

TEMPORARY AND PORTABLE CONSTRUCTION
SPACE HEATING DEVICES AND EQUIPMENT

These notes of caution prepared by R. Mattson, Dravo Corporation, were reprinted from a CONSTRUCTION SAFETY RELEASE published by the National Safety Council, 425 North Michigan Avenue, Chicago, Ill. 60611.

In winter operations, the use of temporary heating equipment becomes a necessity in the construction industry. This type of equipment is required for several purposes:

1. To provide comfort and safety for employees.
2. To protect safe storage of materials from freezing in severe cold weather.
3. To protect concrete on new masonry installations.

To assure adequate safety with the use of portable heating equipment, the following control measures should be strictly adhered to:

1. Use only approved type portable heater and fuel to fire, as designated by NFPA, API, CGA or LPGA. Each heating unit should be provided with all necessary safety data, legible and in conspicuous places.
2. Maintain storage of combustibles at safe distance from heating unit.
3. Heating units should be maintained by designated and authorized employees only.
4. Adequate and sufficient air is provided for complete combustion. At least 1,000 BTU of input should be provided.
5. If possible, vent heating unit to outside, if not provided. A minimum of three square inches of vent area for each 1,000 BTU. (Example: 50,000 BTU unit 10 x 15 vent)
6. Strict compliance should be adhered to of all local and state laws and codes for use, handling, storage and piping of fuel being used.

A final note of caution with the use of temporary heaters. All heating units give off carbon dioxide. This is an odorless gas. It cannot be detected by sight or smell. Concentrations of as little as 1/10 of one percent or 100 parts per 1,000,000 parts of air can be lethal.

Fire protection is paramount in cold weather operations due to the use of portable heaters in and about the job site. An adequate supply of fire extinguishers should be on the job site and in easily accessible locations. Fire extinguishers shall be checked at least annually to see that they are fully charged and ready for use when needed. When using soda acid or CO₂ pressurized cylinders, antifreeze shall be maintained to keep from freezing. When possible, the use of dry-pipe system should be utilized throughout the job site to provide maximum fire protection.