



Don't Let Severe Winter Weather Put Your Business in a Deep Freeze!

In 2011, early snowstorms in the East and West caught many business owners by surprise. Autumn is the best time for businesses to begin preparing for the arrival of freezing temperatures, snow and ice that may damage commercial property and interfere with daily operations. Milder fall temperatures make it easier to inspect your premises and conduct routine maintenance and repairs, which can help prevent costly damage and a lengthy shutdown.

The following checklist from IBHS will help you identify your winter weather maintenance/repair priorities and includes links to articles that provide greater detail about specific tasks.



ROOFS AND GUTTERS

- Find out how strong your roof is and its capacity for snow.**

Record snowfalls have resulted in roof collapses on businesses from Arizona to New England. Fall is a good time to have your roof inspected to find out if it's adequately designed to withstand the snow falls that can realistically be expected in your area. A structural engineer can determine the maximum loads your roof can withstand, as well as provide practical solutions to improve roof strength. Learn more about preventing roof collapse at disastersafety.org/freezing_weather/reducing-roof-risks/.

- Inspect gutter hangers, spikes, fasteners, seams, guards and downspouts, for securement.**

Heavy snow or ice can cause gutters to weaken and sag, leading them to break away from the building and allow for water intrusion.



Your gutters may be severely damaged if you don't secure them before heavy snow falls.

- Inspect gutters for debris, vegetation, and the accumulation of granules from asphalt shingles.**

All of the materials listed above can trap snow and ice and add to the loads on the gutters, which may cause them to detach and increase the risk of water damage. The most effective way to clear gutters is to use one of the tool kits available at hardware stores, which will greatly reduce the labor involved.

- Take action to prevent Ice Dams.**

Ice dams are ridges of ice that form at the edge of a roof or around drains and prevent melting snow from draining off the roof. The water that backs up behind this "dam" can leak into the building and cause damage to walls, ceilings, insulation and other areas. Long-term ice dam prevention involves removing or relocating heat sources that are installed in open areas directly under the roof and/or increasing insulation above top floor or attic ceilings. In the short term, business owners should create and implement a preventive roof maintenance plan that involves periodically inspecting the roof drainage system for proper flow including drains, scuppers, gutters and down spouts to minimize any obstructions that can lead to ice dams. Learn more about preventing ice dams at disastersafety.org/freezing_weather/preventing-ice-dams-on-businesses.

PIPES AND SPRINKLERS

Protect pipes against freezing.

Frozen/burst pipes are the leading cause of property damage from winter weather. This is because water expands as it freezes, placing substantial pressure on, and weakening, the pipe material. While prevention of freezing pipes requires careful attention to temperature and water flow throughout the winter, actions taken in the off-season can reduce the likelihood of problems and make monitoring during the winter easier. Learn more about preventing frozen pipes at disastersafety.org/commercial_maintenance/freezing-pipes-prevention.

Monitor water leaks.

A monitored automatic excess flow switch can be placed on the main incoming domestic water line to provide early detection of a broken pipe or valve when the space is unoccupied.



The photograph above shows an example of a monitored automatic excess flow switch that can alarm you of a possible broken pipe or valve.

Monitor interior temperature changes.

Interior building temperature can be monitored by a central monitoring company to ensure prompt notification if the interior of the building reaches low temperatures during after hours, power outages or idle periods.

Protect plumbing in unoccupied spaces.

For unoccupied buildings, insulation and/or heat trace tape with a reliable power source may be installed on various indoor wet sprinkler system piping. This includes main lines coming up from underground passing through a wall as well as sprinkler branch lines.

Protect unheated rooms.

UL-approved gas or electric unit heaters can be installed in unheated sprinkler control valve/fire pump rooms. If back up power is provided, the heaters should also be connected to this power source.

Monitor fire sprinkler systems.

Indoor and outdoor fire protection sprinkler systems should be monitored by a constantly attended central station to provide early detection of a sprinkler pipe rupture due to freezing.

- Outdoor fire protection sprinkler systems susceptible to freezing temperatures should be dry type or preaction.

Drain outdoor irrigation / water systems.

To avoid the greater likelihood of frozen pipes in your outdoor water systems, drain outdoor irrigation sprinkler systems by:

- Contacting a qualified service contractor to winterize (and in the spring check up/turn on) the sprinkler system; or
- If do it yourself (DIY) is for your business, there are certain minimal measures that should be taken:
 - Turning off the main supply valve.
 - Protecting above ground backflow preventers and piping with insulating blanket.
 - Identifying and opening the drain plug which may be at the back flow preventer or in the basement.
 - Be sure to drain all the water from the backflow, piping and sprinklers - any water remaining in the PVC piping will expand, freeze, and crack piping.
 - Allow the system controller / clock to run to keep parts in good working condition.

OPERATIONAL ISSUES

Create a snow removal plan.

To keep your business operating after a major winter storm, it is important to provide safe access for employees, customers, and suppliers. Shovels, manpaws, and snowplows are great for entrances, sidewalks and driveways, but snow removal equipment and any outside service contracts should be in place prior to the first snowfall. When considering the use of contractors:

- Look for an established, licensed and bonded professional.
- Check references.
- Ask to see the contractor's certificates of insurance. Make sure that coverage for liability and workers' compensation insurance is current.

- In certain circumstances following heavy or repeated snow, it may be necessary to remove snow from your roof in order to reduce the chance of a roof collapse. Snow removal equipment meant for pavement should never be used on the roof since they can damage the roof cover system. For safe removal that won't endanger you or damage your roof, use a snow rake with a long extension arm that will allow you to remove the snow while standing on the ground or hire a snow removal contractor.



When looking for a snow roof rake, be sure to get one that can be extended long enough for you to remove snow while remaining on the ground.

□ **Plan for alternative power supplies.**

In recent major winter storms, the most significant economic loss has been linked periods of extended power outages that resulted in food spoilage, interruptions of other critical business functions, and often the loss of customers. Permanent or portable generators can help alleviate this issue and enable businesses to continue operating some or all of their electronic equipment. This will minimize down time due to power loss. Learn more about safely operating generators at disastersafety.org/commercial_maintenance/commercial-generators-an-integral-part-of-any-business-preparedness-plan.

□ **Create a business continuity plan.**

Whether severe winter weather damages your property, or only impedes employee access to your facility, business continuity planning can help you to avoid shutting down or slowing down your operations. Like the structural maintenance and repairs outlined in this article, it is essential to plan for business disruptions before they occur. Now is the best time to conduct tests to ensure that any unexpected challenges are dealt with before a major storm shuts down your office.

- Make plans now on how you will notify employees of building closures.
- If employees are able to work from home, measures should be taken to ensure that they will have access to all the resources necessary for performing their daily tasks.
- The Insurance Institute for Business & Home Safety's (IBHS) [Open for Business®](#) program is a comprehensive disaster planning tool that allows business owners to identify the weather hazards that are of greatest concern and to have in place a plan to resume operations as quickly as possible a storm strikes.

Taking these steps will help you not only prepare for winter, but for all other types of severe weather as well as man-made business interruptions. The loss to your business from damage to your building, inventory or operations far outweighs the time and expense of preventive maintenance. Moreover, maintaining a reliable work environment and business operations during the most severe winter weather will provide a highly visible sign of your commitment to excellence for your customers and dedication to serving your community whatever the weather.