



Acoustic Emission

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Introduction

Acoustic Emission technology has for a number of years been used to assess the active corrosion, cracks & leakages of under pressure vessels, storage tanks and pipelines. These equipment can be buried or insulated, metallic or non-metallic composition.

This technique provides a non-intrusive method of determining the active corrosion condition of equipment without the need of taking it out of operation. Overall time & costs involved in cleaning and intrusive alternate inspection can be very high, and if the equipment after such inspection proves to be in good condition, then the purpose of inspection will be an exercise in futile.





How it works

The Acoustic Emission sensors are mounted around the equipment to carry out the inspection. The acoustic activity in the equipment is then monitored and stored. Acoustic activity is produced by material corrosion and sources (higher energy) that can be indicators of growing cracks & leaks

Applications

(AET) is be applied to inspect and monitor:

- ✓ Above ground storage tanks (AST)- (Includes Spherical tanks)
- ✓ Underground storage tanks (UST)
- ✓ Above ground and buried pipelines
- ✓ Pressure vessels, columns, reactors
- ✓ Composite material tanks, vessels, piping
- ✓ Seamless pressurised cylinders
- ✓ Civil/mechanical structural health monitoring (SHM)
- ✓ Rotating machines (bearing, misalignment)

