



The mission of Centro Jovellanos is to implement, develop and design comprehensive rescue and maritime safety training systems that are high quality, highly specialised, certified, innovative, and sustainable to ensure the most remarkable levels of professional training.

Train, provide, reduce, innovate and guarantee are the five key goals of the Jovellanos Centre, which is the training centre of the Spanish Maritime Search and Rescue Agency, a public entity dependent on the Ministry of Transport, Mobility and Urban Affairs.



**TRAIN:** Understand the needs of professionals and propose efficient solutions to act in emergencies.

**PROVIDE:** The necessary knowledge to implement tasks successfully at the workplace.

**REDUCE:** Reduce fatalities and damage to the environment through training, thus avoiding risks and accidents.

**INNOVATE:** Develop comprehensive virtual reality training methods that improve knowledge.

**ENSURE:** The implementation of our quality system when designing and developing our training activities.

## COURSE

## EMERGENCY MANAGEMENT FOR CREW MEMBERS ON VESSELS USING LNG AS FUEL

### TARGET GROUP

Crew members of ships fuelled with LNG (non pure LNG tankers) that may be involved in emergencies involving LNG.

### TRAINING

**Objective:** Provide the knowledge to handle on-board LNG emergencies. The understanding of the LNG bunkering systems and knowledge of methods to extinguish LNG fires.

### DURATION

The course consists of 14 certified hours, it's delivered over a period of 2 days.

### PROGRAMME

Introduction to LNG (properties and characteristics).  
The use of the LNG as marine fuel.  
Types of LNG bunkering.  
Fire-fighting systems involving LNG fires.  
The IGF Code "Safety for ships using gasses or other low flash point fuels".  
RPT and BLEVE theories.

Safe working in LNG facilities. Health & Safety during operations.

Cryogenic materials.

Emergency shutdown system (ESD).

Personal protective equipment (PPE). Actions to be taken in the event of an accident.

#### Practical training:

Cryogenic tests.

Applying water and LNG vaporisation.

Extinguishing LNG using dry chemical powder.

LNG spill control through using high expansion foam.

Controlling LNG leaks using hose lines and protected with cryogenic resistance equipment.

Controlling fires in LNG flanges by closing valves.

Demonstration of RPT and BLEVE.

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