



CNG and LNG Station Operation and Maintenance Course

25 – 29 January 2027
Madrid (Spain)



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CNG and LNG Station Operation and Maintenance is a 1-week course for station managers, shift supervisors and technicians who run compressed and liquefied fueling sites day to day. You practice fueling and defueling routines, test protective devices, write servicing schedules and rehearse leak and fire response. You take back a Station Operating and Servicing Plan. This CNG and LNG station operation course is delivered by Mercury Training Center.

About This Course

Fueling sites in service fail most often through skipped checks, untested shutdown devices and unclear roles when a leak occurs. To follow the course you should already work at, or supervise, a fueling site or fleet depot. You practice on site layouts, operating logs and incident reports, then build the plan for your own site.

Who It Is For

- Managers who run a fueling site and answer for its uptime and staff.
- Technicians who service compressors, dryers, dispensers and cryogenic tanks.
- Supervisors who direct shift operators and approve permits to work.
- Fleet teams who refuel buses, trucks or municipal vehicles at a depot.
- Inspectors and HSE staff who audit sites in service and follow up findings.

This course is not for engineers planning a new site from the ground up, who are better served by a longer course on site construction and inspection, nor for drivers who only refuel their own vehicle, who need a short fueling safety briefing.

Competencies You Will Build

- Daily Operating Routine: you run opening, shift and closing checks and keep the log complete.
- Safe Fueling Practice: you supervise fueling and defueling of vehicles and stop unsafe transfers.
- Protective Device Testing: you test emergency shutdowns, relief valves and gas detectors on schedule.
- Servicing Planning: you write and follow a servicing plan for compressors, dispensers and tanks.
- Leak and Fire Response: you lead the first minutes of a leak, venting or fire and hand over to responders.
- Compliance Recordkeeping: you keep permit, inspection and servicing records ready for audit.

What You Will Be Able to Do

By the end of the course you will be able to:

- From a site layout and asset list, build the daily, weekly and monthly check sheets for the site.
- Given a compressor fault log, identify the likely cause and set the corrective task and its priority.
- Using an LNG tank pressure record, decide when boil-off must be managed and how venting is controlled.
- Given a dispenser leak scenario, run the shutdown, isolation and reporting steps in order.
- From past inspection findings, prioritize corrective work and update the servicing calendar.
- Using a permit renewal checklist, compile the operating records an approving authority asks for.

Course Content

Day 1: Fuel Properties and Site Layout

- Compressed Versus Liquefied Fuel Properties and Their Operating Hazards
- Light Vehicle and Heavy-Duty Fleet Uses of Each Fuel
- Site Layout Reading: Compressors, Storage, Dispensers and Protective Features
- As-Built Drawings and Construction Handover Records
- Permits, Operating Licenses and Approval Records

Day 2: Daily Operation and Fueling Practice

- Opening, Shift and Closing Check Sheets
- Fast-Fill and Time-Fill Fueling Procedures
- Cryogenic Transfer and LNG Vehicle Fueling Steps
- Defueling Precautions Before Vehicle Servicing
- Automation, Monitoring Panels and Energy Use Tracking

Day 3: Servicing Compressors, Dispensers and Tanks

- Written Servicing Plans and Calendars for Running Sites
- Compressor, Dryer and Filter Servicing Routines
- Dispenser Hose, Nozzle and Breakaway Checks
- Storage Tank, Pipework and Boil-Off Inspections
- Predictive Diagnostics, Leak Detection and Quality Assurance Records

Day 4: Protective Systems and Emergency Response

- Emergency Shutdown, Relief Valve and Gas Detector Testing
- Hazard Identification and Risk Assessment for Sites in Service
- Fire Prevention, Control and Ignition Source Management
- Leak, Venting and Fire Response Drills with Incident Reviews
- Emissions, Noise and Waste Controls at Running Sites

Day 5: Building Your Station Operating and Servicing Plan

- Exercise: Writing Check Sheets for Your Site
- Exercise: Setting Your Servicing Calendar and Spares List
- Exercise: Rehearsing Your Emergency Response Card
- Exercise: Auditing Your Records Against Permit Conditions
- Completing the Station Operating and Servicing Plan

Case Studies and Exercises

The following are suggested activities, drawn from public transport, logistics and municipal fleet settings.

- Case study: A city bus depot loses fueling capacity when a compressor trips at night; you trace the cause in the log and set a servicing change.
- Case study: A logistics truck fleet's LNG site vents often during low-demand weekends; you decide how to manage boil-off and delivery scheduling.
- Exercise: A dispenser hose leak at a public forecourt; you run the shutdown and reporting sequence and write the incident note.
- Exercise: An inspection of a municipal waste-fleet depot finds missing test records; you rank corrective work and rebuild the record set.

What You Take Back

The Station Operating and Servicing Plan is written for your own site during the course. In your first month back you use it to brief shift staff, run the new check sheets, book overdue device tests and hold one emergency drill with the plan as the script.

- Daily, weekly and monthly check sheets.
- A servicing calendar with a spares list.
- A protective device test schedule.
- An emergency response card for leaks, venting and fire.

Quick Answers FAQ

What should you know before CNG and LNG station operation and maintenance training?

You should already work at or supervise a fueling site, depot or gas facility and read basic piping and instrument drawings. No engineering degree is needed: fuel properties and hazards are reviewed first, before practice begins.

How does CNG and LNG station operation differ from station construction and inspection training?

Construction and inspection training follows a new site from selection and design to commissioning over two weeks. Station operation and maintenance starts after handover: daily running, fueling practice, servicing, protective device tests and emergency response at a site already in use.

Why do CNG compressors fail at fueling stations?

Most failures trace back to moisture, dirty filters, worn seals and skipped valve or oil servicing. A dryer that is not regenerated on time lets water reach the compressor, so a written servicing plan with logged checks prevents many unplanned stops.

What do you take back from CNG and LNG station operation training?

You take back the Station Operating and Servicing Plan for your own site: check sheets, a servicing calendar with spares, a device test schedule and an emergency response card, ready to brief your shift teams.

For Your Manager

After the course, the team member will be able to run daily checks, supervise fueling and defueling, test shutdown and detection devices, plan servicing and lead the first response to a leak or fire. They return with the Station Operating and Servicing Plan for the site, first used to brief shift staff and to schedule overdue device tests in the coming month.