WASHINGTON State FACE Program
Fatality Assessment & Control Evaluation™

**REPORT #:**
71-275-2026

**REPORT DATE:**
3/31/2026

**INCIDENT DATE:**
9/22/2023

**WORKER:**
62 years old

**INDUSTRY:**
Natural Gas Distribution

**OCCUPATION:**
Liquified Natural Gas Technician

**SCENE:**
Temporary and mobile liquified natural gas transfer station

**EVENT TYPE:**
Fire

Control cabinet with transfer hose at back of transport trailer.

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SERVICES / TRUCKING FATALITY NARRATIVE

# Technician Killed and Driver Injured in Natural Gas Vapor Cloud Explosion

## SUMMARY

A 62-year-old technician was killed when a vapor cloud exploded while he offloaded liquified natural gas (LNG) from a tanker semi-trailer. He worked for his employer, a natural gas supplier, for about five years.

The technician was offloading the trailer at a temporary and mobile LNG transfer station. The trailer belonged to the technician's employer but was being hauled by a driver from a contracted motor carrier. The driver had delivered LNG to the station at least 25 times. The facility supplied LNG vapor through a pipeline that served customers.

The technician connected an 18-foot transfer hose from the trailer control cabinet to a queen storage trailer and began the LNG transfer. The driver unexpectedly turned his truck on and drove forward 17 feet while the transfer was still in progress, which yanked and disconnected the hose coupling from the queen. LNG vapor leaked from the trailer and formed a large thick cloud in the work area.

A co-worker, who was outside of the offloading area, saw the cloud and attempted to warn the technician. Around the same time, the driver realized what was happening and rushed from his truck cab to press the Emergency Shut Down (ESD) at the back of the trailer to stop the vapor from being released. Just then the vapor cloud contacted an unknown ignition source and exploded into flames.

The driver ran to a nearby field away from the fire. The co-worker called 911 and his supervisors. He found the technician badly burned but alert at a muster point west of the fire area. He then moved him to a safer place where first responders could treat him.

First responders evacuated the surrounding area and took the technician and driver to the hospital. The technician died two days later from burn shock. The driver was treated for minor burns and released the next day.

## CONTRIBUTING FACTORS

Following the incident, investigators found:

- The driver believed he could move his truck when a technician gave him paperwork before the transfer was complete. He did not exit his cab or complete a pre-trip inspection before moving the truck forward.
- The transport trailer's wheels were not chocked before the transfer hose was coupled to the queen trailer.
- Possible sources of ignition included a spark from ungrounding when the truck moved, nearby generators, or static electricity.

## REQUIREMENTS

**Employers must:**

- Provide your employees a workplace free from recognized hazards that are causing, or are likely to cause, serious injury or death. See WAC 296-800-11005
- (1) Make sure truck vehicle parking brakes are set and wheels chocked prior to connection while tank car, tank vehicle, or ISO container loading or unloading operations, including transfer of LNG and flammables, are in progress; and (2) make sure the engine is not started until the truck vehicle has been disconnected and any released vapors have dissipated. See National Fire Protection Association (NFPA) 59A - Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)

## RECOMMENDATIONS

**FACE investigators concluded, that to help prevent similar occurrences, employers should:**

- **Equip trucks with electronic interlock brake systems.** Interlock systems lock the truck's wheels when the trailer's control cabinet doors are open to prevent vehicle movement while LNG transfer is in progress.
- **Check parking brakes, ignition, and wheel chocks.** Make sure technicians and drivers visually check that the truck's parking brake is set, the ignition is off and keys are removed, and the trailer's rear wheels are chocked before coupling the transfer hose. Transfer should not begin until these tasks are verified.
- **Develop standard communication procedures.** Develop a step-by-step verbal communication procedure for technicians and drivers to follow before, during, and after an LNG transfer. Check with third-party transport companies to ensure they meet or exceed requirements.

## RESOURCES

PHMSA [2015]. Cargo Tank Motor Vehicle Loading/Unloading Operations: Recommended Best Practices Guide. Washington D.C.: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA).

## DISCLAIMERS

- The WA FACE Program is supported by funding from NIOSH (grant #5U60OH008487).

- This narrative was developed by the Washington State Fatality Assessment and Control Evaluation (WA FACE) Program and the Division of Occupational Safety and Health (DOSH), Washington State Dept. of Labor & Industries to alert employers and workers of a tragic incident in Washington State. It is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the injury. For more information visit: http://www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face.