


# PREVENTING IN-PLANT/ IN-MILL RAILROAD FATALITIES, INJURIES, & MAKING SAFER RAIL OPERATIONS

UNITED STEELWORKERS



HEALTH, SAFETY & ENVIRONMENT

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**THIS PUBLICATION IS DEDICATED TO ALL IN-PLANT/IN-MILL RAILROAD WORKERS WHO WERE KILLED, AND INJURED, AS WELL AS THEIR SURVIVORS, AND THEIR FAMILIES. THEIR DEATHS AND INJURIES INSPIRED THIS PUBLICATION, AND TO PREVENT FUTURE TRAGEDIES.**

The viewpoints herein are the opinion of the United Steelworkers and reflect no official support or endorsement by the workgroup who assisted with this publication. This publication is more than just a guide – it’s a living, breathing document that we plan to update to reflect changes in the industry.

#### **ABOUT THE UNITED STEELWORKERS HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT**

The USW’s HSE department plays a vital role in building the union with member involvement, protecting health, safety and the environment, and saving lives through five core functions:

- 1. Assisting local unions** with evaluating and resolving health, safety, and environmental problems
- 2. Assisting or conducting education and training programs** for local union health and safety representatives and committees, officers, and staff representatives
- 3. Participating in legal cases**, including helping local unions to elect party status when employers contest OSHA and MSHA citations
- 4. Advocating for better regulations**, standards, and laws to protect our members and all workers
- 5. Helping negotiate stronger health, safety and environment language** in USW contracts with employers.

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## ACKNOWLEDGMENTS

In 2024, the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union (USW) initiated the USW railroad safety project to address the alarming number of fatalities and serious injuries with in-plant /in-mill railroads in various industries at USW represented workplaces. The USW’s Health, Safety and Environment Department coordinated the project with Mr. George Gavalla, President, Triad Railroad Consulting, LLC. We gratefully acknowledge the contributions of Mr. Gavalla, the USW local union representatives, and their management counterparts, who participated in this collaborative effort to prevent future fatalities and serious injuries, and to make safer in-plant / in-mill rail operations. We cannot express our gratitude enough to the members of the union-management workgroup listed below:

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## PREFACE

There have been 87 railroad-related incidents resulting in 89 fatalities reported to the USW at our represented workplaces from January 1, 1980 to the printing of this publication involving in-plant / in-mill rail operations. The term “USW” includes the current USW and all its predecessor unions. However, the records are limited for pre-merger unions other than the USWA, so some fatalities may not be listed. The USW remains willing to add railroad-related fatalities to our records from local unions, staff representatives, and employers.

The fatalities include USW members, contractors, and a member of another labor union. Their ages ranged from 20 to 66, and they were employed across the United States and Canada. The most common hazards involved:

- Caught in-between; couplers, rail cars, and close clearances (horizontal and vertical) pinch points,
- Derailing rail cars; thrown from and trying to dismount
- Doors falling off rail cars
- Dragged by a rail car that later caused fatal internal injuries
- Falls; from height and same level
- Hot liquid spilled out of a rail car causing fatal burns
- Molten metal explosions causing fatal burns
- Struck-by/run over by rail cars and the engine (including remote controlled engines); falling material; a steel cable that snapped, and a failed hydraulic jack while working inside a gondola rail car

All of the incident descriptions are different, but they share a common theme or trend – the rail safety systems were insufficient, and their deaths were all preventable.

The USW's railroad safety project is a vital first step to eliminate repeating and uncontrolled hazards by applying the hierarchy of controls (a risk management principle based on ranking hazard controls from most effective to least effective) to prevent future tragedies. Rail operations rely heavily on administrative controls, such as training, rules and procedures. Rules and procedures are not enough, but all too often, rules and procedures are how safety and health are managed. Rules and procedures are necessary, but they are never enough. Nor do the rules cover, nor compensate for every possibility. Rules can even lead to trouble. Some rail safety programs are based on a set of simple “cardinal rules” or “golden rules,” and the USW has learned, rail safety programs that focus on administrative controls are overlooking the hazards that the rules do not cover, and the impediments that get in the way of following the rules and procedures. Workers are fearful of reporting accidents and injuries if they think they will be disciplined. Compliance with rules and procedures are critical, but it is not enough. An effective rail safety system may begin with compliance, but it cannot end there. It must have a workable way to find and fix workplace hazards whether they are covered by the rules and procedures, and it must address the impediments that make it hard to do a job safely.

Rail crews have been downsized and jobs combined, even contracted-out. The way work has been reorganized by understaffing has created “green-on-green” hazards, or new employees working with new-employees, and new employees training new employees.

New employees are progressing too fast through the levels of progression (six-months and one-year), which leaves rail crews less experienced and less knowledgeable about the rail operations and hazards. Meanwhile, workers are under production demands and their work processes have been sped-up. Locomotives have even transitioned or converted to remote-controlled, crews have been downsized, and crews have even incorrectly been operating as a single-person crew, which creates additional hazards.

OSHA, MSHA and other regulatory agencies do not have comprehensive rail regulations, and the rulemaking process takes far too long – which means workers will not have any regulatory protections in the near future to adequately address the hazards. Additionally, the Federal Railroad Administration defers to these agencies since they have jurisdiction with in-plant and in-mill rail operations.

Our infrastructure, such as railcars, locomotives, buildings, etc., have become older, even worn out, and the rail systems were poorly designed to keep up with today's demands. Rail operations need capital investments with workers and their representatives being part of that process. Some of our members' workplaces have approximately one hundred miles of track to inspect and maintain. Rail operations cannot afford to have poor maintenance and inspection systems, or run-to-failure, as this leads to injuries and deaths. Rail operations are the arteries and veins to keeping all other production operations running smoothly and they must have adequate resources.

The recognized union-management work group listed above has done outstanding work on this publication, sharing their location's rail safety systems/practices, and the hard lessons learned from rail incidents, as well as recommending strong countermeasures for improving in-plant / in-mill rail operations.

This call to action is to prevent future tragedies within this very small job classification. It will take leadership across the USW, and from employers, who have in-plant / in-mill rail operations to find and fix hazards to make safer rail operations.

We cannot continue to learn fatality-by-fatality. The USW has seen how these uncontrolled hazards continue to kill workers, alter lives, and the impacts it has on workplaces, coworkers, and families. Rail hazards are too often normalized, and not fixed until an incident occurs. All rail safety systems must be proactive, not reactive. This is about learning and improving from past rail incidents to prevent the recurrence of the immediate and underlying causes, making workplaces safer, and to stop these recurring tragedies. Workplaces cannot continue to tolerate the serious risks faced by workers. Safety systems must be improved, and this publication can help along with continued commitment and collaboration between the USW and management through the collective bargaining process.



David McCall – International President, United Steelworkers

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## PURPOSE AND SCOPE

- In-plant / in-mill railroads operate throughout industrialized workplaces, and most employees are at risk. But the danger is greatest for members of the transportation department assigned to rail operations. These rail operations workers are a small percentage of the overall workforce. Thus, in-plant / in-mill railroad workers face a higher risk of accidental death. USW fatality records show there's a disproportionate number of rail operation fatalities as these employees are working in job classifications with small crew sizes.
- OSHA does not have comprehensive rail regulations to make workplaces safer for in-plant / in-mill workers. Therefore, this document seeks to make rail operations safer with a compilation of Recommended Practices and Policies that is intended as a guide for preventing in-plant / in-mill railroad fatalities, and serious injuries.
- The in-plant / in-mill railroad Safety Procedures and Policies set forth in this document are intended to supplement each company's existing rules regarding on-duty conduct and other relevant plant safety rules, procedures and policies, and may be incorporated into a company's Safe Job Procedures (SJP).
- The in-plant / in-mill railroad Safety Procedures and Policies set forth in this document:
  - Adhere to the safety principles set forth in the hierarchy of controls
  - Were developed on a consensus basis by a union-management committee consisting of USW members and management personnel who work on in-plant railroads, and USW health, safety and environment staff
  - Represent a compilation of recommended practices from the general system railroads, and in-plant/in-mill railroads

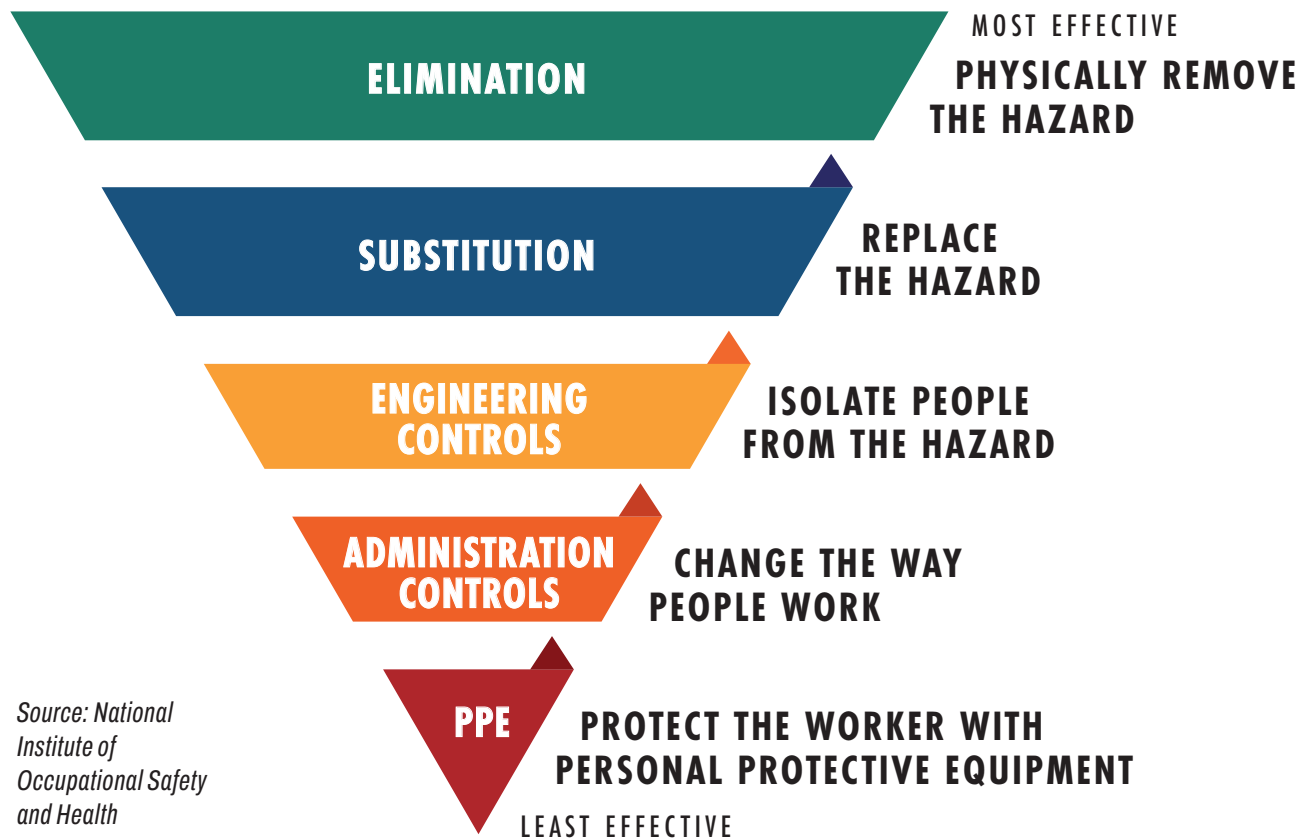
## HIERARCHY OF CONTROLS

The hierarchy of controls identifies a preferred order of actions to best control hazardous workplace exposures. Elimination, substitution, and engineering controls are more effective because they control exposures without significant human interaction. Administrative controls and personal protective equipment can also be effective at reducing workers' exposures to hazards. Controlling exposures to hazards in the workplace is vital to protecting workers. The hierarchy of controls is a way of determining which actions will best control exposures and must be followed from top to bottom.

The hierarchy of controls has five levels of actions to reduce or remove hazards. The preferred order of action based on general effectiveness is:

1. Elimination
2. Substitution
3. Engineering controls
4. Administrative controls
5. Personal protective equipment (PPE)

Using this hierarchy can lower worker exposures, and reduce the risks of injury, illness or death.



Source: National Institute of Occupational Safety and Health

## AN EXAMPLE OF THE HIERARCHY OF CONTROLS BEING APPLIED



## TRAINING

Training requirements and curriculum must be reviewed by a union-management committee periodically, and no less than annually for remote control operators, engineers, conductors, operators, and workers who work on or with the in-plant/in-mill railroad operations.

### Initial training.

Prior to any in-plant/in-mill railroad work, each employee must receive and understand the training provided.

### Annual refresher training.

Each employee must receive annual training and understand such training.

### Supplemental training.

Each employee must receive prompt training and understand additional training whenever:

1. Changes occur that affect the employee's work, exposure to hazards, job tasks, new equipment and technology, etc.
2. The employer develops new policy or changes their policies or procedures
3. There is an indication that the employee has not retained the necessary understanding or
4. An injury or illness occurs at the work site that results in death, days away from work, medical treatment beyond first aid, or loss of consciousness.

### Presentation.

Training must be provided in a language and at a literacy level each employee and supervisor understands. The employer must provide employees with an opportunity for questions and answers about the training materials.

# SAFETY PROCEDURES

## SAFETY PROCEDURE – 1: JOB SAFETY BRIEFING (JSB)

**1. Job Safety Briefing:** In-plant railroad supervisors and employees must conduct a job safety briefing prior to beginning any work assignment. The JSB is intended to be a discussion to ensure that all individuals involved in the assignment understand the tasks to be performed, and the procedures that will be used to perform the tasks safely and efficiently.

**2. When to Perform a JSB:** A JSB must be performed at the beginning of each work shift. Additional follow-up JSBs shall be performed:

- a. When starting a new task;
- b. If one or more persons is added to or departs from the work group;
- c. When working conditions change;
- d. When work becomes confusing to one or more members of the work group;
- e. If deviation is observed regarding an operating procedure or safety rule.

**3. Who Must Participate In a JSB:** All individuals involved in the work assignment who are in the area must participate in the JSB at the start of a shift, including:

- a. Supervision;
- b. The train crew(s) responsible for performing the assignment;
- c. Other plant personnel or contractors if they will perform work affecting railroad operations related to the work assignment.

For additional follow-up briefings, the train crew and other individuals directly involved in, or affected by, the task(s), that is or will be performed, must participate.

**4. Where to Perform a JSB:** Ideally, a JSB may be performed wherever the participants can meet together. However, if it is not feasible for all participants to conduct a face-to-face briefing, the JSB can be conducted remotely via radio, conference call or virtually.

**5. What a JSB Must Cover:** During a JSB, the following topics must be discussed:

- a. The work to be performed;
- b. What procedures and processes are required to complete the task(s);
- c. Potential hazards and risks associated with the task;
- d. How to apply the hierarchy of controls to identify, eliminate and control hazards;
- e. The job assignments and responsibilities of each individual in the work group;
- f. Tools, equipment, materials, and resources needed for the task(s);
- g. Weather conditions that may affect the task.

**6. Understanding and Confirming JSB:** The person conducting the job safety briefing must:

- a. Encourage and allow discussion among all members of the work group;
- b. Confirm that everyone involved in the job briefing understands all the instructions and their role and responsibilities for completing the task in a safe way.
- c. Remind employees they have the authority, without fear of reprimand or retaliation, to immediately STOP any work activity that presents a hazard to them, their co-workers, or the environment; to get involved, question and rectify any situation that is identified as not being in compliance with company safety and health values and policies; to report any conditions or activities to management and question any work that may cause harm.

## SAFETY PROCEDURE – 2: FOULING OR CROSSING TRACKS

**1. Do not foul or cross a track unless required in the performance of one's duties.**

- a. *Fouling a track means being on or close enough to the track to be struck* by passing on-track equipment or within four-feet of the outside of the nearest rail

**2. When walking on or across one or more tracks:**

- a. Look in both directions before fouling each track;
- b. Walk perpendicular to the track when entering or crossing the track;
- c. Always walk, never run.

**3. Do not step, sit or lie on any part of:**

- a. A rail;
- b. A switch or switch machine, except to operate a foot pedal;
- c. A frog;
- d. A derail;
- e. Any other track appliance.

**4. When crossing tracks, remain 25 feet away from on-track equipment** to be seen by the engineer/operator to create a buffer zone in the event of unexpected movement.

**5. Where possible, relocate employee parking lots to the same side of the tracks as their workplace**, and explore adding parking spaces around the perimeter of the workplace. Non-railroad personnel must be provided with, and instructed, to cross at designated crossings.



**6. Where possible, provide an adequate elevated walkway over the tracks for pedestrians.** The elevated walkway (or tunnels) must be protected from inclement weather and maintained.

7. [See USW Hazard Alert – Fatal Accident Involving a Train and Worker on Foot](#) in appendix.

### **SAFETY PROCEDURE – 3: RADIO COMMUNICATIONS – GENERAL REQUIREMENTS**

**1. Only employees who have been trained and qualified** may use radios.

**2. In-plant railroad employees may only use company-issued radios** while on duty and radio communications must be used solely for company business.

**3. Employees required to use company radios must conduct a verbal radio check** at the beginning of each work shift. If a radio is defective, it must be removed from service, and management must be notified to provide a replacement.

**4. If an employee reports an emergency situation or condition by radio, the words “EMERGENCY – EMERGENCY – EMERGENCY”** will be transmitted. The emergency radio transmission will have priority over all other radio transmissions, and the radio channel or frequency will be kept clear of radio communications not related to the emergency, until an all clear is given for normal operations.

5. Before initiating normal (i.e. non-emergency) radio transmission, **employees will listen to ensure the radio channel is clear, and not already in use.**

**6. To initiate a radio conversation:**

**a. Employees will identify themselves by transmitting:**

- i. The name of the company, followed by:
- ii. The locomotive number, or train designation, or job number, or other appropriate unit designation, followed by:
- iii. Employee’s job title.

**b. Employees will promptly acknowledge receipt of a radio call**, unless it would interfere with other immediate duties relating to railroad safety. To acknowledge the radio transmission, employees will identify themselves by transmitting:

- i. The name of the company, followed by:
- ii. The locomotive number, or train designation, or job number, or other appropriate unit designation, followed by:
- iii. Employee’s job title.

**c. Once positive identification is achieved**, subsequent radio communications between the parties in connection with switching, classification, and similar operations within the in-plant railroad, may shorten their identification after the initial transmission and acknowledgment.

**7. An employee who receives a transmission will repeat it** to the transmitting party unless the communication:

- a. Is a recorded message from an automatic alarm device;
- b. Is general in nature and does not contain any information, instruction or advice that could affect the safety of a railroad operation.

**8. When closing a radio transmission:**

- a. **If a response is expected**, the transmitting employee will **say, “over;”**
- b. **If no response is expected**, the transmitting employee will state the employee’s identification **followed by “out;”**
- c. For radio transmissions related to yard switching operations, train crew employees **are not required** to end transmissions with “over” or “out.”

9. Per the Federal Communication Commission, **the following communications are prohibited:**

- a. Any false distress communication;
- b. Any unnecessary, irrelevant or unidentified communication;
- c. Any obscene, indecent, or profane language.

