

**Section 3: CRITICAL SAFETY RULES:**

Critical Safety Rule violations either observed or resulting in an incident will be reviewed for discipline. Critical Safety Rules will be listed in ITEM 10 of the System Special Instructions, and may be updated, changed, added to, or subtracted from through the issuance of a General Order.

Engineering Critical Rules	
Rule	Description
42.2.2	Other Speed Requirements
42.6	Grade Crossings
77.3	Safe Load Control
77.4	Positioning
135.3.2	LOTO Procedure (Part D)
135.4	Maintenance or Repair of Running Equipment

## 77.4: Positioning

77.4	<p><b>Positioning</b></p> <p>When working with cranes or other hoisting devices, individuals in the immediate area must:</p> <ul style="list-style-type: none"><li>• Notify groundman or operator before entering the area.</li><li>• Position themselves where they cannot be struck/crushed by the load, crane or other object.</li><li>• Stay clear of loads being suspended.</li><li>• Not be under the crane boom or similar machine when it is lifting or suspending a load.</li><li>• Not stand near or in the line of fire of a cable, rope, or chain under tension in case of breakage, or one that might be tightened at any moment.</li><li>• Not walk or stand in the path of a load being handled by a crane, hoist, or wrecker.</li></ul> <p>Loads must not be suspended from booms unless the work requires. In such cases, keep the load secured and as close to the ground as possible.</p>
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	<p>Loads must not be suspended by crane or other hoisting device during transit to a work location. Use a flat car or other conveyance to release the weight from the boom during transit.</p> <p><b>Avoiding Falls</b></p> <p>Maintain secure footing and a firm hand hold to avoid falling when standing on load to adjust cable, chain, sling, or hook.</p>
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### Rule Updated Date

January 1, 2024

### General Order

Effective Date: January 1, 2024

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### 77.3: Safe Load and Load Control

<p><b>77.3</b></p> <p><i>Ref. SRM</i></p> <p><i>Section AB &amp; AF</i></p>	<p><b>Safe Load and Load Control</b></p> <p>A load that is suspended or being lifted should be pushed instead of pulled. Hands must not contact wire rope or sheaves on hoisting equipment with load attached unless absolutely necessary, and then only after notifying operator.</p> <p>Use non-conductive push stick or tag lines to prevent uncontrolled movement.</p> <p>When hoisting loads, do not:</p> <ul style="list-style-type: none"><li>• Overload hoisting and rigging equipment.</li><li>• Side-load or drag a load with hoisting equipment.</li><li>• Drop or jerk the load or tackle.</li></ul> <p>Raise and lower the load gradually and remove buckets or magnets from crane when handling loads with slings.</p> <p>Precautions must be taken to prevent load swaying or turning. Crane, hoist, or wrecker must not be moved if load is swaying or turning excessively.</p>
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**Rule Updated Date**

### 135.4: Maintenance or Repair of Running Equipment

In some cases, equipment needing service, maintenance, adjustments, or repair must be kept running so that troubleshooting and adjustments are possible. If equipment must be kept running, follow the instructions outlined in Chief Engineering Instruction Bulletin 135.3.2 Lockout/Tagout Procedures, then take the following special precautions to ensure safety before energizing the equipment:

1. Place "Do Not Operate" tag at the operator controls so that no one forgets maintenance or repair of running equipment is in progress.
2. Use a second employee or as many as necessary to guard the controls and warn off would-be operators.  
**Note: The employee(s) must remain at their position until the operator or employee who has placed the equipment in lockout/tagout either determines that protection is no longer necessary or assigns another employee to relieve them.**
3. Lock or block all components not necessary to the work being performed to prevent accidental activation. Note: If you must activate a component for adjustment, there are two items that must be clearly communicated to each worker in the job briefing. First, that a component is about to be activated and second, exactly what the result of the component activation will be. Take every precaution to ensure that all workers remain clear of the danger area around the active component.
4. Ensure that clothing, tools, or other materials do not get caught in any moving parts.

**Rule Updated Date**

## 135.3.2: Lockout/Tagout Procedures

### A. Lockout/Tagout Procedures During Work

Follow these steps when equipment requires service, maintenance, adjustment or repair during the course of work when On-Track Safety has been established.

1. Notify the employee in charge and the equipment operators on both sides of your equipment that a lockout/tagout is in progress. Let them know where you are located and in which direction you are working, so they will know whether you are behind them or in front of them.
2. Place 1 orange cone in the center of the track at least 15 feet from each end of your equipment.  
**Note: Other equipment operators are required to stop when approaching an orange cone and may not proceed until it is removed.**

3. Tagout the equipment according to the procedures in 135.3.2D.
4. After completing the maintenance or repair, promptly notify the employee in charge and all affected employees that you are discontinuing the lockout/tagout process.
5. Remove your cones, tags, and locks. When the last lock is removed, remove the scissors lock.

