GAME CHANGER CONTRIBUTES TO 67% DAILY COST SAVING

On-site Nitrogen Production

A major UKCS Operator recognised that one of the key drivers within the current climate is to reduce cost during critical maintenance periods.

Having extensively reviewed the technical and commercial aspects of the Nitrogas ATEX Zone 1 system, they were confident that it would allow them to make significant, positive changes to their project structure.

The Project

- Purge the hydrocarbons from the A-Gas Export Train
- Prior to spading, purge the pipework, vessels, compressors and export gas discharge cooler

Approach

The operator analysed the benefits of using the Nitrogas system against the traditional method of supplying Nitrogen on the platform.

One of the main drivers was footprint size, the Nitrogas unit being 1.07m^2, considerably smaller compared to mobilising N^2 tanks, quads, pumps and vaporisers. The lightweight, portability and manoeuvrability benefits of the unit also meant that employees could locate the units directly at the workface with no need for long cable runs. The certified internal lifting eyes and sling were an important part of this.

One of the Nitrogen units was connected to the knockout drum and was operational for 24 hours a day for 3 days, two shifts worked on purging the vessel to get it sweet. During this period there was no downtime with the units producing an average N^2 quality of 95.5% at 450 l/min.

> “Portability was impressive, we were able to locate the units directly at the worksite.”

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ADDING NEW WAYS

> The units performed very well, their ease of use meant we required little technical support apart from initial training. The extra available space on the platform made for easier, safer and more efficient working.

The Results

Given that the system delivered as advertised, the following benefits to the scope were achieved by the operator:

- No requirement for specialist crewing, employees trained in unit use
- Expensive and limited helicopter seats and bed space on the platform were reduced
- Minimal deck crew operations with off-loading/reloading of supply boat
- Negated the need for transportation of dangerous goods
- Operational constraints using existing technology were dramatically reduced allowing the project to be completed more quickly
- A number of HSE issues were also eliminated

The in-built online monitoring and logging ensured that the units were producing the pre-defined flow/pressures, in addition to ensuring the CH4 and Dew Point sensors were operating within their set parameters.

Given the items above, the operator estimated that the project using conventional technology would have been priced around **£4,500/day**. They now estimate that the new technology enabled them to complete the project for something under **£1,500/day**, a massive daily saving of **67%** on original project costs.

Due to the outstanding performance of the E-Innovation Nitrogen technology and the highly impressive savings on project, the operator have committed to using the technology for their 2016 TARs.

Nitrogas AS is a subsidiary company of E Innovation AS