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Winter Preparedness

Why Is a Winter Preparedness Plan Needed?

Extreme cold weather conditions are occurring more frequently and over a greater portion of the U.S., and their impacts to businesses are growing. Many of the negative consequences from cold weather events, including snow and ice accumulation, freezing liquid-filled pipes, blocked roof drains and need for additional heating devices, can be eliminated, or at least their impacts reduced, with proper planning.

This document focuses on winter preparedness from the perspective of property loss mitigation. There are additional benefits that can be derived from a proper winter preparedness program beyond property loss mitigation (e.g., Life Safety, Productivity).

Developing a Winter Preparedness Program

At a high level, the development of a Winter Preparedness Plan should include:

- A written plan, including actions to take before, during and after a winter event, in a standalone document or incorporated in a location's Emergency Response (ER) or Business Continuity (BCP) plans.
- Training and review of the plan should be conducted annually as is done for the ER and BCP plans.
- A detailed list of key vendors, contractors or services likely needed to recover from a winter event.
- Personnel assigned to monitor weather reports and advise management and operations of potential upcoming weather events and forecasts.
- Establishing responsibilities, either internally or with vendors, to handle snow removal from roads and roofs, maintaining operation of fire system devices such as control valves and hydrants, and other process safety devices (explosion venting).
- Developing means of reliable and complete communication with the staff.

Action Items to Consider in Your Plan

Below is a list of key actions that should be considered in your plan development, although it is not meant to be a comprehensive list. Your personnel should evaluate the relevance of the actions listed in relation to your facility and look for other actions that should be included along with determining when to execute and frequency for each action. These actions are grouped into three categories: those associated with your building, your facility/process equipment and your fire system equipment.

Building (including Roof):

- Ensure all buildings are "weather tight." Be sure to close all windows, doors, vents, etc., and seal any openings in exterior walls, ceilings/roofs and floors to prevent exposure to outside air.
- Verify the indoor temperature for all heated buildings is maintained above 50°F. If needed, provide thermometers in key areas that could be exposed to freezing temperatures or provide low building temperature supervision or hourly recorded inspections for all such building areas.
- Evaluate measures needed for areas around doors and openings (e.g., dock doors) to ensure proper building temperature is maintained above 50°F, especially those that are operated frequently.
- Use portable heaters only if necessary and schedule periodic monitoring to verify they are operated safely with adequate clearances to combustible materials.

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- Inspect roofs for any obvious structural or maintenance issues, and repair as needed such issues as cracked or bent beams, joists or columns, rusted or deteriorated decking, cracked or deteriorated roof coverings and areas subject to water ponding.
- Verify all roof drains, drainpipes and gutters are free of debris and will provide adequate water drainage.
- Based upon your roof's snow load capacity, be prepared to remove excessive snow buildup during cold weather when necessary.

Facility/Process Equipment:

- Inspect all heating systems to ensure proper operation (i.e., heating & process boilers, furnaces, space heaters, etc.).
- Inspect all process, water, fuel oil, steam and condensate lines subject to freezing for proper insulation or heat tracing.
- Verify heat-tracing systems are operating properly.
- Confirm adequate fuel supplies are available, including that needed for standby.
- Check alternate fuel systems for proper operation.
- Drain any water-laden equipment or piping located in unheated areas.

Fire System Equipment:

- Inspect wet pipe sprinkler systems to ensure that areas are maintained above 50°F and that concealed spaces and areas along exterior walls are adequately heated.
- Inspect dry pipe sprinkler systems to ensure valve enclosures are maintained above 50°F, that water is drained from low points and that air or nitrogen supply is adequate to prevent tripping.
- Test the freezing point of solutions in antifreeze sprinkler systems and adjust solution strength or refill as necessary.
- Inspect fire hydrants and fire department connections to ensure water is fully drained, caps are in place and hydrants are marked for easy location during heavy snowstorms.
- Inspect water tanks to ensure they are full by overflowing and that they are properly heated or equipped with low temperature devices to sound an alarm.
- Inspect fire pumps to ensure that the pump house/room is maintained above 50°F, the diesel engine heaters operate properly, the diesel fuel tank is full, the diesel engine batteries are fully charged and the charger operates properly.

Executing Your Plan

Lastly, your plan should detail activities that need to occur before, during and after a cold weather event. Again, our list below is not meant to be a comprehensive list but should be evaluated as to its applicability to your facility as well as other actions that you identify that should be included.

In the Fall / Before Any Cold Weather Event:

- Execute your plan actions that were identified to be once a season or prior to first cold weather event.

During the Cold Weather Event:

- Execute your plan actions that were identified to be performed during a cold weather event.
- If possible, emergency response personnel should remain at the facility and prepare to respond.

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- Monitor weather reports for information on potential cold weather damage, access to property, utility outage, etc. Provide periodic updates to management and maintenance personnel.
- Monitor snow loads on roofs, especially areas subject to drifts. Remove snow and ice as permitted from roads, roofs, gates, doorways, outdoor sprinkler control valves, fire hydrants, explosion vents, etc.
- Periodically inspect all space heaters to verify they are operating safely with adequate clearances to combustible materials.
- Monitor key areas that may be exposed to freezing temperatures and conduct hourly-recorded inspections for all areas/buildings subject to freezing.

After the Cold Weather Event:

- Secure the site to prevent unauthorized entry.
- Organize and prepare emergency crews for salvage and cleaning operations.
- Call in key personnel and notify contractors to begin major repairs.
- If safe to do so, conduct an immediate damage assessment, paying attention to any damage to the building or process/production equipment, status of utilities (electricity, gas, water, compressed air, HVAC, etc.), notify utility companies of any outages or damage.
- If possible, maintain fire protection equipment by isolating damaged sections, then make repairs and restore systems to service as soon as possible.
- Initiate salvage operations.
- Review the effectiveness of the winter preparedness plan and revise as needed.
- Claim reporting info for AON Programs:

  McNeil & Company
  Call: 800 822 3747 ext. 525
  Email: loss_notice@mcneilandcompany.com

Making the effort to develop your Winter Preparedness Plan and train your personnel accordingly will allow your management and operation teams to be confident that they are prepared for whatever issues arrive in a future cold weather event.

Contact Arch Property Risk Control (ArchPropertyRC@archinsurance.com) should you need any assistance or advice.

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