceed over the crossing under protection of a flagman.

87.0 WELDING

87.1 Qualified Personnel

Only qualified personnel who pass regular examinations are permitted to use welding equipment.

87.2 Cutting Under Tension

When cutting twisted rail or other damaged steel sections, welders will take precautions to prevent personnel from being struck by severed sections.

87.3 Handling Cylinders

Follow these precautions when working with cylinders:

- Do not place cylinders where they may become part of an electrical circuit. Avoid placing cylinders by wires and electrical welding circuits.
- Never strike an arc on, or tap an electrode against a cylinder.
- Do not throw, drop, or otherwise roughly handle cylinders.
- Acetylene and oxygen cylinders will be used in an upright position.
- Do not leave cylinders standing upright unless they are secured to a suitable support with a chain or other holder.
- Block cylinders lying on the ground to prevent rolling.

Cylinders may be lifted by a crane, derrick, or hoist only when an installation-approved lifting device is used, and personnel have been instructed on its use. Never use an electric magnet to lift cylinders.

87.3.1 Transporting Cylinders

Personnel will remove gauges and regulators and apply caps before transporting cylinders, except as required to complete a single series of welding operations.

When carrying oxygen cylinders in tool cars or in isolated compartments, make sure ventilation is provided.

87.3.2 **Cylinder Storage**

Personnel will follow these rules when storing acetylene, fuel gas, and oxygen cylinders:

- Handle cylinders with extreme caution to avoid dropping and damaging valves on safety devices.

- Store acetylene or oxygen cylinders in upright positions with caps in place on approved racks or holding chains. Keep valve ends up. Cylinders will be secured, whether they are being transported or put in storage. Store oxygen cylinders separate from acetylene cylinders.

- Do not smoke or use matches or open-flame lights or torches in buildings where cylinders are stored. NO SMOKING and KEEP OPEN LIGHTS AND FIRES AWAY signs will be posted in these areas.

- Where possible, personnel should store cylinders in cool, well-ventilated buildings. Place them near exits for easy removal in case of fire.

- Personnel may store cylinders in the open if the cylinders can be protected against freezing or direct sunlight.

- When storing cylinders, personnel will separate oxygen cylinders from fuel gas cylinders. Maintain a minimum distance of 20 feet, or place a barrier of noncombustible material that is at least 5 feet high and has a fire resistance rating of at least ½ hour between the cylinders.

- When not in use, all outlet valves should be kept tightly closed, even though cylinders are considered empty. Valve caps will be kept in place.

- Acetylene, fuel gas, and oxygen cylinders, connections, and appliances will be kept free from oils and greases. Personnel will never handle these cylinders with oily hands or gloves. Keep the cylinders away from combustible materials (e.g., oils, paints, shavings, and other flammable materials).

87.4 Leaking Cylinder

When a leaking cylinder is discovered, remove it to a safe place away from possible sources of ignition until the cylinder becomes empty.

Mark the cylinder, indicating the defect, so the supplier can take necessary corrective action.

88.0 Operating and Working Near Maintenance of Way Machinery

88.1 On-Track Equipment Operator Training and Qualifications

88.1.1 General Training Requirements

No worker may operate a Maintenance of Way machine without first:

- Having been trained in accordance with the GCOR, IMCOM Rail Safety and MOW Rules;
- Having been informed of the safety procedures applicable to persons working near the machine;
- Acknowledging full understanding of those safety procedures.

88.1.2 Machine Specific Training Requirements

The operator's manual, which includes instructions for safe operation, shall be provided and maintained with each machine large enough to carry the document. If manual can not be contained in the machine, local policies will specify the location manuals will be kept. A machine operator will have a clear understanding of the information contained in the associated manual prior to operating a Maintenance of Way machine.

88.1.3 Qualifications

A worker will not be considered qualified to operate a unit of on-track equipment without having been trained and certified to be competent in the operation of that machine. If applicable, operator training will be recorded on their DA Form 5984-B (346 and 348). This training may be accomplished on-the-job through peer instruction or through a combination of classroom training and peer training.

Local certification will be established prior to operating Maintenance of Way machinery. New or relief machine operators who have not, within the past year, operated the type of equipment to which they will be assigned, will be certified by the proper authority. When approved to begin operation, such operators will be observed by the instructor for a period which is extensive enough to determine the operator's competency level.

88.2 Working With On-Track Equipment

When working with On-Track Equipment, spacing guidelines will be adhered to in order to prevent contact between machines and to prevent machines from contacting workers. When work or travel conditions dictate that the machine spacing will be less than the guidelines require, the machine operators and Foreman will have a thorough understanding of the

specific task, the conditions under which the task is to be done and how the task is to proceed. In addition, the operator of a machine approaching workers, who are foul of the track, will communicate with the workers before getting closer than 15 feet of them.

Before a reverse move of more than 15 feet is made, the operator will ascertain that a backup alarm is activated and/or the appropriate horn or whistle signal is sounded. In addition, the operator will observe that the track is clear of men and machines before the reverse movement is made.

88.2.1 **Work Zones Around Machines**

When MOW workers' tasks require that they occupy the center of the track, they will not enter a machine's Work Zone without first communicating with the operator to establish safe work procedures. Unless a different understanding is established through a job briefing, this Work Zone extends from a point 15 feet in front of the machine to a point 15 feet behind the machine.

88.2.2 **Safe Working Distance Between Machines**

Unless a different understanding is established through a job briefing, the minimum distance between machines while working is 50 feet.

88.2.3 **Safe Traveling Distance Between Machines or Trains**

A track car following a moving train or another track car must comply with the following distance restrictions:

- The track car must remain at least 500 feet behind a train.
- The track car must remain at least 200 feet behind a track car.

Maintain greater intervals between large machines such as ballast regulators, tampers, cranes and yard cleaners.

Weather and/or rail conditions may require additional separation distance.

88.2.4 **Stopping On-Track Equipment**

When two or more track cars are moving on the same track, the operators of all cars must agree upon and use a predetermined signal to stop that is easily seen and understood.

When necessary to slow or stop On-Track Equipment during travel, the operator will signal the following equipment operators either by radio or hand signals. If a radio is used, the machine operator transmitting will be assured that the following equipment operators have received and understood the message transmitted. If hand signals are used, the signal will be continuous until it is verified that the following equipment operators have observed and understood the movement is to be slowed or stopped.

If machines are to be “bunched” when stopped, all workers will remain clear of the track until the entire movement has stopped unless otherwise instructed by the MOW Foreman. After stopping, the lead machine operator in the consist will dismount that machine and assume a position that is visible to the following machine operator as well as to anyone who could step into the path of the next approaching machine. The dismounted operator will spot the following machine using hand signals. This procedure will be used by each successive operator in the consist to spot the following machine.

Note: All equipment will be properly secured when left unattended.

88.2.5 **Passing Trains**

When a train is to pass a track car on an adjacent track, the track car must stop.

When a track car is stopped, secure it against movement and stand clear of all tracks. When there are more than two tracks, if it is not practical to stand clear of all tracks, you may clear onto a track that has positive on-track protection (i.e., track and time, etc.) after securing the track car against movement.

89.0 Storage of Equipment

When removing on-track equipment from a track, it must be moved to a location where it will not be struck by passing trains or create a safety hazard.

When on-track equipment is stored on track, the on-track equipment nearest to each switch will be chained and locked to the rail as well as blocked, except where the track is equipped with a derail within 100 feet of the nearest on-track equipment.

90.0 Training for On-Track Safety

IAW CFR 49, part 214, Para 315, every Maintenance of Way work group whose duties require fouling a track, shall have at least one Maintenance of Way Foreman designated by their Directorate to implement on-track safety procedures . The designated person shall be qualified under the rules of IMCOM and the installation to provide the protection necessary for on-track safety of each individual in the group.

90.1 Maintenance of Way Personnel

On-Track Safety training will be conducted annually for all IMCOM installation MOW personnel.

90.2 Rules Qualified Personnel

Personnel who are required to provide protection for themselves or others will be GCOR, IMCOM Rail Safety and IMCOM MOW rules qualified annually. The personnel must be familiar with the installation's operations and track layout.

90.3 Contractors

All Contractors working on or around tracks on the installation and not qualified per IMCOM MOW rule 90.2 will be accompanied by a GCOR and IMCOM Safety Rules qualified pilot. The pilot must be familiar with the Installation's operations and track layout.

91.0 Job Briefings

A job briefing will be conducted prior to any MOW worker fouling any track. A job briefing is complete only when each MOW worker acknowledges understanding of the On-Track Safety procedures and instructions.

