

Cold Stress

This safety talk is designed for discussion leaders to use in preparing safety meetings. Set a specific time and date for your safety meeting. Publicize your meeting so everyone involved will be sure to attend.

Review this safety talk before the meeting and become familiar with its content. Make notes about the points made in this talk that pertain to your workplace. You should be able to present the material in your own words and lead the discussion without reading it. Collect whatever materials and props you will need ahead of time. Try to use equipment in your workplace to demonstrate your points.

BEGINNING THE MEETING

Give the safety talk in your own words. Use the printed talk merely as a guide. The purpose of a safety meeting is to initiate discussion of safety problems and provide solutions to those problems. Encourage employees to discuss hazards or potential hazards they encounter on the job. Ask them to suggest ways to improve safety in their area.

Don't let the meeting turn into a gripe session about unrelated topics. As discussion leader, it's your job to make sure the topic is safety. Discussing other topics wastes time and can ruin the effectiveness of your safety meeting. At the end of the meeting, ask employees to sign a sheet on the back of this talk as a record that they attended the safety meeting. Keep this talk on file for your records.

GENERAL DISCUSSION

Have you ever heard of the wind chill factor? On a TV news report about a blizzard, you might hear that the wind chill factor was 40° below zero. The temperature itself wasn't that low, but to know how cold it felt you have to figure in the wind. It's important to know that you can get frostbite or hypothermia at temperatures as warm as 28° F, depending on the wind chill factor. The effects of cold on your body range all the way from numbness, to the loss of a hand or foot, to hypothermia and even death. But there are many effective precautions we can take to make sure you work safely in the cold. You or a crew member may want to add a personal story about cold.

Next, discuss with the crew when and where working in the cold could be a problem at this particular job site:

Ask the Crew these Questions:

After each question, give the crew time to suggest possible answers. Use the information following each question to add points that no one mentions.

1. When and where might you be exposed to extremely cold temperatures in your work?

- Outdoors on a cold day
- In a refrigerated room
- In an unheated building
- During a vehicle breakdown
- When working in cold water
- When handling cold objects or materials

2. What are some effects of cold on your body?

- Dehydration. You can get dehydration from cold as easily as you can from heat.
- Numbness. It's usually in your extremities, fingers, toes, ears, nose tip, and cheeks.
- Shivering. This is the body's way of trying to warm up.
- Frostbite. Parts of your body freeze, especially your extremities. The first warning sign may be a sharp, prickly sensation, but if the affected body parts are already numb, you won't feel anything so there won't be any warning. Your skin may turn another color (red, white, gray, purple, or black, depending on the severity). Skin can also peel off. You can get a permanent injury, like loss of a body part.
- Immersion foot (trenchfoot). This is damage you get if your skin is exposed to cold and dampness too long. The skin doesn't actually freeze, but you can get swelling, tingling, itching, loss of skin, or skin ulcers.
- Hypothermia. This is the most serious effect of cold. Your body can't maintain its normal temperature (98.6° F). Symptoms include low body temperature, violent shivering, slow or slurred speech, drowsiness, confusion, hallucinations, a weak and irregular pulse, or even unconsciousness. If not treated right away, you can die.

3. What's the best first aid treatment for frostbite?

- Cover the skin with warm hands until numbness stops and you start to feel pain.
- Place bare frost bitten fingers under your armpits, next to the skin.

- Place bare frost bitten feet under the clothing of a co-worker, next to the skin.
- Or wrap affected body parts in a warm, dry towel, cloth, or blanket.
- Never treat frostbite by:
 - Vigorous massaging. (It can bruise frozen skin.)
 - Exposing to flame or fire. (It can thaw frozen skin too quickly and cause burns.)
 - Rubbing with snow. (It can reduce skin temperature and make frostbite worse.)
- Get medical attention as soon as you can, especially if feeling doesn't come back.

4. What should you do if someone has hypothermia?

- Get medical attention immediately.
- Call 911 to get an ambulance if needed.
- Keep the person warm.
- Don't massage the person's extremities.
- Don't give the person hot liquids. They won't help much in this case.

5. Some people are more likely than others to suffer from the effects of cold. Why?

You have a higher risk from cold if:

- You are not physically fit.
- You have a chronic illness, especially one affecting your heart or blood vessels.
- You drink alcohol or take drugs (either illegal drugs or prescription drugs).
- You are wet or damp from work or weather.
- You are fatigued.
- You are exposed to vibration from tools or other operations on the job.
- You don't wear the right clothing.
- You are not used to working in cold. The more you work in cold, the more your body gets used to it. This is called becoming acclimatized to cold.

6. What kind of clothing protects you best from cold?

- Many layers of loose clothing are best.
- Wear only dry clothing. Change clothes if they get wet or sweaty.
- Don't wear a waterproof shell if you're sweating. It won't let inner moisture evaporate. You'll soak in sweat. In the rain, wear a water repellent shell instead.

- Wear a full head covering. You can lose a lot of body heat through a bare head.
- Wear mittens or gloves. Below 0° F, mittens are better. Machine controls in cold areas should be a type you can use with mittens on.
- Wear waterproof boots (or rubber overboots) if it's both cold and wet.

