Case Study

Raychem

Norwegian Offshore Platform Project

PROJECT DETAILS

Applications:
Temperature Maintenance, Pipe and Freeze Protection

Technology:
Raychem Self-Regulating Heat-Tracing Cables, NGC-30 Control and Monitoring Systems

Location:
North Sea, Norway

Date:
December 2014

Contract Scope:
Engineering Design, Material Supply and Installation

Client:
A Global Oil & Gas Company

KEY CHALLENGES

This project presented several unique challenges to the offshore platform Owner, as well as to Chemelex, mainly due to the high processing unit temperatures - which would require tight temperature control - and the extremely low ambient temperatures of the North Sea region. Further, the Customer requested that this platform be unmanned, which in turn would require sophisticated Control & Monitoring for the Heat Tracing System. And, finally, as with all offshore platform processing units, space and weight were large determinant factors that had to be considered, so minimizing the panel and transformer footprints were critical.

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SOLUTION

Chemelex provided the Raychem NGC-30 Advanced Control & Monitoring System, including RCM's for the heat tracing circuits, which provided the ability to maintain the system control remotely. The inherent flexibility of the Raychem NGC-30 allowed the team to manage design changes and last minute heat tracing circuit additions through every step of the process, which helped to keep the panel and transformer quantity and sizing to a minimum. Chemelex design team also was able to design the entire Heat Tracing System through its proprietary TracerLynx software, which allowed for interface directly from the Customer's 3D design model. This helped with quick execution and follow-up during the revision phase, and with incorporating several last minute client-requested design changes.

PRODUCTS

To meet the needs of this challenging application, Chemelex offered the following Heat Management System:

- Raychem Self-Regulating Heating Cables for Temperature Maintenance and Freeze Protection
- Raychem NGC-30 Multi-Circuit Heat Tracing Control, Monitoring and Power Distribution System
- OneCo Stainless Steel Junction Box and Connection Accessories
- Engineering, Design and Project Management Services

BENEFITS

Utilizing the Chemelex Heat Management System, the client was able to meet and successfully address all of the challenges this project presented. Pairing Raychem Self-Regulating Heating Cable Technology with the Raychem NGC-30 Controllers substantially reduced the energy consumption, as well as the overall equipment footprint, with accurate power output to minimize the heat loss of the pipes and vessels. This centralized Control & Monitoring System provided information on the status of heat tracing circuits; and, better reporting enabled predictive maintenance which reduced costs and improved overall performance.

With decades of experience in designing, manufacturing and installing heat management systems, Chemelex was able to provide a comprehensive solution the customer's unique needs. The use of multiple heat trace technologies, a heat tracing circuits, and power distribution panel boards ultimately led to the overall success of this project.

Chemelex provides unique solutions for various applications and offers a full suite of optimization strategies customized for a given application resulting in the highest reliability and performance at a reduced CAPEX/OPEX for the project.

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