Application Example **02**

Customer: Refinery operator

Industry: Oil refining

Structure: Operating temperature: 100°C (212°F)

Type of internal corrosion: Mainly sweet corrosion/sour corrosion/erosion corrosion

Frequency of inspection: Once/month – Once/year

What were their NDT **challenges?**

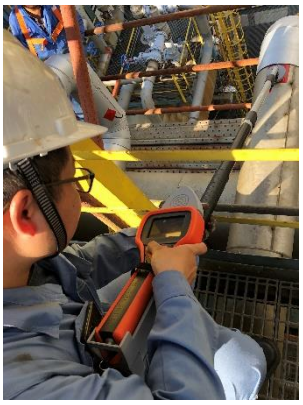
1. A number of thickness measurement locations were difficult to access, as they were either at height or in awkward areas. This required scaffold support which was costly, time consuming and posed safety risks to personnel
2. A number of measurement locations were underneath insulation, therefore to acquire measurements the insulation had to be removed and then reinstalled afterwards. This proved to be impractical, since the majority of locations had a high inspection frequency
3. Human error during manual inspection was leading to poor accuracy and repeatability of measurements

The Inductosense **solution**

TMS-B5R sensors were installed at various pipe measurement locations, both straight sections and elbows. Measurements at height were acquired by the WAND using the Inductosense REACH400 extendable pole accessory. In addition to this, for measurement locations underneath insulation, ECHO45 extension coils were installed onto the sensors and then threaded through the insulation. This allowed measurements to be taken without the need to remove it.

The **outcome**

- Eliminated the laborious, cost-ineffective process of removing and then reinstalling insulation to acquire thickness measurements
- Scaffolding requirements were considerably reduced
- Measurements from the same precise location were acquired every time, ensuring accurate, repeatable and reliable data



Accessing measurement locations easily using the REACH400

Measurement locations underneath insulation, accessed using the ECHO45

Where do we work?

Refining

Pipelines

Onshore production

Offshore production

Chemicals

LNG

Water treatment

Nuclear

Renewables

Composites

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