

CB&I South Hook Terminal Optimal LNG storage and processing

The low temperature insulation on two LNG modules of the CB&I South Hook Terminal in England ensures safe storage of the liquefied gas.



Insulation

Fire Protection

Noise Control

CB&I makes a large contribution to improving the global energy infrastructure by providing an environmentally-friendly fuel, liquefied natural gas (LNG). Especially high requirements exist in terms of the processing and storage of LNG since it needs to remain in the liquid state. The professional installation of low temperature insulation optimizes the storage conditions and prevents regasification.

CUSTOMER

CB&I, England and Hollandia B.V., Netherlands

PROJECT

Low temperature insulation on two LNG modules of the South Hook Terminal

PERIOD OF EXECUTION

05/2008–10/2008

SURFACE INSULATED

9,200 m²



To organize the complex work processes as effectively as possible, G+H completely insulated the modules in a prefabrication hall owned by Hollandia in Krimpen (Netherlands). The customer transported the finished units by ship to their destination in England. Since there were a large number of pipes and equipment mounted next to and on top of each other on the modules, the low temperature insulation needed to be applied in a very tight space. To do this, a multi-layer cryoge-

nic solution with PIR shells and foam glass insulation shells was installed. On the outside, G+H mounted a vapor barrier made of a modified bitumen membrane with aluminum foil. It prevents the formation of condensate and ice. For the jacket and for mechanical protection, the installers used galvanized aluminum sheet metal that they fastened in place with stainless steel mounting straps. The professional insulation job performed under difficult conditions impressed CB&I and Hollandia.



TASK

- Complicated installation of low temperature insulation (cryogenic insulation for up to -196°C)
- Prevent the formation of condensate and ice
- Optimize the use of energy and the work processes

SOLUTION

- Insulation of the modules in the Netherlands
- PIR and foam glass insulation shells
- External vapor barrier with modified bitumen membrane with aluminum foil
- Jacket with galvanized aluminum sheet metal

ADVANTAGES

- No formation of ice or condensate after starting the modules
- Increase in energy efficiency and occupational safety
- High level of customer satisfaction
- Expanded knowledge in the field of low temperature applications