

ANALYSE™

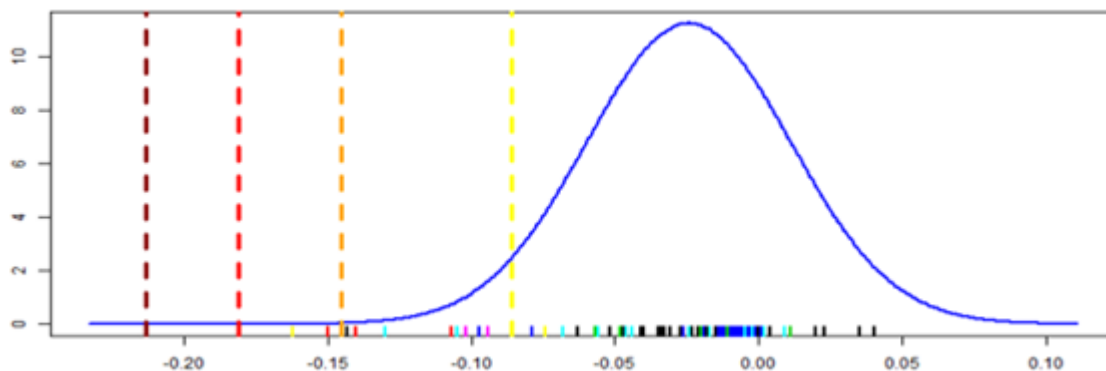
The Challenge

RBI is a well-established and valuable strategy for managing pressure system integrity. However, RBI relies on knowing wall thickness loss but the built-in errors of the ultrasonic thickness measurements (UTM) mask the wall loss trends we are looking for.

Experience gained over a 7-year programme of 14 assets showed that for every 100 UTM readings taken, less than 2 readings are deemed to be a genuine integrity threat of immediate concern.

As the industry strives for increased cost effectiveness, more efficient anomaly detection is required from a UTM strategy, whilst maintaining integrity assurance.

In short, we could cut the number of inspection points significantly.....but which ones?



The Solution

EM&I's ANALYSE™ System uses statistical analysis of UTM data sets to calculate the probable minimum thickness of a corrosion circuit and checks if it would break any alarm levels. However, it does this with fewer than 50% of the readings normally required.

What are the ANALYSE steps?

1. Optimise the RBA scope and select relevant inspection locations
2. Site technician collects UTMs and inputs them to the ANALYSE handheld
3. As soon as ANALYSE has enough data to calculate the minimum probable thickness, and with the agreed confidence level, no further UTMs are required
4. ANALYSE identifies problem areas, and corrosion patterns and alerts the technician and the integrity engineer

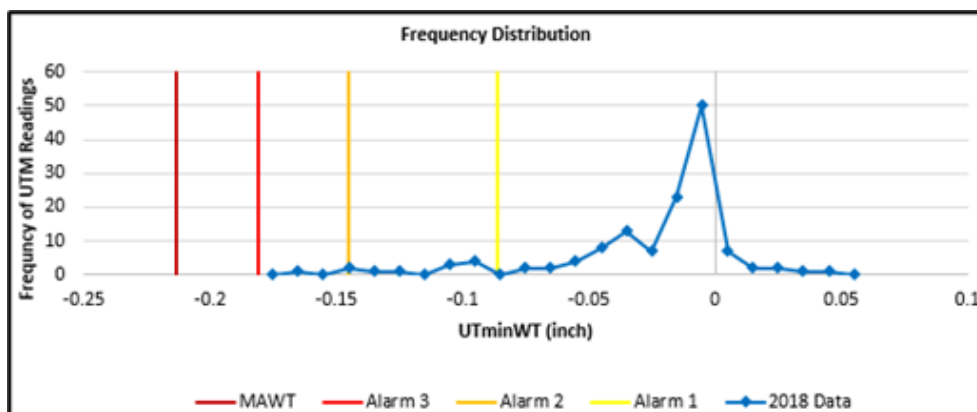
In this way ANALYSE not only maintains, but improves the integrity assurance of UTM data, with a quantified confidence level and insights into the early onset of localised corrosion, erosion and wall loss.



The Benefits

- ANALYSE improves on traditional RBI methods and delivers reduced inspection scopes, demonstrated at circa 50% of the conventional number of UTMs
- Subsequently, inspection costs are reduced, with improved safety and carbon emissions through reduced POB
- More resource can be allocated to additional inspection, repair, and maintenance activities
- ANALYSE improves integrity assurance through the introduction of quantified confidence levels of the minimum probable thickness relative to wall thickness limits

ANALYSE™



Is it Proven?

The statistical analysis methods behind the ANALYSE System was developed with input from the Imperial College of London statistical department.

The System itself has also been successfully piloted with a number of Oil and Gas Majors, achieving 50% to 72% reductions in required UTMs.

EM&I's ANALYSE system is also integrated into the RBA and Annual Piping Inspections for a Fleet of 13 FPSOs across the world.

Track Record

We measure our performance through systems like FPAL and unsolicited testimonials. Our proven track record of satisfied Clients is available on our Website.

Further information is available from your nearest EM&I office who will be pleased to discuss your particular needs.

Case Histories and References, demonstrating our capabilities and Client satisfaction, are available on our Website.

Credentials

Health & Safety – We assure Occupational Health & Safety through our ISO 45001 accredited Health & Safety Management System. EM&I has an outstanding HSE record and has been awarded twelve, consecutive, RoSPA Occupational Health & Safety Gold Awards including five Gold Medals and four President's Awards plus other international awards.

Other safety awards include a platinum IFAP Safe Way Safety Achievement Award in Australia and the Leith Offshore Safety Award.

Environmental – We assure Environmental performance through our ISO 14001 accredited Environmental Management System.

Quality – We assure quality through our ISO 9001, ISO 17020 and ISO 17025 accredited Quality Management Systems and seek continuous improvement by measuring Client satisfaction through FPAL and regular Stewardship Reviews.

Compliance – EM&I's methods are approved by Classification Societies and accepted by regulators worldwide.

Rope Access – EM&I have been a Full Member of IRATA since its inception in the 1980s.

HITS JIP – EM&I have a leadership role in the Hull Inspection Techniques and Strategy (HITS) JIP whose members include Oil Majors, Classification Societies, Regulators, Lease Operators and service companies.