ZURICH®

Loss Prevention

Please route to:

- Owner
- General manager
- Sales manager
- Service manager
- Office manager

Snow and ice loads and other winter hazards

In some parts of the country, winter means snow-packed driveways, icy stairs, wet floors, roof collapse and frozen pipes. Don't wait until it's too late to prepare for winter emergencies.

Buildings

Over the last few years there have been thousands of snow-related roof failures, resulting in hundreds of millions of dollars in losses to business. These collapses indicate that not all building codes have addressed the snow-load problem adequately. Quality of construction, lack of inspection and proper maintenance are factors contributing to these structural failures, as well as the following:

- Discontinuous heating of structures can cause melting, refreezing and subsequent ice build up.
- Sloped warm roofs can cause refreezing on cold eaves, leading to ice dams or backup of ice under shingles.
- Wind-driven snow creates drifting, which significantly increases snow loads.
- Barrel vault and saw-tooth roofs collect excess snow and ice in valleys.
- Rain on top of heavy snowfall significantly increases the load, which can lead to structure failure.
- Ponding can occur when water backs up on roofs and in drainage systems.

Snow and ice load recommendations

- Make a visual examination of the roof's structural members, if possible. Check for leaks, sagging or misalignment; corroded, cracked and/or buckled steel members; split and/or rotted timber; and cracked and/or spalled concrete members.
- All drains, gutters, and downspouts should be cleared of debris.
- Roofs must be routinely checked for ponding. Low areas should be repaired and/or additional drains added.
- If the building is left unheated for long periods, ensure the roof will be capable of withstanding any additional snow load.
- If lower roofs, canopies or covered walkways have been added to the structure, the effects of sliding and drifting snow should be considered for these additions.
- Increased snow loads and additional dead load due to reduced melting must be considered for any roof retrofitted with additional insulation for energy conservation reasons.
- The roof should be capable of withstanding additional sliding and drifting snow loads where solar panes, mechanical equipment or other roof projections have been added.
- Dead loads, such as air conditioners, heaters and suspended storage platforms, added to the roof's structural members will decrease the roof's live load capacity.

Water freezes at 32° F and so will your water pipes if not properly protected. Frozen water pipes often burst when they thaw and flood your business. Nothing dampens the spirit faster than waiting for a plumber inside a flooded building, so protect your facility against freezing temperatures.

Frozen water pipes

- Below-freezing temperatures occur even in the southern states - don't be complacent.
- Inspect all heaters and furnaces prior to cold weather.
- Conduct a thorough building inspection in the fall and look for:
  - insufficient insulation in walls, attic, basement or other concealed spaces.
  - openings in exterior walls or roof where cold air could enter.
  - exposed water pipes above drop ceilings, in attics or adjacent to large exterior doors.
  - interior areas where heat may be insufficient to protect water pipes.
- Inspect automatic (fire protection) sprinkler systems to ensure they are fully operational.
- If sprinkler equipment is located in a small room or closet, provide a separate heat source.
- Remember to leave the heat on over weekends and holidays when buildings are unoccupied.
- Don't attempt to thaw pipes with any type of open flame; this creates a severe fire hazard.

Premises

Slip and fall incidents involving customers and employees also occur more frequently due to inclement weather. Don't wait until winter hits your part of the country to prepare for the worst.

Snow and ice removal

- Prepare for ice and snow **in advance**.
- Develop and implement a snow and ice removal program.
- Designate an individual to monitor weather conditions and walking surface conditions.
- Have appropriate equipment, tools and supplies ready for use by internal personnel.
- Contract/retain professional snow removal companies in advance.
- Make sure the service includes regular checks on location, 24-hour and on-call capabilities.
- Record pertinent data on a snow/ice removal log.
- Allow sufficient time for treatment to take full effect.
- Remove high piled snow where it reduces visibility in traffic areas, especially at corners.
- Provide adequate lighting for all pedestrian areas.
- Redirect downspouts that empty onto walkways as they can create slip and fall hazards.
- Don't leave floor spills and puddles unattended, especially in customer traffic areas.
- Post a "Caution-Wet Floor" sign and clean wet floors immediately.
- Place mats or rugs at all entrances to help keep the floors clean and dry.
- Post other appropriate warning signs in high hazard areas.
- Remove or provide warnings of "hidden" hazards that could be inadvertently struck by cars or pedestrians if covered by snow (curbs, grates, debris in walkway, fire hydrants, etc.).
- Attend to injured persons immediately - show compassion but never admit fault.
- Conduct prompt accident/ incident investigations.

If you have any questions or comments, contact your Zurich account executive or the Loss Prevention department at 800-821-7803.

This Loss Prevention Bulletin is provided for informational purposes only. Please consult with qualified legal counsel to address your particular circumstances and needs. Zurich is not providing legal advice and assumes no liability concerning the information set forth above.