



LM035: Liquefied Natural Gas (LNG) Cargo Operations and Re-liquefaction

Training Description:

The Liquefied Natural Gas (LNG) industry is very much a growth industry with both demand and supply likely to continue to increase in the short to medium term. Much shore-based activity depends on the expedient and safe operation of the LNG tanker. Office-based staff have little opportunity to engage with sea staff and even less to be given a comprehensive understanding of ship-board operations.

This intensive training course incorporates the activities and concerns of the LNG tanker within the context of a dry dock to dry dock cargo cycle. Beyond this, each aspect of design and safe operation, including the operation of relevant machinery and equipment and the physics of LNG re-liquefaction will also be covered and included.

The course will highpoint:

- The properties and hazards of handling LNG
- How design can enhance safe operation of LNG tankers
- The stages of a cargo cycle
- Preparation for dry dock and the first cargo after dry dock
- Measures to protect the commercial interests of an LNG tanker owner

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Identify the hazards of LNG
- ✓ Understand safe design and safe operations
- ✓ Recognise the stages of a cargo cycle
- ✓ Protect the commercial interests of the tanker owner
- ✓ Understand the specialist techniques for fighting an LNG fire

Training Designed for:

This course is intended for a wide range of Professionals but in particular to energy company Oil and Gas Process Managers, Plant Managers and Operators, Sales and Marketing Managers, Financial Directors, Project Managers, Investment Analysts, Asset Managers, Asset Engineers, Ship and Voyage Managers, Ship Superintendents, Cargo Surveyors and Expeditors, and Ships' Staff.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction



❖ **The Application of Regulation and Mitigation of Hazard**

- Regulations
- Properties and hazards of LPG
- Design for safety
- Hazardous and non-hazardous areas
- Sources of ignition

DAY TWO:

❖ **Atmosphere Control and the Physics of LNG during a Re-liquefaction Cycle**

- Physics and chemistry
- Inert gas generators
- Nitrogen generators
- Behaviour of gases
- LNG Re-liquefaction and cargo conditioning

DAY THREE:

❖ **Types of LNG Tanker and Cargo Tank**

- Types of LNG carrier
- IMO ship types
- IGC code damage assumptions
- Tank types and construction
- Cargo pumps
- Level measurement

DAY FOUR:

❖ **Safe Working Practices and the Preparation for the Cargo Cycle**

- Dangerous space entry
- Gas detection instrumentation
- Cargo operational cycle for LNG tankers
- Preparation for first cargo after dry dock
- Gassing up and cooling down

DAY FIVE:

❖ **The Cargo Cycle and Personal Protection**

- Loading cargo
- Loaded voyage
- Discharge cargo
- Prepare for dry dock
- Personnel protection
- Fire-fighting LNG

❖ **Course Conclusion**

❖ **POST-ASSESSMENT and EVALUATION**

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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