

Case Study:

Corrosion Management Strategy Implementation

Intertek

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Company
Rakgas, LLC

Industry
Energy

Region
EMEA

Intertek Solutions
Corrosion Management

“Corrosion management services delivered each day, keep the unexpected failures away”.

Ruud Abma, Chief
Operating Officer Rakgas,
LLC

For more information:

Intertek
PO Box 4660
Sharjah
United Arab Emirates

Dr Kirsten Oliver
Upstream Manager

Office: +971 (0)6 538 7036
Direct: +971 (0)6 508 6186
Mobile: +971 50 6350711

www.intertek.com

The Ras Al Khaimah gas (RAK GAS) company receives and processes natural gas from offshore fields in the Northern United Arab Emirates. Recent offshore field developments have been accompanied by the construction of new gas processing facilities at the plant.

Intertek was assigned to develop and implement a corrosion management strategy for the offshore processing storage and export facilities.



The Challenge

Following a history of processing sweet crude, the plant is now producing sour condensate through a combination of ageing and new plant facilities. This dramatic change in fluid production required the need for changes in Corrosion Management practices. Corrosion Management practices extend the life of the aging plant and ensure integrity of new plant, where high degradation rates can be expected if corrosion mitigation measures are not effective.

A risk based approach has been adopted, focusing attention on high-risk areas such as inlet facilities, the gas sweetening and dehydration system, storage tanks, and the gas export system.

On-site support by Intertek personnel ensures the effectiveness of the corrosion mitigation and monitoring activities. Intertek corrosion experts provide performance tracking and carry out routine fluid sampling and lab analysis to create data trends, ensuring key process parameters are within the operating envelope. Intertek staff prepare comprehensive inspection work-packs, supervise on-site NDE inspections, and provide remaining life estimation, condition assessment and fitness for purpose (FFP) studies.

The Solution

The processing of the unique fluids received at RAK GAS plant have resulted in a number of issues that required expert corrosion mitigation support. Intertek was able to rapidly respond to the challenges, including:

- Pipeline imbalance studies and the development of a hydrocarbon allocation model ensure that accurate data is collected and reported.
- Production chemistry studies to understand emulsion issues and develop a way forward to enable effective separation of oil and gas and maximize plant throughput.
- Failure investigation, detailed fitness for purpose assessments and corrosion mitigation consultancy related to gas export pipeline network.

The Result

Corrosion mitigation and monitoring services delivered by Intertek asset integrity and laboratory teams assists RAK GAS to ensure asset integrity management integrity of the gas plant. Intertek's internationally recognized global corrosion consulting and testing network (CAPCIS, CML, Aptech and SREL) provides additional technology and expertise to the project. Intertek assists RAK GAS in minimizing downtime and maximizing production.