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LNG transport trailer incidents

Liquefied natural gas (LNG) transport trailers carry LNG over roadways. Response tactics for LNG tank incidents are different from those for tanks containing other flammable liquids. Learning to recognize LNG transport trailers and apply incident response tactics will help you protect yourself, your team and the public in the event of an LNG tank incident.

Learn to recognize LNG trailers



An LNG tank is approximately 13 feet high and 40 to 45 feet long with flat ends. Coils run along its belly, and the rear of the tank has a "bucket box," which contains piping, valves and gauges. A dedicated LNG trailer will have a placard labeled "UN 1972" and LNG or its other trade names (Methane Refrigerated Liquid, Liquefied Natural Gas and Refrigerated Methane) stenciled on the two sides and two ends of the tank.

Secure the area

If an LNG trailer has overturned or been damaged, approach cautiously and secure the area.

- If you must approach the incident, do so with the minimum amount of personnel, each wearing PPE and SCBA.
- Eliminate potential ignition sources; use intrinsically safe equipment.
- Establish a strong formal unified command and control structure that includes National Grid personnel.
- Use a combustible gas indicator (CGI) to monitor the atmosphere and determine if a leak has occurred.
- Park at least 300 feet away from any LNG spill or vapor cloud.
- Use caution tape to secure the area and establish a safe perimeter.
- Unless an immediate threat to life exists, **focus on evacuation and containment of the LNG,** and protect exposures. Consult Guide 115 in the DOT Emergency Response Guidebook for appropriate evacuation distances.

Work with technical personnel to assess the damage

In the event of an LNG transport emergency, the transport company dispatcher will contact the appropriate zone response company for the city or town affected. The zone response company will dispatch a technical advisor and provide specialized LNG emergency resources. When safe to do so, technical personnel will assist emergency responders in assessing the damage to a trailer and will advise the incident commander on the likelihood of a release.

Prepare to control a release

An LNG tank may begin to vent vapors through its relief stacks if it has been damaged or has had its insulation system integrity compromised. LNG vapors are flammable at concentrations of 5 to 15 percent gas in air. If an LNG tank begins to vent during an emergency, be prepared to contain the spill and control the vapor cloud:

- Support and protect technical personnel. Provide a safe path for ingress and egress.
- Monitor the atmosphere, using multiple CGIs at various heights.
- Prepare for long-term operations, considering resource needs and the ability to secure a reliable water supply.
- Assess wind conditions to anticipate movement of a vapor cloud.
- Consider the need for cloth barriers and sand to keep spilled liquid out of nearby sewers and storm drains regardless of a leak.
- Have a hand line available with a fog stream for dispersing the vapor cloud or directing it away from nearby buildings and lowlying areas. Ensure water mist is not carried onto relief devices on the LNG trailer.
- Do NOT spray the trailer and relief valves; doing so can interfere with the normal operation of critical pressure-relief devices.

If LNG vapor has ignited, let it burn. If a life safety situation exists or the fire will escalate the incident, your incident commander may consider more offensive measures.

For more safety information and training, visit firstresponder.ngridsafety.com. To report emergencies, call 911 and National Grid immediately.