### **SAFETY PROCEDURE – 4: 3-STEP PROTECTION (RED ZONE)**

1. 3-Step Protection **must be established before train crew employees are permitted to work** on, under or between on-track equipment that:

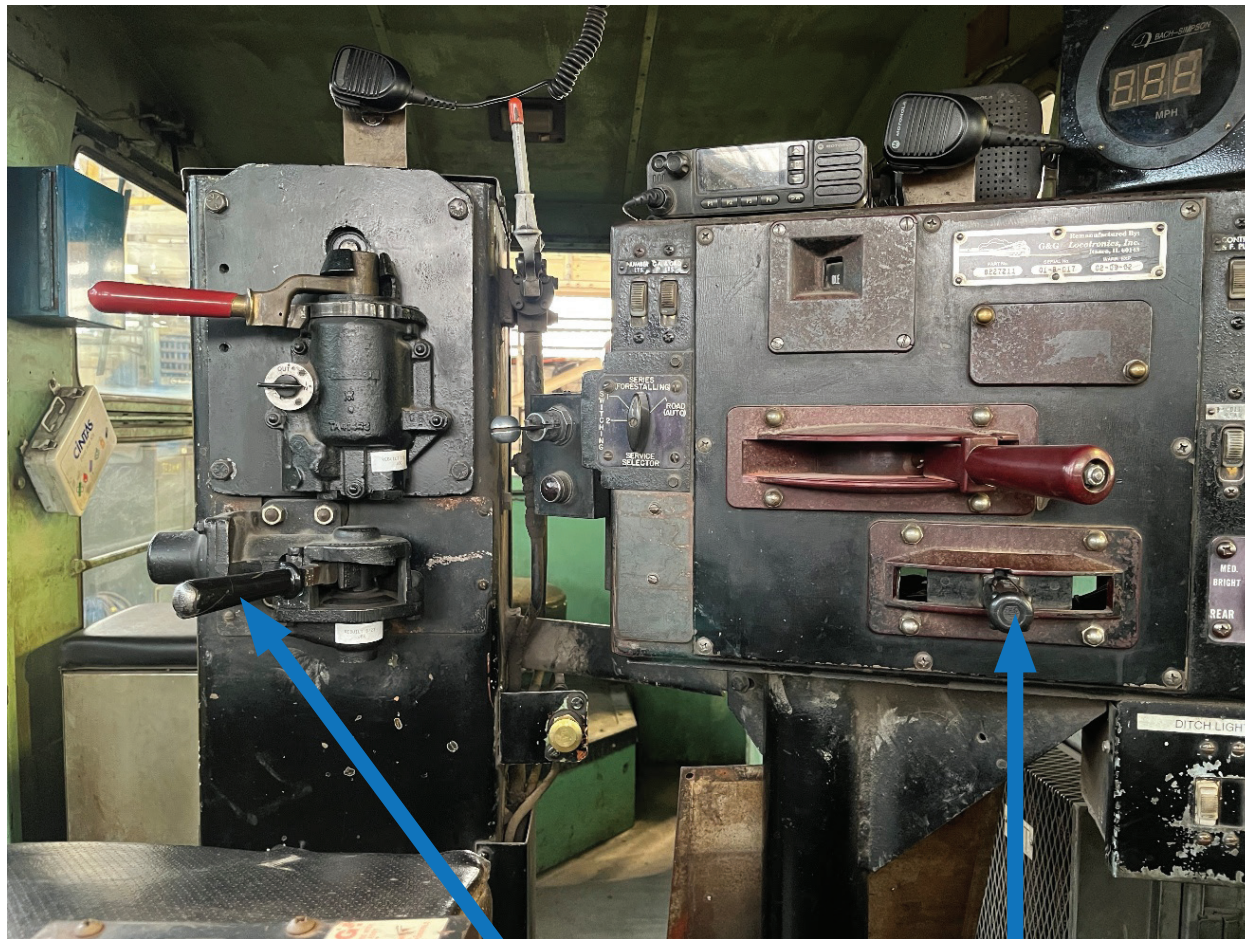
- a. Is attached to an occupied locomotive
- b. Is located on a track on which an occupied locomotive is working
- c. Is located on a track on which a locomotive has direct access

2. Before requesting 3-Step Protection, **be sure all movement of the train and/or on-track equipment has stopped**, and the slack has adjusted.

3. To initiate 3-Step Protection, the crew member who will be fouling the tracks must request 3-Step Protection from the engineer/operator of the controlling locomotive stating **“(Name of railroad), engine No. XXX, Brakeman/Conductor (Name) requesting 3-Step”**.

**4. The engineer/operator must establish 3-Step Protection when applicable:**

- a. Apply locomotive or train brakes
- b. Place the reverser in neutral (center position)
- c. Turn off the generator field switch (applies only to diesel electric locomotives)
  - i. For equipment that does not have a generator field switch, follow the manufacturer’s recommendations and workplace procedures.



**REVERSER (NEUTRAL POSITION)**

**LOCOMOTIVE BRAKE (INDEPENDENT BRAKE)**

**GENERATOR FIELD SWITCH (OFF POSITION)**

5. Once 3-Step Protection has been established, the engineer/operator must confirm this action with the employee who requested it by stating “**(Name of railroad), engine No. XXX 3-Step Protection applied.**”

a. The engineer/operator must maintain 3-Step Protection until notified by the employee who requested that the protection is no longer needed.

6. When 3-Step Protection is no longer needed, the crew member who requested it shall state to the engineer/operator “**(Name of railroad), Brakeman/Conductor (Name) “in the clear” “release 3-Step”.**”

7. The locomotive engineer/operator must confirm that 3-Step Protection has been removed by stating, “**(Name of railroad), engine No. XXX, “in the clear” “3-Step released”**”

a. Train movement may only resume after this communication is completed.

## **SAFETY PROCEDURE - 5: APPLYING AND RELEASING HAND BRAKES**

### **A. General Considerations**

**1. Employees are prohibited from operating any hand brakes** unless they have been trained and qualified on the company’s procedures for the application and release of hand brakes.

**2. Employees must protect against unintentional movement before operating any hand brake.**

- a. If the railcar is attached to an occupied locomotive, establish 3-Step Protection. [See: Safety Procedure - 4: 3-Step Protection (Red Zone)].
- b. Do not remove hand brake unless secured or attached to a locomotive, track mobile or other car moving device to prevent unexpected movement. If it becomes necessary to apply a hand brake not attached to a locomotive, track mobile or other car-moving device, line and lock switches to prevent entry into track where hand brake is being set or released.

**3. Operating hand brakes from the ground is prohibited,** except for vertical wheel side mounted hand brakes or using tools such as a brake stick which are designed to be used from the ground outside of the gauge of the rail.

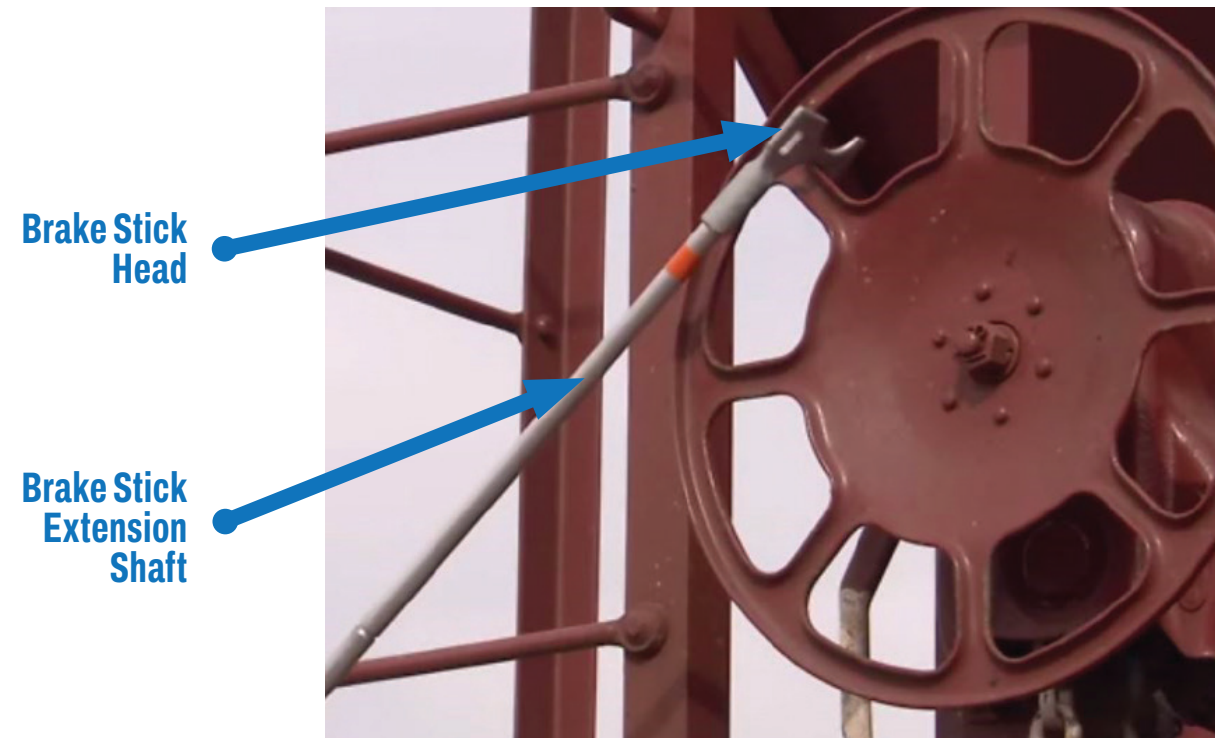
**4. Do not operate hand brakes on a moving railcar or locomotive.** Equipment must be stationary when applying and releasing any type of hand brake.

5. There are four primary types of hand brakes and each type has special considerations:

**a. Vertical Wheel End Mounted Hand Brake**

- i. Brake stick method is the preferred method to apply and release this type of hand brake. It offers maximum safety and efficiency;  
**-If brake sticks are not available, use hand operated method.**

**BRAKE STICK AND VERTICAL WHEEL END MOUNTED HAND BRAKE WHEEL**



**b. Vertical Wheel Side Mounted Hand Brake**

- i. Only the hand operated method may be used to apply and release these types of hand brakes – **brake sticks may not be used;**
- ii. This is the only type of hand brake that may be operated from the ground.

**c. Lever (Ratchet) Hand Brake**

- i. Only the hand operated method may be used to apply and release these types of hand brakes – **brake sticks may not be used.**

**d. Horizontal Wheel (Staff) Hand Brake**

- **Use of this type of hand brake should be avoided** if there are a sufficient number of cars with other types of hand brakes to properly secure the equipment;
- Only the hand operated method may be used to operate this type of hand brake – **brake sticks may not be used.**

**B. Operating Vertical Wheel End Mounted Hand Brakes: Brake Stick Method**

**A brake stick is the preferred method to apply or release a vertical wheel end mounted type hand brake.**

- 1. Prior to each use, the brake stick must be inspected to determine that:
  - a. Extension shaft is not noticeably bent
  - b. There are no visible cracks
  - c. Extension shaft is held snugly at each of the locking grooves by the locking mechanism
  - d. Head/extension rod attachment's head is not loose or broken

2. Adjust the length of the brake stick handle to allow hand brake to be operated from outside the gage of the rail and clear of the side of the on-track equipment.

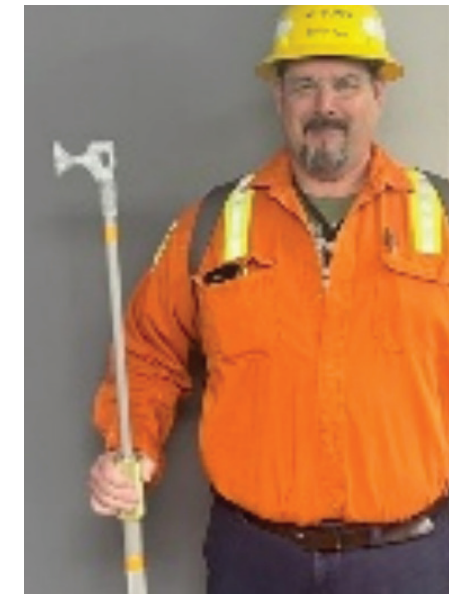
3. Stand parallel to the brake wheel, with shoulders perpendicular to the rail. Maintain a firm footing with feet shoulder-width apart.

4. Do not place the end of the brake stick against your body. Keep it off to your side to prevent the end of the brake stick from striking you in the event of potential kickback.

**5. To Apply the Hand Brake:**

Always hook the brake stick onto the rim of the hand brake wheel where it meets a spoke. The brake stick must be hooked to the brake wheel from the outside. Never hook the brake stick onto the brake wheel from between the brake wheel and the end of the equipment.

- a. **If applying the hand brake from the brake side of the car:** Hook the wheel in the 3 o'clock to 6 o'clock section.
- b. **If applying the hand brake from the opposite side of the car:** Hook the wheel in the 12 o'clock to 3 o'clock section.
- c. **Spin the brake wheel clockwise** until tension is felt on the wheel. The wheel can be spun continuously or with a series of short strokes.
- d. When tension is felt on the wheel, **use short quarter-turn pulls to tighten the brake wheel.**



## 6. To Release the Hand Brake:

**Do not use a brake stick to operate a quick release lever**, always hook the brake stick onto the rim of the hand brake wheel where it meets a spoke. The brake stick must be hooked to the brake wheel from the outside. **Never hook the brake stick onto the brake wheel from between the brake wheel and the end of the rail car or equipment.**

- If releasing the hand brake from the brake side of the car: Hook the wheel in the 9 o'clock or 10 o'clock section.
- If releasing the hand brake from the opposite side of the car: Hook the wheel in the 7 o'clock or 8 o'clock section.
- Use a series of short pulls to turn the brake wheel counterclockwise until the tension is released.
- When tension is released, the wheel can be spun continuously or with a series of short strokes.

## C. Operating Vertical Wheel End Mounted Hand Brakes: Hand Operated Method

- Stand on the brake step or crossover platform to operate hand brakes. Operate hand brakes by standing on the left side of the brake with your left foot on the ladder rung (if available) and your right foot on the brake step or crossover platform.
- Grasp the end ladder rung or crossover handhold with your left hand, leaving your right hand free to operate the hand brake.
- Place the release lever or pawl (if so equipped) in the ON position by reaching behind the brake wheel, **not through the wheel spokes.**
- Grasp the outer rim of the brake wheel with your right hand and spin the brake wheel clockwise to take up slack in the brake chain.  
–Watch out for the brake chain to bunch or slip unexpectedly.
- After the chain slack has been taken up, and tension is felt on the brake wheel, tighten the hand brake by grasping the rim at the lower quadrant of the brake wheel and lifting upward with your legs using short steady pulls.
- To release the hand brake, follow these procedures:
  - To release hand brakes equipped with a release lever, rotate the lever clockwise to the OFF position, pushing firmly until the brake releases. If the quick release lever does not release the brake, grasp the rim of the brake wheel and turn it counterclockwise using steady pressure.
  - To release hand brakes not equipped with a release lever (gradual release type), grip the wheel rim and turn the wheel counterclockwise until the brake releases.

**Caution:** With some older hand brakes, the brake wheel will spin when the brake is released. Keep fingers and hands clear of the brake wheel when operating the release lever.

## D. Operating Vertical Wheel Side Mounted Hand Brakes: (Hand Operated Method Only)

- Place the release lever or pawl (if so equipped) in the ON position by reaching behind the brake wheel, **not through the wheel spokes.**



- Hold onto a handhold or the railcar with one hand. With the other hand, grasp the outer rim of the brake wheel and spin it clockwise to take up slack in the brake chain.
  - Watch out for the brake chain to bunch or slip unexpectedly.
- After the chain slack has been taken up, and tension is felt on the brake wheel, tighten the hand brake using short steady pulls.
- To release the hand brake, follow these procedures:
  - To release hand brakes equipped with a release lever, rotate the lever clockwise to the OFF position, pushing firmly until the brake releases. If the quick release lever does not release the brake, grasp the rim of the brake wheel and turn it counterclockwise using steady pressure.
  - Caution:** With some older hand brakes, the brake wheel will spin when the brake is released. Keep fingers and hands clear of the brake wheel when operating the release lever.
  - To release hand brakes not equipped with a release lever (gradual release type), grip the wheel rim and turn the wheel counterclockwise until the brake releases.

## E. Operating Lever Hand Brakes: (Hand Operated Method Only)

- Hold onto a handhold with one hand, leaving your other hand free to operate the brake lever.
- Place the release lever or pawl in the ON position. (On some styles, the release lever is automatically placed in the ON position when you pump the brake lever).
- Pump the brake lever to take up the chain slack until tension is felt on the lever.
- After the chain slack has been taken up, tighten the hand brake by using steady pressure to pump the lever.
- To release the hand brake, follow these procedures:
  - Before releasing lever brakes, inspect the lever stop on the housing. **Do not operate the brake if:**
    - The stop is excessively worn or missing, or
    - The mechanism allows the lever to bypass its normal stop position;
    - If operated under these circumstances, the brake lever could fly around forcefully when the brake is released.
  - Release the hand brake by rotating the release lever clockwise, pushing firmly until the brake releases.

## OPERATING LEVER HAND BRAKE

Release Lever

Brake Lever



## F. Horizontal Wheel (Staff) Hand Brake

- a. **Use of this type of hand brake must be avoided** if there are a sufficient number of railcars with other types of hand brakes to properly secure the equipment.
- b. If the company requires the application of horizontal wheel hand brakes to secure equipment, it shall issue procedures for the application and release of this type of hand brake that is specific to the particular style of hand brake that is being used – i.e. pawl type, pawl weight type, or non-spin type.

## SAFETY PROCEDURE – 6: WHEEL CHOCKS

### 1. Wheel chocks will be used to secure on-track equipment at the following locations:

- a. Inside a building;
- b. Alongside a loading dock;
- c. At loading/unloading facilities;
- d. When doing maintenance in and on equipment;
- e. At other locations designated by the company;

2. When securing on-track equipment on cars equipped with hand brakes, **the use of wheel chocks will be in addition to (not in place of) hand brakes** (except when cars are not equipped with functioning hand brakes);

3. **Wheel chocks must have handles of sufficient length** to allow placement of the wedge on the rail without requiring an employee to reach under railcars.

4. **Wheel chock handles must have a high visibility coating** and retro-reflective striping to enhance their visibility.



## HORIZONTAL WHEEL HAND BRAKE



## SAFETY PROCEDURE – 7: DIRECTING SHOVING MOVES (POINT PROTECTION) BY RADIO COMMUNICATIONS

1. When shoving cars into a track to be stored or to make up a train, they shall be shoved to the intended point of rest. Hand brakes shall be applied to secure the cars before uncoupling the cars from the train.

- a. **Dropping railcars and gravity drops<sup>1</sup> are prohibited**
- b. **Kicking railcars is only permitted per company procedures**  
[See: Safety Procedure – 12 Kicking Railcars]

2. **Before initiating a shoving move**, the crew member directing the move must be in a position to observe that the way ahead of the movement is clear.

3. When initiating the shove, **the crew member providing point protection shall identify** the engine number of the train being shoved, and state the distance to shove (that is known to be clear), the direction of the move, and that switches and derails are properly lined.

- a. Distances will be given in car lengths – one car length equaling 50-feet regardless of the actual length of the cars – unless otherwise instructed.

4. **The engineer/operator shall confirm and acknowledge** the initial distance to shove and direction of the move before beginning the shove move, and subsequent distance directions until the count is five (5) cars or less.

5. When the shoving move is underway, the crew member directing the move shall countdown or refresh the remaining distance to shove, before the train moves ½ the previous distance given.

6. The engineer/operator must stop the movement before exceeding ½ of previous distance given, if further instruction (i.e. a refreshed countdown or distance to shove) is not received.

7. The crew member directing the move shall count down single car lengths for the last five car lengths.  
– E.g “5-cars, 4-cars, 3-cars, 2-cars, 1-car, half-car, 10-feet, 5-feet, stop”

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<sup>1</sup>Dropping cars is the practice of uncoupling one or more railcars that are being pulled by a locomotive and then switching the locomotive and the dropped cars onto different tracks. Typically, a train crew employee rides the dropped cars and operates a hand brake to stop the cars.

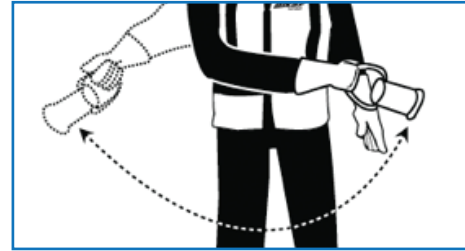
A gravity drop is the practice of allowing one or more stationary railcars to roll free while a train crew employee is riding the car(s) and operating a hand brake to stop the car(s).

