

Buried Pipe Inspection Capabilities

Background

The Nuclear Energy Institute (NEI) guideline, NEI 09-14 "Guideline for the Management of Underground Piping and Tank Integrity," specifies that inspections must be performed on buried pipe at nuclear power plants. Based on the number of materials, systems and geometries that are involved in buried pipe applications, a variety of inspection techniques are applicable. Westinghouse, through its subsidiary WesDyne International, offers a full range of services that can provide for the inspection of buried pipe.

Description

Existing WesDyne capabilities include:

- Pipe cleaning
- Visual inspection – local or remote via pipe crawlers
- Inner diameter (ID) remote field eddy current
- Outer diameter zero-degree ultrasonic testing inspection:
 - The CMAPPS system was developed by WesDyne specifically for the corrosion mapping application and is used extensively in the oil and gas industry.

Future WesDyne development projects include:

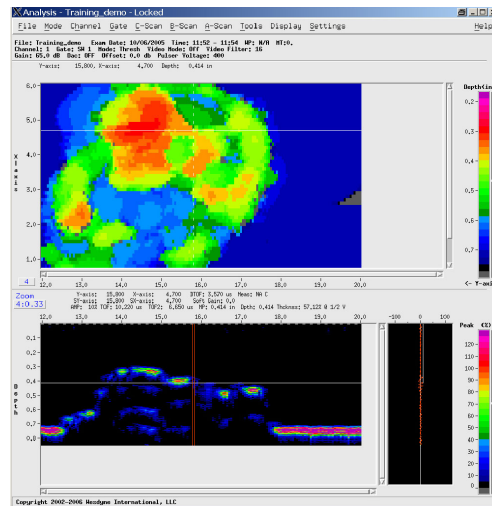
- Expansion of direct methods
- WesDyne non-destructive examination and crawler integration
- ID Lamb wave inspection – Lamb wave is a type of guided wave utilized by WesDyne which differs from typical guided wave inspections in that

the sound is propagated in the circumferential direction and not the axial direction.

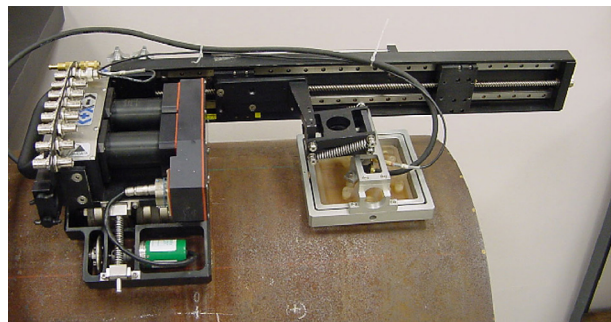
- Zero-degree array inspection – This configuration will deploy an array of zero-degree probes around the circumference to perform a wall thickness measurement of the pipe.
- Phased array weld inspection

Benefits

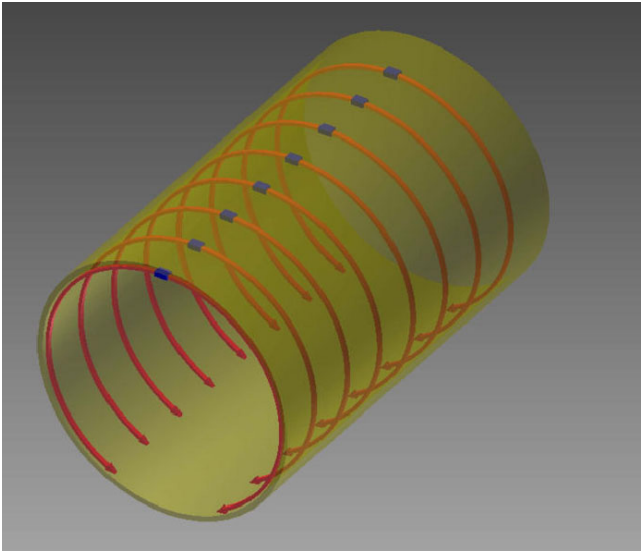
As a subsidiary of Westinghouse, WesDyne can incorporate the full range of services that Westinghouse can provide for the buried pipe issue, including services such as fitness for service evaluation, mitigation and licensing support.



IntraSpect data of corroded pipe



WesDyne 5080 scanner with corrosion sled



Lamb wave inspection

Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, PA 16066

www.westinghousenuclear.com