

PREPARING BUILDINGS FOR WINTER WEATHER

Winter weather imposes a significant threat to buildings and associated properties. The negative effects to structures, contents and other site components can be substantial, resulting in costly repairs, interruption of business and operations, and other indirect costs. The best way to reduce this loss potential is to address winter weather exposures in advance.

Each region of the country has different winter conditions and intensities. Therefore, the application of winter preparedness procedures needs to be evaluated and weighed to meet the specific needs for any location. This bulletin provides best practices to help protect buildings and associated properties from the potential damages caused by strong winter-weather conditions.

AS WINTER WEATHER APPROACHES, CONSIDER THE FOLLOWING:

Building Structures

Pipe freeze is not the only danger to buildings and properties. Winter storms can cause other structural damages as well, such as roof damage, collapse and even flooding.



- Inspect and repair (as needed) all roof structures and roofing systems to ensure satisfactory condition.
- Ascertain the ability of roofs to withstand possible heavy snow accumulation to prevent collapse.
- Check sump pumps for proper operation to prevent below-grade flooding.
- Verify that all exposed pipes have been insulated properly.
- Heat areas with non-exposed pipes to a minimum of 40 degrees Fahrenheit per NFPA 25: Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.

Sprinkler Systems

- Ensure that wet sprinkler systems are heated properly (a minimum of 40 degrees Fahrenheit per NFPA 25) or equipped with anti-freeze or other suitable protection.
- Make sure dry sprinkler systems are drained completely and prepared for freezing conditions.
- Install an electric leak detection system on your water line and monitored electric sensors near water sources to guard against leaks caused by a frozen pipe or valve.

Backup Power

Winter storms can cause damage to surrounding structures as well, such as utility lines. Loss of power can be devastating to buildings as pipes may freeze if not heated adequately. Make sure you have reliable backup power in place to provide continuous power to your buildings in the event of an outage.

- Verify that auxiliary generators operate properly.
- Ensure that all temporary heating devices are UL-listed and approved.
- Ensure that all temporary heating devices are installed with adequate clearance from any combustible material.

Grounds Maintenance

It's important to keep up with grounds maintenance. Cold temperatures can create cracks in sidewalks and parking lots, which can result in slips, trips and falls and potential liability claims against building owners.

- Keep parking lots and sidewalks clear of snow and ice to prevent cracks and holes.
- Check yard storage to ensure proper measures have been taken to reduce potential damage from freezing, snow, wind, hail and other possible exposures.

Emergency Planning

Many winter-related losses happen during unattended times such as on weekends. Verify that the existing emergency plan is adequate to cover winter exposures during these time periods.

- If in a remote area (or area susceptible to storm isolation), make sure the proper emergency materials (food, water, flashlights, candles, blankets, etc.) are available.
- Monitor the appropriate agencies (DOT, National Weather Service and others) to ascertain the potential and ongoing impact of any adverse weather and be prepared administratively for emergency action.

REFERENCES

- National Fire Protection Association. (2020). NFPA 25: Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. Retrieved from: <https://catalog.nfpa.org/NFPA-25-Standard-for-the-Inspection-Testing-and-Maintenance-of-Water-Based-Fire-Protection-Systems-P1163.aspx>