SAFEHOUSE
BY ELEMERA

LNG PLANT LIFE EXTENSION HABITATS

Hot work is often an unavoidable part of maintaining, repairing or upgrading facilities. When facilities contain flammable substances that may give rise to explosive atmospheres, ignition sources are a major risk. Often hot work is conducted during facility shutdowns, when the risk is reduced. However, frequently work must be conducted outside of shudtown schedules, while facilities are in full production – in this case innovative solutions must be used to manage ignition risks.

THE CHALLENGE

Safehouse was asked to deliver a hot work management solution in challenging conditions on a large LNG liquefaction facility life extension project in Western Australia. A T-piece needed to be welded into an 800mm diameter hydrocarbon line, in a zone 2 hazardous area while adjacent process was still operational. The worksite was at the top level of the LNG train, 20m above ground level, making access difficult.

The project came with added health and safety challenges posed by the region's intense heat and high humidity. Combined with the 600°C pre and post heat treatment on the two simultaneous golden welds, temperatures at the work site were predicted to be dangerously high.

OUR APPROACH

To ensure the project was successfully delivered, we conducted a site survey, produced numerous detailed work packs, 3D models, scaffold plans, detailed hot work risk assessments and assisted with planning the scopes, including internal temperature projections and fire watching protocols.

OUR SOLUTION

The effective use of our IECEx air conditioning units in conjunction with our insulated habitat system ensured that a safe work environment was provided.

THE RESULTS

Despite the searing heat, our habitat system delivered a safe and comfortable working environment, and the work scope was completed on schedule without incident. We went on to install and monitor another 20 habitats for the duration of the life extension project, creating safety and delivering productivity.

STATISTICS

30°C
HABITAT INTERNAL TEMPERATURE

600°C
PRE AND POST WELD HEAT TREATMENT

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INCIDENTS AND INJURIES