

Dangers of Cold Stress and Carbon Monoxide

As cold weather approaches, it's important for workers to be aware of the signs and symptoms of **cold stress** which is a condition that occurs when the body is no longer able to maintain its normal core temperature. Types of cold stress include **frostbite and hypothermia**.

Frostbite is caused when skin and tissues freeze. This can cause permanent damage, and in severe cases can lead to amputation. Hypothermia occurs when the body temperature drops below 95°F.

Hypothermia typically occurs at very cold temperatures but can occur at temperatures above 40 degrees. Wet, cool, cold, or windy environments can cause your body to lose more heat than it generates.

To combat the cold, we often turn to petroleum powered heaters and generators to stay warm. This equipment can create **Carbon Monoxide (CO)**. CO is a colorless, odorless, tasteless byproduct of the combustion of carbon-containing compounds such as fuels used in automobiles, fork-trucks and heaters. When this type of equipment is used indoors, CO has the potential to poison anyone in the vicinity. CO can accumulate rapidly, even in areas that appear to be well ventilated.

In cold weather, it's important for employers to **train** their employees on:

- How to recognize the environmental and workplace conditions that can lead to cold stress
- The symptoms of cold stress, how to prevent cold stress, and what to do to help those affected
- How to select proper clothing for cold, wet, and windy conditions
- Schedule frequent, short breaks in warm dry areas, to allow the body to warm up

Additionally, employers and heating equipment users should:

- Learn to recognize the **symptoms** of Carbon Monoxide exposure which may include: headaches, dizziness, nausea, weakness, visual impairment, changes in personality, loss of consciousness. Any of these symptoms can occur rapidly and within minutes.
- **Do Not** allow for the use of petroleum powered equipment, engines, and tools indoors, in poorly ventilated areas, or partially enclosed areas
- Use Carbon Monoxide monitors in areas where CO may potentially exist
- Conduct a workplace survey to identify all potential sources of CO exposure
- Consider placing warning signs on gasoline/petroleum equipment.

