

Corrosion Under Insulation Screening

Efficient inspections detecting corrosion without the removal of insulation

Company

Tullow Ghana

Region

Sub-Saharan Africa

Intertek Solutions

Corrosion Under Insulation (CUI)
Screening

In the quest for improved reliability and to eliminate unexpected or unplanned downtime, many processing facilities in diverse sectors have adopted asset management strategies including Risk Based Inspection (RBI) for piping and pipelines.

Corrosion Under Insulation (CUI) on piping and pipelines is often cited as one of the more challenging aspects of asset management due to the time and associated cost of executing these inspections in the traditional manner where insulation removal is required.

“With Intertek’s CUI solution we were able to inspect the majority of our insulated piping non-intrusively, drastically reducing the scope and cost of the upcoming “strip and repair” campaign while minimising risk.”

— Mark Baird, Asset Integrity SME, Tullow Ghana Ltd



Corrosion Under Insulation

The Challenge

The KNK Floating Production Storage and Offloading vessel (FPSO), currently located off the coast of Ghana, has been operational for 15 years, and Tullow Ghana recognised the need to address potential corrosion under insulation risks as a leaking or ruptured pipe could have serious, if not fatal, consequences. Traditional approaches were considered, but the speed of execution was a concern in the offshore environment.

The Solution

Intertek’s Corrosion Under Insulation (CUI) screening solution, compared to traditional inspection methods, provides rapid coverage of the areas to be screened, thus increasing the likelihood that potential high risk areas are identified and addressed before they result in a failure or downtime.

Real-time Radiography (RTR) is at the heart of the technology and asset owners benefit from its latest evolution in high quality visuals as they create permanent records of the screening inspections.

The Result

Intertek undertook the inspections on Tullow’s request in what we believe is the first offshore CUI screening campaign on the African continent. The key results were:

- Critical findings of severe corrosion under insulation were flagged and communicated to the Tullow team, and these were attended to by the maintenance team as a priority thus preventing a possible unplanned total installation shutdown.
- Various other locations were flagged for follow-up using other Non-Destructive Testing (NDT) methods or removal of the insulation in the identified areas.
- With oversight and support from the Intertek South African team, training and certification of Ghanaian personnel as an integral part of the CUI campaign, was also an important consideration for Intertek in support of our drive towards greater local content.

The CUI screening process demonstrated that the programme can support our clients’ asset integrity program objectives, including those related to reduced Total Cost of Ownership (TCO).

For more information



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