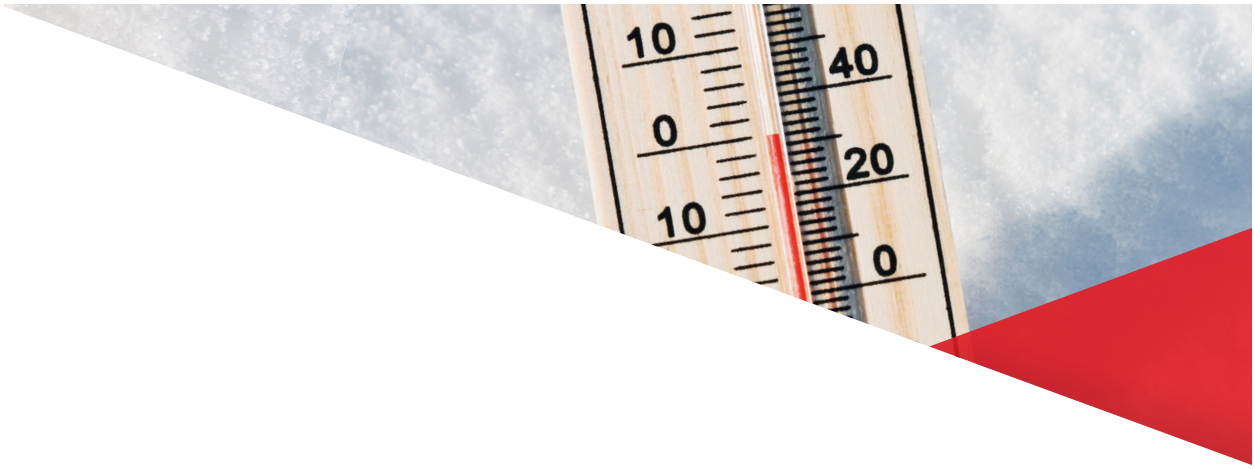

CNA

Risk Control

Resilience Checklist for Winter Weather

Winter weather events such as snow, sleet, freezing rain and even severe cold snaps have the potential to disrupt many communities and businesses each year. However, there are steps that business leaders can take to be better prepared to protect their workforce and operations. Consider the following actions to minimize impacts/losses to a business before, during and after the event.

Before winter weather impacts your organization:

- ☐ Establish winter weather procedures:
  - Confirm that an adequate supply of snow/ice melt is readily available.
  - Verify snow/ice removal contracts are in place and current.
  - Determine availability of supplemental heating equipment and fuel for property "cold spots," which can be areas where rapid heat loss occurs, such as loading docks and entry doors. Supplemental heating may also be required for critical operations due to sudden heat loss from a power outage or system failure.
  - Designate staff to salt walking surfaces during freezing rain, sleet or snow events.
  - Ensure adequate supplies of fuel are on hand for boilers, heaters and snow removal equipment.
- ☐ Service all heating systems. This includes small heaters in vestibules, pump rooms, valve enclosure hot boxes, gravity tanks and mechanical spaces.
- ☐ Inspect the roof, drains, scuppers, gutters and downspouts to ensure water can easily flow off the roof. Make sure water from downspouts flows away from the foundation and does not flow onto walking surfaces where it may freeze.
- ☐ Inspect and maintain the building shell – especially doors, windows and louvers for mechanical spaces. Ensure windows and doors close tightly. Caulk, insulate and weather-strip doors. As appropriate, close and seal dampers, louvers and vents not needed for building systems.
- ☐ Identify building areas that are unusually difficult to heat or that lose heat rapidly.
  - Install thermometers for temperature monitoring during cold spells and monitor temperatures every few hours – especially when the building is not occupied.
  - As appropriate, add supplemental heating and lift ceiling tiles to allow heat into concealed areas.
- ☐ Keep loading dock doors closed and tightly sealed when not in use.
- ☐ Evaluate the risk(s) to equipment, processes and piping that contain or use water or other liquids subject to freezing.

☐ Drain and winterize cooling towers.

☐ Review and update winter weather preparedness procedures to ensure staff members are designated to monitor weather forecasts and take action.

