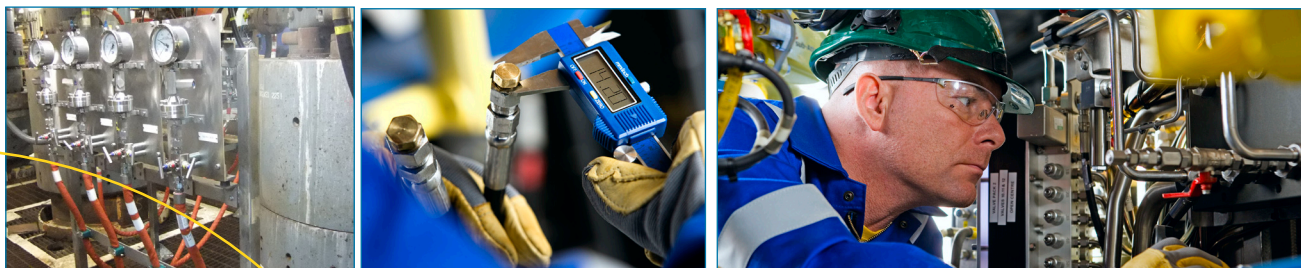


# CASE STUDY

## Integrity Management Services for Nexen



### Background

Nexen is the operator of the various oil accumulation blocks located in the UKCS including the Scott, Telford and Buzzard fields.

As industry focus continues to increase on the need to reduce hydrocarbon leaks, operators need to have the necessary processes, procedures and controls in place to effectively manage the technical integrity and reliability of their assets.

Flexible Hose Assembly (FHA) failure is considered to be among the largest contributors to unplanned hydrocarbon releases in the oil and gas industry.

In line with the above, industry regulators (DECC and HSE) are applying increasing pressure on operators to demonstrate that they have formal processes and controls in place to maintain the integrity of hoses on their assets and any equipment packages of contractors working on their assets.

### Customer Issue

Hydrasun has been supplying Flexible Hose Integrity Management Services to Nexen on their assets in the UKCS since 2005 and in 2010 was awarded a contract renewal for a further, up to, 5 year period.

In particular at this time Nexen looked to Hydrasun to support them in ensuring compliance with the recently introduced Energy Institute Guidelines for the management of FHAs and their in-house standard ECN-MT-STD-0052 Installation Flexible Hose Integrity.

Specific emphasis was on the implementation of a Risk Based Inspection (RBI) approach to FHA management which focused on reducing the potential for leaks from hoses deemed to be high risk to Nexen operations.

### Hydrasun Solution

Through their involvement in the development of the Energy Industry Guidelines for the management of FHAs, Hydrasun was ideally placed to implement both a fully compliant and effective RBI programme focused on the criticality of the equipment package or system the FHAs were part of on the specific asset as well as the consequence of failure and factors that would influence the life of the assembly.

All Nexen FHAs had been previously inspected and tagged by Hydrasun OPITO accredited engineers and input into the Hydrasun Integrity Management System (HIMS) which provides effective management of data gathered from inspection surveys carried out.

Informed decisions can be made on the implementation of future inspections and maintenance strategies through controlling HIMS data collection, performing analysis of individual or multiple sites, generating status reports and cross installation comparisons along with performing failure trends and historical analysis.

Upon review and analysis of this information, Hydrasun was able to develop an RBI programme focused on safety critical and production of critical Hose Assemblies, ensuring that associated maintenance and replacement requirements were prioritised. It also enabled existing specifications for these critical hose assemblies to be reviewed against past performance and where necessary improvement recommendations made.

Nexen was provided with secure access to this information via the Hydrasun web based customer interface tool – Hydralink.

### At a glance...

#### Customer

Nexen UK

#### Location

North Sea UKCS, Scott, Telford and Buzzard Assets

#### Customer Issue

The implementation of a Risk Based Inspection (RBI) approach to FHA management focused on reducing the potential for leaks from hose assemblies deemed to be high risk to operations and the overall business.

#### Hydrasun's Solution

Provision of Hose Management Services including the supply of replacement Hose Assemblies

#### Benefits

- Demonstrate formal processes and controls are in place to maintain FHA integrity
- Ensure compliance with legislative requirements and industry / own in-house guidelines
- Reduce potential loss of containment and improve asset performance
- Sustainable improvement in safety and environmental performance
- Reduce overall life cycle maintenance costs

### The Result

Through a focus on customer needs, Hydrasun delivered a fully compliant and effective Hose Integrity Management programme across Nexen UKCS assets that significantly reduced the potential for loss of containment from FHAs that were high risk to Nexen's operations and business generally.

By implementing a strategy clearly focused on Nexen's business needs, Hydrasun was able to provide enhanced value for money delivering improvements in operational reliability and overall lifecycle maintenance costs whilst reducing Nexen's potential exposure in the areas of production downtime, Health, Safety and Environment and business reputation.



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