

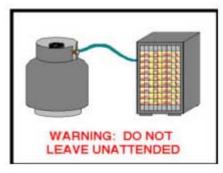
MSHA's Accident Prevention Program Miner's Tip



Use of Gas Heaters

Category: Maintenance Mine Type: All Surface

In the winter, gas heaters or torches are used extensively to provide comfort to miners and to de-ice equipment. If gas heaters are placed in confined areas or unventilated areas, dangerous hazards can occur. As the gas (usually propane) is burned, oxygen in the air is depleted. This can cause two problems; anyone in the area may be overcome by a lack of oxygen, or the lack of oxygen can cause the propane heater to self extinguish. If the latter occurs, the heater can continue to discharge propane into this space. Attempts to re-light the heater can ignite the unburned fuel (gas) in the atmosphere and cause an explosion.



To prevent these types of accidents, all mining operations should review their procedures for heating unventilated spaces. The following precautions should be incorporated in any thawing procedures:

- 1. Fuel-operated heaters should only be used in well ventilated areas.
- 2. Fuel-operated heaters should not be left unattended unless they have a flame safeguard and are listed by the manufacturer for unattended operation.
- 3. Fuel operated heaters should be listed or approved by a nationally recognized testing laboratory and should never be used beyond their listed limitations (design capacity).
- 4. Before using fuel-operated heaters, the manufacturer's safety, operating, and maintenance instructions should be thoroughly reviewed and followed.
- 5. All unventilated or poorly ventilated areas utilizing fuel-operated heaters should be treated as a confined space and appropriate precautions taken before entering the space.

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