Preparing for Severe Winter Weather

Severe winter weather can cause structural damage. A slight change in temperature can result in transforming a rainy day into an ice laden storm. Winter storms can be localized or cover large areas of land. These weather patterns occur in quick succession. Many times as one storm is fading away, a second storm is only just beginning.

Historically, the majority of property damage from severe weather occurs while structures are unoccupied at night, over the weekends or holidays or when employees could not respond due to impassible roads.

Winter damage, from freezing pipes, broken heating equipment to roof collapse, costs millions of dollars annually.

A committee made up of school administration and facilities management personnel should be formed in order to establish a plan for combating potential severe weather storms. This task force is responsible for completing a survey of potential equipment risks.

Fire Protection

Freezing temperatures can compromise fire protection systems. This endangers the structure. Areas that frequently experience freezing temperatures take cold weather situations into consideration during the installation process. However, entities located near areas not typically affected by severe cold weather are put at risk during occasional "cold snaps."

To avoid freezing pipes, we recommend that facilities personnel set thermostats levels at 45 degrees F or above. Insulating piping and installing heat tracing lines on critical piping will substantially decrease the risk of a potential pipe freeze up. Be sure that facilities personnel inspect hard-to-heat areas.

Facility Roofs

Roof related failures are the most common type of loss in severe weather situations. In many areas, winter weather is characterized by increased rainfall, which can place tremendous strain and pressure on roof surfaces. Many times, water and snow build-up can be deceptive. A pond of water 50 feet in diameter and 1 inch deep at the center can weigh 3.5 tons.

To address these conditions, the roof surface and assembly should be monitored and maintained on a year-round basis to minimize the possibility of a roof collapse.

In the case of a roof collapse be sure to immediately evacuate the building. Ensure that water, gas and electricity systems are shut down. Make sure to move equipment/stored goods to safe area, or cover with tarpaulin to protect from the elements.

Remember at all times: safety first. Even if a team of facilities personnel are able to make temporary repairs, be sure to seal off the room from public access, until permanent repairs are made.

Access to Buildings and Critical Equipment

It is imperative that emergency access roads are cleared. The facilities committee should take this aspect of emergency planning into consideration. Arrange with both county and city governments and, if needed contract a private company to ensure that roads are clear of snow or other debris. It is important to communicate the procedures to be followed during severe weather to key operating and emergency personnel. The committee should also monitor developing weather conditions. Committee members should ensure that emergency team members are available to monitor structures and respond to emergencies during weekends and holidays in the event of severe weather storms.

Pre Emergency Planning

The months between August and September are considered to be the best time to prepare buildings, heating plants, process equipment and fire protection systems for cold weather.

A winterization survey should be conducted for facility buildings (roofs and walls), fire protection equipment, heating equipment (including standby fuel systems), cooling equipment (including cooling towers and air conditioning equipment), water supplies and piping, security and alarm supervisory systems, communication systems, and access roads on the premise and nearby vicinity. The final survey report should directly address any deficiencies found and recommend potential changes. (Typical solutions might include upgrading insulation or mechanical heating systems).

This survey should lay out an action plan to deal with each potential risk. (If a sprinkler system freezes or an underground water main breaks, there should be an adequate response included within the committee's survey findings.) Pre-planning will assure that responsible action will be taken and will limit potential property damage.

A complete Action Plan should include the following four components:

- Document anticipated problems through a winterization survey
- Review recommendations resulting from the winterization survey
- Establish procedures to address each area of concern
- Assign responsibilities to critical personnel.

After the Storm

Once the storm has blown over, inspect, document, and repair any damage to roofs, skylights or overhangs. Make sure emergency response teams are notified of any injuries or deaths. Once these actions are completed, it is time to replenish supplies and maintain the necessary equipment for the next storm.