91.1 Job Briefing for MOW Work Groups

Job briefings include all information related to On-Track Safety. The job briefing is given to every MOW worker who will foul the track. In addition to other safety issues, the minimum On-Track Safety information will include:

- Designated MOW Foreman
- Type of On-Track Safety provided
- Track limits and time limits of track authority
- Track(s) that may be fouled
- On-Track Safety provided on adjacent tracks, if any
- Procedure to arrange for On-Track Safety on other tracks, if necessary
- Method of warning when On-Track Safety is provided by a lookout
- Designated place of safety where workers clear for trains
- Designated work zones around machines
- Safe working/traveling distances between machines

The MOW Foreman will give a follow-up job briefing whenever:

- Working conditions or procedures change
- Other workers will enter the working limits
- On-Track Safety is changed or extended
- The main track has been cleared and On-Track Safety or authority is to be released

91.2 Job Briefing for Lone Workers

A lone worker will participate in an On-Track Safety job briefing with his Supervisor or Yardmaster or other designated and qualified employee at the beginning of each duty day. This briefing will include:

- Planned itinerary;
- On-Track Safety procedure to be used.
- Job Briefing per IMCOM MOW rule 91.1
- Completion of a Statement of On-Track Safety (Form SOTS-1).

Exception: When communication has failed, On-Track Safety Job Briefing will be conducted as soon as possible after communication is restored.

92.0 On-Track Safety Procedures

On-Track Safety can be provided for MOW workers by the following methods:

- **Exclusive Track Occupancy**

  - Track and Time
  - Track Warrant
  - Form B Bulletin
  - Track Removed from Service

- **Foul Time**
- **Inaccessible Track**
- **Individual Train Detection (ITD)**
- **Train Approach Warning (TAW)**
- **Train Coordination**
- **Red Flag Protection**

The Foreman of the MOW work group, or the Lone Worker, determines the type of On-Track Safety to be used. The type of On-Track Safety will comply with these provisions, as well as:

- General Code of Operating Rules
- IMCOM Rail Safety Rules
- Installation Timetable
- IMCOM MOW Rules
- IMCOM General Orders
- IMCOM Special Instructions
- Installation SOP

Note: Use the matrix from IMCOM MOW Rule 105.1 to determine the proper type of On-Track Safety to use in each operating territory.

92.1 Exclusive Track Occupancy

Exclusive Track Occupancy establishes working limits on controlled tracks. Controlled tracks consist of:

- Track Warrant Control (TWC)
- Automatic Block System-Track Warrant Control (ABS-TWC)
- Manual Interlocking
- Automatic Interlocking

Exclusive Track Occupancy can be established by the following four methods:

A. Track Warrant in TWC or ABS-TWC Territory

If you receive a Track Warrant that has a line 18, "Joint with", you will establish communication with those employees previously granted a Track Warrant before entering joint limits.

B. Form B Track Bulletin

To establish working limits with a Form B Track Bulletin on main track(s) or sidings:

1. If working limits need to be established on that track, you will display red flags to establish working limits within the Form B limits.

   EXCEPTION: If track and time (not joint) has also been obtained on that track, red flags are not required.

2. Red flags are not required if working limits do not need to be established on that track.

C. Track Removed From Service

To establish working limits by removing a track from service:

1. Ask the yardmaster to take that particular track out of service. The yardmaster then issues a track bulletin that removes the track from service.

2. Copy and repeat the track bulletin information back to the yardmaster.

3. Place red flags to protect the working limits, **except in Emergency Conditions**. (If emergency, ensure yardmaster has received acknowledgement from crews of track bulletin.)

4. When protection is no longer required, release the track back to the yardmaster.

<u>NOTE: For All Exclusive Track Occupancy</u>

Movement of trains and Maintenance of Way machinery within working limits established through Exclusive Track Occupancy shall be made only under the direction of the MOW

Foreman or Yardmaster. Train movements shall be at restricted speed or track speed, whichever is more restrictive, unless a higher speed has been specifically authorized by the MOW Foreman or Yardmaster.

92.2 Inaccessible Track

Inaccessible Track is a method of establishing working limits on non-controlled tracks by making the track physically inaccessible to trains and on-track equipment.

Non-controlled track consists of:

- Yard tracks
- Industrial leads
- Non-controlled sidings
- Main track within yard limits which are not governed by controlled signals

Inaccessible Track can also be used to establish working limits on adjacent non-controlled tracks when it is necessary to foul adjacent tracks.

The MOW Foreman or Lone Worker establishes working limits using Inaccessible Track with one of the following methods:

- Line a switch or derail to prevent access to the working limits. Tag the switch or derail and lock, spike, and/or clamp it securely. You will use a MOW or personal lock so train service employees cannot unlock it.
- Ask the yardmaster to line a remote controlled switch to prevent access to the working limits. The yardmaster will:
    - Apply a locking or blocking device to the switch control.
    - Notify the Maintenance of Way worker that protection has been established.
    - Not remove the locking or blocking device until the Maintenance of Way worker who requested the protection gives permission to do so.
- Place a flagman with the capability to hold all trains and equipment clear of the working limits.
- Place a portable derail(s) with red flag(s). Derails and red flags will be placed 150 feet in advance, if possible, from the working limits to prevent movement into the limits.
- Establish discontinuity in the rail to prevent movement into the working limits. Red flags will be placed 150 feet in advance, if possible, from the working limits.

92.3 Individual Train Detection (ITD)

Individual Train Detection is a form of On-Track Safety that can be used **only** by Lone Workers. A Lone Worker has the right to use On-Track Safety procedures other than ITD if the Lone Worker feels the situation requires it. ITD can be used to provide On-Track Safety only if all the following conditions are met:

- The Lone Worker is trained and qualified on GCOR, IMCOM Safety Rules and IMCOM MOW Rules.
- Only routine inspection or minor repair is being performed. The Lone Worker may not occupy any position or engage in any activity that would interfere with the ability to detect the approach of train or equipment in either direction.
- The Lone Worker is not inside the limits of a:
    - Manual interlocking
    - Control point
- The Lone Worker can visually detect the approach of trains or equipment moving at maximum speed and can move to a place of safety at least 15 seconds before its arrival.

NOTE: The place of safety will not be on a track unless working limits have been established on that track.

- No power-operated tools or machines are in use within hearing range.
- The Lone Worker's ability to hear and see approaching trains and equipment is not impaired by:
    - Background noise
    - Lights
    - Inclement weather
    - Passing trains
    - Other physical conditions
- The Lone Worker has completed a written Statement of On-Track Safety (Form SOTS-1). When using ITD, the Lone Worker will produce the completed Statement of On-Track Safety upon request.

92.4 Train Approach Warning (TAW)

Members of a MOW work group may foul a track without establishing working limits by using Train Approach Warning to **perform routine inspections or other minor corrections, or to provide warning on adjacent tracks for large scale maintenance work.**
The MOW Foreman will establish On-Track Safety by designating one or more look-outs to provide warning of all approaching movements.

Look-outs will provide the warning using:

- A whistle
- An air horn

Train Approach Warning may be used to provide On-Track Safety only when all the following conditions are met:

- Each look-out will be briefed, familiar with and equipped to provide Train Approach Warning.
- A look-out can give a Train Approach Warning in time to allow each worker to move to a previously arranged place of safety at least 15 seconds before the arrival of a train, engine or other railroad equipment.
- Each MOW worker is in a position to receive the Train Approach Warning.

  Lookouts:
  - will not be assigned other duties while functioning as a look-out.
  - will remain at their duties until the MOW Foreman either determines that protection is no longer necessary or sends another look-out to relieve them.
  - will devote their entire attention to detecting approaching trains and engines and warning the workers.

Note: The MOW Foreman may provide Train Approach Warning by acting as the look-out as long as the Foreman is not performing other duties.

The look-out's method of communicating a Train Approach Warning will be distinctive and clearly understood, regardless of noise or work distraction.

The method that a Lookout will use to warn workers will consist of:

- Blowing a whistle and/or sounding an air horn.
- Verbally communicating by radio or other means to warn workers (do not rely solely on radio communication if used).
- Touching the worker as a warning.

The following chart identifies the minimum distance required for the maximum authorized speed to provide workers the minimum 15 seconds necessary to clear the track prior to the arrival of a train or engine.

Maximum Authorized Speed in MPH	Distance in Feet	Maximum Authorized Speed in MPH	Distance in Feet
5	110	35	770
10	220	40	880
15	330	45	990
20	440	50	1,100
25	550	55	1,210
30	660	60	1,320

Note: A Lone Worker or a work group working at or within 150 feet of a road crossing on a main track equipped with operable automatic warning devices may use the warning provided by bells and flashers as the Train Approach Warning as long as the activation of the devices can be clearly seen and heard by all MOW workers and a minimum of 15 seconds advance warning is provided.

92.5 Train Coordination (GCOR 6.3.1)

Employees may use a train's authority to establish working limits for track maintenance. To establish the working limits, the train will be in view and stopped. The MOW Foreman in charge of working limits will communicate with a member of the train crew and determine that:

- Movements will be made only as permitted by the MOW Foreman until the working limits have been released to the train crew by that employee.
- The train will not release its authority within the limits until those working limits have been released by the MOW Foreman.

