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.

For excavated pipe or tanks in contact with soil, Westinghouse, through its subsidiary WesDyne International, offers the IntraSpect™ C-MAPPS for applications that require a data acquisition system for inspections needing an automated ultrasonic test (AUT).

Description
The IntraSpect C-MAPPS system is a total corrosion mapping solution. The IntraSpect corrosion mapping system is designed to provide a complete corrosion assessment and imaging solution for the detection and monitoring of corrosion.

The IntraSpect C-MAPPS is a digital signal processing-based turnkey ultrasonic corrosion mapping system manufactured by WesDyne NDE Products & Technology. The data acquisition and automated motion control are built into a single small unit for ease of use in the field and back at the office. A field proven
scanner is supplied for delivery of the probe to the inspection surface.

The data is displayed and stored on a rugged tablet PC. Top-view C-scan mapping, along with cross-section B-scans, provide a visual profile of the inside diameter and/or outside diameter inspection surface. The IntraSpect software has a number of display features, including the ability to calculate and display a remaining wall C-scan by subtracting the depth of an area of corrosion from the nominal wall thickness.

**Benefits**

- Automated motion control and data acquisition in the same small enclosure, minimizing set-up time
- Fast, high-resolution scanning, which provides more data
- Multiple scan views for effortless analysis

**Experience**

The C-MAPPS system is widely used in the oil and gas industry for automated ultrasonic testing inspections.

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