

TANK INSULATION SYSTEM FOR RELIANCE'S JAMNAGAR EXPORT REFINERY PROJECT (JERP)

PROJECT DETAILS

Client:	Reliance Industries Limited
Location:	Jamnagar, Gujarat - India
Completion Date:	October 2008
Contract Scope:	Engineering, Procurement & Construction
Applications:	Thermal Insulation of Storage Tanks
Technology:	Trac-Loc Vertical Lock-Seam Tank Insulation System



KEY CHALLENGES

This was the first time that nVent handled such a huge order in terms of the number of tanks and their dimension. The six month project schedule was an enormous challenge in terms of mobilizing the crew to undertake such a large order. Certain tanks had to be insulated to maintain very high temperatures, and hence the thickness and density of the insulation material was also greater making the handling of the pre-formed panels at heights a big challenge. The storage tanks at JERP needed to have advanced thermal functionality as the products stored in these tanks included VGO, Unionfiner Feed, CPP CSO Fuel Oil, Heavy Slops, FCC Feed, Vacuum Residue, Liquid Sulfur, Export Fuel Oil, Light Naphtha, Light Reformate, Refinery Fuel Oil and Meroxed Pentane.

Due to the increase in energy prices and worldwide focus on reduction of carbon emissions, the source of an insulation system that brings energy savings is getting more attention. Moreover, the focus is not only on investment costs but also on the operational costs of the system over its lifetime.

SOLUTION

nVent provided engineering & design services enabling maximized design efficiency and establishing an investment payback timeframe. The ability to engineer and insulate a total surface area of over 100,000 sq. m. covering 30 tanks, with its expertise in full service procurement of materials, project management, construction and commissioning, resulted in a world-class, safe and reliable tank insulation system.



PRODUCTS

To meet the needs of this application, nVent employed its Trac-Loc insulation system which is an advanced interlocking panel system consisting of prefabricated panels of insulation and jacketing material, in this case mineral wool & stucco-embossed aluminum.

BENEFITS

Nvent TRACER Trac-Loc System delivers structurally superior, minimized maintenance and lower cost insulation, as compared to conventional tank insulation methods.

- Ideal for large, flat-bottomed tanks containing materials that are sensitive to temperature fluctuations and require a covering of insulation and jacketing to reduce heat loss or gain.
- Continuous 360° interlocking seams provide rigidity that offers high thermal efficiency, superior wind resistance and reduces moisture ingress, thereby eliminating corrosion problem.
- Reduced safety risks since no scaffolding or welding required, resulting in a lower installation cost and fewer hours spent on site.
- Longer life and superior aesthetics over conventional system.

The synergy of the listed benefits for the Trac-Loc advanced tank insulation system leads to substantial yearly operational costs savings.



nVent proven project execution strategies, and high safety standards, made us an ideal partner for installing Trac-Loc systems at Reliance's Jamnagar Export Refinery Project as they benefited from our expertise to meet their requirements.

Situated in Gujarat on the northwest coast of India, the integrated refinery/petrochemicals complex consists of a petroleum refinery and associated petrochemical plants. It is equipped to refine various types of crude oil and manufactures various grades of fuel from motor gasoline to Aviation Turbine Fuel (ATF). The location on the west coast of India supported by world-class logistics and port facilities provides the company with freight advantages.

JERP, based in the special economic zone (SEZ) adjacent to the existing refinery, has an installed capacity of 580,000 bpsd. For more information, visit ril.com

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