Establish Working Limits

Working limits may be established within a train's authority limits as follows:

A. DTC or TWC Territory

1. With a train having authority to move in either direction that is not joint.
2. With a train having authority to move in one direction only, working limits will not be established:

- Behind the train.
- More than one block in advance of the train or beyond any location that a train or engine could enter the track between the MOW Foreman in charge of the working limits and the train.

B. Track Permit

With a train having the only track permit authority within the limits.

92.6 Flag Protection

Flag Protection can be used to establish On-Track Safety on any main track or siding as outlined in the GCOR except within yard limits (GCOR 6.13).

92.6.1 **Red Flag or Red Light Protection**

When track is impassable or unsafe for trains at normal speed, or before obstructing track or in any way rendering it impassable or unsafe, protection in both directions must be immediately provided.

NOTE: When there are two or more tracks, protection must be provided in both directions on all affected tracks.

To provide flag protection, contact the train dispatcher or yardmaster and request positive protection.

If unable to contact the train dispatcher or yardmaster, or if they cannot provide positive protection, provide positive protection as outlined below.

A. Place Flags. Where the maximum freight train speed of the area is:

- 40 MPH or less
  - Place a red flag or red light ½ mile from the obstruction.

B. Watch for Approaching Trains. When a train is seen or heard approaching before a flagman has reached the required distance, the flagman must perform one of the following procedures:

- If it is day and there are no adverse weather conditions:

  1. Continue in the direction of the approaching train.
  2. Flag the train with a red flag.

- If it is night or there are adverse weather conditions such as fog or a storm:

  1. Leave a burning red fusee on the rail.
  2. Continue in the direction of the approaching train.
  3. Give stop signals with another burning red fusee.

C. Return to Job Site. After red flags or red lights are placed, one flagman must remain at the job site to watch for approaching trains. When a train approaches from either direction, the flagman must go toward the approaching train and flag it with a red flag or light.

NOTE: Flagman must devote his entire attention to watching for approaching trains and on-track equipment and flagging them as prescribed by these IMCOM MOW Rules. Flagman must continue to flag approaching trains until relieved by the Foreman or by another flagman carrying the MOW Foreman's instructions.

D. Relieve Flagman. The MOW Foreman may relieve flagman when:

- The track has been made safe for normal speed.
- The train dispatcher or yardmaster advises that protection has been provided.

In addition, when flag protection is no longer required, the MOW Foreman will:

- Notify the train dispatcher or Yardmaster.
- Send a worker to remove all flags and/or lights from the rail.

92.6.2 Red Flag or Red Light Protection with One Employee

When a MOW employee who is alone is required to flag with red flags or red lights, the employee must follow these steps:

1. Place a red flag or red light ½ mile from the obstruction in both directions.

However:

- If the direction from which the first train is unknown, the MOW employee must go in the direction in which trains will be moving down grade.

  Or

- When there are two or more tracks and only one of the tracks is affected, the MOW employee must first go against the current of traffic, unless it is known that a train will arrive first from the opposite direction.

2. After flags or lights have been placed, return to the point of obstruction and remain there until relieved.
3. If a train approaches, go toward the train and flag with hand signals.

92.7 Work Train Operations

To provide On-Track Safety for MOW workers and Maintenance of Way machinery working with a work train, the Foreman of working limits will authorize all movements of the work train and Maintenance of Way machinery within working limits. No worker may foul a track within working limits without being authorized by the MOW Foreman.

92.8 Audible Warning From Trains

Trains will sound their locomotive whistle and ring their bell when approaching MOW workers/contractors on or near the track, regardless of local whistle prohibitions.

To give trains advance notice of MOW workers on or near the track, each worker fouling the track will wear company-approved fluorescent orange work wear with reflectorized striping.

93.0 Work Procedures

93.1 Work Standards

Work must be performed in the manner prescribed by IMCOM Maintenance-of-Way rules.

93.1.1 **Reporting Labor and Material Used**

When part or all of a project's expenses are to be paid by others, report the labor and material used to the appropriate manager when the job is complete, or at intervals determined by the supervisor.

93.1.2 **Protecting Excavations and Ditches**

Place warning signals and barricades to protect excavations, ditches or other conditions that may affect the safety of employees and the public.

If work will affect employee safety or train operations, notify the train dispatcher or yardmaster and ensure a track bulletin is issued.

94.0 Loading and Unloading Material

94.1 Loading/Unloading Precautions

Employees are not allowed in or on cars when loads are being lifted, unless there is room and opportunity to clear any side or end drift of the load.

NOTE: Employees are not allowed in cars that are being loaded or unloaded by use of a magnet or bucket.

Employees must not enter a car loaded with panel switches.

When using a crane to load or unload material and it is necessary to stabilize the load, employees must use tag lines.

94.2 Loading Materials on Flat Cars

When loading material on flat cars, be careful to secure the load properly.

94.3 Unloading Ballast

Employees unloading ballast must:

- Wear respirators.
- Report cars with defective doors to the supervisor.
- Use the proper tool for opening and closing ballast doors.
- Regulate the ballast flow so that ballast does not go above the top of the rail.
- Plow ballast from between the rails.
- Clean ballast from switches as soon as possible.
- Ensure cars are completely unloaded, with doors closed and locked, before they are released as empties.
- Use dust control methods, where applicable.

94.4 Clearance From Track

Materials, except out-of-face replacement materials, must be stacked in an orderly manner and placed:

- Not less than 15 feet from the center of a main track.
- Not less than 12 feet from the center of all other tracks.

Do not place materials:

- On any public highway or sidewalk.
- Where it might cause injury.
- Where it might cause environmental damage

Materials distributed for out-of-face replacement that constitute a stumbling hazard must be covered by a track bulletin.

94.5 Containerized Material

Drums and other containers containing chemicals must be:

- Properly labeled with permanent markings
- Stored in an upright position
- Properly sealed

95.0 Maintenance of Track and Structures

95.1 General Requirements

Track and structures must be maintained in accordance with UFC 4-860-03 (dtd 01 Feb 06).

95.2 Storm Conditions

When there is a storm or an indication of a storm or high water that may cause an unsafe condition, the track and bridge Foreman must:

- Place watchmen at structures and other locations that may be affected, if appropriate or
- Take such actions, including patrolling track, to ensure the safety of trains.

95.2.1 **Patrolling Track**

During or after severe storms, a designated MOW employee must accomplish the following before train operations may commence:

- Patrol track and not wait for instructions to do so.
- Patrol track ahead of train movement until past the last place where trouble might reasonably be expected.
- Use any additional employees necessary to ensure the track is safe for movement of trains.

When a train is approaching a MOW employee patrolling track, the employee must:

- Stop the train and notify the engineer that conditions ahead are unknown.
- Patrol the track ahead of train movement through the storm area.

MOW employee(s) patrolling track must frequently advise the train dispatcher or Yardmaster of unusual track conditions and their locations.

95.3 Walking Inspections

When performing a walking inspection, walk:

- On the track structure.
- Against the current of traffic, where applicable.

NOTE: When walking against the current of traffic, employees must know that trains may operate in either direction and must watch for trains approaching from both directions.

95.4 Protecting Highway Crossings

When a highway crossing warning apparatus fails to indicate the approach of trains, post a watchman or flagman at the crossing until repairs are made, or until otherwise directed.

Employees must immediately report the failure of a highway crossing warning apparatus to the track or signal manager, Yardmaster or supervisor.

95.5 Work by Others

When contractors or others who are qualified per IMCOM MOW rule 90.2, not under installation MOW supervision, and are performing work on or near tracks, the MOW Foreman responsible for the area in which work is being performed must determine that:

- Contractors or other comply with IMCOM Safety Rules and standards.
- Work is being performed on proper authority.
- Work is being performed under proper protection to ensure safety of track and movement of trains.

Installation or other Railroad or MOW personnel working on the installation must notify persons found trespassing or encroaching to STOP until proper authority to be on government property can be confirmed or, if necessary, obtained.

95.6 Run Through Switches

Notify the track manager and the rail manager/yardmaster when:

- A switch has been run through.
- It is necessary to spike a switch.

  Or
- The switch is ready for use.

95.7 Insulated Joints and Bond Wires

MOW Foreman and signal maintainers are jointly responsible for the inspection and maintenance of insulated rail joints, switch rods and gauge plates.

Maintain insulated rail joints in good condition. Ensure that:

- There is enough drainage.
- Bolts are tight.
- Ties are properly spaced and tamped.
- The signalman is immediately notified when replacing rails or adding joints in track.

96.0 Surfacing and Aligning Track

96.1 Protecting Track Circuits

Where track circuits are in use, maintain ballast sections to ensure circuits are not affected.