### B. Lockout/Tagout Procedures When Equipment Is Tied Up

When equipment is tied up on a track, follow these steps to service, maintain, adjust, or repair equipment:

1. Follow the procedures outlined in Chief Engineer Instruction Bulletin 136.4.2 Inaccessible Track.
2. Before service, maintenance, adjustment, or repair can begin, and before fouling the track the operator or mechanic must notify the employee in charge.
3. Place 1 orange cone in the center of the track at least 15 feet from each end of your equipment.  
**EXCEPTION: If other equipment is within 15 feet, place the orange cone as far in advance of your equipment as possible. If it's not possible to place cones in the center of track, place them near the ends of the equipment. Adjust cone placement as conditions change.**
4. Tagout the equipment according to the procedures in 135.3.2D.  
**Note: If other employees are present, conduct a job briefing to discuss the lockout/tagout process being used.**
5. When work is completed, promptly notify the employee in charge and all affected employees that you are discontinuing the lockout/tagout process.
6. Remove your cones, tags, and locks. When the last lock is removed, remove the scissors lock.

### C. Tagout Procedures Inside Shops

When performing service, maintenance, adjustments, or repair inside a shop, place the MW roadway machine and work equipment in a safe area and secure it according to the general tagout procedures described in 135.3.2D.

### D. General Tagout Procedures

Follow these steps to tagout equipment:

1. Apply the equipment's parking brake.
2. Test the brake to make sure it holds the equipment in position. If the brake does not hold, or if you are not sure it will hold, block the equipment to prevent any unexpected movement.
3. Lower all hydraulic components to the ground or secure them with their locking devices.
4. If components cannot be secured as described in step 3, then mechanically secure all equipment components in a safe condition to prevent uncontrolled movement. (E.g chains, chain hoist, jack stands, blocking, cylinder locks, etc.)  
**Note: Components must be mechanically locked or blocked to prevent any movement of the equipment or component, which could endanger workers in the area.**

5. Shut down the equipment at the operator's controls.
6. Place the master switch in the OPEN position, apply your "DO NOT OPERATE" tag, a scissors lock, and personal padlock to the master switch or the battery box / compartment.
  - If the battery box / compartment cannot be locked, disconnect negative battery cable, and apply your "DO NOT OPERATE" tag, a scissors lock, and personal padlock through the negative terminal connector of the battery cable.
  - If the equipment does not have a master switch, disconnect negative battery cable, and apply your "DO NOT OPERATE" tag, a scissors lock, and personal padlock through the negative terminal connector of the battery cable.

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7. Remove any sources of stored energy, including:
    - Hydraulic pressure from accumulators or built-up line pressures.
    - Air pressure in lines and tank.
    - Pressurized fluid in the cylinders and valves of equipment with elevated components.
    - Electrical energy such as batteries and capacitors.
    - Mechanical sources such as springs under tension.
    - Any other sources that may activate a component.
  8. Follow any special manufacturer procedures to ensure that the equipment is safe for performing maintenance or service.
  9. Test the security of the tagout. If the equipment cannot be started and the components cannot be energized, you can start maintenance or service safely.
  10. A "DO NOT OPERATE" tag, scissors lock, and personal padlock must remain on equipment until repairs are completed and equipment is safe to operate.
    - When equipment cannot be safely placed back in service, the operator/mechanic must note the machine is unsafe in the operators logbook and Lockout/Tagout must remain in place or a red tag marked "Unsafe" must be displayed in place of "DO NOT OPERATE" tag, scissors lock, and personal padlock to prevent operation of unsafe equipment.

**Rule Updated Date**

February 1, 2024

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## **42.6: Grade Crossings**

Track cars and on-track equipment must approach all grade crossings prepared to stop and must yield the right-of-way to vehicular traffic. At all crossings, proceed only when all lanes are visible, and it is safe to proceed, regardless of whether or not the crossing is activated. If necessary, flag the crossing to protect movement of a track car or equipment. If crossing is being flagged, proceed on flagger's instructions.

### **Rule Updated Date**

May 2, 2016

## **42.2.2: Other Speed Requirements**

- Track cars and machines must be operated at a speed that will allow the operator to stop in  $\frac{1}{2}$  the distance the track is seen to be clear.
- Where maximum freight train speed is lower, it will govern.
- Reduce speed on curves and branch lines as conditions require and when hy-railing at night.
- When the rail is wet, operators must take into consideration that a greater distance is required to stop a track car under these conditions.
- When approaching workmen or others on or near the track, reduce speed and, if necessary, stop.

### **Rule Updated Date**

November 16, 2022