

# Talks **ZONE**

Safety Talks  
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T5010

## Heat worksite spaces safely

**T**hey are portable, easy to use and can make a workplace much more comfortable when temperatures get chilly, outside and inside.

When not used properly, space heaters can present a serious risk of fire or explosion.

There are several different types of space heaters. Some use electrical current, others use the combustion of propane, kerosene, wood or other fuel. The combustion types give off carbon monoxide, which can be fatal if the area being heated is not ventilated properly.

Although space heaters are not the most energy-efficient of devices (quite the opposite in many cases), they can be used safely in the workplace where the heating, ventilation and air-conditioning (HVAC) system just will not provide the desired comfort level.

Space heaters might not take up a lot of space, but they do require space. Among the most important precautions is to place the heater where it cannot be knocked over — at least one metre (three feet) from furnishings, equipment and flammable materials.

Heaters used or installed in your workplace should always comply with recognized safety standards. Look for the appropriate certification mark in your jurisdiction.

Heaters should not be left unattended. Turn them off when the area is unoccupied.

Regular cleaning is important. Lint and dusts can make the unit inefficient and can increase the risk of fire or explosion. Turn it off when cleaning, and never use solvents or other flammable cleaners.

Here are some safety tips for the different types of space heaters:



### ELECTRIC

- If possible, choose a model with a tip-over switch that will automatically turn the unit off if it tips over.

- Make sure the unit has an element guard in place to prevent fingers or flammable objects from touching the hot elements.

- Check the electrical cord for worn insulation and splices, and check the plug for loose or exposed parts. If the cord is damaged, replace the entire unit or have the cord replaced by a qualified repair person.

- Keep all electrical cords away from the heat. Never drape a cord over the hot surface of the space heater.

- Do not use an electric space heater in a washroom unless the manufacturer's instructions specifically say it is acceptable. The high humidity could create a shock hazard.

### KEROSENE

- Before buying or using a kerosene heater, check with your local municipal office or fire department to see if this type of heater is permitted in your community.

- Always use the type of fuel

recommended by the manufacturer. Never substitute gasoline or another fuel.

- Check the flame to ensure that it is burning efficiently. It should be a bright blue colour. If the flame is yellow or orange, shut off the space heater immediately and have it checked by a qualified repairperson.

- Before refueling a kerosene heater, always turn off the heater and wait for it to cool down.

### NATURAL GAS, PROPANE

- Use a qualified service person to install and repair the unit.

- Have the unit inspected by a qualified service person at least once a year.

- Keep the control compartments, burners and air passageways clean.

- Propane tanks should be kept upright, at least two metres (six feet) from the heater and on a firm, level surface.

- Protect all hoses from physical damage and exposure to excessive heat.

- Avoid running hose through a doorway, because a closed door will pinch a hose, causing possible damage to it and improper gas flow to the heater.

- Always open one or more windows (on a second floor where possible) enough to prevent excess accumulation of fumes and heat.

Whatever the type of space heater you have, resist the temptation to use it for purposes for which it is not intended, such as drying or warming clothes, thawing frozen pipes, cooking or heating food.

Doing so will just increase the chances of turning your surroundings from comfortable to dangerous.

## The Quiz

These questions are meant to help you remember what was discussed today — not to test your patience or challenge your intelligence. The answers are at the bottom of the page. Cover them up, and complete the quiz as quickly as you can.

1. Not all space heaters are powered by electricity.  
TRUE \_\_\_\_ FALSE \_\_\_\_
2. Should space heaters be placed at least one metre (three feet) away from flammable materials ?  
YES \_\_\_\_ NO \_\_\_\_
3. Portable heating units used in the workplace should comply with:
  - A. Building codes
  - B. Recognized safety standards
  - C. Zoning bylaws
  - D. None of the above
4. Most electric space heaters do NOT require an element guard.  
TRUE \_\_\_\_ FALSE \_\_\_\_
5. What colour should the flame be when a kerosene heater is operating properly:
  - A. Green
  - B. Orange
  - C. Bright blue
  - D. Dark red
6. Tanks for propane heaters should be kept lying on their sides when connected to the heater.  
TRUE \_\_\_\_ FALSE \_\_\_\_
7. Why should one or more windows be opened when using a kerosene or propane heater indoors:
  - A. To improve fuel efficiency.
  - B. To prevent excessive build-up of toxic fumes.
  - C. To ensure maximum heat.
  - D. All of the above.
8. Do all space heaters in your workplace have the certification mark of a recognized safety standards agency such as Underwriters Laboratory (UL)?  
YES \_\_\_\_ NO \_\_\_\_ DON'T KNOW \_\_\_\_

**ANSWERS:** 1. True, 2. Yes, 3. B., 4. False, 5. C., 6. False, 7. B., 8. Your answer

## Hold These Thoughts

The potential for fires and explosions is the hazard most often associated with the use of space heaters, whether in the workplace or the home.

Another less obvious but still serious hazard is carbon monoxide (CO).

This gas is highly toxic because it interferes with the body's ability to transport oxygen through the blood to the body's cells. CO is generated by propane, kerosene and gasoline powered devices. The fact that it is odourless, colourless and tasteless can make it difficult for people to realize they have been exposed to CO.

The effects of exposure can range from mild to severe headaches (50 parts per million to over 200 ppm); nausea, vomiting, dizziness, fainting and drowsiness (above 400 ppm); increased heartbeat, irregular heartbeat (above 1,200 ppm); loss of consciousness and death (above 2,000 ppm). At concentrations greater than 5,000 ppm, death may occur in minutes.

These symptoms are usually seen sooner or at lower concentrations of carbon monoxide if there is a heavy workload (increased breathing rate and increased blood flow).

Maintenance is the key. Make sure that all CO-producing appliances are working properly. Have them inspected by a professional at least once a year and be sure there is proper ventilation.

To help ensure safety, purchase an approved carbon monoxide detector and place it where you can hear the alarm.



# Weekly Safety Meeting

## For the Record

Date of Meeting: \_\_\_\_\_

Topic: \_\_\_\_\_

Location: \_\_\_\_\_

Department: \_\_\_\_\_

Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_

Meeting Leader: \_\_\_\_\_

In Attendance:


## Tips for Safety Meeting Leaders

**Review and understand the topic** you plan to present. Since each job has individual safety requirements and problems, take the time to make notes that pertain to the job at hand.

Ensure everyone has been informed and is aware of the meeting in advance, and insist on punctuality and cooperation.

**Convey the Information.** Remember, you are the one conducting the meeting, so you must get the participants' attention and keep it. Delivery of the information is the key to having a maximum effect/minimum time meeting.

Have enough copies of the topic to hand out, so

everyone can follow along.

**Never allow horseplay or interference.** Remind all participants that this session is very important and is costing your employer time and money. If prepared well, these meetings can be finished in less than 15 minutes.

Once the material has been covered, invite questions and ask for any safety recommendations. Avoid discussions on unrelated matters.

**Upon completion of the meeting,** have all personnel sign the form and get them started on the job.

**Note:** *TalksZone* weekly safety meetings are not intended to take the place of your own safety procedures. Always consult and/or review your procedures before attempting any work.