97.0 Rail

97.1 Reporting Defective Rails

Report all defective track conditions to the Track Maintenance Manager, Yardmaster or Track Supervisor immediately.

97.2 Handling Rail

97.2.1 **Unloading Rail**

When unloading rail:

- Do not drop rail from cars.
- Distribute rail in the upright position.
- Do not leave unloaded rail in contact with rail in the track.
- Do not obstruct a grade crossing. Cut or bury the rail through grade crossings.

97.2.2 **Marking Rails**

Before lifting rail using rail tongs, mark the center of the rail to ensure stability.

97.2.3 **Lifting Rail**

When rail is being lifted or moved, all employees must face the direction of rail movement.

When crane operators lift or move rail, they must:

- Accept signals only from the designated ground man or tong man.
- Use a spreader bar when rails are greater than 48 feet in length.
- Ensure the hoisting line is in a vertical position over the center of the rail.

97.3 Rail Installation

97.3.1 **Striking Rail**

Do not strike rail with a hammer, maul or any other tool. Use rail tongs, rail forks or lining bars to move rail into position.

97.3.2 **Spiked, Bolted and Anchored Rail**

Spike, bolt and anchor all rail before the close of each day.

97.3.3 **Bolt Holes**

When drilling bolt holes:

- Remove joint bars from the rail before drilling. Do not drill holes in rail through holes in joint bars.
- Drill bolt holes to the approved diameter and provide proper spacing.
- Do not torch-cut bolt holes.
- Ensure the exact positioning of all bolt holes using the proper template or indexing bar and fillet block.
- Use an approved coolant.
- Carefully grind to remove all burrs and fins.

Do not install a rail that has extra bolt holes in a main track. However, it is permissible to leave the bolt holes that result from field welding a joint.

97.4 Rail Anchors

97.4.1 **Removing Rail Anchors**

When using a sledge hammer to remove rail anchors, place your foot on top of the rail anchor to prevent the anchor from flying and causing an injury.

97.4.2 **Applying Rail Anchors**

Do not use spike mauls in lieu of sledge hammers to apply or remove rail anchors.

98.0 Connecting Rods

Do not repair connecting rods by welding.

99.0 Spiking and Gauging

99.1 Two Employees Spiking

When two employees are spiking along the same rail, each must spike on their side of the rail, and both must face the same direction.

99.2 One Employee Spiking

One employee spiking alone may spike over the rail.

100.0 Road Crossings and Signs

100.1 Obstructions to View

Remove vegetation, trees and other removable obstacles that obstruct the view of grade crossings, signals or signs.

100.2 Sign Maintenance

MOW Foreman must ensure Maintenance of Way signs are in the proper position, in good condition and standing plumb.

100.3 Sign Location

Do not, without proper authority, change the standard location of any sign.

101.0 Structures

101.1 Inspections

Installation MOW personnel will ensure the following structures are inspected according to AR 420-72 and DPW policy, but a minimum of quarterly:

- Bridges
- Culvers (4 feet or more in diameter)
- Waterways
- Other load-bearing structures

102.0 Rules and Instructions for Installation, Inspection, Maintenance and Repair of Signal Systems and Appliances

102.1 Signal Employees

Signal employees are responsible for the proper installation, maintenance and safe condition of:

- Signals
- Highway crossing warning systems
- Other signal-related equipment, as assigned

NOTE: Signal personnel shall not perform work that interferes with the safe passage of trains without proper protection.

102.1.1 Making Inspections

Make inspections of:

- Signals
- Highway crossing warning systems
- Other signal-related equipment, as assigned

Report all defects found and repairs made during inspection.

102.1.2 Compromising Signal System Safety

Signal employees must not perform work that:

- Causes improper signal indications
- Causes activation failures of crossing warning systems

  Or
- Defeats signal locking circuits

102.2 Reporting Failures

Promptly investigate and correct any known or reported failure. If unable to correct a failure, immediately notify the signal manager and Yardmaster.

Failures must be given preference over all other work. Prioritize and correct failures in the following order:

1. Failures involving the safety of train movements
2. Failures involving highway crossing warning systems
3. All other failures

103.0 Good Faith Challenge On-Track Safety (CFR 49, 214.503)

The installation and each worker (whether government employee, Soldier, or contractor) share joint responsibility for ensuring that On-Track Safety is provided.

103.1 Responsibilities of the Installation

The Installation will:

- Provide proper training of every installation MOW worker as outlined in Rule 90.0 of these rules.
- Follow the procedures outlined in Rule 103.3 to resolve challenges promptly and equitably.

103.2 Responsibilities of the MOW Worker

Each worker has the following responsibilities:

- Follow the rail section's On-Track Safety procedures.
- Avoid fouling a track except when necessary to perform your duties.
- Before fouling a track, determine that On-Track Safety is being provided.

Note: A MOW worker or Maintenance of Way machine is considered to be fouling a track when within 4 feet of the field side of a rail.

- Refuse any directive to violate an On-Track Safety Rule and promptly notify a supervisor/manager when the safety provisions to be applied at the job site do not comply with the IMCOM Maintenance of Way Rules.

103.3 Resolving Challenges to On-Track Safety Procedures

Follow this procedure to resolve an On-Track Safety challenge:

- The MOW worker informs their Foreman that he or she does not believe that the protection afforded workers complies with the On-Track Safety procedures.

- The Foreman reviews the On-Track Safety procedures with the employee to verify that the proper procedures have been applied.

- If the worker making the challenge is still not satisfied that the On-Track Safety procedures comply with the IMCOM MOW Rules, the Foreman contacts the next level supervisor

- The next level supervisor reviews the On-Track Safety procedures and determines whether the On-Track Safety procedures are being properly applied.
    - If the next level supervisor determines that the On-Track Safety procedures are not being properly applied, the MOW Foreman modifies the On-Track Safety procedures to ensure proper protection of personnel.
    - If the next level supervisor determines that On-Track Safety procedures are being properly applied, the challenging worker will perform the assigned duty. If the employee still refuses to perform the assigned duty, discipline may be assessed.

104.0 Communication Requirements

Each employee designated by the Installation to provide on-track safety for an IMCOM MOW worker or MOW group(s), will be equipped with a wireless communication devise capable of reaching the control center of the railroad. The employee will, where practicable, maintain immediate access to the communication devise. When immediate access is not practicable, the Foreman or Lone Worker will be equipped with a radio capable of monitoring transmissions from train movements in the vicinity.

105.0 On-Track Safety Program Documentation

Follow these requirements:

- A MOW worker will have immediate access to a copy of the FH MOW Rules.
- If you are a Foreman, keep the FH MOW rules available for use on the job.

105.1 FRA Maintenance of Way Worker Protection Matrix

See the Matrix on following page.

MAINTENANCE OF WAY WORKER PROTECTION MATRIX

	Type of Work	CONTROLLED TRACK				NON-CONTROLLED TRACK	
		CTC Single Track	**TWC or ABS-TWC**	**Manual Interlocking**	**Automatic Interlocking**	**Yard Limits (Main Track)**	**Other Tracks (Yard, Industry, Non-Controlled Sidings)**
	All Work Fouling Live Track	Annual On-Track Safety Training Job Briefing Fluorescent orange work wear with reflectorized striping Locomotive bell and whistle					
	Movements of Hi-rails, Work Equipment	Track & Time Flag Protection	Track Warrant Flag Protection	Foul Time Flag Protection	Key Release Special Instructions Flag Protection	Track & Time Special Instructions Flag Protection Inaccessible Track	Special Instructions Inaccessible Track
Track Unsafe for Trains & Engine Movements	Planned Work	Track & Time Form B Foul Time Track Out-of-Service Flag Protection	Track Warrant Form B Track Out-of-Service Flag Protection	Foul Time Flag Protection	Key Release Form B Special Instructions Flag Protection	Track & Time Form B Track Out-of-Service Flag Protection Inaccessible Track	Inaccessible Track
	Unplanned Work	Track & Time Foul Time Track Out-of-Service Flag Protection	Track Warrant Track Out-of-Service Flag Protection	Foul Time Flag Protection	Key Release Special Instructions Flag Protection	Track & Time Track Out-of-Service Flag Protection Inaccessible Track	Inaccessible Track
Track Safe for Trains & Engine Movements	Maintenance of Way Work Group	Lookout Track & Time Form B Foul Time Flag Protection Train Coordination	Lookout Track Warrant Form B Flag Protection Train Coordination	Lookout Foul Time Flag Protection Train Coordination	Lookout Key Release Form B Special Instructions Flag Protection Train Coordination	Lookout Track & Time Form B Track Out-of-Service Flag Protection Inaccessible Track	Lookout Inaccessible Track
	Lone Worker	ITD Track & Time Foul Time Flag Protection Train Coordination	ITD Track Warrant Flag Protection Train Coordination	Foul Time Flag Protection Train Coordination	ITD Key Release Special Instructions Flag Protection Train Coordination	ITD Track & Time Flag Protection Inaccessible Track	ITD Inaccessible Track

FORM SOTS-1
8/1/00

STATEMENT OF ON-TRACK SAFETY

A Lone Worker using Individual Train Detection or a Foreman using Train Approach Warning to establish on-track safety will complete this form **prior** to fouling a track.