## SAFETY PROCEDURE – 8: DIRECTING TRAIN MOVEMENTS – HAND SIGNALS

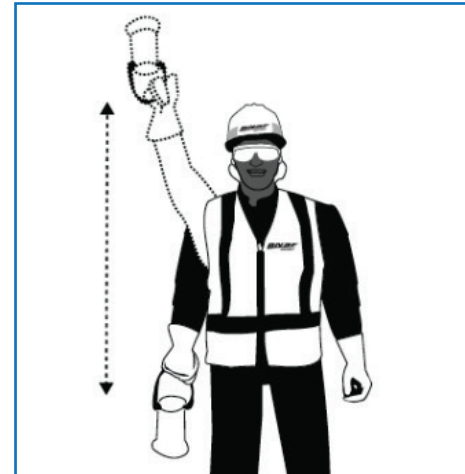
1. Approved hand signals may be used to direct train movements, provided the crew member directing the movement informs the engineer/operator and the engineer/operator acknowledges the use of hand signals.

The following are illustrations of approved hand signals:

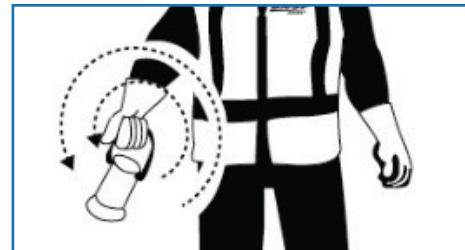
a. **STOP:**  
Hand/Lantern swung perpendicular to the track



b. **PROCEED FORWARD:**  
Hand/Lantern raised and lowered vertically



c. **BACK UP:**  
Hand/Lantern swung in a circle at right angle to the track



2. The crew member directing the movement must remain in sight of the engineer/operator at all times. If the engineer/operator loses sight of the employee giving hand signals, the movement must stop. Movement shall not resume until the request, and acknowledgement to use hand signals is repeated.

3. The engineer/operator shall **comply with an emergency “stop” hand signal from anyone** but shall **only comply with a “proceed forward” signal from the crew member directing** the movement.

4. If a hand signal is not understood by the engineer/operator of the movement, the movement must stop.

5. Hand signals and radio **communications should not be intermixed**, unless an emergency stop is needed.

## SAFETY PROCEDURE – 9: RIDING, MOUNTING AND DISMOUNTING ON-TRACK EQUIPMENT

### General Instructions:

1. Only employees who have been trained and qualified may ride, mount and dismount on-track equipment.

2. Do not mount or dismount moving equipment (except in an emergency to avoid injury).

3. Maintain three points of contact while riding (two hands and one foot, or two feet and one hand).

4. Check the ground conditions before dismounting, looking out to avoid steep slopes, unstable ground or ballast, holes, slipping or tripping hazards.

5. Mount and dismount equipment on the side that is away from live tracks and close clearances, if possible.

a. If it is not possible to avoid adjacent live tracks when dismounting, do not foul adjacent live tracks.



### Railcars:

1. Only ride on approved safety appliances (i.e. sill steps, corner side ladders or handholds).

2. Tagout and do not ride (in accordance with stop work authority) on a car where a safety appliance is missing, broken, cracked or bent.

3. Unless properly equipped with a riding platform, do not ride on the ends of a car, except at the rear end of a trailing movement.

a. Never ride, sit, stand or climb on:

- End ladders;
- End platforms;
- Uncoupling levers;
- Drawbars.



## RIDING PLATFORM ON END OF RAIL CAR

Proper riding platforms have railings mounted on the end of the platform to prevent employees from falling off the end of the platform. Riding outside of the railing is prohibited.



4. Do not ride on a railcar when coupling to on-track equipment.

5. Do not cross over moving railcars.

6. Do not step from one car to another.

7. If riding a tank car:

a. Do not ride on the middle side ladder



b. Do not ride tank cars equipped with only single vertical handholds at each corner.

8. Only ride flat cars that are equipped with dual vertical handholds or horizontal handholds that extend at least 18 inches above the deck of the car.



## DUAL VERTICAL HANDHOLDS



## HORIZONTAL HANDHOLDS

### Locomotives:

1. Do not carry equipment, grips (bags) or other objects when mounting or dismounting a locomotive.

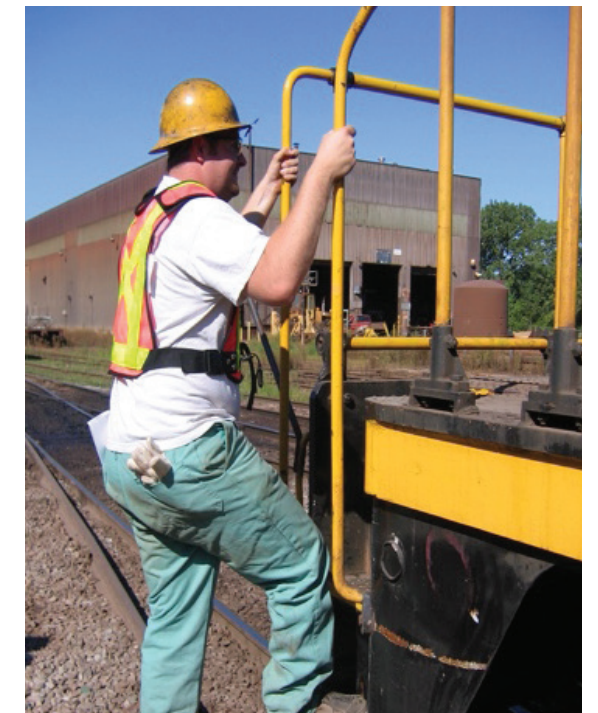
- Place the objects on the deck of the locomotive and climb on or off, using the stairs and handrails, while facing the locomotive.

2. Always face the locomotive and use the stairs and handholds when dismounting.

3. Do not ride on the steps of a locomotive when traveling over a road crossing.

- Ride in the locomotive cab or on the deck of the locomotive while holding onto the railing.

4. Do not ride on the side walkways of a moving locomotive.



## SAFETY PROCEDURE – 10: COORDINATION OF MULTIPLE TRAIN CREWS

1. When two or more train crews are assigned to switching work in the same yard during the same shift, the preferred method of coordination is for **only one crew to be working in the yard at a time**. A second crew should begin switching in the same yard only after the first train crew has completed its work and has cleared off the tracks.
2. When operational needs require two or more train crews to perform work in the same yard at the same time, **the following precautions must be taken:**
  - a. Before commencing the switching assignment, all members of all the crews involved in the assignments will conduct a joint job safety briefing [See: Safety Procedure – 1: Job Safety Briefing] to discuss how the work will be performed and coordinated to prevent two or more crews from working on the same tracks at the same time.
3. **If operational needs require two crews to work on a one- or single-yard track during the same assignment (dual occupancy)**, all members of all the crews involved in the assignment will conduct a joint job safety briefing and coordinate their work so that only one crew will be working any particular track at a time. This shall be accomplished in the following manner:
  - a. **During the initial joint safety job briefing**, the crews involved in the work will identify all the tracks subject to dual occupancy, i.e. tracks on which the two crews must work during the course of their assignments;
  - b. **Before a crew commences work** on any of the identified tracks, they will inform the other crew which track they intend to work on;
  - c. **The other crew must confirm** that the first crew is commencing work on the identified track and they will remain clear of that track;
  - d. **All members of both crews** will confirm their understanding that the first crew is commencing work on the identified track and the other crew will remain clear of the track;
  - e. **When the first crew has completed work** on the identified track, they will notify the other crew they are clear of the track;
  - f. **Members of both crews** must confirm that the first crew has completed work on the track and is clear of the track;
  - g. **This process shall be repeated** if either crew intends to work on any of the tracks that have been identified for dual occupancy.

## SAFETY PROCEDURE – 11: BLUE SIGNAL AND BLUE FLAG PROTECTION

1. **Blue Signals include blue flags and blue signal lights.** Blue signals designate that on-track equipment is being inspected, tested, repaired or serviced by maintenance personnel, railroad Mechanical Department personnel or contractors.
2. **Train crew employees and other employees who are not part of the work group that applied the Blue Signal:**
  - a. **May not go under or on equipment protected by a Blue Signal**
  - b. **May not enter a track where a Blue Signal is displayed**
  - c. **May not couple to equipment protected by a Blue Signal**
  - d. **May not move equipment protected by a Blue Signal**

3. **A blue signal may only be removed** by individuals from the work group that applied the blue signal.

4. **Blue Signal Protection shall be established** as follows:

- a. Each switch providing access to the track where the Blue Signal Protection is being applied must be lined against movement to that track and secured by an effective locking device per company procedures.  
— **A blue signal must be placed at or near each such switch.**
- b. A derail capable of restricting access to the portion of track where work will be performed must be locked in derailing position with an effective locking device and positioned at least 150 feet from the rolling equipment to be protected.  
— **A blue signal must be displayed at each such derail.**
- c. **Other on-track equipment must not be placed** on a track to which a blue signal has been applied, in a manner that will reduce or block the view of the blue signal.



## SAFETY PROCEDURE – 12: KICKING RAILCARS (KICKING RAILCARS IS ONLY PERMITTED PER COMPANY PROCEDURES)

1. **Kicking railcars is the practice of uncoupling one or more railcars on the leading end of a shove move**, while the shove move is in motion, and allowing the railcars to roll free into a track. Kicking cars is only permitted when it will not endanger workers, equipment, or contents of cars. Kicking railcars may only be performed in accordance with written Company safety procedures developed with workers and their representatives by mutual agreement. The plant manager, area manager and safety manager, must approve locations and procedures for kicking cars. Only employees who have been trained and qualified in the Company's written safety procedures for kicking railcars may perform kicking moves.
2. **Before railcars are kicked into any track**, a sufficient number of railcars shall be shoved into the track and secured with hand brakes to serve as a backstop to prevent kicked cars from rolling away. The number of secured cars to be used in establishing a backstop shall be specified by company procedures, taking into account the grade of the track and the number and weight of the cars being kicked.
3. Company procedures shall establish limits on the number of railcars that may be kicked at one time. However, the maximum number of railcars in any kick move must not exceed four (4).
4. Company procedures shall address the speed(s) at which kick moves may be made, considering the grade of the track and the number and weight of cars to be kicked.

5. When a train crew is kicking railcars into one or more yard tracks, no employees or personnel should be working in those tracks until all kicking moves have ceased.

6. When more than one train crew member is working on the ground while kicking moves are being performed (e.g. one employee operating the cut lever and the other employee operating switches), the employee directing the kick move shall announce, over the radio, the track where the kick move is going.

7. Kicking cars over a highway-rail grade crossing or pedestrian grade crossing is prohibited.

## SAFETY PROCEDURE – 13: COUPLING AND UNCOUPLING AIR BRAKE HOSES

### 1. Safety Procedures Prior to Coupling/Uncoupling Air Brake Hoses

- a. Only employees who have been trained and qualified may couple or uncouple air brake hoses.
- b. Before attempting to couple or uncouple air brake hoses, be sure equipment is properly secured:
  - i. For rail cars attached to an occupied locomotive or other motive power, apply 3-Step (Red Zone) protection. [See: SP-4 3-Step Protection]
  - ii. For equipment that is not attached to an occupied locomotive, apply a sufficient number of hand brakes.

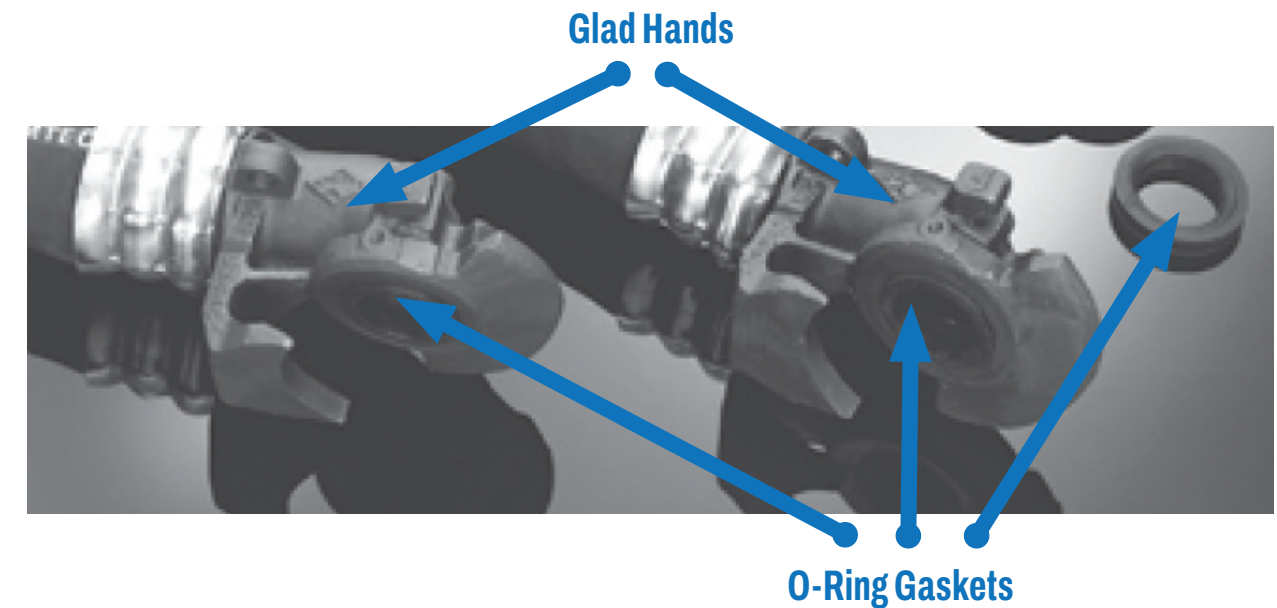
2. Treat all closed angle cocks as though the train brake line (i.e. airline) is charged with air.

### 3. Coupling Air Brake Hoses

- a. Step between the cars, placing one foot in the gage of the track and one foot outside the rail, then crouch down (bending at knees and hips).



4. Make sure that both glad hands have gaskets (i.e. O-rings).



5. Grasp the air hose nearest you firmly behind its glad hand and bend it upward.

6. Grasp the hose farthest away and pull it toward the bent hose.

7. Match the glad hands into opposite contoured slots and push them downward. Observe that the glad hands are seated.

8. Gradually open the angle cocks, be sure your head is turned away from the hoses and angle cock.

- a. Do not reach over the drawbar when opening the angle cock on the other side of the equipment.

### 9. Uncoupling Air Brake Hoses

- a. The preferred method for uncoupling air brake hoses is to simply uncouple the cars of the train. Employees should turn their heads away from the air hoses when operating the uncoupling lever (cut lever).
- b. If an air hose or the connection between coupled air hoses is found to be leaking or it is not feasible to uncouple the cars, the following procedure may be used to uncouple the air hoses to make necessary repairs.
  - i. Close both angle cocks and wait until no more air is heard to be leaking from the defective hose or coupling.
  - ii. Do not reach over the drawbar to close the angle cock on the other side of the equipment.
  - iii. Step between the cars, placing one foot in the gage of the track and one foot outside the rail, then crouch down (bending at knees and hips.) Firmly grasp each air hose with your hand just behind each glad hand.
  - iv. Turn your face away from the glad hands. With your arm extended and with quick motion, pull the hose glad hands upwards.

## SAFETY PROCEDURE – 14: ALIGNING COUPLERS

**1. Only employees who have been trained and qualified** may align couplers.

Drawbars are heavy and have multiple pinch points.

2. There are two primary methods to align couplers:

- a. Backward Method
- b. Knuckle-Mate Device

3. Whenever aligning a coupler, regardless of which method is used, the following precautions must be followed:

- a. Separate the cars to be coupled by at least 50 feet;
- b. Secure the cars by establishing 3-Step Protection to cars attached to an occupied locomotive [See: SP-4 3-Step Protection] and by setting appropriate number of handbrakes on cars unattached to a locomotive;
- c. Never kick a coupler or drawbar;
- d. Draw bars are heavy. Do not attempt to lift a drawbar. Get assistance if coupler does not move when moderate force is exerted;
- e. Keep fingers clear of pinch-points;
- f. Establish a firm footing.

### 4. Backward Method

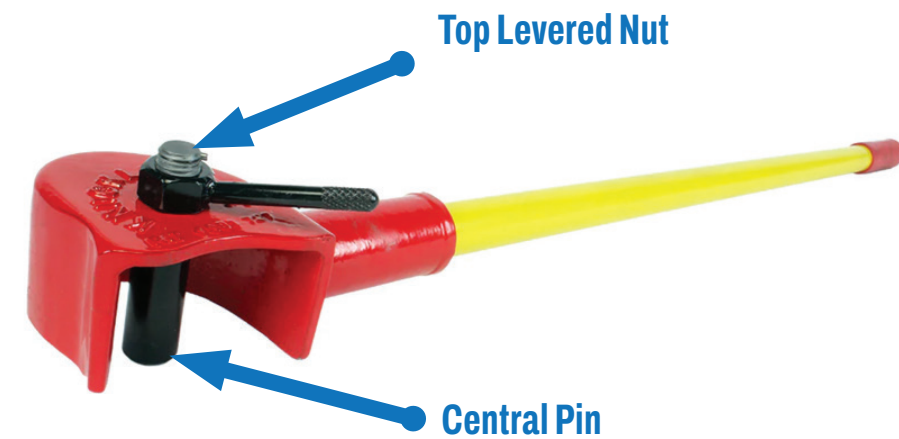
- a. Stand to the side of the coupler;
- b. Turn your back to the coupler and lean against it;
- c. Place one foot underneath coupler and other foot in front of you. You may brace your forward foot against the side of the rail (do not step on top of the rail);
- d. Grip the coupler from underneath, keeping fingers clear of pinch points;
- e. Bend your knees and hips while keeping the load close to your body;
- f. Push upward from your knees with your legs while shifting your weight backward to push the drawbar over;
- g. Only push a small distance, stopping to reposition yourself as needed;



### 5. Knuckle-Mate Device

- a. Make certain that the knuckle is locked in the closed position with the pin down.
- b. Connect the knuckle-mate by placing it over the top of the knuckle, making certain the central pin is securely in the hole of the knuckle (the pin may be adjusted by loosening the top levered nut).

### KNUCKLE-MATE DEVICE



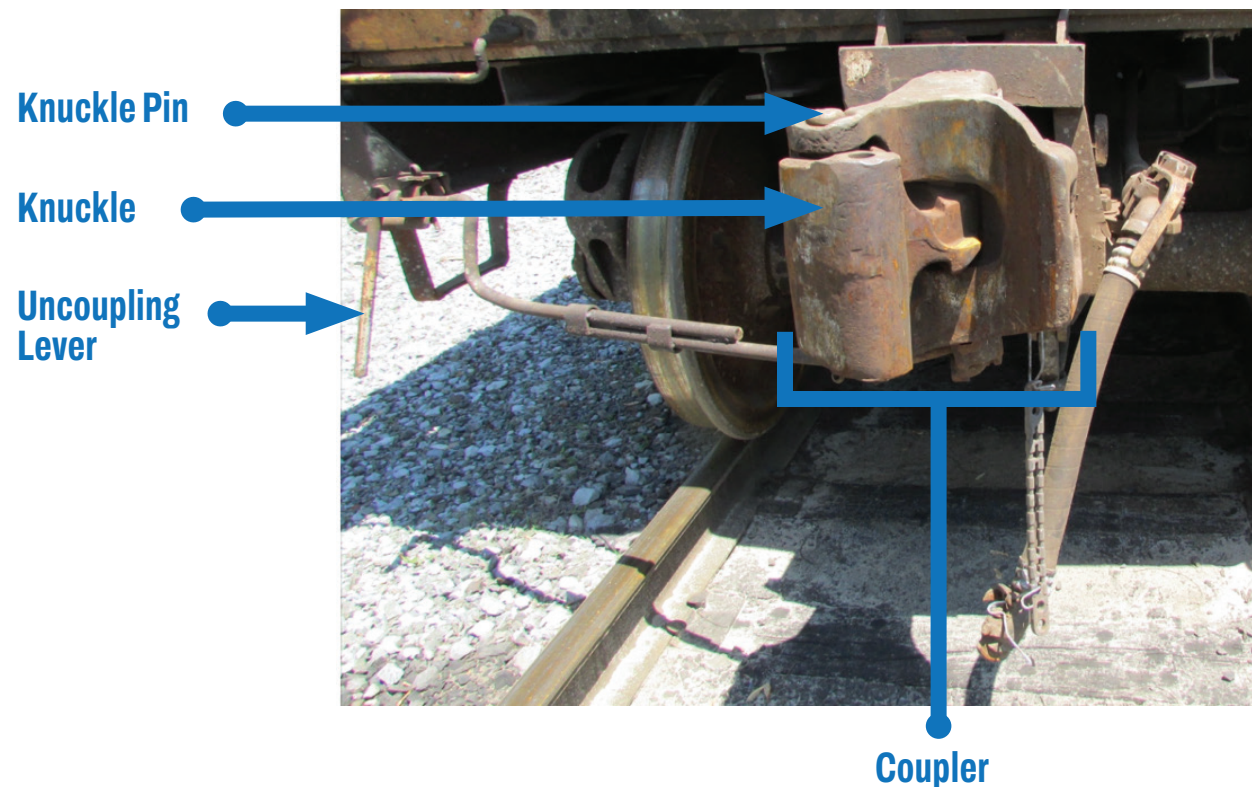
- c. Assume a balanced position with a wide stance and your center of gravity between your feet. Keep both hands on the handle.



