

# Winter Preparation for Employees and Property

As the winter months approach Texas, it is essential to remember how to prepare and protect property and employees from potential damage from the cold. Severe winter conditions can cause employee injuries, auto accidents, and property damage. The following cold weather tips are some to keep in mind during cold weather season.

### Protecting Facilities

Several steps can be taken to properly maintain facilities for year-round protection against weather-related issues. Portable or temporary heaters should only be used in emergency situations and never with extension cords. Ensure adequate ventilation, the heater is functioning properly and kept well away from combustible materials.

Fully insulate all water pipes and replace damaged insulation. Both copper and PVC pipes may crack or burst when frozen, and both types of materials need to be thawed if they become frozen. Locate the water shut-off valve to the facility and adequately train staff how and when to turn off the water to a building. Make sure shut-offs are readily identifiable and visible. Regular, periodic testing of the water shut-off valve should be conducted to ensure proper working conditions when the need arises. Exterior faucets should be drained, hoses disconnected, and properly insulated with materials such as Styrofoam to prevent cold air from entering the faucet opening.

### Thawing Frozen Pipes

If you suspect that a pipe is frozen, make sure the faucet is open before thawing. Never force the valve to open. Water will begin to flow as you treat the frozen area, which will help to melt ice in the pipe. Before thawing, check for broken and cracked pipes. If this is the case, turn off the main valve to the building until the leak is repaired. Apply heat to the frozen portion of the pipe by using an electric hair dryer, a portable space heater, or

wrapping pipes with towels soaked in hot water. Make sure that electrical cords and appliances do not come into contact with water. Do not attempt to use a blowtorch, kerosene or propane heater, charcoal stove, or other open flame device. Flames present a serious fire hazard and may release lethal carbon monoxide fumes into the air. Apply heat until full water pressure is restored.

Property located in South Texas demands special attention to exposed water pipes during the winter months. Freezing pipes can be a problem in warmer climates where they often run through un-insulated or under-insulated attics or crawl spaces. Although some areas freeze only a few times per year, it's still necessary to protect exposed water pipes.

### Unoccupied or Vacant Buildings

Winterize unheated, unoccupied, or vacant buildings. Sprinklers or water lines in unheated attics or dead air spaces near outside walls are particularly vulnerable to freezing, as are pipes in areas exposed to strong winds, outside taps, and in cooler areas. Ensure the building heating system is turned down rather than completely off when a building is unoccupied. Even the smallest amount of warm air circulating throughout a building may be adequate to prevent freezing.

### Generators

Ensure generators are properly maintained and tested at actual load conditions at least quarterly. Ensure adequate fuel supplies are on hand and that they have been refreshed periodically.

### Protecting your Employees

Strong winds and high humidity levels can increase the dangers of the cold. Watch for signs of cold stress and provide appropriate rest periods. Using appropriate personal protective equipment and work practices will reduce the risk of exposure to cold weather.

### Wear Proper Clothing

Protective clothing is the most important way to avoid cold weather issues. The fabric makes a difference. Cotton loses its insulation value when it becomes wet. Wool, silk, and most synthetics, on the other hand, retain their insulation value even when wet. Do not underestimate the wetting effects of perspiration. Often, venting and removal of the body's sweat and heat are more important than protecting from rain or snow. Keep a change of dry clothing available in case clothes become wet.

Wear at least three layers of clothing, including an inner layer of wool, silk, or synthetic material to take moisture away from the body, a middle layer of wool or synthetic material to provide insulation even when wet, and an outer wind and rain protective layer that allows some ventilation to prevent over-heating.

Wear a hat and keep your ears and hands warm by wearing earmuffs and gloves. Wear good footwear that is insulated, along with proper socks. Change wet socks periodically if they become moist from damp weather or sweating.

### Stay Hydrated

Stay hydrated and avoid fatigue since energy is needed to keep muscles warm. Drink plenty of liquids, avoiding caffeine and alcohol. It is easy to become dehydrated in cold weather.

As the temperature drops for the winter, take precautions to protect property and employees from the dangers of cold weather. Keep in mind these tips for severe cold temperatures.

Sources:

"Protecting Property and Employees during Texas Cold Weather," *Loss Prevention News*, January-March 2011

"Winter Storms: Preventing and Thawing Frozen Pipes," Texas AgriLife Extension Service, Texas A&M University System, December 2005.

"Cold Stress," Occupational Safety and Health Administration.