MAGNETIC FLUX LEAKAGE

NEED TO KNOW THE WEAK SPOTS OF YOUR TANK BOTTOM?

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YOUR PARTNER FOR TANK BOTTOM INSPECTION

The storage of dangerous goods in tanks must be done in a safe way. In order to reduce the economical as well as the environmental risks to a minimum, a thorough knowledge of the condition of the tank, and in particular the tank floor, is of outstanding importance. To minimise inspection time SGS offers you a quick and above all reliable inspection, by combining two techniques: Magnetic Flux Leakage (MFL) and Ultrasonic Testing (UT). By using these two techniques, corrosion can be effectively detected (MFL) and reliable quantified (UT).

INSPECTION TECHNIQUE

MFL is a detection technique, which detects volumetrically changes. A strong magnet induces a magnetic field in the material. On a corrosion spot, a leakage field will arise. The larger the corrosion area the larger the field will be. 18 pairs of "Hall Effect Sensors" will detect and quantify this field.

The disadvantage of MFL is that no absolute values but relative volumetrically changes are detected. However, it is a very suitable tool for detecting bad spots in the plates.

After the fast MFL inspection is done only the "suspicious" areas of the tank floor surface will be quantified by the slower but more accurate UT technique.

APPLICATIONS

In the range of 6 to 20 mm all ferromagnetic tank bottoms can be inspected. Furthermore, limited coated surfaces can easily be tested.

Based on the MFL/UT data, the tank floor conditions will be reported, which enables the qualified interpreter to evaluate the condition of separate plate levels as well as over the entire floor level in little time. During MFL scans, all indications will be stored along with their location. Bad plates or spots in plates can easily be identified and repaired. In the report, different colours will visualise degradations and concentrations of corrosion.

The reject criteria, the remaining plate thickness is presented on a separate tank bottom layout. All reporting can be done on paper as well as on CD-ROM.

THE SGS EXPERTS

SGS Industrial Services has the knowledge, expertise and experience to perform Conventional and Advanced Non-Destructive Testing (NDT) Inspections around the world using our unique network. Our services offer variations from Guided Wave and the conventional NDT techniques to Risk Based Inspection (RBI/AIM), Time of Flight Diffraction (TOFD), Corroscan, Positive Material Identification (PMI), ACFM, Leak Testing, Thermography, Electromagnetic Testing (ET), RFEC, IRIS, Digital Radiography, Radiation Detection, RVI and Endoscopy Inspections.

We are pleased to provide services to any location around the world, pertaining as to how SGS can help you in improving the reliability of your processes and assets.

CONTACT US

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WHEN YOU NEED TO BE SURE