

*Two post-tensioned LNG tanks of 154,000m<sup>3</sup> capacity each*



▲ Dragon LNG Tanks during the slip forming

Milford Haven is in a strategic position with naturally deep harbour where Dragon LNG, the owner, decided to build a store for gas because of the rising demand.

The project involves the construction of two Liquefied Natural Gas Tanks of 154,000m<sup>3</sup> capacity each.

VSL is carrying out the post-tensioned system implanting new technologies; such as the PT-PLUS Duct and the dead anchorage type AF Anchorage.

#### Scope of works performed:

- Supply and installation of post-tensioning, including dead anchorage type AF.
- Grouting with Ductal® G2.

The installation of the rebar on the first tank was started in May 2005 and over 52 km and 6,500 couplers of PT-Plus duct were installed during the slip forming of the wall, working round the clock for six weeks, three weeks per tank.

The 70cm thick wall is reinforced with 144 vertical and 158 horizontal tendons from 17 to 27 strands.

Vertical tendons are anchored in the bottom with the dead anchorage type AF Anchorage that, after the introduction of 19 strands, are grouted with the AF Anchorage high performance grout and stressed with a project strength of 40280KN.

To optimise the distribution of the strength, the horizontal tendons are composed of 17 and 27 strands according to the areas

where major strength is needed. Those tanks, post-tensioned with more than 1,300 tons of strands, are projected to be in operation at the end of 2007.



◀ AF Anchorage with PT Plus 115 duct, strands and a compression fitting



▲ AF Anchorages installed in the slab of the tank



**OWNER**  
LNG DRAGON

**ENGINEER**  
Whessòë

**MAIN CONTRACTOR**  
Whessòë – Volker Stevin JV

◀ Tank 821

▼ Tank 821 during night shift



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