To complete this form:

1. Provide the following information:

Name of Lone Worker/Foreman: _____

Date: _____

Subdivision/Branch: _____

Work Location: _____

Time Limits: _____

Designated Place of Safety: _____

Method of Warning: _____

2. In the table below, place an **X** in the box adjacent to the maximum authorized speed of trains within the working limits specified above. The minimum sight distance associated with that speed provides 15 seconds for employee to clear the track.

NOTE: ADDITIONAL TIME WILL BE ADDED FOR THE TIME REQUIRED TO CLEAR THE TRACK

Maximum Authorized Speed in MPH	Minimum Required Sight Distance		Maximum Authorized Speed in MPH	Minimum Required Sight Distance	
	X	Feet		**X**	Feet
5		110	35		770
10		220	40		880
15		330	45		990
20		440	50		1,100
25		550	55		1,210
30		660	60		1,320

Note: When the maximum authorized speed is not shown on the form, use the next higher speed.
This form will be in the Lone Worker/Foreman's possession while work is being performed.

Definitions

Adjacent Tracks

Two or more tracks with track centers spaced less that 25 feet apart.

Controlled Tracks

Track upon which the rules require that all movements of trains will be authorized by a train dispatcher or a yardmaster.

Control Operator/Yardmaster

A railroad employee in charge of a remotely controlled switch or derail, interlocking, control point or segment of controlled track.

Effective Securing Device

When used in relation to a manually operated switch or derail, one that is:

- Vandal resistant
- Tamper resistant
  - Designed to be applied, secured, uniquely tagged and removed only by the class, craft or group of employees for whom protection is being provided.

Exclusive Track Occupancy

A method of establishing working limits on controlled track.

Flagman

An employee designated to direct or restrict the movement of trains past a point on a track to provide On-Track Safety for MOW or other workers. The Flagman is engaged solely in performing that function.

Foreman

A rules qualified worker in charge of a gang or group of workers. He/She is also designated to provide On-Track Safety for one or more MOW work groups.

Foul Time

Method of establishing working limits on controlled track in which a MOW worker is notified by the train dispatcher or the Yardmaster that no trains will operate

within a specific segment of controlled track until the MOW worker reports clear of the track.

Fouling a Track

Placement of an individual or a piece of equipment in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment, or in any case is within **4 feet** of the field side of the rail.

Inaccessible Track

Method of establishing working limits on non-controlled track by physically preventing entry and movement of trains and equipment.

Individual Train Detection (ITD)

Procedure by which **a Lone Worker** acquires On-Track Safety by seeing approaching trains and leaving the track before they arrive.

Lone Worker

An individual worker who is not receiving On-track Safety by another worker, who is not a member of a group and who is not engaged in a common task with another worker.

Lookout/Watchman

Personnel designated to provide warning to workers of approaching trains or on-track equipment.

Maintenance of Way Machinery

A machine used on or near the track for maintenance, repair, construction or inspection of track, bridges, roadway, signal and communications systems. Maintenance of Way machines may be on-track, off-track or both. The machinery includes, but is not exclusive of hi-rails, motor cars, Maintenance of Way machines, work equipment and other forms of track cars.

MOW Work Group or Gang

Two or more Maintenance of Way workers organized to work together on a common task on or around track.

MOW Worker

Any employee/Soldier, employee of a railroad, or of a contractor to a railroad, whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, Maintenance of Way facilities or Maintenance of Way machines on or near the track or with the potential of fouling a track.

Non-Controlled Track

Track upon which trains are permitted by railroad rule or special instruction to move without receiving authorization from a train dispatcher or a Yardmaster.

Qualified Employee

An employee who has successfully completed all required training, demonstrated proficiency in and been authorized to perform duties of a particular position or function.

Train Approach Warning

A method of establishing On-Track Safety by warning workers of the approach of trains in ample time to move to, or remain in, a place of safety in accordance with requirements of FRA Roadway Worker Protection Rules (CFR 49, Section 215).

Train Coordination

A method of establishing working limits on track upon which a train holds exclusive authority to move whereby the crew of that train yields that authority to a worker.

Working Limits

A segment of track with definite boundaries upon which trains, engines and Maintenance of Way machines may move only as authorized by the worker designated as the Foreman.

Work Zone

The area around Maintenance of Way machine(s) that will not be entered without first communicating with the operator to establish safe work procedure(s)

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LOADING SECTION

106.0 INTERMODAL/LOADING RAMP RULES

106.1 General Intermodal Ramp Rules

106.1.1 Bogies and Chassis

Before loading trailers with detachable bogies, personnel will make sure the pins securing the bogies to the trailer body are in place and locked. Before loading a container/chassis assembly, ensure that all chassis locks are in place and secure. Do not park bogies where they will protrude into roadways or where they are hazardous to passing vehicles or equipment.

106.1.2 Hitches/Stanchions

Tie-down personnel will stay clear of the diagonal strut of "pull-up" hitches to avoid injury in case the hitch is knocked down inadvertently. Personnel will not manually open hitch jaws until ensuring that the diagonal-strut indicator shows "locked".

106.1.3 Live Equipment

Personnel will not walk between tractors, trailers, or any other equipment in operation.

106.1.4 Overhead Lifting

At points where side loaders or cranes are used, personnel will not walk between the trailer and flat car during any step of the loading or unloading cycle, except to raise or lower landing gear after all other movement has stopped.

106.1.5 Lifting Arms

Groundmen will stay clear of lifting arms at all times. Never go under a hoisted trailer or container. When groundmen are utilized, they will be in the operator's view at all times when the operator is moving the side loader or crane or maneuvering the lift arms.

106.1.6 Speed Limits in Yards

All vehicles will obey all speed limits in and around installation rail yards. Additional caution will be used when men or equipment are performing loading/unloading operations.

106.1.7 **Protection of Loading and Unloading Operations**

IMCOM has adopted the Blue Flag rules to protect personnel and contractors in the loading and unloading operation and to comply with OSHA standards. Only the person or craft placing the Blue Flag may remove that flag, regardless of location.

A. Blue Flag

At each lockout position, display a Blue flag that can be clearly seen during the day. At night, display a blue light with the flag.

Do not place a derail or switch in the lockout position until Blue flag protection is in place. Do not remove the Blue flag protection until lockout protection is removed.

Total Blue Flag protection rules will be fully implemented

B. Common Authority

Common authority will be established. The person or persons in authority will:

- Communicate with all personnel being protected by a Blue flag and lockout device.
- Control the Blue flag and the only keys to the lockout protection.
- Be responsible for the safety of all personnel in the working area.

Do not work on the track or railroad rolling equipment until both ends of the track have a Blue flag and lockout protection.

106.2 Trailer on Flat Car

106.2.1 **Back-Up Movement**

When loading or unloading trailers and a ground-man or tie-down crew is utilized, drivers will not back up equipment until they receive a hand signal indication that it is safe to make the move.

106.2.2 **Operation of Stanchions**

To lower a knockdown hitch properly, complete these steps, making sure to stand clear of the stanchion:

1. Stand on either side of the stanchion with your legs positioned to give solid support.
2. Using a sledge hamper, strike the unlocking knockdown lever located between the upper diagonal struts.
3. Make sure this action causes the knockdown lever to retract the diagonal locking plunger, causing the stanchion to fall.

If this procedure fails, "bad order" the hitch until a railroad maintenance worker repairs the hitch and returns it to service.

Never use a pry bar to force the hitch down. Also, never place a bar between the locking plunger and the locking plate to try to retract the locking plunger.

106.2.3 **Operating Lift Trucks and Cranes**

Lift truck and crane operators will:

- Sound the horn when necessary to protect movement (e.g., when rounding corners, backing up, approaching persons).
- Protect movement either by turning the machine and facing the direction of the movement or having a person precede the movement when vision is obstructed.
- Face the direction in which the crane is moving when using portable cranes.

106.2.4 **Loading Truck Trailers**

Personnel will not load or unload a truck trailer while the tractor is being coupled or uncoupled, or when a tractor is coupled and the engine is running.

106.3 Container on Flat Car or Double Stack

106.3.1 **Container Loading**

When containers without chassis are loaded on flat cars, personnel will inspect the containers and make sure all corners are secured and locked in the corner castings.

Before releasing stack cars to be moved from the ramp, stow the inter-box connectors in storage boxes.

