



Project name:
Adriatic LNG Terminal (ALT)

Project period:
2003-2008

Owner:
Exxon/Mobil

Client:
Aker Kværner Contracting

In brief:
Detailed design of LNG terminal in the Adriatic Sea.

Project size:
approx. EUR 2 mill.

LNG terminal in the Adriatic Sea

Engineering design of the Adriatic LNG Terminal, which is a combined mooring facility and storage tank for liquefied natural gas located in the Adriatic Sea just off the coast of Venice in Italy.

Aas-Jakobsen, Sweco Grøner, Multiconsult and Olav Olsen were all involved in the engineering design of the concrete structure.

The LNG terminal was built in a dry dock in Spain and floated out to the Adriatic Sea, where it was installed in 2008. The LNG tanks and topsides were skidded into place in the dry dock before the floating operation began. Beside the terminal there are two smaller platforms, Mooring Dolphins, which hold the gas tankers in place during unloading operations. These were built in a dry dock in Venice. The terminal and Mooring Dolphins were lowered onto the sea bed and are held in place by their own weight and ballast (Gravity Based Structures).

Key figures for the LNG terminal:

WxHxL = 88m x 180m x 47m + approx 2.5 m skirt

LNG volume: 2 x 125,000 m³

Topside weight: approx. 16,000 tonnes

Weight out of dock: 273,000 tonnes

Draught out of dock: approx. 19 m

Water depth: approx. 30 m

Concrete volume: approx. 90,000 m³

The terminal was built in concrete, and the LNG gas is stored at minus 160 degrees Celsius. The low storage temperature, combined with the fact that the terminal sits in an earthquake-prone area, created extra challenges for the design of the terminal.

The project was successfully implemented, making extensive use of 3D models. Mechanical equipment and reinforcement were both modelled in order to avoid clashes during construction. Kværner's execution model was used in order to create an accurate schedule and ensure that all prerequisites and clarifications were addressed in a timely fashion.

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