

1000 days without lost-time incidents

by Terje Woldsund, Service Sales, Wärtsilä Norway AS
and Matti Olli, Operations and Maintenance, Wärtsilä Corporation

The FPSO Petrojarl Foinaven, operating for BP on the Foinaven field northwest of Shetland, is celebrating 1000 days without lost-time incidents. Wärtsilä maintains a permanent maintenance team on the vessel to ensure maximum availability.



The Petrojarl Foinaven floating production, storage and offloading (FPSO) vessel, owned today by PGS Production, was built in Finland in 1989 as a Russian submarine carrier. PGS Production bought the ship in Vladivostok in 1994 and converted it to an FPSO in Spain.

The Petrojarl Foinaven is equipped with eight Vasa 32 gas-diesel engines (four Wärtsilä 16V32 GD and four Wärtsilä 18V32GD), giving a total output of 51 MW. The FPSO, which began operations in 1997, is expected to be on location for a minimum of three to four more years.

Downtime minimized

Since June 1999 Wärtsilä Norway has had a permanent crew onboard at all times to perform maintenance of the Petrojarl Foinaven's power plant.

During overhauls, Wärtsilä sends additional crew to complete the job within the time required. Wärtsilä also supplies all spare and replacement parts, in addition to stocking an adequate amount of safety parts needed for the power plant's operation. The purpose of this commitment is to keep downtime as short as possible.

"This gives the Wärtsilä engineers familiarity with the procedures of the company and routines onboard the FPSO while we, as a contractor, are able to provide the same level of safety and

reliability as the company, in order to avoid incidents," says Helge Krafft, Senior Vice President of PGS Production AS. "I have also observed that the reporting frequency of undesired events and safety ideas on the Petrojarl Foinaven has shown a major increase over the past three years. Part of the reason for being able to celebrate this milestone must be attributed to active learning from near miss reports and the use of HSE ideas through Safe Cards to prevent injuries and accidents," he adds.

In December 2003, PGS Production and Wärtsilä Norway renewed the Petrojarl Foinaven agreement for another five years. PGS Production has also contracted Wärtsilä Norway to maintain the power plants onboard the Petrojarl I operating on the Glitne Field for Statoil and Petrojarl Varg operating for the PGS-owned oil company Pertra in the Varg field.

Benefits for both parties

This type of agreement enables Wärtsilä to integrate its team with the onboard crew. This gives the Wärtsilä engineers familiarity with the procedures of the company and routines onboard the FPSO while we, as a contractor, are able to provide the same level of safety and reliability as the company in order to avoid incidents.

This service agreement typifies the high level of supplier partnership expertise that effectively uses the capabilities of both

customer and supplier, benefiting both parties. Thanks to its extensive service organization Wärtsilä can optimize the use of resources, bringing cost-effective and reliable service to its customers.

Gas engines preferred

PGS Production is the new name for Trondheim-based Golar Nor Offshore, the world's leading harsh-environment FPSO vessel operator, acquired by Petroleum Geo Services (PGS) in 1998. Production-related activities within PGS are now the responsibility of PGS Production.

Four FPSO vessels are included in the business unit, whose activities comprise complete services from wellhead to refinery. The vessels are designed to stay connected to the production wells even during 100-year North Sea environmental conditions (30 metre max. wave height and wind speeds up to 41 m/s).

As the vessels will operate in Norway where a CO₂ tax is levied on power production in the offshore sector, the efficiency of the power plant has a significant impact on the operation costs of the oil fields. PGS Production then turned to Wärtsilä for gas engines. Since the operator's requirements also included low NO_x levels, the gas engine emerged as the first choice for this installation. ■