106.4 Vehicles Loaded on Flat Car

106.4.1 Loading/Unloading Vehicles on Flat Cars

Personnel who load or unload cars are responsible for:

- Remove and clear platforms, boards, chains and devices, loading and unloading ramps, similar appliances or connections, vehicles and other obstructions.
- Personnel will remove or flatten protruding nails, screws, staples, or loose ends of metal bands or wire before removing materials or supplies from or placing them in a keg, barrel, or box.
- Ensure plug-type and swinging doors on cars are closed.
- Make sure persons in, on or about cars have vacated cars before allowing switching.
- Avoid damaging lading of partly loaded cars.
- If cars are equipped with bridges, raise and lock the plates.
- Observing loading rules when loading and securing equipment on flat cars or vehicle transport cars.

Preventing Uneven Loads. When loading or unloading cars, take precautions to prevent the load from becoming unevenly distributed which may cause the car to overturn or derail.

Do not handle cars with improper or uneven loads if the load could shift or fall from the car or the car could derail or overturn.

106.4.2 Bridge Plates/Spanners

Follow these rules when working with bridge plates, station trucks, gangplanks, or skids:

- Ensure that they are strong enough for the load.
- When placing them between a car and platform, lower them by hand or slide them into position unless using a lift truck.
- Properly place and secure devices before using.
- When lifting or placing bridge plates, prevent the plate from slipping or falling. Keep hands and feet clear of the plates.
- When removing gang planks, bridge plates, or skids, remove nails, cleats, or other fastening devices to a safe place. Do not leave fastening devices in cars or on platforms.

106.4.3 **Bridge Plates**

If cars are equipped with bridge plates, raise and lock the plates before moving the cars.

106.4.4 **Cars Being Loaded or Unloaded**

Before coupling to or moving cars on tracks where cars are being loaded or unloaded, personnel will ensure:

- Platforms, boards, tank car couplings and connections, conveyers, loading or unloading spouts, similar appliances or connections, vehicle, and other obstructions are removed and clear.
- Plug-type and swinging doors on the cars are closed and secured.
- Persons in, on or about cars have vacated cars before switching the cars.

Avoid damaging lading of partly loaded cars.

Do not handle cars with improper or uneven loads if the load could shift or fall from the car, or the car could derail or overturn.

JOB BRIEFING

Prior to performing any task requiring the coordination of two or more personnel, those personnel involved will hold a ***JOB BRIEFING*** to ensure all have a clear understanding of the task to be performed and their individual responsibility. They will discuss the following:

- ☐ **Updates or changes to Special System Instructions, General Orders or Cardinal Rules, General Code of Operating Rules, Safety Rules, HAZMAT or ABTH**
- ☐ **Job(s) to be done or move(s) to be made**
- ☐ **Responsibility of all personnel**
- ☐ **Any additional instructions due to an unusual situation**
- ☐ **Any specific reminder due to a hazardous condition or unusual practice**
- ☐ **When on or near track, discuss how you are protected, what your limits are, what type and time given.**

If necessary, an **additional briefing** should be held as work progresses or the situation changes.

Signature of Person Conducting Briefing

Initials of Persons Receiving Briefing

1 3

2 4

Date

Appendix B

Report of Unsafe Condition

Date_____

Condition Reported by (optional)_____
Contact # (optional) _____

Location (in detail)_____

_____

_____

_____

Description (in detail)_____

_____

_____

_____

_____

Please complete all information to this point. It is necessary that we understand the entries and can respond to the proper person.

Response (to be completed by recipient of report) _____

_____

_____

_____

_____

Date Completed _____By_____

Please Fax to
Fax number is

DRAFT

U.S. ARMY ACCIDENT REPORT

For use of this form, see AR 385-40, the proponent agency is OCSA

FOR USASC USE ONLY

Requirement Control Symbol CSOCS-308

SECTION A - ACCIDENT INFORMATION

1. CHECK ONE
   - ☐ a. INITIAL
   - ☐ b. CHANGE

2. UIC *(Unit Identification Code) (6-Digit Code of Unit Having Accident)*

3a. UNIT NAME AND MILITARY ADDRESS

3b. BRANCH *(Armor, Infantry, etc.)*

4. DATE OF ACCIDENT
   - a. YR.
   - b. MO.
   - c. DAY

5. TIME OF ACCIDENT *(Local Military Time)*

6. PERIOD OF DAY *(Check one)*
   - ☐ a. Day
   - ☐ b. Night

7. ACCIDENT OCCURRED *(Check one)*
   - ☐ a. On Post
   - ☐ b. Off Post

8. IF ON POST, NAME OF INSTALLATION/FACILITY

9. ACCIDENT OCCURRED DURING *(Check one)*
   - ☐ a. Combat
   - ☐ b. Non-Combat

10. WERE EXPLOSIVES OR AMMUNITION INVOLVED OR PRESENT?
    - ☐ Yes *(See Instruction Book)*
    - ☐ No

11. EXACT LOCATION OF ACCIDENT *(Detailed enough to locate site) (State type of location.)*

SECTION B - PERSONNEL INFORMATION

12. NAME *(Last, First, MI)*

13. SOCIAL SECURITY NUMBER *(SSN)*

14. AGE

15. SEX *(Check)*
    - ☐ a. Male
    - ☐ b Female

16. RANK OR GRADE

17. MOS OR JOB SERIES

18. ADDRESS *(Use Official Address for All Military or Government Personnel) (If different than block 3, add UIC.)*

19. DUTY STATUS AT TIME OF ACCIDENT *(Check one)*
    - ☐ a. On Duty
    - ☐ b Off Duty

20. FLIGHT STATUS *(Check one)*
    - ☐ a. Yes
    - ☐ b No

21. CONTINUOUS DUTY *(hrs.) (Without sleep)*

22. HRS. SLEEP IN LAST 24

23. DAYS LOST *(Est. no. of days lost from work; not counting day of injury. Bed rest/on*

24. DAYS HOSPITALIZED *(Est. no. of days hospitalized receiving treatment; not for*

25. DAYS OF RESTRICTED WORK ACTIVITY *(Est. no. of days person cannot perform regular duties; light duty/profile.)*

26. SEVERITY OF ILLNESS/INJURY *(Check one)*
    - a. **Fatal**
    - b. **Permanent Total Disability.** Person can never again do gainful work.
    - c. **Permanent Partial Disability.** Person loses or can never again use a body part
    - d. **Days Away from Work.** Person misses one or more workdays; bed rest/on quarters.
    - e. **Restricted Work Activity.** Person is temporarily unable to perform regular duties; light duty/profile.
    - f. **First Aid Only.** Person has one-time treatment of minor injury. *(No lost work days.)*
    - g. **No Injury.**

27. CLASSIFICATION AT TIME OF ACCIDENT *(Check)*
    - a. Active Army
    - b. Army Civilian
    - c. Army Contractor
    - d. Nonappropriated Fund *(NAF)*
    - e. Other U.S. Military
    - f. ROTC
    - g. Dependent
    - h. NGB Tech
    - i. NGB IDT
    - j. NGB AT
    - k. NGB ADSW
    - l. NGB AGR
    - m. NGB ADT
    - n. USAR IDT
    - o. USAR AT
    - p. UAR ADT
    - q. USAR FTM
    - r. Foreign Nat. Direct Hire
    - s. Foreign Nat. Indirect Hire
    - t. Foreign Nat. KATUSA
    - u. Foreign Mil. Attached to the U.S. Army
    - v. Public
    - w. Not reported

28. CAUSE OF INJURY/OCCUPATIONAL ILLNESS *(Check the most serious)*
    - a. Struck Against
    - b. Struck By
    - c. Fell from Elevation
    - d. Fell from Same Level
    - e. Caught In/ Under/ Between
    - f. Rubbed/abraded
    - g. Bodily Reaction
    - h. Overexertion
    - i. Exposure
    - j. External Contact
    - k. Ingested
    - l. Inhaled

29. BODY PART*(S)* AFFECTED *(Check primary) (No more than 3)*
    - a. Body *(General)*
    - b. Head
    - c. Forehead
    - d. Eyes
    - e. Nose
    - f. Jaw
    - g. Neck
    - h. Trunk
    - i. Chest
    - j. Heart
    - k. Back
    - l. Shoulder
    - m. Arm
    - n. Wrist
    - o. Head
    - p. Fingers
    - q. Leg
    - r. Knee
    - s. Ankle
    - t. Foot
    - u. Toes
    - v. OTHER *(Specify)*

30. TYPE OF INJURY/ILLNESS *(Check the most serious)*
    - a. Burns *(Chemical)*
    - b. Burns *(Thermal)*
    - c. Amputation
    - d. Decompression Sickness
    - e. Asphyxiation *(Suffocation)*
    - f. Fractures
    - g. Dislocation
    - h. Abrasions
    - i. Concussion
    - j. Sprain/Strain
    - k. Cuts/Lacerations
    - l. Contusion
    - m. Puncture Wound
    - n. Hernia, Rupture
    - o. Frostbite
    - p. Heat Stroke
    - q. Heat Exhaustion
    - r. Noise Injury/Illness