- d. Adjust the coupler by pulling on the knuckle-mate, using your legs. Be prepared for unexpected movement.

## SAFETY PROCEDURE – 15: REPLACING KNUCKLES

1. **Only employees who have been trained and qualified** may replace knuckles in couplers.
2. **Protection must be established prior** to replacing a knuckle using either of the following methods:
  - a. **Establish blue signal/flag protection** [See: SP-11 Blue Signal and Flag Protection].
  - b. If blue signal/flag protection is not used:
    - i. Separate the equipment by at least 50 feet;
    - ii. Establish 3-Step Protection on equipment attached to an occupied locomotive;
    - iii. Set an appropriate number of hand brakes (and wheel chocks, if required by company policy) on equipment that is not attached to a locomotive.
3. **Procedures for replacing a knuckle are as follows:**
  - a. **Obtain the correct knuckle type;**
  - b. **Make sure the knuckle pin is in place** and open the knuckle while keeping feet clear of the area under the coupler;
  - c. **Using the buddy system**, remove the knuckle pin and set it within easy reach;
  - d. **Remove the knuckle** by operating the uncoupling lever (cut lever) and let the knuckle fall to the ground;
  - e. **Dispose of the knuckle** where it will not become a tripping hazard;
  - f. **Holding the uncoupling lever in the open position** (lever up), move the knuckle thrower back into the coupler recess as far as it will go;
  - g. **Lift the knuckle carefully and place** it into the coupler pocket;
  - h. **Insert the knuckle pin into the pin hole**, close the knuckle, and make sure it locks properly.



## SAFETY PROCEDURE – 16: OPERATING TRACK SWITCHES

### 1. Duties of Conductor/Ground Person

- a. Before operating a switch, observe that the points are not damaged, and there are no obstructions inside the switch point, or near the switch rods, and the switch has not been spiked;
- b. Before unlatching the switch lever, move it up and down slightly while still in the keeper to determine if it is free from excessive tension due to mechanics, the environment (including heat), location of equipment, etc;
- c. Procedures and training must require standing clear of the handle's travel path to avoid being struck if the lever has excessive tension;

### 2. To operate a switch:

- a. **Hold the lever with two hands;**
- b. **Do not bend over to operate the lever.** If necessary, bend your knees and lift with your legs, keeping the end of the lever centered in front of you;
- c. **Reposition your body while keeping the lever in front of you** to complete the rotation of the lever;



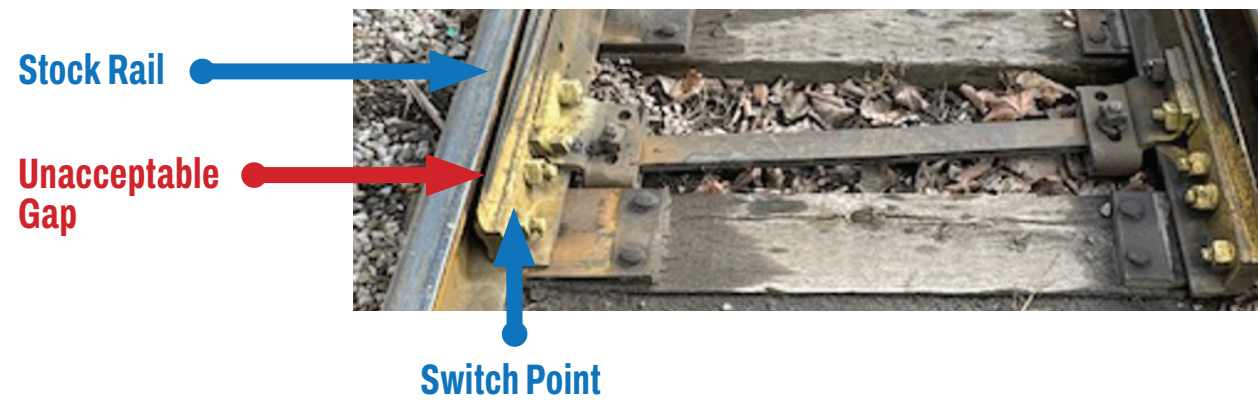
3. **When the switch movement is completed** and the lever is latched in place, visually check the switch points again to determine the point has closed tight against the stock rail.

- a. If there is gap of ¼ inch or more, try operating the switch again;
- b. If the gap persists, report the condition to management, and seek instructions

**PROPERLY ALIGNED SWITCH: SWITCH POINT IS TIGHT AGAINST STOCK RAIL.**



**UNACCEPTABLE GAP: SWITCH POINT SHOULD BE AGAINST THE STOCK RAIL WITH NO GAP GREATER THAN ¼ INCH.**



4. If there is an obstruction between the switch point and stock rail, **use a tool or other object to remove it. Never place your hands or any part of your body** between a switch point and stock rail.

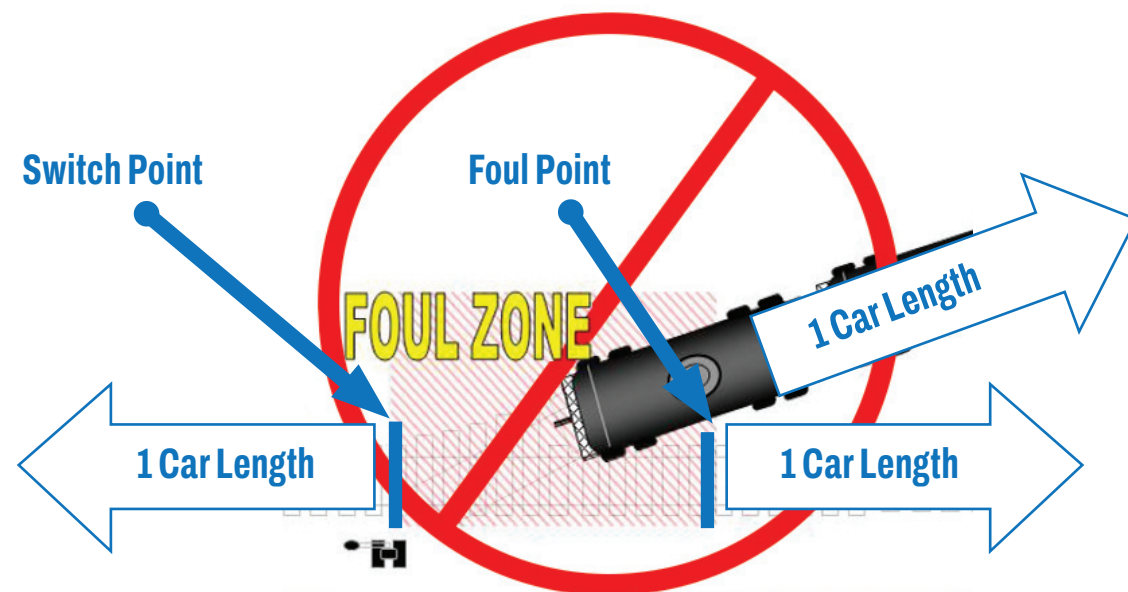
5. **Switch plates shall be periodically cleaned and lubricated** to prevent them from becoming difficult to operate.

6. **Immediately report defective switch conditions** to management or proper authority, including switches that are difficult to operate. Remove from service accordingly.

**7. Duties of Locomotive Engineer/Operator**

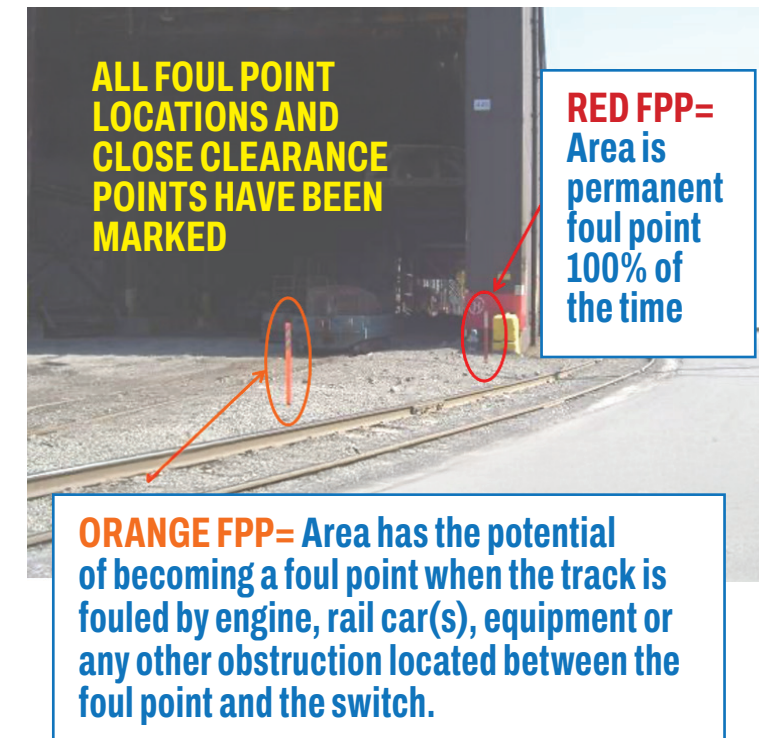
8. When a train stops near a switch to drop off a crew member to operate the switch, it should stop at least 25 feet from the switch points to avoid crowding the switch.

- a. If a train stops near a switch for a train meet or to be left unattended, it shall stop at least one car length clear of the foul zone – i.e. the space between the switch points and the foul point for the adjacent track.



**9. Marking Foul Points with Foul Point Posts or Visible Markers at Switches and Turnouts**

- a. Based on a risk assessment, foul point posts (FPP) or visible markers must be installed at the foul points of switches and turnouts to warn train crews when they are approaching the limits of a potential close clearances location (foul zones). [See: RP-3 Horizontal and Vertical Track Clearances Policy]



**SAFETY PROCEDURE - 17: PERSONAL PROTECTIVE EQUIPMENT (PPE)**

1. The company shall provide at no cost, correctly sized and readily available personal protective equipment (PPE). Employees shall be trained to wear the required and approved PPE in accordance with a company's hazard assessment for PPE, and safety procedures. Approved PPE includes, but is not limited, to the following:

- a. High visibility clothing of approved colors with retro-reflective strips;
- b. Hard hats;
- c. Safety boots with a defined heel per workplace procedure(s);
- d. Approved safety glasses;
- e. Face shields;
- f. Hearing protection;
- g. Flame retardant clothing (where required);
- h. Inclement weather clothing (rain, sleet, snow, cold temperatures, etc.);
- i. Personal fall arrest systems (where required);
- j. Approved gloves

2. When handling railcars containing molten metal or hot metal slabs (heats), flame retardant gloves and clothing shall be worn in accordance with the company's safe job procedures or job safety analysis.

3. The company shall not allow PPE or clothing that is loose, torn or baggy to the extent it can be caught on rail equipment, track appliances, buildings or machinery per procedure(s). Cuffs on overalls, pants, and jacket sleeves shall be buttoned or secured to prevent being caught on projections.

4. Training shall be provided to employees in the use, care, and maintenance of PPE.

5. PPE shall be replaced when it is worn-out or damaged at no cost to employees.

6. A union-management health and safety committee must periodically review/update, and evaluate the effectiveness of the PPE program.

7. PPE is the least protective control in the hierarchy of controls. Therefore, hazards must be identified, eliminated/controlled by following the hierarchy of controls.

# HIERARCHY OF CONTROLS



Source: National Institute of Occupational Safety and Health

## IN-PLANT/IN-MILL RAILROAD POLICIES (RP)

### Railroad Policy – 1: Train Air Brake Policy

#### A. Written Procedures:

If the in-plant railroad uses a train's air brake system to control and stop train movements, the company shall develop written procedures regarding the use, testing and inspection of the train air brake systems on its railroad equipment. The procedures shall be tailored to the company's in-plant railroad environment where employees are required to work.

#### B. Training and Qualification of Employees:

Only employees who have been properly trained and qualified on the company's written train air brake system procedures may be assigned or allowed to perform work that involves train air brake systems, including the following tasks:

1. Work as a member of a train crew that uses the train's air, including locomotive engineers or motive equipment operators, conductors and/or ground persons
2. Perform train air brake tests
3. Inspect train air brake systems and/or components
4. Change brake shoes
5. Perform mechanical repairs to train air brake systems and/or components

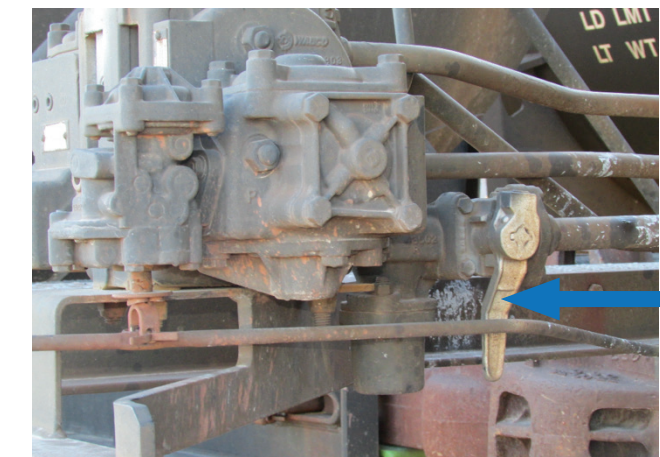
#### C. Train Air Brake Procedures

The company's train air brake procedures shall, at a minimum, address the following topics:

1. Identification of the name, function, operation, inspection requirements, potential hazards and safety measures associated with air brake system components, **including, but not limited to the following:**



a. Brake hoses and angle cocks



Cutout Cock

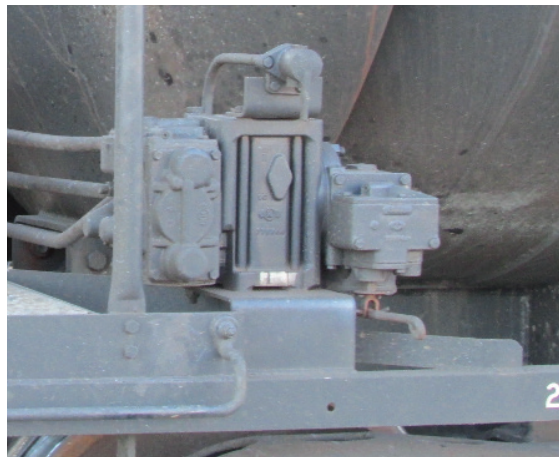
b. Air brake cutout cocks and bleed rods, including procedures to cut in or cut out the air brakes on one or more railcars



c. Brake shoes, including procedures for safely replacing brake shoes



d. Brake cylinders and pistons, including identifying proper piston travel



e. Automatic brake valves, including the service portion and the emergency portion of the brake valves and their functions



f. Vent valves, including the proper positioning of the vent valve during in-plant railroad operations

g. Brake rigging, including procedures for performing visual inspections of the brake rigging.

**2. The proper use of the train air brake system and the locomotive's independent brakes to control train speed and stopping distance under all types of operating conditions to which train crews may be subject.**

3. Procedures to control slack action in trains.

4. Procedures related to train brake tests, including:

- a. Brake tests required for in-plant railroad operations
- b. Where trains travel on the tracks of a general system railroad, any Federal Railroad Administration (FRA) required brake tests.
- c. Brake test procedures shall include:**
  - i. An explanation of the purpose of the brake test
  - ii. When or under what conditions the brake test is required to be performed
  - iii. Specific procedures for performing the brake test
- d. The types of train airbrake tests that an in-plant railroad may require, including, but are not limited to, the following:
  - i. Leakage tests
  - ii. Set and release brake test (FRA transfer train brake test)
  - iii. Brake test for trainline continuity (FRA Class III brake test)
  - iv. Brake test to ensure proper brake application, release and inspection of brake components on railcars (FRA Class I, Class I a or Class II brake tests)

**5. Securement of the train using hand brakes** [See: Safety Procedure – 5 Applying and Releasing Hand Brakes].

**6. Prohibitions on bottling the air** on trains that have not been properly secured or that will be left unattended.

**RAILROAD POLICY – 2: TRACK SAFETY**

1. **TRIMS Policy:** A Track and Right-of-Way Inspection and Maintenance Standards Policy (TRIMS Policy) shall be adopted and implemented that addresses the following areas of track safety:

- a. Technical specifications for the maintenance, repair and inspection of:
  - i. Track, including but not limited to: track bed, and track materials (e.g. switches, derails, ballast, etc.);
  - ii. Right-of-way, including, but not limited to: drainage ditches, culverts, fencing, safety related signage, vegetation, etc.

2. **Technical specifications:** The TRIMS Policy technical specifications shall meet Federal Railroad Administration (FRA) track safety standards (49 CFR Part 213) for Class I track.

- a. It is recognized that all in-plant tracks, on which the general system servicing railroad<sup>2</sup> operates, are required to meet FRA track safety standards.

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<sup>2</sup>General system servicing railroad refers to the common carrier railroad that delivers and picks up railcars to and from the in-plant railroad.

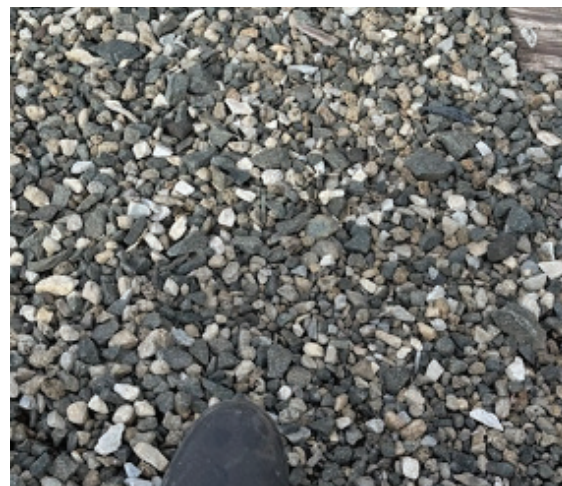
**3. The TRIMS Policy technical specifications shall also meet** the applicable standards of the general system servicing railroad for industrial track regarding issues and topics not covered by the FRA track safety standards; provided the general system servicing railroad standards meet or exceed corresponding standards of the American railway engineer and Maintenance-of-Way Association (AREMA). These issues include, but are not limited to:

- a. **Lighting levels in yards and areas where employees are required to work and walk.** This includes:
  - i. Lighting at track switches, derails, fueling stations;
  - ii. Lighting along yard tracks (Note: It is recognized that train crews are required to work and walk along all tracks throughout a yard).
- b. **Walking-working surfaces where employees are required to work and walk.** This includes:
  - i. Walking ballast (a smaller sized ballast) on walkways and along yard tracks;
  - ii. Employee walkways that cross tracks;
  - iii. Designated walkways on, or adjacent to, highway-rail grade crossings.

**4. Walkway Safety Standards:** The TRIMS Policy shall also require that walkways and other areas where employees are required to work and walk shall be kept in a safe condition, free from slipping and tripping hazards, including debris, trash, tools, ice, snow, stored materials that obstruct the walkways and other walking hazards.

