

I Know It's Warming But...

Although the specter of global warming has doomed humanity to extinction - apparently - Mother Nature can still throw out a mean cold snap or two, or several feet of snow.

I believe someone once said, "we can land a man on the moon, but we can't keep ice off the parking lot?" To establish a good safety program, then have someone fall on the ice, can be very disheartening.

One can't necessarily blame your contractor; your site may be one of several dozen they serviced, several hours ago. Even Facilities staff may have a hard time keeping up.

What might help is an "ice alert" sign (IceAlert.com) which indicates when the temperature is around freezing. It's not going to stop every slip, but it may make someone more cautious.



One of the best things to do in winter weather is to wear winter shoes. High-heeled or leather-soled dress shoes are really not good.

Besides employees, the second most important thing is your property. When a storm drops 12 in / 0.3 m of snow, roof snow loading could be a serious property hazard. This presents a double hit when rain saturates the snow on the roof.

It's hard to say how much snow weight is "too much," as each structure is different. Snow weighs as much as 24 lbs/ft³ / 385 kg/m³; wet snow up to 45 lbs/ft³ / 720 kg/m³.

- Clear snow from the roof, and use caution when using snowblowers. Keep away from edges to avoid falls, raise blades to prevent roof damage, and do not concentrate loads.
- Clear roof drains - many have ice caps that form when the temperature drops.
- Inspect roofs or inside ceilings for deflection; and if noted, call in a specialist.
- Monitor temperatures in the building.

One option is to put a snowblower on the roof *before* the storms come, stored under a weighted tarp. It's a lot easier and safer to do the lift in clear weather VS a blizzard.

However, before hoisting, use a hand pump to **remove** all gasoline from the snowblower. Only add fuel when you are going to use it; either run until empty, or pump fuel into a container for storage at ground level.

How Cold is "Cold"?

If you have people working in the cold, be it weather-related or cold storage, review OSHA's Cold Stress Equation, 3156, 1998. Assuming no to minimal airflow (cold storage vault), and healthy employees - properly protected - these are the temperature ranges and work times:

32 to -14 F / 0 to -25 C, up to 8 hrs with at least two 15-min breaks plus lunch.

-15 to -24 F / -26 to -31 C, max of 4 hrs continuous with at least one 15-min break.

-25 to -29 F / -32 to -34 C, max of 75 min continuous, at least two 15-min breaks.

-30 to -34 F / -35 to -37 C, max of 55 min continuous, at least three 15-min breaks.

-35 to -39 F / -38 to -39 C, max of 40 min continuous, at least four 15-min breaks.

-40 to -44 F / -40 to -42 C, max of 30 min continuous, at least five 15-min breaks.

< -45 F / < -43 C, cease all work except for emergencies, limit well-protected employees to as brief a time as possible.

Ensure there is minimal airflow, and employees must wear appropriate heavy clothing, hats, gloves, etc. as needed for the temperatures encountered.

For high wind conditions, consult professional guidance, but assume that the work values above should be halved (e.g. 40 minutes becomes 20) and things like heated gloves may be needed.

Also provide training to employees so they understand what cold stress is, how it affects their health and safety, and how cold stress can be prevented.