



WINTER OPERATIONS

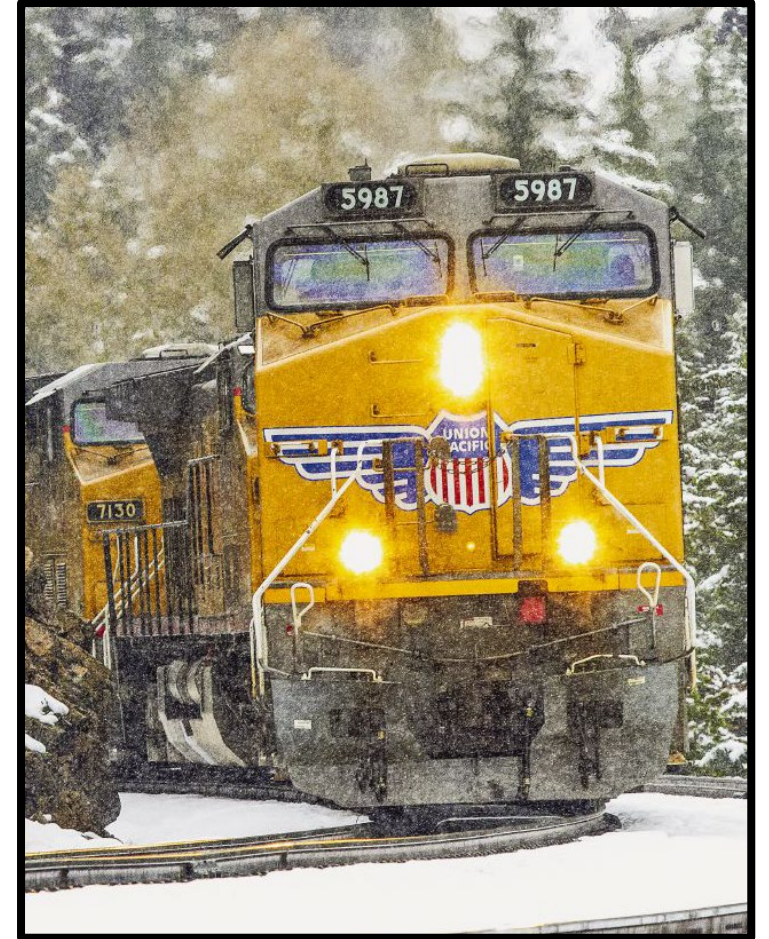
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Best Practices at Customer Facilities



Overview of Winter Considerations

At Customer Facilities

- Clean inside flange-way of rail to prevent road crossing derailments
- Be alert and check road crossings regularly
- Vehicle traffic at crossings compounds issues
- Being prepared for winter weather can help you avoid **Not Prepared for Service** charges



Right of Way Clear of Snow and Ice

Ensuring snow and ice are cleared from tracks, switches and right of way

Cleared Tracks and Right of Way



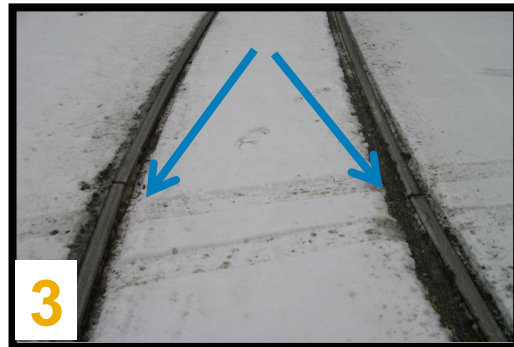
Uncleared Right of Way



- Clearing snow and ice from **tracks and switches** helps prevent derailments.
 - Clearing snow and ice from the **right of way area next to the tracks** assures crews will be able to safely switch your location.
 - Customers are responsible for removing ice and snow in the walking paths.
1. Properly cleared tracks and right of way.
 2. Uncleared right of way, which creates unsafe conditions for crews accessing rail cars.

Road Crossing

Removing Obstructions



- 1 & 2: Industry road crossing compacted with snow. Snow obstructing the flange-way.
- 3 & 4: Same crossing after being cleaned.
- 5: Example of how wheels climbed rail at industry road crossing and derailed the locomotive.
- 6: Accumulated snow and ice obstructed the wheel flange-way.

Truck Crossings

Compacting Issues



- 1: Rail flange-way of industry crossing needs to be cleaned before Union Pacific can safely deliver to the facility.
- 2: Road crossing compacted and industry switch buried under snow, both can cause a derailment.