- a. Walkways along tracks and in rail yards, where employees regularly work and walk, must have a smooth, level surface, for example, asphalt, concrete, wood or walking ballast (bed of stones that makes up a track bed)\*

*\*Note: Walking ballast is a finer grade of ballast (typically ¾ inch in diameter) than the road ballast (2 to 3 inches in diameter) that is used to support the ties and rails.*



**Walking Ballast**

Provides smooth level surface on walkways



**Road Ballast**

Supports ties & rails

**5. Inspections: The TRIMS Policy shall include track inspection standards** that set forth regular periodic track inspections to monitor and ensure compliance with the aforementioned TRIMS Policy technical specifications.

- a. Regular periodic inspection intervals will be established for the in-plant railroad track and right-of-way that shall not be less than one inspection per month (with a minimum of 25 days between inspections).
- b. Inspections shall be performed by inspectors who have been trained and qualified on the requirements of the company's TRIMS Policy. Inspectors must be trained, and qualified to inspect to:
  - i. FRA standards, where applicable; and;
  - ii. Other track and right-of-way standards pertaining to issues not covered by FRA standards (e.g. standards of the General system servicing railroad, and/or AREMA standards that have been adopted by the company, pursuant to TRIMS Policy and walkway standards).

**6. Employee Training: Railroad employees and safety committee members shall be trained** to recognize, and report defective conditions that fail to meet the standards set forth in the TRIMS Policy, and other right-of-way hazards, that have the potential to cause a train accident or employee injury.

**a. These defective conditions include, but are not limited to:**

- i. Broken or cracked rails;
- ii. Broken or gapped switch points;
- iii. Track geometry deviations (E.g. Defects in profile, alignment, cross level and wide gage);
- iv. Broken or missing switch and derail targets;
- v. Broken or missing switch and derail keepers;
- vi. Switches that are hard to operate;
- vii. Illegible or missing safety related signage, including close clearance, and no clearance signs, and/or markers;
- viii. Obstructions placed on or near the track;
- ix. Broken, malfunctioning or missing light fixtures;
- x. Vegetation that obstructs the view of railroad signals, and/or safety-related signage or otherwise interferes with employees performing normal trackside duties.

- b. When reports are received regarding defective conditions and other right-of-way hazards that have the potential to cause a train accident or employee injury, **they shall be investigated immediately by the safety committee or a qualified person and repairs shall be made as soon as possible.** Operating restrictions (e.g. speed restrictions) will be established, as necessary, to protect against accidents and/or injuries until repairs are completed and a stop work authority used as needed per company procedures.

**7. Curve Speeds: All track curves shall be evaluated by a qualified track engineer** or other qualified railroad track professional to determine the maximum safe train operating speed that shall be permitted.

- a. All curve operating speeds that are less than the in-plant railroad's maximum authorized operating speed shall be published in the TRIMS Policy;
- b. All train crew employees will be trained on the location of each curve speed restriction and the authorized speed over the curve. They will also be issued with written copies of the curve speed restrictions.

**8. Roadway Worker Protections:** All employees or contractors who perform track inspection and/or maintenance work (i.e. roadway workers) that requires fouling a track, shall be protected from train movements in the following manner:

- a. **Watchman/Lookout:** If the track work allows the roadway workers to be clear of the track at least 15 seconds prior to the arrival of a train, and the roadway workers are not using power tools or machinery, the in-plant railroad may assign a qualified employee to serve as a watchman/lookout.
  - i. The watchman/lookout's sole responsibility is to be in a position to watch for approaching trains and warn the roadway workers to clear off the track at least 15 seconds before the arrival of the train.
  - ii. The warning method or device must be easily seen or heard above ambient noise levels.
- b. **Positive Track Protection:** If the roadway workers cannot be clear of the tracks 15 seconds before the arrival of a train, or if they are using power tools or machinery, the switches providing entry into the track they are working on will be lined and locked to prevent on-track equipment from entering the track.
  - i. Only the roadway workers, and their watchmen/lookouts, may lock and unlock the switches;
  - ii. A derail may be placed and locked on the track in lieu of lining a switch;
  - iii. Per FRA, a red flag or red cone will be placed in the gage of the track at the derails or switches that are used to provide roadway worker protection.

## RAILROAD POLICY – 3: HORIZONTAL AND VERTICAL TRACK CLEARANCES POLICY

### 1. Clearances for railroad operations shall be classified as follows:

- a. **Standard Clearance:** At a minimum, six (6) feet horizontally from the outer edge of any rail and at a minimum twenty-two (22) feet vertically from the top of any rail.
  - i. Additional clearance distances are needed on curves because the ends of railcars extend further from the tracks on the outside of a curve, and the middle of the railcar extends further from the tracks on the inside of a curve.
- b. **Close Clearance:** less than horizontal standard clearance, but is sufficient to allow safe passage of the railroad equipment.
- c. **No Clearance:** location where it is not safe for train or on-track equipment to pass due to insufficient clearance from:
  - i. Equipment on adjacent track;
  - ii. Fixed structures adjacent to above the track, including building, fence, signage, poles, power lines, etc.
  - iii. Material stored or placed adjacent to track;
  - iv. Motor vehicles parked adjacent to track;
  - v. Any other obstruction adjacent to track.

**Trains or other on-track equipment must not pass through no clearance areas.**

- d. **Restricted Vertical Clearance:** vertical clearances less than the vertical standard clearance of 22 feet.

**2. Employees are only permitted** to ride on the sides of on-track equipment when there is standard clearance on the side of the track where the employee is riding.

**3. Employees are prohibited** from riding the side of on-track equipment into or through a close clearance area. When a close clearance area is encountered employees must:

- a. Stop movement, dismount equipment and walk through or past close clearance area before re-boarding equipment; or
- b. Stop movement and cross over to opposite side of equipment, if that side has standard clearance.

**4. Close Clearance and No Clearance Remediation:** A risk assessment must be performed that identifies and evaluates all close clearance and no clearance areas, and have the hierarchy of controls applied. Close clearance and no clearance areas shall be eliminated or remediated, as follows;

- a. Permanent Close Clearances (e.g. due to fixed structures):

- i. **Shall be eliminated where feasible. See USW Hazard Alert: [Hazard-Alert\\_Fatal-Incident-Involving-an-In-Plant-Railroad-Conductor.pdf](#)**

- ii. When elimination is not feasible, permanent close clearance areas shall be marked with warning signs: **Close Clearance – Do Not Ride Past This Point.**

- iii. **Retroreflective Foul Point Posts (FPP)** must also be used to mark permanent close clearances. FPPs must be flexible and capable of bending to the ground when stepped on so as not to create a tripping hazard.

- A. Where FPPs are used, their locations must be recorded on a track diagram and must be monitored during regular periodic track inspections.
- B. FPPs that are damaged or missing must be replaced as soon as possible.

- b. Permanent No Clearances due to fixed structures (e.g. buildings, poles, etc.)

- i. Shall be eliminated by removal of the obstruction or removal of the track.

- ii. No clearance areas that cannot be eliminated shall be protected by installation of a bumper block or track barricade placed across track and signage placed in advance stating: **Stop – Track Out of Service.** Where nighttime operations occur, warning lights must be installed.

- c. Temporary Close Clearances/No Clearances due to on-track equipment fouling adjacent tracks at switches/turnouts and/or adjacent tracks with insufficient track spacing.

- i. If a train stops near a switch for a train meet or to be left unattended, it shall stop at least one car-length clear of the switch points and the foul point for the adjacent track. [See: Safety Procedure – 16: Operating Track Switches]

- A. When a train stops near a switch to drop off a crew member to operate the switch, it should stop at least 25 feet from the switch points to avoid crowding the switch.

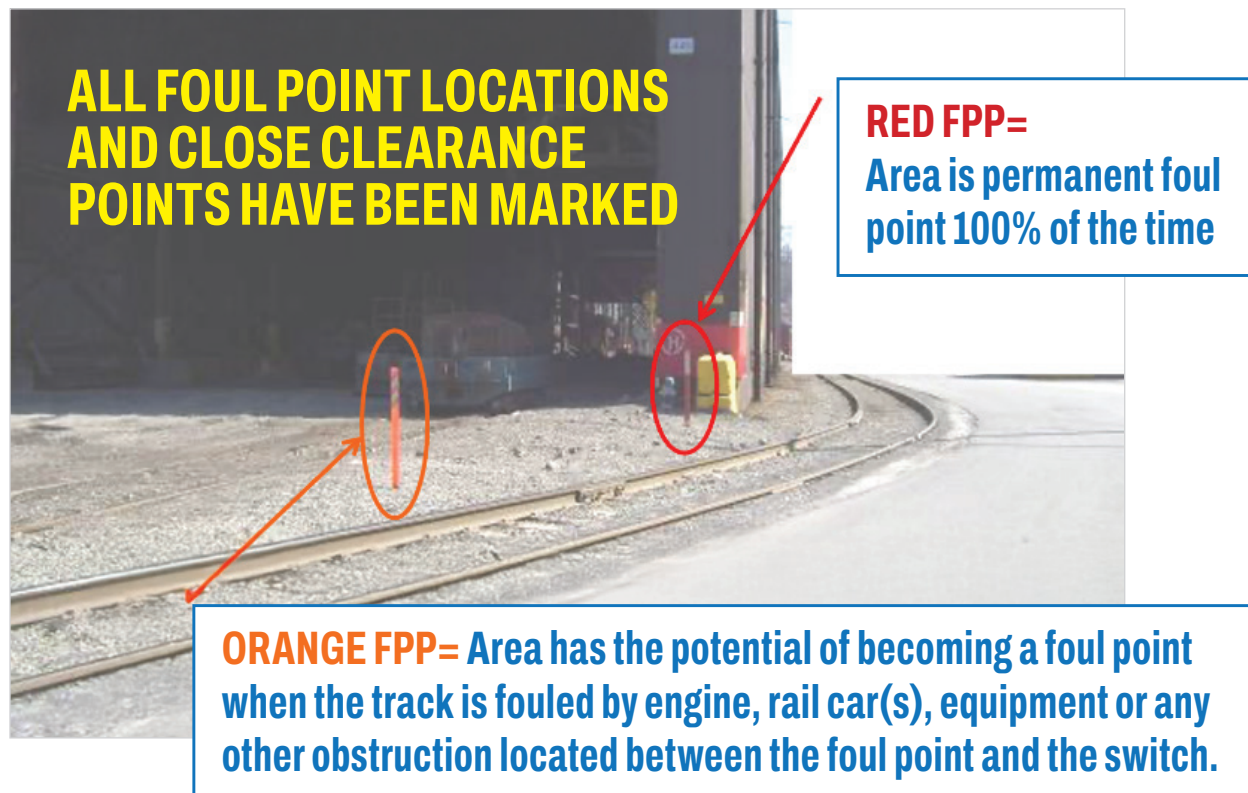
- B. Warnings shall be placed at locations where on-track equipment has the potential to create temporary close clearance and no clearance situations, including, at the foul points of track switches or turnouts, and on adjacent tracks where clearances between the tracks are tight.



**Flexible, Retro-Reflective Foul Point Post (FPP)**

**Warnings may include:**

1. Painted ties (yellow or a bright fluorescent color) or FPPs at least 10 feet outside the foul point of switch/turnout.
2. FPPs in between adjacent tracks that mark temporary close clearances:
  - Must be flexible and bend to the ground when stepped on so as not to create a tripping hazard.
  - Must be a different color than FPPs used for permanent close clearances
3. FPP locations must be recorded on a track diagram, and must be monitored during regular periodic track inspections.
4. FPPs that are damaged or missing must be replaced as soon as possible.
5. Below is an example of the placement of FPPs to mark permanent close clearances (red FPP) and temporary close clearances (orange FPP)



- 5. Restricted Vertical Clearances:** If any restricted vertical clearances exist over any in-plant railroad track, a high-car detector or witness board shall be installed to detect on-track equipment that exceeds the height of the restricted vertical clearance.



- a. The witness board or other safety warning devices shall be capable of warning train crews of any equipment in their train that exceeds the restricted vertical clearance. This warning may be provided by:
  - i. An automated warning system (e.g. radio message, warning lights, etc.), or
  - ii. Having a train crew employee in a position to observe the train passing under the witness board or other safety warning devices, and having the capability to direct the train to come to a safe stop.
- b. The witness board shall be in a location that allows the train crew sufficient time to receive warning of the excessive height car and allow them to bring the train to a safe stop.

**6. Management officials must become familiar with the plate standards of the Association of American Railroads (AAR)** which lists the dimensions of most railcars in North America. e.g. Plate B & C standards in the diagram below) There must be systems in place to monitor the dimensions of cars that are owned or leased or hired by the company, and operated on the in-plant railroad, to ensure they meet appropriate clearance standards as well as employee training and procedures.

Widths at one inch increments in height.  
Top portion of equipment diagrams plates B and C.

Plate B				Plate C			
Height from Rail	Max Width at Height from Rail	Height from Rail	Max Width at Height from Rail	Height from Rail	Max Width at Height from Rail	Height from Rail	Max Width at Height from Rail
FT	IN	FT	IN	FT	IN	FT	IN
10	01	07	04	10	00	07	04
10	00	07	08	10	00	07	08
10	11	07	11	10	04	07	11
14	10	08	03	10	03	06	03
14	09	00	06	10	02	06	06
14	08	00	10	10	01	06	10
14	07	00	02	10	00	09	02
14	06	00	05	14	11	09	05
14	06	00	00	14	10	09	09
14	04	10	00	14	09	10	00
14	03	10	02	14	08	10	02
14	02	10	00	14	07	10	03
14	01	10	04	14	06	10	04
14	00	10	00	14	05	10	00
13	11	10	07	14	04	10	07
13	10	10	06	14	03	10	06
13	09	10	00	14	02	10	00

Diagram showing clearance standards for Plates B & C:

- 10'-8" Plates B & C
- 10'-0" Plates B & C
- 7'-0" Plates B & C
- Plate C: 14'-2", 14'-3", 15'-8"
- Plate B: 13'-9", 14'-3", 15'-1"

## RAILROAD POLICY – 4: HIGHWAY RAIL GRADE CROSSING

### RP-4: Highway-Rail Grade Crossing Policy

**1. Standards of Care:** There are over 160,000 highway-rail grade crossings in the U.S. on public roadways, all of which are subject to Federal Railroad Administration (FRA) safety regulations. The motoring public is accustomed to and relies upon the safety provisions set forth in these regulations. While highway-rail grade crossings located on in-plant / in-mill railroads are typically not subject to these regulations, it is strongly recommended they comply with the standards of care embodied by these federal railroad safety requirements, to the extent feasible, to avoid confusion by the users of the crossings, and prevent fatalities and injuries.

**2. Sounding the Train Horn:** Trains, with a locomotive in the lead, shall sound their horns approaching a highway-rail grade crossing beginning 15 seconds before entering the roadway. The horn sounding pattern should be two long sounds, followed by one short sound followed by one long sound. This horn pattern must be prolonged or repeated until the train enters the crossing.

- a. Whistle posts shall be installed alongside tracks approaching railroad grade crossings at the location where the train horn sounding must begin.



**3. Shoving Over a Crossing:** If a train is shoving railcars over a highway-rail grade crossing that has no active warning devices (i.e. flashing lights or crossing gates) or is only equipped with flashing lights, a train crew employee or other qualified individual shall be on the ground to flag highway traffic. The train should be prepared to stop and not proceed over the crossing until directed to do so by the employee on the ground protecting the movement.

- a. If the crossing is equipped with crossing gates and the gates are seen to be operating properly (i.e. all gates are down and warning lights are flashing), the train may proceed over the crossing without stopping.
- b. Employees shall not ride the outside of any railcar while travelling over a highway-rail grade crossing unless equipped with flashing lights and crossing gates in the down position.
- c. Employees shall not ride on the steps of a locomotive while travelling over a highway-rail grade crossing.
- d. Flat cars can be difficult to see when shoved over a highway-rail grade crossing at night. When flat cars are being shoved over a public grade crossing at night, additional warning measures must be considered, including placement of flares or orange cones across the roadway.

**4. Signage:** Railroad crossing signs shall be installed at roadway/pathway approaches to all in-plant highway-rail grade crossings and pedestrian crossings to alert crossing users to the presence of the crossing.

- a. The preferred signage is a crossbuck sign that conforms to Section 8B.03 or 8B.04 of the Manual on Uniform Traffic Control Devices (MUTCD).
- b. Other generally recognized railroad crossing signage may be used, if determined by an engineering study.
- c. Once installed, signage shall be periodically inspected and maintained during regular track inspections. Vegetation and obstructions shall be controlled to ensure a clear line of sight to signage and crossing signals.



**5. Pavement Markings:** Highway-rail grade crossings over paved roadways shall have stop lines painted on the pavement indicating where vehicles are required to stop. Preferably, placement of the stop lines shall correspond to Section 8B.27 or 8B.28 of the MUTCD, unless an engineering study determines otherwise.

**6. Active Warning Devices (Flashing Light Signals and Crossing Gates):** If crossings are equipped with active warning devices, these devices must be maintained and inspected in accordance with FRA standards embodied in 49 CFR Part 234 Grade Crossing Safety and the crossing equipment manufacturer's instructions.

- a. Only trained and qualified crossing signal maintenance personnel should be allowed to inspect, maintain and repair railroad grade crossing signal systems.

**7. Pedestrian Crossings:** Where pedestrians are permitted to cross the tracks at a highway-rail grade crossing, a designated pedestrian walkway shall be painted along the edge of the roadway in yellow or a high visibility color to identify the pedestrian walkway.



**Pedestrian Crossing: Designated walkway painted on the pavement**

**8. Hump Crossings:** Hump crossings pose a hazard to trucks and trailers with low ground clearance that can cause them to hang up on the track. Hump crossings must be engineered out, where feasible. Hump crossing warning signs must be installed that conform to the MUTCD. Company policy must prohibit use of hump crossings by trucks, trailers and other motorized vehicles that have the potential to become stuck on the hump crossing.



**Hump Crossing Signs  
(The numbers next to the signs correspond to MUTCD signage designations)**

**9. Procedures for Crossing Use:** The company shall publish procedures regarding the safe use of highway-rail grade crossings and pedestrian railroad crossing/pathways.

- a. All plant personnel and contractors shall be trained on the Company's requirements for the safe use of crossings.
- b. The union-management safety committee shall conduct periodic safety audits to ensure compliance with the company's procedures for the safe use of railroad crossings.

## RAILROAD POLICY – 5: REMOTE CONTROL LOCOMOTIVE

### General Instructions:

1. Each in-plant railroad that utilizes one or more Remote-Control Locomotives (RCL) in its operations shall adopt and implement RCL safety standards that are in accordance with the following RCL safety specifications and procedures.
2. Only employees who have been trained and qualified on the in-plant railroad's safety standards may operate a RCL or work with an RCL train crew.