7. What precautions do we need to take on the site to protect against cold?

In addition to providing this training, the company will: (Mention all that apply)

- Control temperature and wind when possible by using heaters and windbreaks.
- Rotate workers in cold jobs so no one is exposed too long.
- Keep first aid supplies and equipment available.

Workers should:

- Drink warm liquids but not too much coffee. Soup and broth are better.
- Take your breaks in a warm area (like a heated shed, trailer, or van). Point out where warm liquids and warm break areas are available on this site.
- Eat a high calorie diet for reserve energy.
- Cover all skin when it's extremely cold.
- Never touch cold metal with your bare skin.
- Keep your hair short. Long hair and beards get icy and also hide signs of frostbite.
- Stay physically fit.
- Limit your use of alcohol. Ask your doctor about prescription drugs you're taking.

8. How can we be sure no one on the site is getting affected by the cold too much?

1. Watch for frostbite. See if your fingers, toes, ears, or nose have numb or hard areas.
2. Use the buddy system. Watch your coworker for signs of frostbite or hypothermia.
3. Know what to do if you or your coworker show any symptoms.
4. Notify your supervisor and stop work if you notice any major symptoms.

OSHA Regulations:

The safety measures we've talked about are included in our company's Safety and Health Program, as required by OSHA. At this time, there are no specific

OSHA regulations on exposure to cold. I have a Checklist of recommended safety measures. If you'd like to know more, see me after the meeting.

Company Rules:

(Only if applicable.) We have some additional company rules about working in the cold.

Discuss company rules: _____

Comments from the Crew:

Ask the following: Do you have any other concerns about exposure to cold on the job? Do you see any problems on our job? (Let the steward answer first, if there is one.) What about other jobs you've worked on? Have you had any experience with cold temperatures that might help us work safer on this job?

GENERAL SAFETY REVIEW

This is a time to review all safety concerns, not just today's topic. Keep your notes on this page before, during and after the safety meeting.

Are you aware of any safety hazards from any other crews? Point out any hazards other crews are creating that this crew should know about. Tell the crew what you intend to do about those hazards.

Do we have any other safety business? Discuss any past issues or problems. Report any progress of investigations and action taken.

Have there been any accidents, near misses or complaints? Discuss any accidents, near misses, and complaints that have happened since the last safety meeting. Also recognize the safety contributions made by members of the crew.

Please remember, we want to hear from you about any health and safety issues that come up. If we don't know about problems, we can't take action to fix them.

ENDING THE MEETING

Circulate Sign-Off Form.

Assign one or more crew member(s) to help with next safety meeting.

Refer action items for follow-up.

Do you have any Safety Recommendations?

Do you have any Job Specific Topics you would like us to discuss?

Comments:

SAFETY TALKS REVIEW

Hazard Identification:

1. The company has a written Safety and Health Program that meets all OSHA requirements. It includes identification of hazards on the site involving exposure to cold, as well as regular inspections, accident investigation, and correction of hazardous conditions.
2. Tasks which require exposure to cold have been identified.

Describe tasks on this job site involving exposure to cold:

(a) Is work done outdoors in cold temperatures? Which jobs? How cold is it? Is cold a problem all day or part of the day? Are conditions also damp? How windy is it?

(b) Is work done in cold and/or damp indoor areas? Which jobs?

(c) Does work require contact with cold and/or damp objects or materials? Which jobs?

Training:

1. Workers have been trained to recognize the signs of frostbite (including changes in skin color or peeling skin).
2. Workers know how to administer first aid for frostbite.
3. Workers have been trained to recognize the signs of hypothermia (including uncontrolled shivering, slow/slurred speech, weak pulse, confusion, or drowsiness).
4. Workers have been trained on precautions to take when working in the cold, and proper use of protective clothing and equipment.
5. Workers understand the effect alcohol and drugs have on the risk of hypothermia.

Work Practices:

1. Temperature and wind are controlled as much as possible. Heaters, wind shields, and windbreaks are used where feasible.
2. Workers in cold jobs are rotated when possible, so no one is exposed to cold too long.
3. There are plenty of warm liquids (soup, broth, or tea) readily available on the site. Workers drink a quart an hour or more, depending on conditions

- and their level of exertion. (Dehydration occurs as readily in the cold as it does in the heat.)
4. A warm shed, trailer, or van is provided so workers can take breaks and warm up. Sufficient breaks are taken.
 5. Where feasible, hair is cut and beards shaved or closely trimmed. (Ice can build up on them; they can hide signs of frostbite.)
 6. Skin contact with cold metal is prohibited.
 7. Workers periodically touch their extremities (fingers, toes, ears, nose tip, and cheeks) to detect numb or hard areas which might indicate frostbite.
 8. Workers use the buddy system to recognize signs of frostbite and hypothermia in each other.
 9. In extreme cold or high wind chill conditions, all skin is kept covered.
 10. First aid supplies and equipment are available.

Protective Clothing:

1. Workers wear layers of loose clothing.
2. Clothing is kept dry. (Body heat is lost very quickly when clothing is wet.) Waterproof outer shells are not used if workers are sweating, to prevent soaking clothing inside.
3. Workers wear full head coverings.
4. Workers wear mittens or gloves. (Mittens are better in extremely cold temperatures. Machine controls may need to be modified.)
5. In cold and wet conditions (snow, sleet, hail), workers wear waterproof boots. (Regular work boots and rubber overboots are OK.)