

**TOWN OF WATERTOWN FIRE DEPARTMENT
STANDARD OPERATING GUIDELINES**

**SECTION: Hazardous Materials Incidents
SUBJECT: LPG Emergencies
REVISED: 10/2020**

PURPOSE:

To establish guidelines for the response, operations, and safety of personnel in the handling of LPG emergencies.

POLICY:

- A. It shall be the policy of the fire department to follow these guidelines in the response and operations in the handling of LPG incidents.
- B. It shall be the policy of this fire department to follow these guidelines to insure the safety of fire personnel and citizens.

GENERAL INSTRUCTIONS:

If the caller can detect a strong odor of gas or can hear gas escaping, they should be instructed to leave the building immediately. They should also be instructed not to:

- 1. Use the phone in the area of the gas.
- 2. Operate any electrical switches, televisions, appliances, or other devices.
- 3. Pull any circuit breakers.
- 4. Re-enter the building.

RESPONSE:

The response for LPG emergencies should be:

- 1. Pumper/rescue
- 2. Rescue
- 3. Pumper
- 4. Tanker
- 5. Ladder (if requested, or if on the west side it will be the first apparatus to respond).

UPON ARRIVAL:

- A. Attempt to determine the hazardous area (vapor area).
- B. Remember that LP is heavier than air, so avoid low lying areas and do not approach from a downhill direction (always approach from uphill).
- C. Give a report on conditions, and request additional equipment or special equipment if needed.
- D. Determine if rescue or evacuation problems exist.
- E. Formulate a plan of action based on initial size-up. Plan of action must provide for:
 - 1. Safety of citizens, and firefighters.
 - 2. Evacuation of endangered area if necessary.
 - 3. Control of situation.
 - 4. Stabilization of the spilled or leaking material.
 - 5. Coordinate with law enforcement personnel for evacuation and traffic control.
 - 6. Disposal or removal of the spilled or leaking container.

SAFETY:

- A. Avoid commitment of personnel and apparatus until a complete size-up has been made.
- B. All personnel should be in full protective clothing, and SCBA'S.
- C. Keep all bystanders a minimum of 2000 feet away from the hazardous area.
- D. Remove all ignition sources in the hazardous area.
- E. Keep clear of tank ends if fire is impinging on the tank.
- F. During LPG tank fires, if a whistling from pressure relief valve becomes progressively louder, evacuate the area an explosion is imminent.
- G. If a tank is burning, fire streams must be used to cool the vapor area of the tank (area above the liquid level).
- H. Do not extinguish tank or cylinder fires unless shut-off can be effected.
- I. Use at least two crews with fog streams to cover the personnel attempting to close the valves or effecting shut-off.
- J. LPG tanks that have rolled over may have rendered the relief valve inoperable.
- K. If personnel must operate in a precarious position, they must be protected with another fire stream.
- L. Do not park apparatus in low areas, flammable vapors may have accumulated there.

CONFINEMENT:

- A. If vapor is leaking, use fog streams to protect exposures and direct vapor cloud.
- B. If ignition has occurred, use streams to protect the container from overheating and protect exposures from radiant and convection heat.

CONTROL:

- A. Approach the fire or leak from upwind.
- B. Use heavy fog streams to dissipate the vapors if possible without disturbing the liquid. Disperse vapor to safe location.
- C. Attempt to shut off leak by shutting off valves, plugging hole in container or crimping lines. Consult driver of the vehicle or plant personnel as to possibility of shutting off fuel supply.
- D. Heavy streams should be used to divert flames from exposures.
- E. Apply heavy streams to all areas of the tank exposed to heat.
- F. The controlled burning of escaping LP gas is a commonly accepted firefighting practice.
- G. Dry chemical and co2 extinguishers are effective for extinguishing small LPG fires.