Note: The following terminology

- RCL: Remote-Control Locomotive** – a locomotive equipped to be operated remotely (without an operator in the locomotive cab who is directly using the locomotive controls)
- RCO: Remote-Control Operator** – personnel who are trained and qualified to operate an RCL
- OCU: Operator-Control Unit** – the device or box used by the RCO to operate the RCL

### 3. RCL System Safety Design and Operational Requirements

- a. Each OCU must, at a minimum, have the following features:
  - i. directional control;
  - iv. graduated throttle or speed control;
  - v. graduated locomotive independent brake application and release;
  - vi. train brake application and release control;

- vii. audible warning device control (horn);
  - viii. audible bell control, if equipped;
  - ix. sand control (unless automatic);
  - x. headlight control;
  - xi. emergency air brake application switch;
  - xii. generator field switch or equivalent to eliminate tractive effort to the locomotive; and
  - xiii. audio or visual indication of wheel slip/slide.
- b. Although an OCU can have the capability to control different RCLs at different times, **it must be designed to be capable of controlling only one RCL or one RCL train at a time.**
  - c. An OCU having the capability to control more than one RCL **must have a means to lock in one RCL “assignment address”** to prevent simultaneous control over more than one RCL.
  - d. RCL must respond only to the OCUs **assigned to that receiver.**
  - e. The OCU must be designed to require **at least two separate actions by the RCO:**
    - i. before RCL movement can begin (in order to prevent accidental movement)
    - ii. before changing speeds
    - iii. before applying or changing brake applications.
  - f. **When an OCU's signal to the RCL is interrupted** for a set period, not to exceed five seconds, the remote-control system must cause:
    - i. full service application of the locomotive and train brakes; and
    - ii. elimination of locomotive tractive effort.
  - g. **If an OCU is equipped with an “on” and “off” switch**, the switch, when moved from “on” to “off” position, must result in:
    - i. application of the locomotive and train brakes; and
    - ii. elimination of locomotive tractive effort.
  - h. **Each RCL must have a distinct and unambiguous audible or visual warning device** that indicates to nearby personnel that the locomotive is under active remote control and subject to movement.
  - i. **Each OCU must be equipped with an operator alertness device** requiring manual resetting or its equivalent. It must incorporate a timing sequence not to exceed 60 seconds. Failure to reset the switch within the timing sequence must result in:
    - i. application of the locomotive and train brakes; and
    - ii. elimination of locomotive tractive effort.
  - j. **Each OCU must have a “tilt feature”** that, when tilted to a predetermined angle, must result in:
    - i. an emergency application of the locomotive and train brakes; and
    - ii. elimination of locomotive tractive effort.

k. **If the OCU is equipped with a “tilt bypass” system** enabling the tilt protection feature to be temporarily disabled, the bypass feature must deactivate after 15 seconds, unless reactivated by the RCO.

l. The RCL **must be equipped with a device that causes an application of the locomotive and train brakes** and elimination of locomotive tractive effort whenever the RCL’s main reservoir air pressure falls below 90 psi or when a locomotive protection alarm is activated while the locomotive is in remote operation. The device must need to be manually reset on board the RCL.

m. When the air valves and the electrical selector switch on the RCR are moved from manual to remote or from remote to manual modes, **an emergency application of the locomotive and train brakes must be initiated** to prevent unauthorized use of the system.

n. **Each RCL must be equipped with four (4) emergency stop buttons**, (two on each side of the RCL, on the front and back ends) which shall be clearly marked. The buttons shall be located to allow easy access to ground personnel to activate the button to initiate an emergency stop of the RCL. When an emergency stop button is pressed, it must result in:

- i. an emergency application of the locomotive and train brakes; and
- ii. elimination of locomotive tractive effort.



o. **Each RCO shall be provided with OCU vests** onto which the OCU must be secured. OCU vests must be designed with the following features:

- i. High-visibility material with retroreflective strips, patches and/or markings.
- ii. Several sets of clips that allow securement of the OCU in a position most comfortable and ergonomically sound for the individual RCO
- iii. A “breakaway” safety feature designed to easily break free of the RCO in the event the vest or OCU becomes entangled on equipment
- iv. The OCU vest must be designed to direct the weight of the OCU onto the RCO’s shoulders
- v. Site specific hazards must be considered when selecting an appropriate OCU vest. For example, if the RCO is required to wear flame-retardant and/or chemical-retardant protective clothing, the OCU vest must also be flame-retardant and/or chemical-retardant.

#### 4. Operating Practices

The railroad must establish written standard operating procedures tailored to its RCL operations. RCOs must be trained and qualified on these procedures before being allowed to operate an RCL. At a minimum, these procedures must include the following:

a. **Procedures shall be established** for putting the RCL into remote-operating mode and into manual-operating mode.

b. **Upon going off duty, each RCO must place the RCL in manual operation** and properly secure it, unless control of the RCL is directly given to a relieving RCO.

c. **When operating a RCL, the RCO must not:**

- i. ride on a freight car under any circumstances;
- ii. ride on the bottom step of the RCL;
- iii. mount or dismount moving equipment;
- iv. operate any other type of machinery; or
- v. stand or walk within the gage of the track or foul the track on which the movement is occurring, while physically located in front of the movement.

d. **RCOs must ensure that the track is clear and properly aligned** ahead of the remotely controlled movement while it is underway. Therefore, RCL operations must be operated at restricted speed not to exceed 20 mph, i.e., at a speed that will enable stopping the movement within half the range of vision assuring that all movements are protected.

e. **The RCO must operate only one RCL at a time.**

- i. In-plant railroad management must adopt procedures for 3-Step Protection (Red Zone Protection) to protect personnel who must go on, under or between equipment as part of an RCL train.

#### 5. Security

a. Management must develop and implement procedures for the proper storing and handling of OCUs when not in use or in the operator’s possession.

b. The operation control handles located in the RCL cab must be removed or pinned in place to prevent accidental or intentional movement while the RCL is being operated in remote.

c. The railroad must have strict procedures in place to ensure that only the intended OCUs are assigned to the appropriate RCL.

#### 6. Inspections and Tests

a. The RCL system must be included as part of the daily locomotive inspection, because this equipment becomes an appurtenance to the locomotive.

b. Each time an OCU is used for the first time on each shift, a test of the air brakes and the OCU’s safety features (e.g. tilt switch, alerter device, horn, bell, etc.) must be conducted.

c. The RCL system (both the OCU and RCR), must be designed to perform a self-diagnostic test of the electronic components of the system. The system must be designed to immediately “fail safe” (full service application of the locomotive and train brakes and the elimination of locomotive tractive effort) in the event a failure is detected.

- d. The RCL system components that interface with the mechanical devices of the locomotive, e.g., air pressure monitoring devices, pressure switches, speed sensors, etc., must be inspected and calibrated as often as necessary, but not less than the locomotive's periodic inspection interval. The company must maintain records of such inspections and tests.
- e. OCU vests must be inspected daily. Vests found with tears, broken clips, exposed or protruding metal or plastic slats, or other defects, must be immediately removed from service and replaced.

## 7. Notification of RCL Use and Protection of Workers

- a. Each RCL must have a tag placed on the control stand throttle indicating the locomotive is being used in a remote-control mode. The tag must be removed when the locomotive is placed back in manual mode.
- b. In areas where RCL operations are being conducted, warning signs must be posted indicating that there is no operator in the control compartment of the locomotive. These warning signs must be highly visible and posted at conspicuous locations so as to maximize their exposure to those most likely to encounter RCL operations.
- c. When Blue Signal Protection is required (See: Safety Procedure – 11: Blue Signal and Flag Protection), the locomotive must be placed into manual mode, and be properly secured. The appropriate blue signal protection must then be provided.
- d. Designated at-grade roadway crossings and pedestrian crossings, located in RCL territory, shall be equipped with highly visible warning signs that indicate the locomotive is unoccupied.

### Examples:

“Remote-Control Locomotives Operations: No Personnel in Locomotive” *or*  
 “Remote-Control Locomotive Operations: Locomotive is Unoccupied”

## RAILROAD POLICY – 6: TRACKMOBILE

1. Each in-plant/in-mill railroad that utilizes one or more Trackmobiles in its operations **shall adopt and implement Trackmobile safety standards** that are in accordance with the following Trackmobile safety specifications and procedures.

2. **Only employees who have been trained and qualified** on the in-plant railroad's safety standards may operate a Trackmobile or work with a Trackmobile train crew.

3. **The company shall develop and issue operating procedures** for moving railcars that, at a minimum, include the following:

- a. Daily Trackmobile safety inspection procedures;
- b. Car/tonnage limits for operating with and/or without the use of the train airbrakes (automatic brakes);
- c. Safe operating speeds that consider the grade and curvature of the in-plant railroad's trackage;
- d. Trackmobile and train securement procedures to provide 3-Step Protection (Red Zone – see: Safety Procedure – 4) to protect crew members when working on, under or between on-track equipment;

- e. Trackmobile and train securement procedures for leaving trains unattended;
- f. Proper use of all safety Trackmobile safety devices e.g. audible warnings (horn and bell), headlights, sanders, etc.
- g. The Trackmobile must be equipped with a hands-free radio or radio headset that allows for hands-free radio operation while operating the Trackmobile;
- h. The company's Trackmobile safety procedures shall meet or exceed applicable manufacturer recommendations.

4. **The company must develop and implement** a written Trackmobile training plan for Trackmobile operators, train crews and maintenance personnel with Trackmobile maintenance responsibilities, that includes the following:

- a. Initial training requirements and a training curriculum to qualify Trackmobile operators, train crews and relevant maintenance personnel on all required operating procedures and safety requirements;
- b. Trackmobile inspection requirements for Trackmobile operators, train crews and relevant maintenance personnel;
- c. A schedule for regular periodic Trackmobile refresher training;
- d. Optional refresher training for previously trained and qualified Trackmobile operators and train crew employees who have been away from Trackmobile operations for a predetermined amount of time;
- e. Trackmobile training requirements and curriculum must be reviewed periodically and no less than annually;

5. **Establish procedures and schedules** for Trackmobile safety inspections/audits that include the following:

- a. Monthly safety inspections/audits of Trackmobile operations;
- b. Periodic safety inspections/audits of Trackmobile training;
- c. Tracking of safety inspections/audits findings and action plan to resolve/address captured items

## GENERAL ITEMS

### 1. DEALING WITH WORKPLACE CHANGE

Conditions change regularly. New equipment, changing technology, changed work processes, deteriorating equipment, and a host of other changes can each create new or changed hazards. It's expected there will also be changes to processes, procedures, equipment, chemicals, and to jobs in general – this is why **changes need to be analyzed in advance for their impact on safety and health by a union-management health and safety committee**. Effective railroad safety systems must include a process for assessing and addressing proposed changes to (or new) machinery and equipment, technology, work organization, processes and procedures to review possible safety and health impacts, and make recommendations to address problems identified prior to the changes being made that could negatively impact safety and/or health.

**A union-management health and safety committee must review planned changes** to (or new) machinery, equipment, technology, work organization, processes and procedures to ensure safety and health (e.g. is new or changed equipment designed to prevent falls? Does the change create other hazards? Do changes meet accepted regulatory or voluntary standards and industry practices?). Sometimes these reviews can spot hazardous conditions before the machinery, equipment or processes go into operation, thus preventing injuries and fatalities.

Federal Regulation 49 CFR Part 218, Subpart G, **Train Crew Size Safety Requirements mandates** that general system railroads, **have two-person train crews** except in certain circumstances. In-plant/in-mill railroads, as a standard of care, should not be anything less.

[eCFR: 49 CFR Part 218 Subpart G – Train Crew Size Safety Requirements](#). The rule enhances rail safety by generally requiring a second crew member and emphasizing the importance and necessity of a second crewmember on all trains for Class I freight and passenger trains. **The USW strongly encourages in-plant/in-mill rail operations to voluntarily apply this proper staffing rule** to improve rail safety as some employers have incorrectly forced our members to operate as a single-person operation without performing a rigorous risk assessment, mitigating known risks, or even working with the USW when they must have at least two crew members. A second crew member performs important safety functions that could be lost when reducing crew size to a single person. The final rule as submitted to the Federal Register can be viewed [here](#).

**A union-management health and safety committee must be looking at equipment, technology and proposed changes in work processes before they are implemented** or purchased. Input from union members on a union-management health and safety committee is essential in evaluating the health and safety of workplace and work process change. Those who do the work and those who represent them have invaluable insights into potential health and safety impacts of changes and if and how changes could or should be made. This process helps to identify and address health and safety problems before new equipment is purchased, installed and/or implemented or changes are made (involving “future-fitting” rather than “retrofitting”).

**A union-management health and safety committee must continually act upon worker/union input on workplace change, in addition to new information received from inspections, investigations and other sources.** The changes a union-management health and safety committee should investigate are not limited. They could include introduction of a new piece of equipment or new chemical, a change in a work process or work organization in a particular area or department such as the number of workers assigned to a particular task or job. Regular inspections/audits must be conducted by union and management which are designed not just to identify hazards, but also assess trends and hazard control measures. These trends or hazard control measures could indicate the need for changes going beyond maintenance and mitigation to engineering and design changes. Inspections and rigorous worker-involved audits should identify particular work organization changes (e.g., staffing levels, hours of work, work load, work pace) that may be having negative impacts on workplace health and safety.

**Each railroad safety systems must include an Evaluation of Change by a union-management health and safety committee.** Before a change is finalized, this committee can assist in making sure any new equipment and processes are safer and effective over long periods, and does not create any new hazards.

## 2. THE RIGHT TO ACT AND STOP WORK AUTHORITY PROCESS

Stop Work Authority (SWA) is the right of workers to stop unsafe/unhealthy work and processes, until the potential hazards are thoroughly investigated, and abated to the satisfaction of workers, the union and management. Workers need the right to stop their job/tasks and remove themselves or others in situations when they are uncertain about job safety, unfamiliar with situations, unavailability of appropriate equipment/personnel, or faced



with work situations that they consider present an imminent and serious danger to their life or health, or the life or health of others, as well as the arrangements for protecting them from undue consequences for doing so.

The USW's publication, [Bargaining for Stop Work Authority to Prevent Injuries and Save Lives](#) is intended to help local unions and employers with effective SWA processes in collective bargaining agreements. The Occupational Safety and Health Act (OSH Act) and other laws do not include SWA, how SWA programs are actually common in workplaces, that a voluntary consensus standard supports SWA, as do many safety professionals, how workers face challenges when using SWA, and how workplace health and safety issues, including SWA, are a mandatory subject of bargaining under the National Labor Relations Act. The USW's publication provides a model of a negotiated SWA process and contract language and four checklists to help develop an effective SWA process.

## USW TEMPLATE FOR THE RIGHT TO ACT AND STOP WORK AUTHORITY PROCESS

**1. Health, safety and environmental concerns go before quality, productivity, and profit.** No job/task/operation/process is so important, no order is so urgent, that it cannot be completed in a safe manner. Consistent with this commitment, no employee shall be required or permitted to work under unsafe/unhealthy conditions.

**2. All employees will be informed of the Right to Act and Stop Work Authority process and will be instructed by the employer on how important it is to prevent work-related fatalities, injuries, illnesses, environmental releases, and adverse events, and how critical it is to maintain and respect the process.** The Right to Act and Stop Work Authority is, in part, stopping a job/task/operation/process, etc. that is believed (in good faith) to be unsafe/unhealthy and is also about identifying, preventing and controlling the hazards – short and long term. If employees see something that is unsafe and/or unhealthy, the employer wants employees to say and do something without fear of consequences.

**3. Each employee, in good faith, is empowered to assess each work situation that they believe is potentially unsafe, unhealthy, or in violation of a safety or health policy or safety and/or health standard.** The employee(s) can then stop the job/task/operation/process, etc., and then engage their supervisor and union representative by sharing the concern for their safety/health, and/or the safety/health of others, if the specific job/task/operation/process, etc., were to be performed. The employee(s) should communicate to their supervisor that they are not willing to perform the required job/task/operation/process, etc., because of identified safety and/or health risks that may result in injury to themselves, other employees, the environment or result in damage to the facility.

**4. Upon notification of the concern(s) to their supervisor and union representative,** it is the responsibility of the supervisor, if needed, to assess the situation with the employee(s), consult with additional levels of management and local union health, safety and environment committee representative(s) to review the situation and confirm that the potential risks as identified do or do not exist.

**5. If the safety and/or health concern(s) are not resolved through use of Section 3 above,** the process will continue by engaging the department manager and local union president to assess the situation and communicate their findings to the highest-ranking facility manager. If upon concluding such an assessment, the situation is determined to be potentially unsafe and/or unhealthy, the employee(s) and others who are or could be exposed to the hazard(s), shall be directed by management

to stop work on the job/task/operation/process, etc., until it is safe to do so. The employer's highest-ranking executive of environmental, health and safety and the USW's Health, Safety and Environment Department Director (or designee) are available to assist in this process.

**6. If after an investigation the Employer does not agree that a potentially unsafe or unhealthy condition exists, the union has the right to present a grievance in writing to the appropriate facility manager and thereafter the employee(s) shall continue to be relieved from duty on the task or job. The grievance will be presented promptly to an arbitrator, who will determine whether the employee(s) acted in good faith in exercising their Stop Work Authority (SWA).**

**7. If an arbitrator determines that the employee(s) acted in good faith in exercising their SWA right, the arbitrator shall order that the condition be corrected and that the correction occur before the employee(s) returns to work on the job/task/operation/process, etc., in question. If the arbitrator determines that the employee(s) acting in good faith was not exposed to an unsafe condition or potentially unsafe condition, the employee(s) will return to work, and continue to perform the assigned job/task/operation/process, etc.**

**8. Each use of SWA, including threatened use, must be entered into the facility's electronic reporting system as a leading indicator.** Such situations and all reports will be periodically reviewed by the union-management health, safety & environment committee. The union-management health, safety & environment committee will also review data in the electronic system to assess and recommend improvements as needed facility-wide to the Right to Act and Stop Work Authority policy and process.

**9. All employees shall be trained annually to be competent in carrying out this process.** In addition, new employees, before they begin work, shall be trained to be competent in carrying out this process.

**10. Under no circumstances shall employees be discriminated or retaliated against for using this process.** For the employee(s) exercising their SWA and all employees affected by the SWA, there shall be no discipline, loss of pay, seniority, or benefits during the period of the SWA, even if it is later determined that the alleged unsafe or unhealthy condition did not exist.

**11. Wallet Card - "The Right to Act on Unsafe/Unhealthy Work - Stop Work Authority" card the employer and the union agree to co-sponsor is meant to help engage the workforce.** A wallet card will be issued to all personnel. The facility's highest-ranking manager and local union president will sign the card. On one side of the card it will state, "You have the authority, without fear of discipline or retaliation, to immediately **stop** any work activity that presents a hazard to you, your co-workers, the environment; to **get involved**, question and rectify any situation that is identified as not being in compliance with our Safety and Health Values/Policies; to report any conditions or activities to management and question any work that may cause harm." On the opposite side it will state, "The Right to Act on Unsafe/Unhealthy Work - Stop Work Authority; Health and Safety Shall **Never** be Sacrificed for Profits or Production." and will include employer and union logos as well as a pictogram of a "stop" sign.

The content of this publication, Bargaining for Stop Work Authority to Prevent Injuries and Save Lives is appropriate for in-plant/in-mill rail operations. However, special considerations apply to mining and a few other sectors that may not be covered in this document. For specific questions about Stop Work Authority in these sectors, contact the USW Health, Safety and Environment Department. For information on the right to refuse unsafe work and addressing management retaliation for health and safety activity, see Stand Up Without Fear: Understanding the OSH Act's Retaliation Provisions by the OSH Law Project (2020).

<https://usw.org/wp-content/uploads/2025/03/The-OSH-Act-Toolkit-Understanding-the-Retaliation-Provisions.pdf>

## APPENDICES

# USW HEALTH & SAFETY HAZARD ALERT

### Fatal Accident Involving a Train and Worker on Foot



60 Blvd of the Allies  
Pittsburgh, PA 15222  
safety@usw.org  
(412) 562-2581

This hazard alert is based on an actual incident, and reflects our best understanding of the incident at the time it was written. However, many incidents have multiple causes; this alert may not cover all of them. The purpose of the alert is to illustrate workplace hazards; it is not intended to be a comprehensive report on the incident.

UNION: USW LABEL: 3657

A train of only two engines was heading eastbound at approximately 35 MPH in heavy rain. A worker was walking from the north side of the public crossing to the south side to get to his car when he was struck around 11:30 pm. The engineer did not see the worker on foot, but believed something had happened and brought the train to a stop.

The employee parking lot is on the southwest side of the crossing; the plant is on the northeast side. Workers must walk across a double set of tracks going to and from work. The tracks carry a high volume of trains, making it difficult to cross.

Before the worker attempted to walk across the railroad crossing, a separate train had passed westbound on a parallel track. It appears the worker waited for the westbound train to clear before walking across the first set of tracks and never saw the two-engine train traveling eastbound at the same time the westbound train was clearing the crossing. The crossing was equipped with active warning devices, but the heavy rain and noise from the passing train appears to have created additional hazards and a blind spot. In addition, swing-down barrier gates were only provided in the lanes for oncoming vehicles, even though pedestrians can and do cross the tracks on both sides of the street.



