Job report

HVAC EQUIPMENT

ORMEN LANGE OIL FIELD

OUR CLIENT AKERKVÆRNER
OPERATORS HYDRO

SHORT DESCRIPTION OF THE PROJECT

The field is situated 120 kilometres north west of the Møre coast, and processing will take place at Nyhamna on the west coast of Norway. The gas will be exported to Easington on the east coast of England trough a 1200 kilometer long export-pipeline. Discovered by Hydro in 1997, the reservoir is around 40 km long and eight km wide, approximately 3000 m below the surface of the sea.
Production capacity will be:
Condensate: 6000 to 8500 m^3 per day
Gas: 70 million Sm^3 per day
Production start October 2007.

CHALLENGE

Climatic and oceanographic conditions make it one of the most challenging development projects in the world.

The field will be developed with production equipment on the seabed (depths 800 to 1100 m), and will be linked to a processing plant on land at Nyhamna on the west coast of Norway, from where the gas will be exported to Easington in the UK through the worlds longest undersea pipeline (1200 km).

SOLUTION

During 2004, Novenco competed for a prestigious "Blanket Order" for the delivery of HVAC related equipment for the onshore administration areas and processing plant buildings.

The bid procees was eventualy performed "on line" through e-bidding and towards the end of 2004, Novenco were approved by HYRDO as their first choice.

With an estimated contractual value of NOK 80-90 mill (USD 12-14 mill), the HVAC equipment is delivered in 2005/2006.

The total onshore installation will be completed, commissioned and started up in 2007. As many as 2,200 people will be working on land during the installation period.

SCOPE OF WORK

Although situated onshore, the site is in a very exposed situation, both in respect to salt and general weather conditions. Equipment design is therefore to the highest Offshore standards, of very high quality, reliable and durable, the required life time being 30 years.

Novenco's scope of supply includes the design and manufacture of:

- 40 air handling units,
- 15 extract fan skids,
- 100 fire and modulating dampers
- 11 water chillers with air cooled condensers.
- 50 acoustic louvres
- Special weather louvres with heat tracing
- 30 airflow stations
- 20 DX units

70% of the total equipment supply will be manufactured within the YORK groups own production facilites.

With total control over in house production, this gives us a unique advantage over most competitors.

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TECHNICAL DESCRIPTION EQUIPMENT

AIR HANDLING UNITS

Air volumes ranging from 10,000 to 40,000 m3/hr .
Sizes range from a medium ZCR to the largest ZP-100.

AISI 316 stainless steel casing.
Internal components such as fans and dampers also in stainless steel.

Components 2 x 100% configuration.

Motors sizes up to 50 kw.

AXIAL FAN SKIDS

Open skids used for many extract systems, comprising of 2 x 100% axial fans, pneumatic and manual dampers and sound attenuators.

Air volumes ranging from 10,000 to 40,000 m^3/hr .

CHILLED WATER UNITS

The chilled water units have capacities ranging from 90 to 510 kw.
They have internal condensers and outdoor dry coolers.

The indoor units have 2 x 100% refrigerant circuits, built on common skids which include all internal piping, pump station, expansion tank and have integrated local control panels controlling the temperature out of the Air Handling Units.

ACOUSTIC LOUVRES

The acoustic louvers are special designed in 1,25mm stainless steel casing, containing 80 kg/m^3 mineral wool. The louvers are tested in accordance with ISO 140-3.

INLET DROP SEPARATORS

Inlet drop separators are manufactured in sea water resistant aluminium and are supplied with heat tracing.
The separators give a separation efficiency of 99% for avg. droplet size down to 115 microns.

DAMPERS

Over 100 pneumatic fire and modulating dampers were part of the total delivery, all manufactures in stainless steel 316L.

MU 13397 0506

HI-PRES MARINE & OFFSHORE

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Owing to continued product development Novenco reserves the right to introduce alterations without prior notice