DA FORM 285, JAN 92 DA FORM 285, AUG 80 AND DA FORM 285-1, AUG 80 ARE OBSOLETE USAPPC V2.00

SECTION B - PERSONNEL INFORMATION *(Continued)*

31. Person's action(s) at time of accident *(Check one and explain in Block 32.)*

a. Soldiering	j. Test/Study/Experiments	s. Fabricating	aa. Hobbies
b. Combat Soldiering	k. Educational	t. Handling Material/Passengers	bb. Passenger
c. Physical Training	l. Information and Arts	u. Janitorial/ Housekeeping/ Grounds Keeping	cc. Human movement
d. Weapons Firing	m. Food and Drug Inspection		dd. Horseplay
e. Engineering or Construction	n. Laundry/Dry Cleaning Services	v. Food/Drink Preparations	ee. Bystanding/spectating
f. Communications	o. Pest/Plant Control	w. Supervisory	ff. Personal Hygiene/Food/Drink Consumption/Sleeping
g. Security/Law Enforcement	p. Operating Vehicle or Vessel	x. Office	gg. Parachuting *(See Instructions)*
h. Fire Fighting	q. Handling Animal	y. Counseling/Advisory	
i. Patient Care *(People/Animals)*	r. Maintenance/Repair/Servicing	z. Sports	

32. SPECIFIC DESCRIPTION OF ACTIVITY/TASK

33. ON FIELD EXERCISE *(Check one)*
- ☐ a. Yes (If YES, specify name of exercise.)
- ☐ b. No

34. ACTIVITY PART OF TACTICAL TRAINING? *(Check one)*
- ☐ a. Yes
- ☐ b. No

35. Type of training facility being used *(Check one)*

a. Garrison	d. NTC	g. Std. range facility/live fire
b. Local training area	e. JRTC	h. Other *(Specify)*
c. Major training area	f. CMTC	

36. Type of training participating in at the time of accident *(Check/specify)*

a. School *(Specify)*			
b. UNIT →	(1) Platoon	(2) Crew	(3) Individual
c. On-the-job training	d. Other *(Specify)*		

37. Last time individual received training prior to accident on activity specified in block 31? *(Check one)*

a. 0 - 3 months	e. 1 - 2 years
b. 3 - 6 months	f. More than 2 years
c. 6 - 9 months	g. Never
d. 9 - 12 months	h. Not applicable

38. Required protective equipment

CHECK APPROPRIATE BLOCK(S)	AVAILABLE? YES	AVAILABLE? NO	USED? YES	USED? NO	N/A
a. Seat belt					
b. Helmet					
c. Goggles/glasses					
d. Gloves					
e. Ear plugs					
f. Other *(Specify)*					

39. INDIVIDUAL LICENSED TO OPERATE VEHICLE/EQUIPMENT? *(Check one)*
- ☐ a. Yes ☐ b. No ☐ c. N/A

40. DID ALCOHOL CAUSE/CONTRIBUTE TO THIS ACCIDENT? *(Check one)*
- ☐ a. Yes ☐ b. No ☐ c. Unknown

41. If drugs caused/contributed to this accident, check appropriate block.
- a. Prescription
- b. Illegal
- c. Over-the-counter
- d. None

42. Were vision enhancement devices being used? *(Check appropriate block.)*
- a. Yes *(Specify type/model in c and d.)*
- b. No

c. TYPE	d. MODEL

43. Standard/Reference covering activity/task
- a. Soldier's Manual *(Task No.)*
- b. CTT *(Task No.)*
- c. AR/TM/FM *(Specify)*
- d. SOP
- e. None *(Go to block 45.)*

44. WAS ACTIVITY/TASK PERFORMED IAW STANDARD/REFERENCE? *(Check one)*
- ☐ a. Yes ☐ b. No *(If NO, complete blocks 46-47.)*

45. DID INDIVIDUAL MAKE A MISTAKE? *(Check one)*
- ☐ a. Yes *(If YES, complete blocks 46-47.)* ☐ b. No

46. What was the mistake? How was the activity/task performed incorrectly? *(Explain below.)*

47. Why was mistake made/activity performed incorrectly? *(Check the most important reason and specify in Block 63.)*

a. Inadequate school training *(content/amount)*	f. In a hurry	k. Inadequate services
b. Inadequate unit training *(content/amount)*	g. Poor/bad attitude	l. Improper equipment design
c. Inadequate on-the-job training *(content/amount)*	h. Lack of rest/sleep	m. Inadequate written procedures *(AR, TM, SOP)*
d. Fear/excitement	i. Effects of alcohol/drugs	n. Improper supervision
e. Overconfident in own/others abilities	j. Inadequate facilities	o. Other *(Specify in narrative)*

SECTION B - PERSONNEL INFORMATION *(Continued)*

48. Time licensed on this vehicle *(Check one)*	49. Total AMV driving mileage *(Check one)*	50. Total time in unit *(Check one)*
☐ a. Less than one year	☐ a. Less than 1,000 miles	☐ a. Less than 6 months
☐ b. One to two years	☐ b. 1,000 - 5,000 miles	☐ b. 6 months - 1 year
☐ c. Over two years	☐ c. 5,000 - 10,000 miles	☐ c. Over one year
☐ d. Unlicensed	☐ d. Over 10,000 miles	

51. WHICH ITEM FROM SECTION C APPLIES TO THE INDIVIDUAL NAMED IN BLOCK 12? *(This is needed in order to relate the person in block 12 to the equipment/vehicle below.)*

☐ Item A ☐ Item B ☐ Item C ☐ Other *(Specify)*

SECTION C - PROPERTY/MATERIAL INVOLVED *(Whether Damaged or Not)*

	ITEM A	ITEM B	ITEM C
52. Type of item			
53. Model number			
54. Ownership *(DOD, DA, POV, Unit Person)*			
55. Dollar cost of damage.			
56. Rollover protection system installed?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
57. Was this item being towed?	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
58. If towed, enter letter for item doing towing.			
59. Types of collision codes *(Pick up to three from list below and enter in blocks.) (In sequence)*			

Types of Collisions

1- Going forward and collided with moving vehicle
2- Going forward and collided with parked vehicle
3- Collision while backing
4- Collision with pedestrian
5- Collision with object (other than vehicle/pedestrian)
6- Overturned
7- Ran off the road
8- Jackknifed
9- Going forward and rear-ended moving vehicle
10- Going forward and rear-ended parked vehicle
11- Collision while turning
12- Other *(Specify)*

60. Component/Part that Failed/Malfunctioned *(Complete this section if a materiel failure/malfunction caused/contributed to the accident.)*

	ITEM A	ITEM B	ITEM C
a. National Stock Number			
b. Part Number			
c. Describe Part			
d. Manufacturer's Identification Code			
e. EIR/QDR Number			

61. *How/Why Part Malfunctioned (Select code from "How" list below and enter in first block; select code from "Why" list and enter in second block.)*	HOW	WHY	HOW	WHY	HOW	WHY

How Part Failed/Malfunctioned **Codes**

1- Overheated/burned/melted
2- Froze *(temperature)*
3- Obstructed/pinched/clogged
4- Vibrated
5- Rubbed/worn/frayed
6- Corroded/rusted/pitted
7- Overpressured/burst
8- Pulled/stretched
9- Twisted/torqued
10- Compressed/hit/punctured
11- Bent/warped
12- Sheared/cut
13- Decayed/decomposed
14- Electric current action
15- Unknown/Other
Blank- Not Reported

Why Part Failed/Malfunctioned **Codes**

1- Improper equipment design
2- Inadequate maintenance
3- Inadequate manufacture of equipment
4- Inadequate written procedures *(AR, TM, SOP)*
5- Improper supervision
6- Unknown
7- Other *(Specify in narrative)*

U.S. ARMY ABBREVIATED GROUND ACCIDENT REPORT *(AGAR)*

For use of this form, see AR 385-40 and DA Pamphlet 385-40; the proponent agency is OCSA

REQUIREMENT CONTROL SYMBOL
CSOCS-308

1. TIME & DATE OF ACCIDENT | a. Yr | b. Mth | c. Day | d. Time | 2. PERIOD OF DAY | Day | Night | 3. ACDT CLASS | 4. ACDT OCCURRED DURING: | Combat | Non-Combat

5. UNIT IDENTIFICATION | a. UIC *(6-digit Code)* | b. Name of Unit | c. Unit's Branch | d. MACOM

6. LOCATION OF ACCIDENT | a. Exact Location *(Detailed enough to locate site)* | b. Type Location

c. State/County | d. | Off Post | On Post Name: | 7. EXPLOSIVES/AMMO | a. Present | Yes | No | b. Involved | Yes | No