#### Recommendations to Prevent Recurrence:

- Where possible, relocate the employee parking lot to the same side of the tracks as their workplace and explore adding parking spaces around the perimeter of the workplace. This eliminates the hazard.
- Where parking lots cannot be relocated to the same side of the tracks, all involved parties should strive to provide an adequate elevated walkway over the tracks (or tunnels) for persons on foot. The elevated walkway and/or tunnels should be protected from inclement weather and maintained.
- All involved parties should strive to protect pedestrians by installing warning lights, bells and swing-down sidewalk barrier gates on both sides of the street and both sides of the tracks. The sidewalk gates should block the sidewalk on the sides of the street and the opposite side of the existing crossing gates. This should prevent pedestrians from crossing when a train is approaching, but still leave the exit lanes open to prevent vehicles from becoming trapped on the tracks.
- All involved parties should strive to protect pedestrians by installing lighted signs that warn of the approach of a second train. The signs' lights should only light up when a second train is actually approaching and they show which direction the train is approaching from with lighted arrows.
- All involved parties should determine the appropriate rail speed limits at the crossing, including when inclement weather is involved.
- Update training and education programs to include: "Research has shown that the larger an object is, the slower it appears to be moving. When humans see a train approach a crossing, the train appears to be moving more slowly and appears to be further away than it actually is."
- Provide high visibility clothing at no cost to employees.
- Use the safety committee to address hazards, not just inside the workplace, but also in external areas like parking lots and walkways.
- Where possible, provide police presence at crossings during high foot traffic times.

## Fatal Incident Involving an In-Plant Railroad Conductor

A USW member was fatally injured when he was caught in-between the railcar he was riding and a stationary railcar on the adjacent track on the night shift with snow squalls and poor lighting in the area. The conductor was riding on the stirrup/ladder assembly on the northwest side of the front gondola car of a train being pushed to a car storage area. The conductor was following the Safe Operating Procedure that requires rail personnel to not ride on the south side of the car to avoid the “pinch point” of the scale house. For that reason, he was riding on the northwest side of the moving car (opposite from the scale house). Unbeknownst to him and the locomotive engineer, a supervisor had directed the previous shift to park a train of gondola cars on a set of adjacent tracks to the north to save time. That train was made up of non-standard size cars (wider than usual) and was parked in the “foul” (area within four feet of the nearest rail of a railroad track) as directed and stated by the supervisor to his crew. This information was not communicated to the on-coming crew. Non-standard cars have not been stored on the adjacent track in the past due to their wider size, but the supervisor thought they would be able to get ahead of production by doing this.

As the train was in motion, the clearance between the moving train and the stationary railcars narrowed and the conductor was caught in-between the pinch-point between the cars of the two different trains. When the front car of the moving train passed the scale house, the locomotive engineer saw what he believed was a stop signal from the conductor. The engineer stopped the train and dis-mounted the engine. Eventually he and the shift supervisor found the fatally injured conductor pinned between the railcars.

The conductor commonly rides the front side ladder of the railcar to ensure the rails are free of obstructions. The crew had ridden through this area before with railcars in the area, but not with non-standard cars on the adjacent track. The crew had also been down-sized and was now operating as a two-person crew instead of three.



### Recommendations to Prevent Recurrence:

- Eliminate pinch-point areas by applying the Hierarchy of Controls and spacing the tracks further apart.
- Form a labor-management railroad safety sub-committee to evaluate rail yard lighting, potential and permanent pinch-point areas and develop recommendations for improvements/corrections.
- Evaluate rail maps and yards for fixed and/or mobile foul/pinch points. Install safety markers and signs in safe locations.
- Utilize a Management Of Change and Management Of Organizational Change program for process and organizational changes that involves employees and their representatives. Include changes such as downsizing. If the proposed change is not safe, the change must not be made.
- Improve communication methods between shifts, conductors and locomotive engineers.
- Employee training, retraining and evaluations must include job transfers, even if the worker had previously held the job classification.
- Provide all hourly and salary employees with a Right To Act process and annual retraining. All hourly and salary employees must have a procedure and process to report hazards, stop unsafe/unhealthy jobs/tasks and shutdown any process without the fear of retaliation.



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## Spring Failure on a Flat Ramp Telescoping Gangway Causes Severe Injuries

A maintenance mechanic with less than two-years of service in the workplace, working alone, who was new (green) to working with a flat ramp telescoping gangway, was responding to a work order because the equipment was difficult to raise and lower. While attempting to lower the equipment for further evaluation, the equipment suddenly fell to the lowered position, causing him to fall forward. The mechanic then fell through the opening between the gangway and tank car, down the side of the tank car to the concrete ground, resulting in severe fracturing of both arms. With very limited use of one arm, he managed to make an emergency call for help to his co-worker who was in the maintenance shop, by using his radio microphone/speaker that was clipped to his shirt. His co-worker immediately responded to the site, called for emergency assistance, and provided support.

The equipment involved was located at a turpentine unloading platform. It was found to have a crack initiation at the inner surface of the assist spring, and was most likely associated with pitting damage. The fractured surface in the initiation region was oxidized, and contained evidence of beach marks (concentric rings in a fatigue region which resemble tide marks on a beach). These features suggest that the initial mode of failure was fatigue. Corrosion deposits on the inside of the assist spring were more heavily concentrated to one side, corresponding with the fracture initiation region.

Corrosive elements of sulfur, calcium, and potassium were detected from the inner surface deposits. These corrodents are known to attack alloy steel materials.



### Recommendations:

- Audit all flat ramp telescoping gangway platforms for compliance with the manufacturer’s guidelines, and take corrective actions as needed.
- Assess equipment to ensure it is not subjected to hazardous substances or other environmental factors that may cause harm to the equipment and it’s components.
- Develop, establish, and maintain a periodic, preventative, and predictive maintenance program per the manufacturer’s guidelines. Eyebolts, shackles and pins can wear from usage, and should be replaced periodically. Note: for chain replacement, verify chains match the original chain size and length.
- Develop, establish, and maintain an inspection program per the manufacturer’s guidelines for loose and damaged connections, missing and damaged hardware, proper lubrication, and spring adjustments.
- Train all maintenance employees and operators on use, care, maintenance, inspection, operation, and troubleshooting of telescoping gangway platforms using the manufacturer’s guidelines.
- Negotiate ‘working alone’ provisions with employers in collective bargaining agreements so that no employee is working alone in areas where hazardous conditions exist, that endanger their safety where they cannot communicate with others, be heard, or seen, per a union-management risk assessment.
- Utilize a union-management health and safety committee, as well as an education-training committee to assess, and focus on staffing issues that lead to green-on-green hazards. Include seasoned, intermediate, and newer employees in addressing green-on-green issues, as well as understaffing.



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## USW LOCAL UNION MEMORIAL BELLS: Retired and Restored Locomotive Bells/Worker Memorials

### USW LOCAL 309



USW Local 309's memorial bell was dedicated on Workers Memorial Day, April 29, 2024. Its aluminum was made in the Arconic Tennessee Operations facility. The wood used is to encapsulate the steel from the plant's pot rooms to keep workers safe from grounding out. The marble was in an old building that was the office at the South Plant. The bell was taken off a locomotive in the bone-yard that was taken out of service.

### USW LOCAL 1123



### MOURN FOR THE DEAD - FIGHT FOR THE LIVING

Never forgotten, their sacrifice fuels our commitment to protect the living. We mourn, we remember, we fight for a safer future.

*Donated by Metallus to USW LU 1123 Golden Lodge on April 28, 2025*

The bell was purchased because all the locomotives had been sold. The welding apprentice class built the stand, and the memorial bell resides at the union hall.

## USW LOCAL 1196

On February 5, 2005, Brother John Novick was fatally injured in a railcar accident in Brackenridge, PA at the Allegheny Ludlum Corporation. Brother Novick was crushed between two railroad cars as he was riding the lead car.

The membership of Local 1196, along with then-President Walt Hill, decided to do something in Brother Novick's memory. A bell from a retired locomotive was removed and reconditioned by Garry Moran of the Locomotive Repair Shop and dedicated in 2005.

The memorial bell you see here is from the locomotive that was involved in the death of Brother Novick. This memorial bell has been donated to the USW by Local 1196 and the Allegheny Ludlum Corporation.

This memorial bell was dedicated on September 24, 2013, to Brother Novick and our USW brothers and sisters who have lost their lives in the workplace. This memorial bell has been used to commemorate Workers Memorial Day and at the USW International Health, Safety and Environmental conferences in their memory.



## USW LOCAL 979

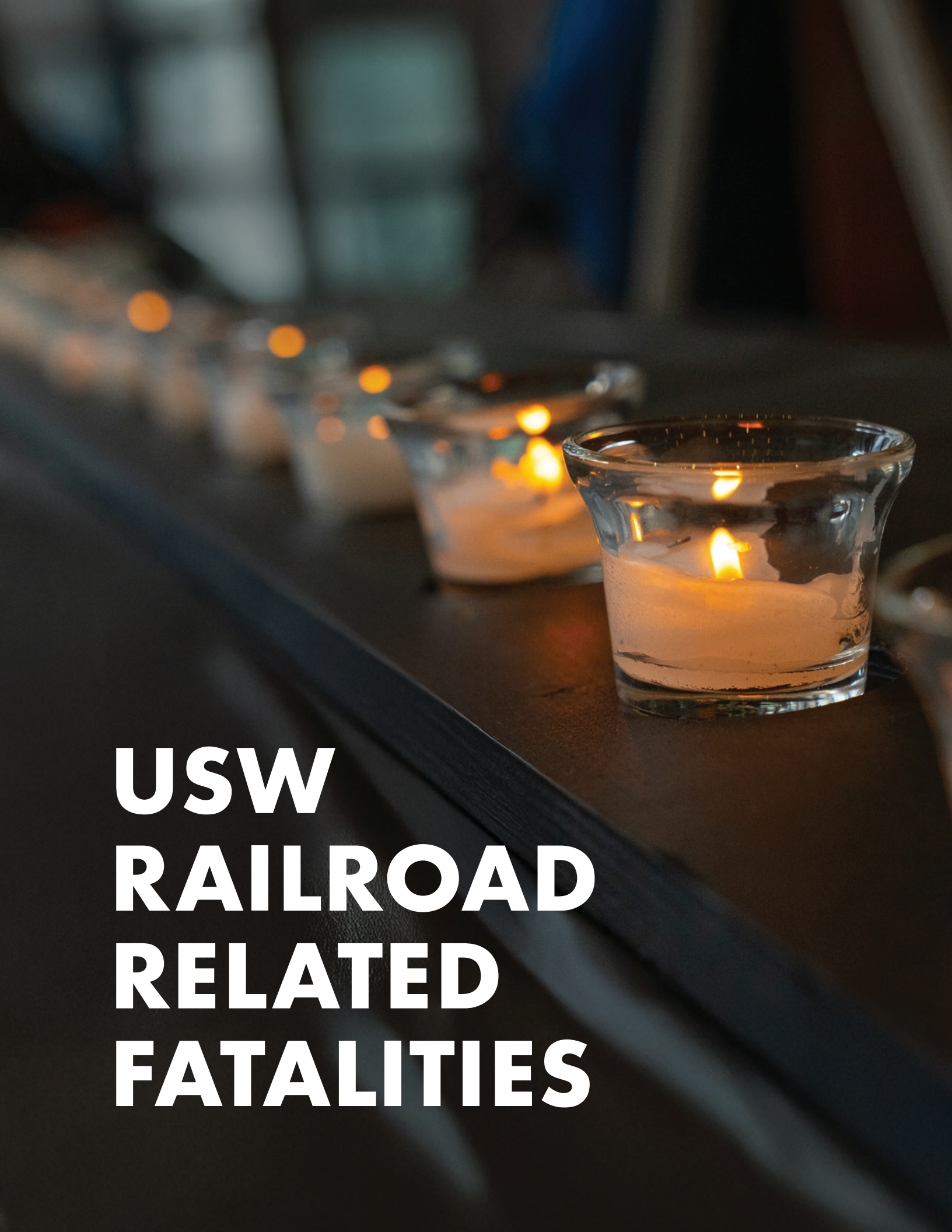
The Local Union Leadership lead by 979 President Dickie Peskar commissioned this memorial bell following the local's involvement on the USW railroad safety project and committee.

On August 20, 2024, the local dedicated the memorial bell to our brothers from Cleveland who lost their lives on the job and to all our USW Sisters and Brothers who made the ultimate sacrifice.

On August 8, 2002, Brother Harry Michael Loew was crushed between two railcars as he was riding the lead car. On February 16, 2013, Brother Randolph Vayda was thrown from the hind end of a shove move and crushed by a rail car.

This memorial bell was donated by Cleveland-Cliffs and designed and fabricated by Brothers Daniel Ford and Frank Sullivan of Cleveland-Cliffs CWRO Railway Locomotive Shop, local 979.





# USW RAILROAD RELATED FATALITIES

## JANUARY 1980 – OCTOBER 2025

This report is a summary of **87 railroad-related incidents resulting in 89 fatalities** in USW-represented workplaces between **January 1, 1980, and June 16, 2025**, as reported to the USW Health, Safety and Environment Department.

The report does not necessarily include all railroad fatalities at USW-represented workplaces, only those reported to the USW's Health, Safety & Environment Department. Some employers are required to report by the union contract; in other cases, the information was sent voluntarily by the employer, the USW staff representative, or the local union. The reporting is probably more consistent for members than for supervisors, contractors and other non-members.

The term USW includes the current USW and all its predecessor unions; however, the records are limited for pre-merger unions other than the USWA so some fatalities may not be listed. The USW remains willing to add railroad related fatalities to this report from local unions, staff representatives and/or employers.

Accident reports are very important. Other local unions can use them to prevent similar accidents. If a USW member, supervisor, contractor, member of another union, or non-union worker is killed at your workplace or dies of an occupational disease, please notify us as soon as possible using the USW's 24-hr Emergency Response Hotline at (866) 526-3480.

**Some accidents may still be under investigation, so this report should be considered preliminary.**

1. September 20, 1980, Grayson Finley, 56, a switchman with 18 years of job experience at **Armco Steel** in Ashland, Kentucky, fell while trying to board a moving locomotive. He was dragged about 25 feet along the ground and died a month later from internal injuries.
2. October 17, 1980, John Callihan, 36, a rigger who worked for 12 years at **Armco Steel** in Ashland, Kentucky, was working on a mold buggy with a co-worker when several other mold buggies started to move toward them. The co-worker yelled and jumped out of the way, but Callihan was crushed between the buggies.
3. October 17, 1980, Herbert Covington, 51, an engineer with 12 years of job experience at **U.S. Steel** in Gary, Indiana, was inside the locomotive in the blast furnace area when a violent explosion occurred in a slag pit, throwing molten metal into the area. He sustained third degree burns over 80% of his body and died the same day.
4. May 25, 1981, Bruce Kresse, 27, an employee of **Philadelphia, Bethlehem and New England Railroad**, was killed when he fell under a train engine.
5. July 15, 1981, Robert A. Schleifer, 57, an employee of **Philadelphia, Bethlehem and New England Railroad**, died after being struck by a rail car near the plant's coke works.
6. December 30, 1981, Lowell Sims, 33, an engineer with less than a year of job experience at **Republic Steel** in Gadsden, Alabama, was riding the front of the lead car of a remote-controlled engine, when the lead car derailed which caused him to dismount or be thrown from the car. He died of massive crushing injuries.
7. February 3, 1982, Lee Parnham, 33, an employee of **Bethlehem Steel** died of head injuries after being caught between a coal car and a coal scale.

8. March 12, 1982, Sean Crawford, 22, a switchman with less than a month of job experience at **National Steel** in Granite City, Illinois, was attempting to mount a dummy car. He reached or leaned around to the front of the dummy car to insert a link into the lead end and rolled under the lead end of the dummy car. An employee who witnessed the accident tried to signal the engineer to stop. It was estimated that Crawford had been rolled along the track by the lead end of dummy car, a distance of 30-feet.
9. April 12, 1982, Ben Flagg, 38, a switchman who worked 20 years at **National Steel** in River Rouge, Michigan, was riding the lead car of seven hopper cars when it derailed, but continued moving until it struck a safety handrail and utility lines, pinning him between the car and handrail.
10. May 17, 1982, Harold W. Grubb, 61, a locomotive operator who worked 30-years at **Armco Steel** in Kansas City, Missouri, was found pinned between couplers of two gondola-type railroad cars. He suffered crushing injuries to the chest. He was switching railroad cars using a remote-controlled locomotive.
11. January 4, 1983, Ernest S. Landis, 34, a locomotive crane operator with 3-years on the job at **U.S. Steel** in Fairless Hills, Pennsylvania, died when he was caught between couplers. He was assigned to pick up a scrap car with a diesel electric locomotive crane. The first attempt to couple failed and the stationary car was propelled in an uncontrolled move as a result of impact. He sustained massive crushing injuries to his abdomen when he was caught between the couplers.
12. December 1, 1983, Lynn Hall, 38, a conductor with 6.5 years of job experience at **U.S. Steel** in Provo, Utah, was trying to uncouple a car next to a loading dock. It is believed that Hall was struck by protruding plates that carried him into a 10-inch wide space between the moving car and the loading dock.
13. August 20, 1984, Joseph Bernal, a conductor at **Inland Steel** in East Chicago, Indiana, was fatally crushed when he crossed in front of a two-man remote-operated moving train. The operator saw the conductor on one side but lost sight of him. The operator moved the locomotive about 75 yards down the track and then saw the deceased.
14. January 22, 1985, Eneley Solis, an employee of **Inland Steel** in East Chicago, Indiana, was caught between two cars when he was requested to open the knuckle of one of the cars, but went in between the wrong cars.
15. July 16, 1985, Riley Lindsey, 56 a conductor at **National Steel** in Ecorse, Michigan, was struck by a steel cable that broke when the engineer tried to move the cars while the cable was still attached. An employee had reattached the cable by mistake.
16. December 15, 1985, Joe LaSalle, 32, a switchman with only two weeks of job experience at **Wheeling-Pittsburgh Steel** in Steubenville, Ohio, was riding on the front end of 13 empty hopper cars when he fell in front of the car.
17. December 27, 1985, James Hall, 59, an engineer with over 24-years of job experience at **U.S. Steel** in Gary, Indiana, was moving a locomotive with cars loaded with bundles of scrap using a remote-control device, when a scrap bundle fell off one of the gondola cars and crushed him.
18. January 10, 1986, Alfred Rojo, a 51-year old conductor at **National Steel** in Ecorse, Michigan, was walking along the track in front of a moving locomotive when he took two steps to his left and was struck by the locomotive.
19. January 16, 1986, Neil Newell, 60, a laborer with 38 years of service with **U. S. Steel** in Provo, Utah was helping a forklift operator free his forklift truck that was stuck in the snow on a railroad track, when he was struck by a moving locomotive.
20. January 27, 1986, George J. Yatsko, 50, a combustion/pump repairman who worked 21 years at **Sharon Steel**, Sharon, Pennsylvania, died after being struck by a free-wheeling railroad car.
21. April 5, 1986, Peter Kovacevic, 61, a conductor with 15 years of job experience at **Sharon Steel** in Sharon, Pennsylvania, died after coming out of a car dumper. He was struck by a free-wheeling railroad car. This accident was only nine weeks after George Yatsko was killed in a similar accident.
22. August 15, 1986, John Bubalo, 46, a switchman with only five weeks of job experience at **Black Lick Railroad** in Johnstown, Pennsylvania, was riding on the lead car when it derailed and shook him off. He was crushed under the wheels of the lead car.
23. October 3, 1986, Willie Phillips, 40, a trestle car operator with over 20 years at **Sharon Steel** in Farrell, Pennsylvania, was unloading ore pellets into a bin at the blast furnace, when the hopper car tipped over, crushing him between the car and a handrail. The pellets on one side of the car were unloaded faster than the other side, making the car unbalanced.
24. June 24, 1987, Caroline Lewis, 47, an engineer with 3 years of job experience at **U.S. Steel** in Gary, Indiana, was operating a remote-control locomotive when she was crushed between a car she had cut loose and the locomotive.
25. June 25, 1987, Charles Fryberger, 34, a conductor with 14 years of job experience at **LTV Steel** in Canton, Ohio, was caught between two railroad cars being coupled by a locomotive.
26. December 7, 1987, Raymond Martin, 33, an engineer with less than four months of job experience at **Armco Steel** in Kansas City, Missouri, was operating a remote-controlled engine when he was struck by the lead car and dragged 43 feet, cutting off his arm and leg. He died as a result of his injuries.
27. August 25, 1988, John Balogach, 50, a remote-control train operator with three years of job experience at **U.S. Steel** in Fairless, Pennsylvania, died while uncoupling buggies. The cars were on a curve, with only five inches between them. On the straightaway, there are 10.5 inches between the cars. His head was crushed between two buggies.
28. June 27, 1989, Michael Mallas, 38, a conductor with 17 years of job experience at **Wheeling-Pittsburgh Steel** in Steubenville, Ohio, was getting ready to couple two cars together when over the radio he shouted, "We've got a runaway!" Moments later, he was found crushed between the locomotive and the lead car.
29. August 3, 1989, Fred Benich, 58, a loader in the shipping department warehouse at **U.S. Steel** in Gary, Indiana, with 10 years of job experience, was inspecting the interior bulkhead sliding door of a boxcar, when a bracket holding the door failed and the 1,500-pound door fell, crushing him.
30. December 20, 1989, B. F. Dubreucq, 44, an engineer with 1 year job experience at **Bethlehem Steel's** Bar, Rod & Wire Division, in Johnstown, Pennsylvania, was part of a two-person crew who were in the process of pulling a string of empty molds. Dubreucq was acting as brakeman and was making a coupling. When the other employee noticed that Dubreucq was not on the step of the bumper car, he applied the brakes which caused the coupling to fail. Dubreucq died when the four wheels of the bumper car passed over him.

