

Refurbishment of the existing critical firewater systems



Oseberg

Operator: Statoil Hydro

Main and modifications contractor: Aibel Engineering

The problem

StatoilHydro's existing stainless steel fire deluge system, which was installed in 1998, had corroding welds and pressure leaks. This put them under a dangerous risk of catastrophic failure.

Previous experience with corrosion problems on other platforms had led Hydro to establish a steering committee of major operators, such as BP, Statoil and ConocoPhillips, to examine answers to the problem. The Scanpower Report had made a detailed survey of firewater systems in every platform and facility in the Norwegian sector, and concluded that there was a major problem.



The solution

A new firewater system needed to be refitted to the existing oil and gas production platform (brownfield). Trelleborg had already installed ELASTOPIPE, a corrosion-free firewater system, in small development modules elsewhere, and had collaborated with Hydro in developing the system.

A specifically designed and engineered system was installed for Oseberg, completed by Trelleborg with Aibel. This included the delivery of 13,000 metres of ELASTOPIPE by support vessel to the platform.

ELASTOPIPE replaced the existing steel pipe as a one-to-one replacement. No welding or metal cutting was required. So, no time-consuming hotwork precautions needed to be taken to protect against danger from sparks or even fumes in the hazardous conditions.

ELASTOPIPE provided a solution that offered competitive material costs to steel firewater systems. Because it was easier and quicker to fit in the confined spaces, it also offered reduced total installation costs on the project compared to other types of systems. In the long-term, the ELASTOPIPE system will not need to be tested as frequently as a steel system, as it is not subject to corrosion.