



Heaters

Explain Dangers

Temporary heaters are dangerous if you don't control the risks of explosion, fire, carbon monoxide (CO) poisoning, and lack of fresh air.

In NL, temporary heaters typically run on:

- Electricity;
- Liquids such as fuel oil or kerosene; or
- Propane.

Many of the hazards of using temporary heaters depend on how they're powered.

Fuel-fired equipment is a source of CO. Even in small doses, CO can kill you. It's a clear, colourless gas that you can't smell or taste. Ventilation is necessary when using heaters powered by liquid fuel or compressed gas.

Electric heaters are used where heated air must be free of combustion by-products such as carbon monoxide (CO) and carbon dioxide (CO₂). An electric heater is useful when working in a closed space with limited fresh air.

Liquid fuel heaters (i.e., oil and kerosene) provide an economical source of heat; however, you need a large storage tank on site for a constant supply of fuel.

Some liquid-fuelled heaters release exhaust fumes with an oily smell. This can be unpleasant for workers. A solution is to vent the combustion by-products outdoors. This is sometimes done to heat the air over new concrete in winter.

Propane heaters provide an economical supply of heat. The equipment is lightweight and easy to move around on site.

However, propane is highly flammable and explosive and proper precautions must be taken when storing, handling, or using this gas.

Identify Controls

- Use an **indirect-fired** heater instead of a direct-fired heater when you want to heat an enclosed space.
 - An indirect-fired heater vents combustion by-products outdoors while ducting heated air indoors.
 - A direct-fired heater (such as an open-flame or closed-flame heater) releases combustion by-products into the heated area.
- Follow the manufacturer's specifications regarding use and care of the heater.
- Place the heater on a firm, level surface to prevent tip over and do not block the openings used for ventilation.
- If a compressed gas cylinder is connected to a heater, secure the cylinder to prevent movement.
- Keep the flame end of the heater pointed away from the gas cylinder and away from flammable materials. The heat from a burner can ignite materials well past the burner's end.
- Make sure the heater has a supply of fresh air to operate safely and efficiently, and to prevent buildup of CO.
- Use CO detectors to test heated areas for the presence of CO.

Discuss

Discuss the signs and symptoms of CO poisoning with the crew. The first signs are headache and fatigue. More exposure can rapidly lead to loss of consciousness, arrested breathing, heart failure, and death.

Discuss company specific safe work practice/procedures for use of temporary heaters.

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