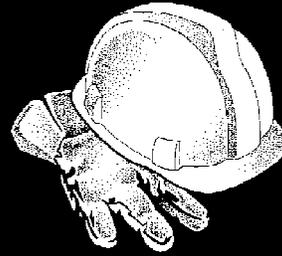


# TRAINING GUIDE

## COLD



1994

*Before you begin the meeting...*

- Does this topic relate to the work the crew is doing? If not, choose another topic.*
- Did you read this Training Guide and fill in the blanks where the  appears? (To find the information you need, look over the Safety Walkaround Checklist for this topic.)*

*Begin:* 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 construction 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 frostbitten fingers under your armpits, next to the skin.
- Place bare frostbitten 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:*



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- 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?**

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

**CAL/OSHA REGULATIONS**

*Explain:* The safety measures we've talked about are included in our company's Injury and Illness Prevention Program (IIPP), as required by Cal/OSHA. At this time, there are no specific Cal/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:* **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 DISCUSSION

*This is a time to discuss 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 hazards from 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 old business?** *Discuss past issues/problems. Report progress of investigations and action taken.*

**Any new business? Any accidents/near misses/complaints?** *Discuss 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.**

*To complete the training session:*

- Circulate Sign-Off Form.*
- Assign one or more crew member(s) to help with next safety meeting.*
- Refer action items for follow-up. (Use the sample **Hazard Report Form** in the Reference Section of this binder, or your company's own form.)*

