

Contact Safety

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Mine Safety & Training Section

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Safe Work Practices in Winter

Even before the first day of autumn arrived in Nevada, we were reminded how quickly things can change in this great state. Parts of the Sierra Nevada's and the Elko area received precipitation in the form of snow. With the arrival of colder weather, it is a great opportunity to discuss safety and working in the cold with employees.

In the mining world, working outdoors during colder weather is an inevitable part of the job and in order to do it safely, we must work together to address hazards.

Cold Stress

Cold stress is one of the primary hazards that workers should be aware of during winter months. Cold stress is the result of being exposed to cold temperatures plus wind plus wetness. Being exposed to these three factors combined can result in illness or injuries.

The two primary injuries associated with cold stress are hypothermia and frostbite.

Hypothermia – is the result of the body losing too much heat and its core temperature drops to 90 – 95 degrees. Symptoms include chills, pain in extremities, fatigue or drowsiness.

First aid for Hypothermia:

- Move to warm area and remove wet clothing.
- Modest external warming using blankets and/or heat packs
- Provide warm, sweet fluids if the individual is conscious
- Transport to the hospital

Frostbite – is when exposure to cold temperatures causes the skin and underlying tissues to freeze. It commonly affects hands, feet and face. Symptoms usually include a burning sensation at first, followed by coldness, numbness and tingling to the exposed area.

First aid for Frostbite:

- Move to warm area and remove wet clothing.
- External warming using warm water.
- Provide warm, sweet fluids if the individual is conscious.
- Treat as a burn, do not rub the affected area.
- Transport to the hospital.

Tips for Workers exposed to cold weather

1. Wear jackets that open easily at the waist, neck, and wrists to aid in the control of heat. In addition, if the work environment is wet, use a jacket that is waterproof.
2. Wear a cap, preferably wool or synthetic material, to prevent heat loss through the head.
3. Because it gets wet easily, avoid wearing cotton clothing. Wool or other synthetic fibers are better at retaining heat when they get wet.
4. Wear layers of clothing during colder weather. As the worker gets hot, the layers can be removed, and if they get cold, additional layers can be added. In addition, ensure the inner or base layer is made of moisture wicking material to allow moisture to wick away and not collect on the skin.
5. Wear insulated leather boots with rubber bottoms. Leather is porous and allows for evaporation which helps keep the feet dry.
6. Keep an extra pair of socks on hand in case the pair being worn get wet.

Slips, Trips and Falls

The most reported accidents during colder months are injuries associated with slips and falls. Many of these are the result from walking on icy surfaces, or stepping from equipment onto icy surfaces. In order to prevent or address these, follow the best practices listed below:

- Examine walkways for hazards.
- Remove snow and ice from travel-ways. Do not allow water to accumulate in travel-ways.

- Salt and sand areas where needed.
- Consider applying paint/sand mixture to walking and working surfaces to aid in traction.
- Conduct an examination of your work area for hazards
- Always use appropriate PPE when removing snow and ice.



Mobile Equipment and Cold Weather

Due to the sheer size of equipment operating on a mine site, safe driving practices are important at all times. However, there are some actions to take during winter months that can help avoid accidents.

- First and foremost, slow down and stay alert!
- Maintain your equipment. Keep wipers, windshields, mirrors, headlights, backup and brake lights clean.
- Avoid operating equipment when snow or fog impairs the driver's ability to see clearly.
- Report icy and/or slippery sections of the road.
- Turn on your headlights.
- Watch out for other vehicles.
- Maintain control of your vehicle at all times.

QUIZ

1) What are the two primary injuries associated with cold stress?

2) List 2 symptoms of frostbite.

3) Name one first-aid treatment for hypothermia.

4) What kind of clothing should you avoid wearing in the winter months while working?

5) Name one thing you should do when driving mobile equipment at the job site during hazardous winter conditions.

If there is any specific topics you would like to learn more about please write on line below.

Employee: _____ Date: _____

Mine/Company: _____

Address: _____

City: _____ State: _____ Zip: _____