JUPITER PRIME

Consulting • Training • Advisory

جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Liquefied Petroleum Gas Storage, Filling and Safety Compliance Training Course

17 – 21 October 2027
Muscat

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Liquefied Petroleum Gas Storage, Filling and Safety Compliance Training Course

Ref: 2765_105779 **Date:** 17 – 21 October 2027 **Location:** Muscat **Fees:** 6500 GBP

Liquefied Petroleum Gas Storage, Filling and Safety Compliance is a 1-week training course for terminal supervisors, filling plant leads, safety officers and site engineers, built around a site compliance register that each participant completes for a real installation. Pressurised propane and butane are moving through more depots, cylinder plants and industrial sites each year, and a single leak can escalate fast. Jupiter Prime Training brings liquefied petroleum gas storage and filling compliance into one practical view.

Why Liquefied Petroleum Gas Safety Compliance Matters Now

Three forces shape liquefied petroleum gas operations today. Demand is spreading into smaller commercial and industrial users whose sites were never designed around a pressurised fuel. Ageing cylinder fleets and bulk vessels need tighter inspection and requalification. Insurers and neighbours expect evidence that relief devices and isolation work. Poor handling risks vapour cloud fires and boiling liquid expanding vapour explosion events. The course rests on hazard identification, layers of protection and permit-to-work discipline.

Who Gains Most from Liquefied Petroleum Gas Safety Compliance

- Supervisors responsible for bulk tank farms, transfer pumps and compressors at depots and terminals
- Leads running cylinder filling, checkweighing, leak testing and valve fitting lines
- Safety officers who audit installations, investigate near misses and maintain hazard registers
- Engineers who specify vessels, pipework, relief valves and fire water for new or modified sites
- Coordinators managing road tanker loading, unloading and driver site rules

Depot teams gain most when operations, maintenance and safety members attend together.

Liquefied Petroleum Gas Safety Compliance Capabilities

Participants learn to judge a pressurised gas site as an auditor, operator and responder would.

- Assess separation distances between vessels, buildings, boundaries and ignition sources — siting and layout decisions
- Calculate safe filling ratios from liquid density and temperature — overfill prevention on tanks and cylinders
- Specify relief valves, excess flow valves and emergency shut-off valves — isolation strategy for engineers
- Apply hazardous area zoning to pumps, filling heads and drains — electrical equipment selection
- Test cylinder inspection and requalification routines — fleet retention or scrapping decisions

- Build an emergency response plan for leaks, fires and tanker incidents — site managers and local responders

Key Liquefied Petroleum Gas Safety Compliance Terms

- Filling ratio — the maximum share of a vessel's water capacity that liquid may occupy, leaving space for thermal expansion.
- Vapour pressure — the pressure the gas exerts above its liquid at a given temperature, rising sharply as the vessel warms.
- Boiling liquid expanding vapour explosion — the violent rupture of a pressure vessel when fire weakens the shell above the liquid level.
- Excess flow valve — a valve that closes automatically when flow exceeds a set rate, as after a pipe break.
- Hazardous area zone — a classified space where a flammable atmosphere may occur, governing which equipment is allowed.
- Requalification — periodic inspection and testing that decides whether a cylinder or vessel may remain in service.

Liquefied Petroleum Gas Safety Compliance Day by Day

Day 1: Properties, Hazards and Site Context

- Propane and Butane Properties — Behaviour of Heavier-Than-Air Vapour on Site
- Vapour Pressure and Temperature Curves — Vessel Design Pressure Choices
- Leak, Jet Fire and Vapour Cloud Scenarios — Credible Event Selection
- Incident Case Reviews from Depots and Plants — Lessons for Local Controls
- Hazard Identification Workshop Method — Starting the Site Hazard Register

Day 2: Bulk Storage Installations

- Above-Ground and Mounded Vessel Layouts — Separation Distance Checks
- Relief Valves, Gauges and Level Instruments — Overpressure and Overfill Protection
- Emergency Shut-Off and Excess Flow Valves — Isolation Philosophy for Tank Farms
- Fire Water Deluge and Cooling Systems — Protecting Vessel Shells from Heat
- Pumps, Compressors and Transfer Pipework — Leak Points and Inspection Intervals

Day 3: Cylinder Filling Plant Operations

- Filling Carousels and Checkweighers — Accurate Filling Ratio Control
- Leak Testing and Valve Fitting Stations — Rejecting Faulty Cylinders
- Cylinder Inspection and Requalification Rules — Fleet Retention Decisions
- Hazardous Area Zoning in Filling Halls — Electrical Equipment Selection
- Cylinder Storage Cages and Handling — Stacking, Ventilation and Segregation

Day 4: Transfer, Permits and Emergency Readiness

- Road Tanker Loading and Unloading Procedures — Driver and Operator Responsibilities
- Hose Integrity and Breakaway Couplings — Preventing Drive-Away Releases
- Permit to Work and Hot Work Isolation — Maintenance on Live Systems
- Gas Detection and Ignition Source Control — Alarm Set Points and Response
- Emergency Response and Responder Liaison — Leak and Fire Action Plans

Day 5: Compliance Auditing in Practice

- Site Walkdown Checklist Design — Turning Hazards into Audit Questions
- Separation Distance and Layout Audit Exercise — Applying Storage Checks
- Filling Plant Inspection Simulation — Applying Filling and Requalification Rules
- Corrective Action Ranking by Risk — Allocating Maintenance and Capital Effort
- Site Compliance Register Completion — Final Review and Peer Challenge

Applying Liquefied Petroleum Gas Safety Compliance After the Course

- Lead a walkdown of one bulk storage area using the checklist built in class, recording isolation and separation gaps.
- Run a filling ratio and cylinder rejection check on one filling line, against calculated limits.

Liquefied Petroleum Gas Safety Compliance Questions FAQ

What is liquefied petroleum gas safety compliance and why does it matter now?

It is the set of design, operating and inspection controls that keep pressurised propane and butane contained. It matters now because use is spreading to smaller sites while cylinder fleets and vessels age.

Who gains most from liquefied petroleum gas safety compliance training?

Depot supervisors, filling plant leads, safety officers, site engineers and tanker coordinators gain most. Each handles a different point where gas can escape.

How does a liquefied petroleum gas safety compliance course differ from a general process safety course?

It focuses on one pressurised fuel and its specific equipment. A general process safety course covers broad hazard methods across many substances, while this one works through vessels, filling lines and tankers.

What do you bring back from liquefied petroleum gas safety compliance training?

You bring back a site compliance register for your own installation. It lists hazards, controls, findings and ranked corrective actions.

Liquefied Petroleum Gas Safety Compliance: The Way Forward

The site compliance register gives the site manager a ranked list of gaps to close first, usually around isolation valves, separation distances or filling accuracy. After its first use, revisit it whenever equipment, layout or throughput changes, because each change shifts where the next leak is most likely.