Cold Weather Work

In the United States, there are an average of 1,301 per year deaths annually associated with exposure to excessive natural cold. Approximately 67% of hypothermia-related deaths were among males. Many workers, regardless of gender, could be in danger from the cold, including snow cleanup crews, construction workers, recreational workers, postal workers, police officers, firefighters, miners, baggage handlers, landscapers, utility workers, delivery operators and marine workers to name a few.

Tips To Protect Workers in Cold Environments

Prolonged exposure to freezing or cold temperatures may cause serious health problems such as trench foot, frostbite and hypothermia. In extreme cases, including cold water immersion, exposure can lead to death. Danger signs include uncontrolled shivering, slurred speech, clumsy movements, fatigue and confused behavior. If any of these warning signs are observed, call for emergency help.

Cold Stress Factors

Four factors contribute to cold stress, including:
1) Air Temperature
2) Wind or Air Movement
3) Dampness of the Air
4) Contact with Cold Water or Surfaces

See the tips for keeping workers warm and safe on the next page.
General Tips for Keeping Workers Warm and Safe

1. Recognize the environmental and workplace conditions that may contribute to hypothermia.
2. Learn the signs and symptoms of cold-induced illnesses and injuries and what to do to help workers.
3. Train workers about cold-induced illnesses and injuries.
4. Monitor wind chill factors and work during the warmest parts of the day.
5. Include chemical hot packs in first aid kits.
6. Avoid touching cold metal surfaces with bare skin.
7. Provide warm dry areas for employees to take breaks.
8. Use the buddy system. Work in pairs so that workers can check each other and recognize danger signs.
9. Drink warm, sweet beverages (sugar water, sports-type drinks) and avoid drinks with caffeine (coffee, tea, sodas or hot chocolate) or alcohol.
10. Eat warm, high-calorie foods such as hot pasta dishes.
11. Remember, workers face increased risks when they take certain medications, are in poor physical condition, or suffer from illnesses such as diabetes, hypertension, or cardiovascular disease.

Protective Clothing

Protective clothing is the most important way to avoid cold stress. 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 even when wet. Here are some clothing recommendations for working in cold environments:

- Wear at least three layers of clothing: an inner layer of wool, silk or synthetic to wick moisture away from the body; a middle layer of wool or synthetic to provide insulation even when wet; and an outer wind and rain protection layer that allows some ventilation to prevent overheating. Layering provides better insulation.
- Do not wear tight-fitting clothing. Tight clothing reduces blood circulation to the extremities. Be aware that certain clothing may restrict movement, which can result in a hazardous situation.
- About 40-45% of body heat is lost through the head. Wear a hat or hood to reduce the amount of body heat that escapes from your head.
- Protect the ears, face, hands, and feet in extremely cold or wet weather.
- Wear insulated boots or other footwear designed for extreme cold.
- Keep extra clothing handy in case you get wet and need to change.
- Do not underestimate the wetting effects of perspiration. Often, wicking and venting of the body's sweat and heat are more important than protecting from rain or snow.