



COLD WEATHER

Scope and Applicability Statement

This document provides general safety procedures and regulatory guidance for employers and workers in accordance with U.S. Occupational Safety and Health Administration (OSHA) standards under 29 CFR 1910 and 29 CFR 1926. These procedures apply to all workplaces where they are implemented as part of a comprehensive safety program.

Customization and Compliance Statement

Employers are responsible for ensuring compliance with all applicable local, state, and federal safety regulations. Workers must adhere to established safety protocols to prevent workplace injuries and illnesses.



Purpose

The purpose of this program is to address control measures to protect employees from injuries or illnesses when working in cold temperatures.

Scope

This policy applies to all employees when working in temperatures cold enough to cause injury.

Responsibilities

Safety Manager

- Implement and/or provide controls (engineering, administrative, or personal protective equipment) to minimize cold stress where practicable.
- Provide training and education regarding cold stress, including early signs and symptoms of cold-related exposure.

Employee Responsibilities

- Identify and conduct a visual assessment of tasks where there is potential for cold stress and implement controls to mitigate risks.
- Adhere to all control measures or work procedures that have been designed and/or implemented to reduce exposure to cold stress.
- Leave cold environments if signs or symptoms of cold-related injury occur.
- Wear all required cold temperature protective clothing and PPE as appropriate for the conditions.
- Immediately report any signs or symptoms of cold-related illness.

Cold Temperature Procedures

Health Effects of Cold Stress

- Warning signs of hypothermia include nausea, fatigue, dizziness, irritability, or euphoria.
- Workers may experience pain in their extremities (hands, feet, ears) and severe shivering.
- Workers should be moved to a heated shelter and seek medical attention if necessary.

Facilities



- Regularly used walkways and travel paths shall be sanded, salted, or cleared of snow and ice as soon as practicable.
- Employees must be aware of the hazards associated with unstable snow and ice build-ups at and above walking and working surfaces, sharp icicles, and ice dams. Work plans must incorporate preventive measures.
- When dangerous overhead build-ups of snow or ice are present, barricades shall be used to prevent workers from entering potential danger zones.

Clothing, PPE, and Supplies

Proper cold weather protection must be worn when working in cold, wet, and windy conditions. Protective clothing is the most important factor in avoiding cold stress. The type of fabric also plays a role:

- Wool, silk, and most synthetics retain insulation even when wet, whereas cotton loses its insulation value.

Recommended cold-weather work attire includes:

- At least three layers of clothing:
 - An inner layer of wool, silk, or synthetic material to wick moisture away from the body.
 - A middle layer of wool or synthetic material to provide insulation.
 - An outer layer for wind and rain protection that allows ventilation to prevent overheating.
- A head cover or hood under a hardhat, as up to 40% of body heat can be lost through the head.
- Dry clothing available in case work clothes become wet.
- Loose clothing (except for the wicking layer) to allow proper ventilation of heat away from the body.
- Proper footwear, such as felt-lined, rubber-bottomed, leather-topped boots with removable felt insoles, which allow perspiration to evaporate.
- Liner socks made from polypropylene to help keep feet dry and warm by wicking sweat away.
- Dry work clothing to change into if clothing becomes damp or wet.



Preventive Controls to Avoid Cold-Induced Injuries

- Drink plenty of fluids while avoiding caffeine and alcohol.
- Schedule heavy work during the warmest parts of the day when possible.
- Take breaks out of the cold.
- Work in pairs to monitor for signs of cold stress.
- Avoid fatigue, as energy is needed to keep muscles warm.
- Take frequent breaks and consume warm, high-calorie food such as pasta to maintain energy levels.
- If a worker exposed to cold shows signs or reports symptoms of cold stress or injury, they must be removed from further exposure and treated by a first aid attendant or medical professional.
- For continuous work in freezing temperatures, heated shelters such as vehicles, tents, or cabins should be available. Work should be paced to avoid excessive sweating, and proper rest periods in a warm area should be provided.
- New employees should be acclimatized to cold conditions and protective clothing before assuming a full workload.
- Tools and machines should be designed for operation while wearing gloves or mittens.

Training

Employees required to work in cold weather conditions will receive initial and annual awareness training on cold exposure risks and proper rewarming procedures. Training will include:

- **Hypothermia:** Occurs when body heat is lost faster than it can be replaced. When core body temperature drops below normal (98.6°F) to around 95°F, symptoms begin. Workers may shiver, stomp their feet, lose coordination, have slurred speech, and fumble with objects. Skin may become pale and cold.
- **Frostbite:** Occurs when skin freezes and loses water, leading to potential amputation in severe cases. Wind chill factors can cause frostbite even in above-freezing temperatures. Symptoms include tingling, stinging, aching, numbness, and changes in skin color from red to purple to white.
- **Trench Foot (Immersion Foot):** Caused by prolonged exposure of feet to cold water above freezing temperatures. Symptoms include tingling, itching, burning, and blister formation.
- **Buddy System:** Workers should monitor each other for symptoms of cold stress and act promptly.