31. December 23, 1989, Bill Keizor, 45, a switchman with 1 year of job experience with **Sheffield Steel** in Sand Springs, Oklahoma, was attempting to couple two cars together when his head was caught between the cars.
32. January 4, 1990, Juan Gomez, 61, a maintenance worker at **National Steel** in Zug Island, Michigan, was on his way to the locker room to start work when he was struck by a locomotive on a foggy, rainy morning.
33. March 19, 1990, Leo Ford, 55, a switchman with 20 years of job experience at **Bethlehem Steel**, Burns Harbor, Indiana, was run over by a remote-controlled engine. He and a contractor went to get one of two rail engines that were in the yard. Brother Ford apparently went out to free a jammed switch, and was run over.
34. April 11, 1991, Robert Chandler, 49, a brakeman with 4 years of job experience at **USS/Kobe** in Lorain, Ohio, had thrown a switch and given the "okay" signal by radio communication to the engineer to proceed. A minute later, he was found under the lead car.
35. May 15, 1991, John Perkins, 48, a switchman with 12 years of job experience at **Alcoa Aluminum** in Alcoa, Tennessee, was attempting to put the brake on a runaway car when he fell off and was run over by the car.
36. August 6, 1991, Billy S. Roden, 55, a front-end loader operator with only 1 year of service at **Gulf States Steel** in Gadsden, Alabama, died when a wheel flange pinned his foot and he fell across the railroad track and was run over.
37. February 26, 1992, Joseph Modreck, 35, a conductor with 10 years of job experience with **Wheeling-Pittsburgh Steel** in Steubenville, Ohio, was working with the engineer of a remote-controlled locomotive attempting to couple several gondola cars. He was crushed between the car and the loading dock.
38. March 16, 1992, James Buss, 48, an engineer with over 9 years of job experience at **National Steel** in Ecorse, Michigan, was operating a remote-controlled locomotive when a car derailed. This may have caused him to fall under the car he was riding.
39. July 7, 1992, Donald Tate, 44, a switchman with 8 years of job experience with **Erman Corp.** in Kansas City, Kansas, was riding on a locomotive crane that was moving a large piece of scrap with a clamshell bucket, when the crane bumped a car on another track. This caused a piece of scrap to fall, pinning him between the crane and the piece of scrap.
40. July 27, 1992, Darnell Dunn, 42, a weighmaster with 22 years of job experience with **Schuylkill Metals** in Baton Rouge, Louisiana, was attempting to inspect the inside of a boxcar when the boxcar door fell. The top rail that the door travels on was missing.
41. January 30, 1993, David Miller, 29, an electrician with only one month of job experience at **EMI Corp.** in Erie, Pennsylvania, was in the process of unjamming a gondola car when the car broke free, knocking him down and running him over.
42. October 7, 1993, Robert Misner, 53, a locomotive switchman with 33 years of service at **U. S. Pipe** in Burlington, New Jersey, was riding on the front of a locomotive when it pushed a car into another car that was left on the track by Conrail. Upon impact, Misner fell between the locomotive and the car.
43. February 22, 1994, Lonnie Sloan, Jr., 61, an engineer with 26 years of service with **Armco Steel** in Ashland, Kentucky, was operating a remote-controlled switch engine while switching two foreign rail cars from a drag of eight cars. He was apparently struck by or caught between two of the rail cars.
44. October 5, 1995, Clyde Fielder, 30, a brakeman for **Transtar Blackstone Group**, an in-plant railroad company that operates in the U.S. Steel plant at Fairfield, Alabama, died when he was struck by a 30-foot high steel door while riding on the side of a railroad car that was entering a building. The door was blown closed by the high winds of a severe storm. He was a member of Local Union 1013 in District 9.
45. October 13, 1995, Barry Grove, 26, an engineer on a remote-controlled locomotive at **Lukens Steel** in Coatesville, Pennsylvania, died when he was pinned between two railroad cars that collided where two tracks came together. He had 8 years of company service and was member of Local Union 1165 in District 10.
46. January 9, 1996, Frank Huddy, 53, a solution man at **LTV Steel** in Aliquippa, Pennsylvania, was killed while driving a forklift between two buildings while crossing the in-plant railroad tracks. His fork truck was struck by a moving rail car. The rail car was being moved by Aliquippa-Southern Railroad. He had 21 years of company service and was a member of Local Union 1211 in District 10.
47. February 28, 1997, Donna Sue Brusman, 28, a switchman on a remote-controlled train, at **Newport Steel** Corporation in Wilder, Kentucky, was fatally injured when she was crushed between two rail cars because of insufficient clearance. At the time of the fatal accident, she was training another employee in addition to her normal duties. Sister Brusman was a member of Local Union 1870 in District 8.
48. May 13, 1998, Larry D. Stubblefield, 40, an employee of **USX** in Gary, Indiana, was killed when he was struck by a remote-controlled train while passing between cars to observe where deflected iron from a ladle was going for safety reasons. Brother Stubblefield was a member of Local Union 1014 in District 7.
49. December 22, 1998, Harold Anthony, 51, an employee of **LTV Corp.** in East Chicago, Indiana, was killed when he was hit by three or four railroad cars after falling/jumping during a derailment. Brother Anthony was a member of Local Union 1011 in District 7.
50. September 8, 2000, David Jones, 25, a coke oven benchman at **NKK Corp. (Japan); National Steel, Subsidiary; Granite City Steel Division** in Granite City, Illinois, was seriously injured when he was caught between the hot car and a handrail. He died on October 8 from his injuries. He was a member of UFCW Local Union 50, which represents workers in the coke and ironmaking areas of the plant. The remaining bargaining unit employees at Granite City Steel Division are members of USW Local Union 67 in District 7.
51. November 22, 2000, Thomas Schwartzkopf, 39, a laborer at **NKK Corp. (Japan); National Steel, Subsidiary; Granite City Steel Division** in Granite City, Illinois, was killed when he was caught between a coal hopper and a Larry Car in the coke plant. Brother Schwartzkopf was a member of UFCW Local Union 50. The remaining bargaining unit employees at Granite City Steel Division are members of USW Local Union 67 in District 7.
52. December 17, 2001, Wanda Smith, 41, a press operator for **Bethlehem Steel** in Coatesville, Pennsylvania, was crushed to death when she was caught between the transfer car peel and plate on the press bed while performing the final flattening of plate products. Sister Smith was a member of Local Union 1165 in District 10.
53. August 7, 2002, Jerry Ridgeway, 50, an employee of **Rail Link**, the switching contractor that handles rail cars at the General Chemical River Corp.; Trona Mine in Green River, Wyoming, died after being pinned between two railcars. Bargaining unit employees at the mine are represented by Local Union 15320 in District 11.

54. August 8, 2002, Harry M. Loew, 53, a train engineer at the **International Steel Group** plant in Cleveland, Ohio, was killed when he was pinned between two rail cars. The ISG plant was formerly part of LTV Steel, Local Union 2265. Brother Loew was a member of an independent union that had just voted to merge with the USW.
55. November 28, 2002, Randy Moehl, 47, a hot metal helper at the **Bethlehem Steel Burns Harbor Plant** in Chesterton, Indiana, was killed when he was struck by the last submarine car on a remote-controlled train he was operating near a basic oxygen furnace. Brother Moehl was a member of Local Union 6787 in District 7.
56. June 28, 2004, Edward Hall, 52, a hot metal operator for **International Steel Group Inc.** in East Chicago, Indiana, was killed by a torpedo car at the hot metal transfer station. He was a member of Local Union 1011 in District 7.
57. September 5, 2004, Roman Gomez, 21, an employee of **St. Louis Auto Shredding Co.** in E. St. Louis, Illinois, was crushed to death by a railroad tank car being cut up for scrap. He was a member of Local Union 4294-01 in District 7.
58. September 19, 2004, Andrew Kenmuir, 30, a welder for **National Steel Car Ltd.** in Hamilton, Ontario, was struck and killed by a hydraulic jack that had failed while he was working inside a gondola rail car. He was a member of Local Union 7135 in District 6.
59. September 23, 2004, Jeffrey Jackson, 41, an employee of **Donaldson, Lufkin & Jenrette, Inc.;** Mueller Company in Chattanooga, Tennessee, was struck by a rail car. He was a member of Local Union 3115 in District 9.
60. January 17, 2005, Kenneth Cesaro, 54, an employee of **Wheeling-Pittsburgh Steel** in Steubenville, Ohio, was killed in a railroad accident. He was a member of Local Union 1190 in District 1.
61. February 3, 2005, David M. Prengel, 46, a switchman for **United States Steel Corp.** in Granite City, Illinois, was killed when a cargo train crushed him against the wall of a loading dock. He was a member of Local Union 1899 in District 7.
62. February 5, 2005, John Novick, 50, an employee of **Allegheny Technologies, Inc.;** **Allegheny Ludlum Steel Div.** in Brackenridge, Pennsylvania, was killed in a railroad accident. He was a member of Local Union 1196 in District 10.
63. June 6, 2005, Eddie Hicks, an employee of **Arizona Chemical** in Savannah, Georgia, was burned over 30% of his body when hot liquid spilled out of a railcar. He died January 16, 2006 due to complications. He was a member of Local Union 9-00795 in District 9.
64. February 27, 2006, Dennis Girard, an employee of **Canadian National Railway Company** in Quebec, Canada, was killed. He was a member of Local Union 2004B in District 5.
65. December 27, 2006, Brian Pluck, a brakeman, of **MultiServ Corporation (a contractor for ArcelorMittal; Mittal Steel USA)** in Coatesville, Pennsylvania, was fatally injured when he was assigned to move scrap cars from the scrap yard to the melt shop. The locomotive operator was in the cab. The locomotive was at the tail of a nine car drag consisting of gondola and bucket cars. Pluck attempted to board the first car in the drag, a bucket car. There were no stirrups or handrails on the side of this car, and the only practical way to board it is by standing on the cutting lever, in front of the car. It appears he may have slipped off and under the moving car while boarding it. Alternatively, he could have boarded it while it was stopped and slipped off after it began to move. The flat bed of the car provides a platform to stand on, but it is precarious since the bucket

slopes outward and there are no secure handholds. It's also possible that he stumbled under the wheels while walking beside the car. The accident occurred in the early morning and lighting in the area was poor, so Pluck might not have been visible even if there had been a clear line of sight from the locomotive.

66. January 12, 2008 Jason Belko, 23, an employee at **ArcelorMittal; Mittal Steel USA** in East Chicago, Indiana, was fatally injured while operating a locomotive which collided with a large truck. He was a member of Local Union 1011 in District 7.
67. May 23, 2010, Steve Mangona, 61, an employee of **Unilever** located in Hammond, Indiana, was fatally injured when he was struck when removing an agitator from a railcar. He was a member of Local Union 7-336 in District 7.
68. May 23, 2011, Jeff Lesidic, a contractor was fatality injured while working at **Monongahela Iron** in Monongahela, Pennsylvania, as he sat in his truck at a railroad crossing of plant entrance. Bargaining unit employees are represented by Local Union 3403 in District 10.
69. June 22, 2011, William Wise, 55, an employee of **BP Oil Refinery** located in Carson, California was fatally injured when he was crushed between a tank car and rail stop. He was a member of Local Union 675 in District 12.
70. July 14, 2011, Rick McColl, 53, an employee of **CN Rail** located in Toronto, Ontario was fatally injured while performing track maintenance, when he was suddenly struck by an oncoming passenger train. He was a member of Local Union 2004 in District 6.
71. January 30, 2012, Michael M. Shoemaker, 55, a conductor and member of UTU Local 1383, was fatally injured in a switching accident at **U.S. Steel's Gary Works**. He was wedged between two freight cars. He was a 10 year employee, of **Gary Railway**, which is owned by **U.S. Steel**. Bargaining unit employees are represented by Local Union 2695 in District 7.
72. February 16, 2013, Randy Vayda, 50, an employee of **ArcelorMittal** located in Cleveland, Ohio was fatality injured when he fell off a railroad that ran over him. He was a member of Local Union 979 in District 1.
73. February 14, 2014, Frank Johnson, 62, an employee of **Republic Steel** located in Lorain, OH, was fatally injured while riding a train car when it derailed crushing him to death. He was a member of USW Local Union 01104 in District 1.
74. July 22, 2015, Clemit Long, 60, an employee of **M & G Polymers** located in Apple Grove, West Virginia, fell on to the railway and was crushed as he was run over by a railcar. He was a member of Local Union 00622L in District 8.
75. September 18, 2015, Velma Perkins, 51, an employee of **Domtar Paper Company** located in Ashdown, AR, was riding the lead car of a four-boxcar train being shoved into a warehouse when the lead boxcar struck a freestanding overhead building structure constructed over the track. The lead boxcar was six inches taller than the normal "Excess Height Car" that is typically used at the mill. The freestanding structure, called a "shed," was heavily damaged and Sister Perkins was found deceased underneath the lead boxcar. The bargaining unit employees are represented by USW Local Union 13-01327, District 13.
76. March 5, 2017, Tim Dagon, 42, an employee of **US Steel** located in Granite City, Illinois, was severely injured when he fell off a moving railcar. He later died as a result of his injuries. He was a member of Local Union 3312 in District 7.

77. April 20, 2017, Roland Gaudette, 59, Jake Galeazi, 20, and Clement Reti, 61, all employees of **Western Forest Products** located in Woss, British Columbia were killed when eleven loaded railcars uncoupled and rolled down the track. The loaded railcars hit a derail causing them to temporarily go off the track before the speeding cars later jumped back onto the track. The loaded rail cars then continued down the tracks, gaining speed until they collided with occupied engineering equipment. Three workers were fatally injured and two others were seriously injured. The 11 loaded railcars and engineering equipment continued rolling downhill until encountering a left-hand curve where seven railcars derailed and stopped. Four loaded railcars and the engineering equipment continued downhill until encountering a right-hand curve, at which point the remaining cars and equipment derailed and came to a stop. Numerous factors were found in the cause of this accident including: the lead truck of the lead car derailed as intended, but was damaged by the cars, rendering it inoperative, and the derail had an insufficient number of spikes and was situated on deteriorated, rotting softwood ties; the reload staff had not been formally trained on the use of any visual check to verify the coupling; the coupler locking block had been previously repaired in a permissible configuration, but the timing of the coupling was delayed from this repair configuration, and did not drop fully into place. The three deceased workers and two seriously injured workers were members of Local Union 1-01937 in District 3.
78. October 31, 2017, Frank Leasure 62, an employee of **AS America Inc. dba American Standard**, located in Alliance OH, was leaving work, and waited for a westbound train to pass in heavy rain and winds. After the train passed, he began to walk towards the employee parking when he was struck by a hidden eastbound Norfolk Southern train. He was a member of Local Union 01538 in District 1.
79. April 2, 2019, Edwin Fleming, 49, an employee of **Arcelormittal** located in East Chicago, IN, was caught in a close clearance pinch point when the locomotive he was operating came in contact with rail cars on the adjacent track causing fatal injuries. He as was a member of Local Union 1010 in District 7.
80. August 17, 2020, Ronald Skaggs, 58, an employee of **Pixelle** located in Chillicothe, Ohio, was struck by and crushed by a boxcar coupled with a chlorate tanker car while riding on a locomotive. The boxcar and the chlorate tank were located on a runaround track, and the locomotive was located on the main track. He was a member of Local Union 731 in District 1.
81. April 2, 2021, Jermichael Collins, 37, an employee of **ABC Coke** located in Birmingham, Alabama, was riding on the side of a railcar, when he was crushed between the car he was riding and the stationary car on the adjacent track. He was a member of Local Union 12136 in District 9.
82. October 28, 2022, Richard Garza, 65, a contractor for **PSC Group** was fatality injured in a railcar accident while working at **ExxonMobil** located in Beaumont, Texas. Around midnight, PSC Group train 3832 struck and killed a train conductor while reversing southward inside the plant on Track 7. Before the accident, the conductor, part of a four-person PSC Group train crew, was protecting the switching movement of the train, which consisted of one locomotive and 19 tank cars, to place the rearmost car near the end of Track 7 for product loading. The bargaining unit employees are represented by Local Union 13-00243 Unit 02, District 13.
83. March 7, 2023, Louis Shuster, 46, a conductor for **Norfolk Southern** was fatality injured when he was struck by a vehicle while riding a shove move over a crossing at Cleveland Cliffs located in Cleveland, Ohio. The bargaining unit employees are represented by USW Local Union 979, District 1.

84. May 19, 2024, Gregory Budd, 43, a member working at **Nutrien/Potash Corporation of Saskatchewan Inc.** located in Rocanville, SK, Canada, was trying to dislodge a stuck railcar chute gate when he became entangled in a remote railcar “progressioner,” and was dragged underneath the railcar. The employees at this location are represented by USW Local Union 7916-\*\*, District 3.
85. September 17, 2024, Luke Lumley, 44, a member working as a train engineer at **Ontario Northland Transportation Commission** located in North Bay, ON, Canada was fatally injured in an accident at the North Bay train yard. There were no witnesses, and the security cameras didn’t provide any usable footage of the accident. Brother Lumley ended up underneath the rail cars, and was discovered by a new coworker who was still being trained. The employees are represented by USW Local Union 1976C-43, District 6.
86. October 22, 2024, Karel Munoz Rosales, 38, a contractor working at **HollyFrontier El Dorado Refining dba Holly Sinclair Refining**, located in El Dorado, KS was fatally injured while operating an 18-wheeler pulling an empty flatbed trailer when he pulled up to a railroad crossing inside the refinery and began to cross. The truck stopped and he tried to reverse, but he was unable to get unstuck from the tracks when a southbound Burlington Northern Santa Fe train struck the passenger side of the semi. The employees at this location are represented by USW Local Union 241, District 11.
87. June 16, 2025, Micheal DeWaine Townsend Jr., 39, a member working at **Transtar Transportation** located in Fairfield, AL as a footboard yardmaster was fatally injured during switching operations at US Steel’s Flintridge Yard. The incident occurred during a shoving movement involving two remote-control locomotives and 11 railcars transitioning from track 1 to track 4. The footboard yardmaster, acting as the crew foreman, was riding on the ladder rungs on the west side of the lead railcar when he struck a stationary, bowed-out railcar on adjacent track 3 due to temporary close clearances created by the structural condition of the parked railcar and reduced track centerlines. The yardmaster had aligned the switch, instructed the remote-control operator (RCO) to begin movement via handheld radio, and at some point during the move, instructed the RCO to stop. The RCO placed the train into emergency braking, and shortly afterward, the injured yardmaster requested medical assistance over the radio. Emergency responders arrived quickly and transported him to a local hospital, where he succumbed to his injuries en route. The crew at the time consisted of one RCO and two footboard yardmasters. Weather conditions were dark with intermittent showers and a temperature of 71°F.

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