

Raychem Heat Management Solutions Provide Critical Operational Reliability for Louisiana Liquified Natural Gas (LNG) Plant



PROJECT DETAILS



Applications:

- Pipe Freeze Protection
- Process Temperature Maintenance
- Instrument Winterization



Location:

Plaquemines Parish, Louisiana



Contract Scope:

- Engineering, Product Supply, Start Up Support



Technology:

- Raychem Self-Regulating Cables (XTV)
- Advanced Control and Monitoring
- Heat Traced Tubing Bundle



Date:

2023

KEY CHALLENGES

As a result of global demand for natural gas, the client made it a priority to build an LNG export facility on the U.S. Gulf Coast. They contracted two EPC firms to design and build this facility

The customer's mission critical objectives for this project included maximum productivity, strong working relationships with the contracted EPC firms, a heat management system (HMS) vendor with proven expertise in module engineering and that would provide optimized and reliable heat management solutions. Effective communication and coordination between all parties involved was considered paramount to the project's success.

SOLUTION

Through a series of meetings with the owners and EPC firms, the Raychem engineers and project team demonstrated their expertise in the design and supply of proven heat management systems to the LNG industry along the Gulf Coast.

A European facility was selected to build the compressor trains in modules. Our local Raychem team was awarded the heat management scope for the power island, OSBL piping and instrumentation. Consequently, our RAYCHEM project managers had to meticulously coordinate the design work packages between the compressor train team in Europe, and the OSBL and power island Raychem team in the Gulf Coast. The customer appreciated that the RAYCHEM engineers demonstrated impeccable communication and excellent coordination capabilities in working jointly with the module facility in Europe.

Raychem engineers designed a heat management solution using our proprietary Raychem TracerLynx 3D Heat Management System (HMS) software with heat mapping capabilities, which allowed for full optimization of the power distribution system, identifying smart locations for the HMS control and monitoring panels, EHT power connection kits and components for maximum energy efficiency. The HMS design used self-regulating trace heating technologies that proved best suited for the project. Instrument tubing bundles, using the same self-regulating technologies were also provided to ensure operational reliability. Finally, the engineering design included Raychem NGC-30 control and monitoring panels were selected based on their proven record of delivering energy savings, minimizing operational risk, and maximizing productivity.

PROJECT FACTS

To meet the mission critical needs of this LNG plant, our Raychem heat management solution included:

- Engineering design experts providing optimized design and support using TracerLynx 3D HMS Software
- Project Management support coordinating HMS activity with the module yard in Europe
- Raychem XTVR Self-Regulation heating cables
- Raychem NGC-30 control and monitoring panels
- Pre-traced tubing bundle for instrument winterization
- Field Service experts deployed for on-site system start up support

BENEFITS

CHEMELEX's turnkey engineering and project management services met the customer's mission critical goals, assuring operational reliability and maximum productivity. Coordination of the heat management activity in the overseas module facility, via CHEMELEX's local design team was critical in providing for an optimized design and effective installation. Success on this project required a very collaborative effort with the owner's technical team, the EPC firms, and the overseas module facility. Early engagement and continued collaboration between all parties made this possible. The owner has active plans to expand this LNG location, and CHEMELEX's unique expertise will lead to ongoing success in providing Heat Management System support to the industry.

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