Facility—Cold Weather Preparation

From The NPCA Safety Committee

Preparing a manufacturing facility for winter is crucial to maintaining productivity, protecting equipment and ensuring employee safety. Here's a guide to key steps for winterizing a facility:

1. Heating Systems and Insulation

- **Inspect and Service HVAC Systems:** Ensure all heating systems are in good order and get them serviced before temperatures drop. This includes cleaning or replacing filters, inspecting ducts and checking thermostat controls.
- **Add or Upgrade Insulation:** Proper insulation in walls, doors and windows helps retain heat and reduce energy costs. Make sure the windows and doors are sealed and weather-stripped.
- **Space Heaters in Vulnerable Areas:** In large facilities, portable heaters can help keep isolated areas warm but ensure their safety-certified and positioned to prevent fire hazards.

2. Protecting Pipes and Water Systems

- **Insulate Pipes:** Wrap exposed pipes with foam insulation, especially those near exterior walls. Frozen pipes can burst and disrupt operations, making this a critical issue.
- **Maintain Indoor Temperature:** Keep areas with water lines above freezing to prevent pipes from freezing.
- **Drain External Water Lines:** For any outdoor faucets or water lines that won't be used in winter, drain and shut them off to prevent freezing.

3. Facility Layout and Workspace Adjustments

- **Rearrange Workspaces if Necessary:** Move workstations or equipment closer to heat sources, if possible, especially if you have areas prone to cold drafts.
- **Add Floor Mats and Anti-Slip Surfaces:** Winter weather brings moisture, ice and snow, which increases the risk of slips and falls. Anti-slip mats and appropriate footwear policies can enhance safety.
- **Clear Paths and Emergency Exits:** Make sure snow removal plans include regular clearing of outdoor walkways, loading docks and emergency exits.

4. Equipment Maintenance

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- **Winterize Outdoor Equipment:** Fuel-operated machines, forklifts and other outdoor equipment should have a winter-grade lubricant and be checked for antifreeze levels.
- **Calibrate and Inspect Temperature-Sensitive Equipment:** Some machinery can be impacted by temperature changes. Verify any equipment that might be affected to prevent malfunctions.
- **Stock Extra Supplies:** Cold temperatures increase the likelihood of equipment breakdowns and delayed shipments, so keep extra supplies, spare parts and maintenance tools on hand.

5. Energy Management

- **Optimize Lighting and Heating:** Make sure lighting and heating systems are on timers or occupancy sensors to prevent waste in unoccupied areas.
- **Seal Air Leaks:** Check for drafts around doors, windows and loading docks. Sealing leaks can significantly reduce heating costs.
- **Implement Energy-Efficiency Practices:** Limit use of high-energy equipment to peak times or shift operations where possible to take advantage of off-peak energy rates.

6. Employee Preparedness and Safety

- **Safety Training for Winter Hazards:** Conduct training sessions on cold-weather safety, including handling slippery conditions, staying warm and recognizing symptoms of hypothermia.
- **Provide Winter Gear:** Supply personal protective equipment suitable for cold environments, like insulated gloves, jackets and non-slip footwear.
- **Encourage Hydration and Breaks:** Cold weather can reduce thirst signals, so encourage hydration and provide warm break areas to maintain employee health.

7. Emergency Preparedness

- **Review Emergency Plans:** Go over emergency response plans with employees to cover potential issues such as power outages or sudden snowstorms.
- **Stock Up on Winter Supplies:** Have de-icing materials, shovels, flashlights, backup generators and other emergency supplies ready.
- **Develop a Snow Removal Plan:** Coordinate snow and ice removal with a team or service to keep parking lots, loading areas and walkways safe and clear.

8. Monitoring and Adjusting as Winter Progresses

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- **Track and Address Issues:** Keep a checklist of winter-related maintenance tasks and track any issues that arise.
- **Monitor Utility Usage:** Watch for spikes in energy consumption and adjust accordingly to maintain efficiency.

By systematically preparing the facility and prioritizing safety, you can minimize the impact of winter on operations and productivity.