

## TEMPORARY HEAT

### 1. Task

To provide temporary heat for construction areas and curing concrete. This procedure is to be used in conjunction with the Propane Handling Safe Work Procedure when it is the main source of fuel for combustion.

### 2. Hazards

Fire, burn injuries, atmospheric hazards, explosion hazard.

### 3. Controls

Pre-Job Safety Assessment (PSA), CSA/ANSI approved equipment and PPE, fire extinguisher, worker training (propane handling in construction), emergency planning, air sampling, MSDS and competent supervision.

### When installing and using construction heaters, keep the following in mind:

- ❖ Read and follow the construction heater manufacturer's installation and operating manual.
- ❖ A construction heater must be installed on a solid, level, noncombustible base and located to minimize the danger of mechanical damage and upset.
- ❖ Regularly inspect the burner, burner controls, regulator and hose for defects. Have any damaged components removed from service and/or replaced.
- ❖ Any repairs must be performed by a qualified installer.
- ❖ Make sure all hose and valve connections are clean and free from damage.
- ❖ Use proper fitting wrenches to make connections.
- ❖ A hose used to connect a construction heater to the propane supply must be at least 4.6 metres (15 feet) and not more than 24 metres (75 feet) in total length and must be protected from damage. Do not let equipment run or drive over hoses. Make sure the hose is placed so workers do not trip on it.
- ❖ Have fire extinguisher (minimum 4A40BC) or other firefighting apparatus available. Workers must be trained in the use of the firefighting apparatus being used.
- ❖ Never attempt to tie down, defeat or bypass the flame safe guard system on a construction heater. If the system is defective, or if the heater fails to stay lit when you release the push button safety valve, set the heater aside and have it inspected/repaired by a qualified installer.
- ❖ If the heater is inadequate to do the job, obtain additional heaters or replace it with a larger unit if available:
  - Shut off the fuel supply at the cylinder service valve;
  - Determine if any propane has escaped, check low lying areas for odor;
  - Do not smoke or turn on light switches if you smell propane odorant; and
  - Test the space with a detection device. If escaped propane is detected or even suspected, ventilate and purge the area thoroughly before attempting to re-light the construction heater.
- ❖ The use of a construction heater is prohibited where a hazard may be created. Keep in mind that some adhesives and other materials used, and dust created around the construction site can be very flammable. Do not install a heater in an area where flammable materials are in use or being created.
- ❖ A construction heater that has been exposed to fire, explosion or other damage cannot be installed or reconnected to a propane tank or cylinder, without approval of the authority having jurisdiction.
- ❖ Combustible material such as straw, canvas, wood, polyethylene tarps and debris must be kept clear of a construction heater in accordance with the clearances listed on the heater's instructions.
- ❖ You can only install construction heaters in buildings under construction, repair or improvement. You cannot install them in any inhabited dwelling unit or inhabited sections of a building.

**NOTE: It is the responsibility of the person renting the construction heater to ensure that the construction heater is approved and in safe operating condition at the time of delivery. It is also their responsibility to ensure you have been**



**trained in the safe installation and use of the construction heater and its components, before operating and/or using it.**

## **Types of Construction heaters:**

### **Direct Fired:**

All the products of combustion enter the space occupied by the heater. The construction heater does not have a heat exchanger. These units have an open-ended barrel type combustion chamber with an open flame or utilize a radiant heat type burner.

Direct Fired construction heaters come in various sizes depending on the input required to heat the space under construction. The construction heater may or may not be equipped with an electric fan to assist in supplying combustion air and circulating heat throughout the structure being heated.

### **Indirect Fired:**

This type of construction heater has a heat exchanger and is vented outdoors so that all the products of combustion are directed to the outdoors and not into the space occupied by the construction heater.

Air is blown across the heat exchanger where it is heated and then distributed by an electrically driven fan throughout the structure being heated. Heating ducts may or may not be connected to the unit.

You must follow the manufacturer's installation instructions when venting indirect fired construction heaters to the outdoors. Use the specific venting materials and installation configurations recommended by the manufacturer.