To The Point
Cold Weather Preparedness

CHUBB®

Winter weather can cause damage and disruption to your business. Many storms are accompanied by dangerously low temperatures and sometimes by strong winds, ice, sleet, and freezing rain. Follow these best practices to prepare for winter weather and help minimize its impact on your facility, employees, and business continuity.

As Cold Weather Approaches

- Restore or provide heat to buildings to maintain a minimum temperature of 40°F.
- Ensure all doors, windows, skylights, ventilators and shafts are weather-tight to prevent cold air from entering any part of the building. Check areas of recent construction.
- Maintain a list of contractors, equipment/parts suppliers that can respond to building freeze-up problems.
- Maintain a list of employees with contact numbers to be utilized in the event work is cancelled or delayed. Identify employees who can assist with recovery efforts.
- Track National Weather Service updates (warnings / watches) for the latest storm information or listen to a National Oceanic and Atmospheric Administration (NOAA) weather radio or other local news channels.
- Create an emergency preparedness kit with at least three-day supply of non-perishable food and bottled water, flashlights, and a battery-powered radio.

Walking Surfaces

- At building entrances, provide moisture absorbent mats, rugs, or runners to reduce the exposure of wet and slippery floor surfaces and have available caution signage (e.g. Wet Floor).
- Clear storm drains of debris, which can impede the flow of runoff water and create sources for ponding of water.
- Prior to the winter season, arrange for snow removal to clear premises and access roads. If snow removal is performed by your own personnel, have sufficient snow removal equipment (plows, snow blowers, shovels, salt/sand/ ice melt, etc.) available and ready for use. Maintain a list of alternative contractors.

Risk Engineering Services

Reduce your company's vulnerability to a winter storm by taking action before and throughout the cold season.

- Determine where the piles of snow removed from parking areas are to be stockpiled. If possible, place stockpiles on a slight down slope away from the parking area and pedestrian walkways. Communicate these plans with snow/ ice removal contractors before a storm.
- Mark and identify concrete tire stops or landscaped islands in parking areas (e.g. with small colored flags.) When covered by a few inches of snow, these pose an unseen and dangerous trip and fall hazard.

Building Equipment

- Inspect all emergency power sources such as generators to assure proper operation.
- Inspect emergency heating systems to assure proper operation.
- Maintain adequate fuel supplies and reserves for primary and emergency purposes.
- When additional heating is required, maintain at least three feet of clearance between the heat source and all combustible materials.
- Ensure that all temporary heaters are UL listed and fitted with automatic high temperature and tip-over shut off devices.
- Ensure that idle cooling equipment such as cooling coils, chillers, and compressors are drained and/or installed in areas with heat. Cooling equipment operating year-round must have operating and de-icing procedures implemented to prevent freeze-ups and ice damage.
- Shield equipment and inventory that is located directly below susceptible frozen pipes with water resistant coverings.
- Add listed/approved heat tracing to process systems piping that are susceptible to freezing.

Fire Protection Systems

- Provide 24 hour security with hourly fire watch rounds while electrical power is off.
- Check all coolant levels, fuel supplies, batteries, and diesel driver conditions where necessary for fire pump(s). Run driver for 30 minutes to verify operating condition.
- Verify that sprinkler system water gongs and fire department connections are self-draining.
- All wet sprinkler systems, wet standpipe systems, and other protective systems with piping located in areas that are subject to freezing and cannot be adequately heated or heat traced should be shut off, drained, and tagged to follow Chubb impairment procedures. Provide 24 hour security with hourly fire watch rounds in any areas where sprinkler systems have been impaired.
- Add listed/approved heat tracing to protective systems piping that are susceptible to freezing.
- Provide heat to maintain at least 40°F in all rooms or areas containing wet pipe sprinklers, risers, valve closets, wet standpipes, or fire pumps.
- Keep snow and ice clear from access ways, control valves, fire hydrants, hose cabinets, smoke/heat vents, water motor gongs, and fire department connections.
- Remove any water accumulation from a dry pipe valve system through all low point drains, hose headers, fire pump headers, priming water drains, or valve pits.
- Ensure that no sprinkler heads are installed less than three feet from heaters or heat-producing equipment/ appliance.
- Conduct specific gravity testing for all anti-freeze containing pipes and/or equipment.
- Inspect and flush water tank heating systems to ensure proper operation. Maintain tank temperatures above 40°F.

- Test and inspect all low temperature alarm devices.
- Position flags, pendants, or markers to identify the location of yard hydrants, post indicator valves, or other equipment at risk of being covered by a heavy snow fall.
- Where sprinkler systems have frozen, close the main valve before thawing the system to prevent water damage if pipes/fittings have cracked. Thaw system and then open the main valve slowly with the assistance of "spotters" looking for leaks throughout the building. Shut down the system immediately if leaks are noted, and follow impairment procedures.
- Cap off or remove piping where ruptures have occurred. Isolate these areas, provide impairment precautions, and return the system to service as soon as possible.

Roof Areas

- Identify reputable resources (staff, contractors, and equipment suppliers) to remove large accumulations of snow from the roof to prevent collapse.
- Prior to the storm, inspect roof drains to ensure they are clear of debris and fully functional. Before allowing employees access to roofs, implement a Fall Protection Program that meets OSHA standards.
- During the storm, initiate a periodic roof inspection program to monitor the conditions on the roof and drains. Special attention should be paid to the following:
  - Check multi-level roof sections for drifting snow
  - Areas where immediate roof bracing/ support is necessary
  - Use salt around drains to keep snow/ ice accumulations from freezing
  - Large accumulations on long expanses of unsupported roof areas
  - Avoid overloading isolated areas during the clearing process by removing snow in a systematic manner
- Heat tracing can be used to ensure drain risers do not become re- plugged by ice after they have been cleared.
- Remove ice from skylights and around large heating, ventilation and air conditioning equipment units, as well as facades, penthouses and parapets.
- Remove ice buildup along the eaves/ troughs and edge of roof line.
- If roof is pitched and without drains, open paths to eaves to ensure drainage and prevent ponding.
- Take care to not damage roof coverings during snow/ice removal. Avoid using ice picking tools. Do not attempt to remove ALL snow or ice down to the roof covering. This will help to avoid damaging the roof membrane.

Resources

National Oceanic and Atmospheric Administration (NOAA)
www.NOAA.com

National Weather Service
www.weather.gov

OSHA Quick Takes: Fall Prevention
www.osha.gov/SLTC/fallprotection/index.html

Winter Weather Safety and Awareness
www.nws.noaa.gov/om/winter/index.shtml

Connect With Us

For more information about protecting your business, contact your local Chubb Risk Engineer or visit us at www.chubb.com/engineering.

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