

Storage Tank Inspection

Ensuring the safe operation of your assets

Oceaneering offers a comprehensive range of inspection and engineering services tailored to ensure the safe operation of storage assets.

Inspection packages may include full inspection engineering assessments performed to recognized guidelines and standards, including the formal reporting detailing the asset's suitability for service.



FEATURES

Cost-effective, risk-based inspection

Value adding inspection techniques

Follows EEMUA 159 guidelines and API 653/BS EN:14015 standards

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Tank integrity, including fitness for service (FFS) and remaining life, is estimated by using engineering calculations based on critical data collected by a range of NDT techniques and civil engineering surveys.

Risk and Reliability

The application of risk and reliability based techniques for optimising inspection and maintenance activities follows the trend in the industry worldwide to move away from a time-based maintenance approach to a condition monitoring approach. This proven technique can be usefully applied to the total maintenance approach for conventional storage tanks.

Oceaneering, with its in-depth knowledge of Risk Based Inspection (RBI) and reliability centered maintenance methodologies is at the forefront of offering these innovative and cost effective approaches.

Our comprehensive service range includes:

- » Risk-based inspection (RBI) and written scheme of examination (WSE) which determine inspection intervals and inspection work scopes
- » Creation of tank inspection and repair methodology in accordance with the requirements of API 650/653, BS EN:14015, and EEMUA 159
- » Foundation settlement assessments to detect various forms of tank foundation movement, planar tilt, and other factors affecting the integrity of the structure
- » Visual inspection of associated equipment (piping, bund wall and bund area, insulation, ground connections, anchor bolts, etc.)

Non-Destructive Testing

We complete tank inspection using a comprehensive range of non-destructive testing (NDT) methods including:

- » Ultrasonic Testing
- » Magnetic Particle
- » Dye Penetrant
- » Radiography
- » Eddy Current

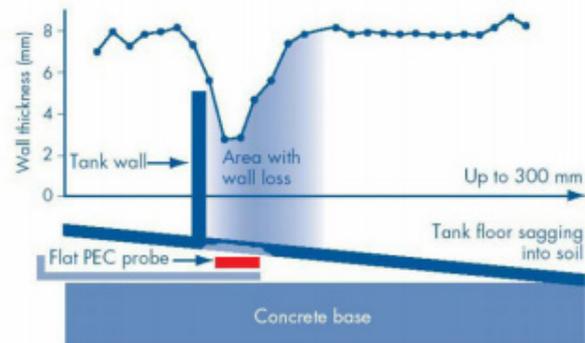
Ultrasonic methods, including those used to complete detailed corrosion mapping, can be deployed by remotely controlled crawlers, effectively reducing risk.

Additionally, we offer a range of magnetic flux leakage systems for the detection of underside corrosion. The systems function through a number of coatings and tightly bonded scale.

Advanced NDT technologies are supported by our Specialist Inspections Services department. Storage tanks and associated pipework benefit from our ability to deploy technologies including:

- » Phased Array Ultrasonics
- » Guided Wave Ultrasonics
- » Pulsed Eddy Current (PEC)

PEC is an electromagnetic inspection technique used for measuring the thickness of steel objects without the need to make contact with the steel surface. Originally designed for inspection through insulation and coatings, the technique has developed into an invaluable tool for assessing the critical annular area.



WALL THICKNESS PROFILE OF THE FIRST 300MM OF THE ANNULAR RING