8. MISSION | a. Briefly describe the mission | b. METL Task? | Yes | No

9. VEHICLE/EQUIPMENT/MATERIEL INVOLVED | Materiel Failure/Malfunction Information

a. Type of Item (Nomenclature)	b. Model #	c. Ownership	d. Estimated Cost of Damage	e. Vehicle Collision	f. Failure Mode	g. Part Nomenclature	h. Part #	i. Part NSN	j. Part Manufacturer Code	k. EIR/QDR Submitted
#1										Yes / No
#2										Yes / No

10. WHY DID THE MATERIEL FAIL/MALFUNCTION? *(Check the root cause(s) in Block a.In Block b,explain how the root cause(s) led to the materiel failure/malfunction.)*

a.	LEADER *(Not ready, willing to enforce standards)*	STDS/PROCEDURES *(Not clear, Not practical)*	SUPPORT *(Shortcomings in type, capability, amount or condition of equip/supplies/services/facilities)*	
	Direct Supervision	AR / SOP	Equip/Materiel improperly designed	Inadequate Manufacture
	Unit Command Supervision	TM / Other	Equip/Materiel not provided	Inadequate Maintenance
	Higher Command Supervision	FM / None exists	Inadequate Facilities/Services	Other

b. Describe how the materiel failed/malfunctioned and explain why *(root cause)*

11. NAME (Last, First, MI) (Include Address & UIC if different than Blks 5a &b.) | 12. SOCIAL SECURITY # | 13. PERSONNEL CLASSIFICATION | 14. MOS | 15. DUTY STATUS | On-duty | Off-duty

16. AGE | 17. SEX | 18. PAY GRADE | 19. FLIGHT STATUS | Yes | No

20. MOST SEVERE INJURY *(See instructions)* | a. Degree | b. Type | c. Body Part | d. Cause

21. DAYS HOSPITALIZED

22. WORKDAYS
a. Lost
b. Restricted

ACTIVITY OF INDIVIDUAL *Provide code (from list in instructions) and describe in space below.*

23. CODE | 24. SPECIFIC DESCRIPTION OF ACTIVITY/TASK

25. PERSONAL PROTECTIVE EQUIP | 26. ALCOHOL/DRUGS CAUSE/CONT | Yes | No | Unk | 27. EQUIP THIS PERSON WAS ASSOCIATED WITH? *(Enter item No. from Blk 9a)*

a. Required	b. Type of equip	c. Available	d. Used	28. LICENSED TO OPERATE EQUIP	29. HRS ON DUTY	30. HRS SLEEP	31. TACTICAL TRAINING	32. TYPE TRAINING FACILITY	33. LAST TRAINING	34. FIELD TRAINING EXERCISE	35. NIGHT VISION SYSTEM USED
Yes / No	#1 ____ #2 ____	#1 ____ #2 ____	#1 ____ #2 ____	Yes / No			Yes / No			Yes / No If Yes, provide name:	Yes / No If Yes, provide name:

36. DID INDIVIDUAL MAKE A MISTAKE THAT CAUSED/CONTRIBUTED TO ACCIDENT? *In Blk a., indicate if individual made a mistake. If yes provide the code (from instructions) in Blk b. and describe in Blk c.*

a. Mistake Yes No

b. Code

c. Tell what the mistake was and how it caused/contributed to the accident

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37. WHY WAS THE MISTAKE MADE *(ROOT CAUSE)(Check the root cause(s) in Blk a. In Blk b. tell how the root cause(s) led to the mistake.)*

a.

LEADER *(Not ready, willing to enforce standards)*	TRAINING *(Insufficient in Content/Amount)*	STDS/PROCEDURES *(Not clear/Not practical)*	SUPPORT *(Shortcomings in type, capability, amount or condition of equip/supplies/services/facilities)*	INDIVIDUAL *(Mistake due to own personal factors)*
Direct Supervision	School	AR, SOP	Equip/Materiel improperly designed, Inadequate Manufacture	Poor/Bad attitude, Fatigue
Unit Command Supervision	Unit	TM, Other	Equip/Materiel not provided, Inadequate Maintenance	Overconfident, Alcohol, Drugs
Higher Command Supervision	Experience, OJT	FM, None exists	Inadequate Facilities/Services, Other	In a hurry, Fear/Excitement

b. Describe root cause(s) *(reason)* and tell how it/they caused the mistake

38. ENVIRONMENTAL CONDITIONS

a. Present:

#1 _____ ☐ Yes ☐ No ☐ Unk

#2 _____ ☐ Yes ☐ No ☐ Unk

#3 _____ ☐ Yes ☐ No ☐ Unk

39. PROVIDE BRIEF SYNOPSIS OF ACDT *(Use additional sheets if required)(Explain sequence of events, tell how acdt happened.)*

40. CORRECTIVE ACTION(S) TAKEN OR PLANNED

41. POINT OF CONTACT FOR INFORMATION ON THE ACCIDENT

a. Name (Last, First, MI)

b. Telephone # DSN: _____ COM: _____

42. COMMAND REVIEW a. Name

c. Rank

b. Signature

d. Date

43. SAFTEY OFFICE REVIEW

a. Name

b. Date

Rail Equipment Accident/Incident Report

Person Completing Form (Each person Involved must complete a separate form)

Title | Date

Starting Time | Hours of Rest Prior to Start

Day of Incident: Monday ☐ Thursday ☐ Sunday ☐ Tuesday ☐ Friday ☐ Wednesday ☐ Saturday ☐

Date of Incident (Month Day Year) | Time of Incident | Initials of other Road Involved

ENVIRONMENTAL CONDITIONS

Outside Air Temperature: ☐ Above Zero ☐ Below Zero

Visibility: ☐ Dawn ☐ Daylight ☐ Dusk ☐ Dark ☐ Clear ☐ Cloudy ☐ Rain ☐ Fog ☐ Sleet ☐ Snow

LOCATION OF INCIDENT

Nearest Station | Milepost | On Which Training Site

State | City/Military Installation

INCIDENT DATA

Type of Accident Reported: ☐ Derailment ☐ Head-on Collision ☐ Rear-end Collision ☐ Side Collision ☐ Raking Collision ☐ Broken Train Coll ☐ Obstruction ☐ Other ☐ Fire or Violent Rupture ☐ Bridge/Trestle ☐ Explosion/Detonation

Track Number or Name | Type of Track: ☐ Main ☐ Yard ☐ Siding ☐ Industry

HAZARDOUS MATERIAL (No. of)

Cars Carrying | Cars Damaged or Derailed | Cars Which Released | People Evacuated (Estimated) | Number of Persons: Injured ____ Fatalities

OPERATIONAL DATA

Method: ☐ Manual Block ☐ Interlocking ☐ ABS ☐ CTC ☐ Yard Limits ☐ Other than Main Track ☐ Other (Specify)

Train Number/Name or Unit Number

Grade Condition: ☐ Descending ☐ Ascending ☐ Level

Speed: ____ mph; Estimated ☐ Recorded ☐

Timetable Direction: ☐ North ☐ South ☐ East ☐ West

☐ Left curve ☐ Right Curve ☐ Straight

EQUIPMENT

Trailing Tons | Length of Train

Type of Equipment in Consist: Freight ☐ Passenger ☐ Mixed ☐ Work ☐ Single Car ☐ Cut of Cars ☐ Lt. Loc(s) ☐ Yard/Swtg. ☐

Was Equipment Attended? Yes ☐ No ☐

If main track, how long obstructed? hr ____ min

Principle Car/Unit Causing Accident/Incident: Initials & Numbers ____ Position in train ____ ☐ Loaded ☐ Empty

Principle Car/Unit First Involved in Accident/Incident: Initials & Number | Position in Train | Loaded ☐ Empty ☐

Total Locomotive Units in Train (Number of) | Total Locomotive Units Derailed (Number of) | Loco Operation: ☐ Long Nose Forward ☐ Short Nose Forward

Total Cars in Equipment Consist (Number of): Loaded ____ Empty ____ Passenger ____ Caboose ____

Total Cars in Consist Derailed (Number of): Loaded ____ Empty ____ Passenger ____ Caboose ____

WITNESSES TO INCIDENT

Last Name | FI | MI | Street Address

City | State | Phone

Rail Equip Acc Inc Report

LOCOMOTIVE DATA

Throttle Position	Independent Brake Valve	Automatic Brake Valve		Was Locomotive Pulling	
Was Dynamic Brake in use?	What position was Dynamic Brake in?		Applying	Shoving	
			Applied	Rear End Device?	
Amperage	Brake Pipe reading		Releasing	Yes	
			Released	No	

How did the incident occur?
What were you doing at the time of the incident?

ILLUSTRATE ACCIDENT

Show North Accurately Show Scene

What repairs or maintenance were performed?

The above information is true and correct to the best of my knowledge

Signature _____ Date/Time _____ Location _____

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