☐ For buildings with **wet-pipe fire suppression systems:**

- Provide adequate heating to prevent freezing during severe, protracted cold periods, especially in attics, under floor spaces, entries, stair towers, shipping rooms and penthouses.
- Where sprinkler piping is above false ceilings, ensure that concealed spaces receive sufficient heat by dropping ceiling tiles and providing supplemental heat.
- Ensure vestibule heaters are functional. Consider opening interior doors to allow heat to flow into the vestibule area.
- Look for isolated drafts or cold air leaks into areas or spaces where there are sprinklers or sprinkler piping.
- Maintain extra heat during periods of extreme cold to keep the sprinkler piping from freezing.
- Enclose piping exposed outdoors in heated, weather-tight materials.
- If interruption of heating drops property interior temperatures close to 40 degrees Fahrenheit:
  - Contact a sprinkler contractor to drain the water from wet pipe sprinkler piping. If not done, ice plugs can obstruct the piping or damage fittings and sprinklers, and sprinkler piping can fail.
  - Report the sprinkler impairment to CNA at impairment@cna.com or call 866-467-2479.
  - Notify the local fire department of the impairment.
  - Implement impairment protocols, including curtailing all hazardous operations and posting a continuous fire watch.

Important: Never use open flames or torches for thawing frozen water pipes near combustibles or buildings.

☐ For buildings with **dry-pipe fire suppression systems: (Dry pipe systems may freeze due to water collecting in improperly pitched pipes, failure to remove accumulated water from low point drains, or failure to drain the system properly after the valve has tripped).**

- Have dry pipe sprinkler systems serviced to make sure piping is dry.
- Install valve drains at all low points that cannot be eliminated. Pay special attention to low points under stairs or platforms.
- Clearly identify all low point valves and establish a process to drain them at least monthly during winter months. Minimize condensation within piping by locating compressed air intakes in a cold, dry atmosphere.
  - Avoid warm, damp areas, since moist air condenses in the sprinkler piping and collects at low points where it may freeze.
  - Consider installing air driers on the air intake or use a dry nitrogen gas generator in place of compressed air.
- Repair/replace/refasten broken, missing or loose pipe hangers for proper pitch of sprinkler piping and good drainage.
- Check heaters in dry pipe valve enclosures. Keep temperature at or above 40 degrees Fahrenheit. The valve enclosure may be heated electrically from permanently mounted heaters under thermostat control set at or above 40 degrees Fahrenheit. Steam or hot water heating systems from boilers (on a 24-hour basis) may also be used.
- Put a thermometer in the enclosure and check it at least daily or install a temperature-signaling device connected to and monitored by a central station alarm service.
- Listed and approved heat tracing (also known as heat tape) may be used.

☐ For buildings with **antifreeze fire suppression systems:**

- Have antifreeze systems tested to ensure the solution concentration is adequate to prevent freezing.
- Verify valves are open to antifreeze system.

☐ For buildings **with gravity/suction tank water supplies:**

- Do not allow ice inside or outside the tank, or on any part of the tank structure. Ice formation from leakage on the outside of the tank is dangerous. As the auto-fill valve continues to supply water, ice may continue to build up and the weight of the ice and water could cause a collapse.
- If ice is forming on the exterior of a gravity tank, protect walkways or roadways below from falling ice.
- Heating devices should keep water temperature in the tank at or above 42 degrees Fahrenheit. Check water temperature at least daily or install a temperature-signaling device connected to and monitored by a central station alarm service.

☐ For buildings with **fire pumps:**

- Keep pump rooms heated above 40 degrees Fahrenheit, especially in detached buildings.
- For diesel pumps, follow the manufacturer's advice on room temperature.
- Check pump house temperature at least daily or install a temperature-signaling device connected to and monitored by a central station alarm service.
- Protect incoming supply lines (suction source) from freezing. If suction is taken from open water, make sure that the piping and intake are located completely below frost level underground and deep enough to prevent obstruction by ice.
- Keep intake screens clear of ice obstructions.

While winter weather is impacting your operations:

☐ When possible, coordinate site incident response team activities to:

- Review developments:
  - Monitor utility impacts to water, sewer, power, internet and gas supplies for your operations.
  - Monitor news agencies and directions from local officials.
  - Monitor storm intensity and forecasts for flooding to understand potential impacts.
  - Monitor your property for roof leaks, fire, structural damage, security, flooding, etc.
- Manage the organization's response:
  - Communicate the status of operations and encourage employees to report their status to supervisors as needed.
  - Prepare to manage workforce impacts and support affected employees.

After winter weather conditions have passed:

☐ Perform a facility assessment to identify any damage, issues or concerns.

☐ Immediately notify CNA's Claims team of any damage.

☐ Maintain emergency and standby power systems until power is restored.

☐ Communicate the status of operations to employees and encourage employees to report their status to supervisors.

☐ Implement business continuity and crisis management plans to restart operations.

To learn more about managing your risk and increasing efficiency, visit cna.com/riskcontrol (U.S.) or cnacanada.ca (Canada).