

Gate Terminal B.V. Secure insulation for new shipping pier

G+H has added cryogenic insulation and fireproofing to the new LNG terminal in Maasvlakte (Rotterdam), covering a surface of 8,800 sqm.



Insulation

Fire Protection

Noise Control

A new third shipping pier has been built for smaller vessels in Maasvlakte. This is to ensure that, in the future, liquefied natural gas (LNG) can also be distributed to any of the North Sea and Baltic ports where large LNG tankers are prohibited. After several projects had previously been conducted for this customer by G+H, Gate Terminal B.V. decided to use the same contractor again and to rely on its high level of expertise.

CUSTOMER

Fluor B.V. NL, Gate Terminal B.V., Netherlands

PROJECT

"LNG Break Bulk Rotterdam (LBRR)" Project: Cryogenic insulation of pipes and equipments and fireproofing at the new LNG terminal

IMPLEMENTATION PERIOD

01/2016–09/2016

INSULATED SURFACE AREA

7,500 sqm (insulation) and 1,300 sqm (fireproofing)



G+H applied two to three layers of PIR shells with interior vapour barriers, made from aluminium foil, thus insulating the pipes against temperatures down to -196°C , i.e. the point at which the relevant gas turns liquid. This was followed by a layer of foam glass shells and an exterior vapour barrier made from aluminium bitumen foil. All shells were made to measure, to suit the relevant dimensions. Finally, using

stainless steel bands, the team added the outer shell made from 0.8-mm stainless steel sheets. The steel beams and columns, equipment skirts and support constructions were given optimum fireproofing in the form of a special sprayed coating (Fendolite MII). Moreover, G+H successfully ensured that the entire job went smoothly and on time and that the work was completed within only eight months.

TASK

- Cryogenic insulation of pipes and equipments down to -196°C
- Fireproofing of steel beams and columns, equipment skirts and support constructions
- On-time completion of the insulation and fireproofing work

SOLUTION

- Precisely tailored PIR shells with interior vapour barrier made from aluminium foil
- Foam glass shells with exterior vapour barrier made from aluminium bitumen foil
- Touch-up coating of pipe welds
- Fireproof coating, using Fendolite MII or MII Isolatek

ADVANTAGES

- Compact low-temperature insulation to prevent premature regasification
- Quality assurance for liquefied natural gas
- Safety through fireproofing and high energy efficiency