Industry Switches

Winter Considerations



- 1: An industry switch that should be properly cleaned out before use.
- 2: Example of how snow and ice can accumulate between rails.
- 3: Debris that should be swept and chipped away to ensure good point made when switch thrown.
- 4: Snow and ice build up can cause a gap for wheel to pick up switch.

Industry Switches

Winter Considerations



To ensure a proper switch point is made, the sections of the switch highlighted above need to be cleaned.

- These photos show different angles of the section that needs to be cleaned.

Industry Switches

Winter Considerations



- 1: It may be necessary to chip away compacted snow and ice off the tie plate to get the switch to latch and get a switch point that does not gap.
- 2: These movable parts of the switch also must be cleaned out and free of debris to properly throw the switch.

Preventative Maintenance

Mitigating Derailment Risks



- 1: Movable point under rail is “cribbed” out and free from obstructions.
- 2: To operate properly, metal bars between two switch plates need to move freely under rail when switch is thrown.
- 3: Movable parts of switch have been cribbed out.
- 4: Switch that has not been cribbed out.

PRINTABLE CHECKLIST

[Download the Winter Weather Action Plan](#)

Winter Weather Action Plan for Rail Shippers



TAKE THESE STEPS TO KEEP YOUR RAIL-SERVED FACILITY SAFE AND OPERABLE DURING THE WINTER MONTHS

Steps to Take Before Winter Weather Arrives

Inspect Gutters, Drains and Walkways

- Check gutters and drains to make sure they aren't blocked or leaking, which may result in the formation of icicles that could fall and cause injury or obstruct track.
- Inspect walkways and clear any debris or clutter to ensure snow can be safely removed once it falls.

Check Crossings, Track and Structures

- Clean all switches, derails, frogs and flangeways.
- Check for proper drainage around switches and rails.
- Remove debris on and beside tracks; debris in these areas can become hidden tripping hazards after snow falls.
- Repaint and place clearance cones on the tracks to make clearance points visible after snow falls.

Prepare Your Equipment

- Check to see that all gates and locks are functioning properly before snow hides potential hazards.
- Purchase de-icer to free up locks in case they freeze.
- Ensure all snow and ice removal equipment is in good working order and you have plenty of de-icing supplies on hand.

Review Your Snow Removal Plan

- Before a storm arrives, be sure everyone knows the proper steps to take following the storm.
- Hold a job briefing with your local railroad crew to share your action plan.
- Review the impacts of previous winters to determine any new processes and resources needed to be properly prepared.

Steps to Take After a Snowstorm

Clear Walkways

- Remove snow and ice around your facility to ensure employees at your company and the railroad stay safe.
- This includes removing snow from the walking path next to tracks.

Clear Switches, Track and Structures

- Ensure switches and derails are operable, clear of snow and ice, and are not frozen. Switches are most susceptible to snow and ice build-up, which can cause delays and even derailments.
- Use track switch heaters, crib heaters and hot air blowers to help keep switches clear and operational.
- Ensure rods are clear and operable.

Check and Clear Crossings and Flangeways

- Check for and clear crossings of snow and ice.
- Pay special attention to places where cars, equipment and foot traffic may compact snow and ice. Compacted snow and ice on tracks can cause derailments.
- Flangeways at road crossings should have clean grooves to reduce the potential for train wheels to derail.

Regularly Inspect Track

- Inspect track frequently throughout the winter and repair defects immediately to prevent broken rail that can lead to derailments.

Note: Track inspections are even more important during extreme temperatures. Metal contracts in cold weather and expands in heat, which means temperature fluctuations can cause small cracks that can eventually lead to broken rail. This is especially true for welded joints, which are particularly vulnerable.

Inspect Equipment and Remove Snow

- Check all gates and locks to ensure rail crews can operate properly.
- Remove snow from gates, walkways and tracks.

Provide Adequate Clearance

- Make sure snow piles are placed at least 12 feet away from tracks and crossings.
- Do not pile snow where it restricts visibility. Ensure rail cars on site are clear of built-up ice and snow.

Preparedness Pays Off

Following these best practices can prevent derailments at your facility, expedite local service recovery times and keep both your employees and railroad employees safe.

Union Pacific Help Lines

- Customer Care and Support for assistance specific to your shipments: 800-272-8777
- Response Management Communications Center (RMCC) emergency hotline to report emergencies: 888-877-7267
- Non-emergency hotline to report non-emergency situations involving Union Pacific, like a temporary shutdown of operations: 800-848-8715

