



# BIE SAFETY ADVISOR



Construction doesn't stop when winter weather strikes, so it's important to know what steps to take to keep your workers warm and safe!

## Inspect and clear Jobsites

Clear all snow and ice from walking and working surfaces, including walkways, roofs, (any skylights?) scaffolding and ladders. Be sure to stress the importance of fall safety protection to workers when icy conditions exist. Put down salt or sand to melt icy patches and improve traction for workers. Make sure icy areas that can't be cleared are clearly marked and instruct workers to slow down and take shorter steps, especially when carrying materials and tools to avoid slips. Knock off any icicles that have formed or cordon off areas to prevent workers from accidentally breaking them loose and creating falling object hazards.

## Watch the Weather

The last thing you want is to have a construction site full of workers stranded because a blizzard blew in without you knowing. Give your workers adequate time to secure the construction site and get home safely before severe weather strikes.

As temperatures plummet, keep a careful watch on workers for signs of hypothermia and frostbite. Make sure workers are wearing appropriate clothing for the weather and encourage them to take frequent breaks to warm up from the cold.

## Provide a heated Break Area

Workers expend more energy when working in cold weather in order to keep their bodies warm. Make sure you have a heated trailer, tent or

indoor area for workers to warm up from the cold. Limit exposure to the elements by encouraging workers to take frequent breaks in order to rest and warm up, drink warm liquids and change out of wet clothing.

This is a good time to check workers for signs of fatigue, frostbite, or hypothermia. Remind workers to limit consumption of caffeine, nicotine, and other stimulants as this increases their heart rate, causing them to feel warmer than they actually are.

If using portable heaters in break areas, make sure to properly vent the area and use CO sensors to monitor for carbon monoxide exposure.

## Proper PPE

Be sure to take extra steps in ensuring workers are wearing all necessary PPE when winter weather conditions are present.

Using liners in hard hats will help keep workers warm and prevent heat from escaping. Gloves and mittens should be selected that enable workers with enough manual dexterity to work with tools and materials. Remind workers to keep their gloves on at all times, especially when climbing ladders, scaffolding or getting onto construction equipment. Frostbite can occur immediately if workers touch extremely cold metal with their bare hands.

Workers should wear waterproof boots with non-slip soles and extra socks to protect against the cold if wearing steel-toed boots since the metal acts as a cold sink. Consider stocking the heat packs that can be inserted into boots and gloves.

Goggles, safety glasses and facemasks can be treated with anti-fog spray to prevent their vision from being obstructed. Make sure personal fall arrest systems are adjusted to properly fit over bulkier clothing and inspect them before each use to ensure straps aren't frozen with ice.



## Monthly Toolbox Talk

This time of year, cold can be a real hazard at construction sites in our region. Cold temperatures and increased wind speed (wind chill) cause heat to leave the body more quickly, putting construction workers, working in the cold, at risk of cold stress. Risk factors include dressing improperly, wet clothing/skin, and exhaustion. To prevent these exposures, workers should know and understand cold stress hazards, symptoms, and prevention. Common types of cold stress include:

### *Hypothermia*

- Normal body temperature (98.6°F) drops to 95°F or less.
- **Mild Symptoms:** alert but shivering.
- **Moderate to Severe Symptoms:** shivering stops; confusion; slurred speech; heart rate/breathing slow; loss of consciousness; death.
- **Exposure Response:** To prevent further heat loss: Cover the body (including the head and neck) with blankets, and with something to block the cold (e.g., tarp, garbage bag). Do **not** cover your face. Move the worker to a warm place. Change to dry clothes.
- **Call 911** immediately in an emergency. If medical help is more than 30 minutes away:
  - Give warm, sweetened drinks if alert (no alcohol).
  - Apply heat packs to the armpits, sides of chest, neck, and groin. Ask 911 for additional rewarming instructions.

### *Frostbite*

- Body tissues freeze, e.g., hands and feet. Can occur at temperatures above freezing, due to wind chill. May result in amputation.
- **Symptoms:** numbness, reddened skin develops gray/ white patches, feels firm/hard, and may blister.
- **Exposure Response:** Follow the recommendations “**For Hypothermia**”. Do not rub the frostbitten area. Avoid walking on frostbitten feet. **Do not** apply snow/water. **Do not** break blisters. Loosely cover and protect the area from contact. **Do not** try to rewarm the area unless directed by medical personnel.

### *Trench Foot (also known as Immersion Foot)*

- Non-freezing injury to the foot, caused by lengthy exposure to wet and cold environment. Can occur at air temperature as high as 60°F, if feet are constantly wet.
- **Symptoms:** redness, swelling, numbness, and blisters.
- **Exposure Response:** Remove wet shoes/socks; air dry (in warm area); keep affected feet elevated and avoid walking. Get medical attention.

### **How to Protect Yourself and Others**

- Gradually introduce yourself to the cold; schedule breaks in warm areas.
- Know the symptoms; monitor yourself and co-workers.
- Drink warm, sweetened fluids (no alcohol).
- Dress properly:
  - Layers of loose-fitting, insulating clothes, insulating/waterproof boots
  - Insulated jacket, gloves, and a hat (waterproof, if necessary)

