

# Buried Pipe and Storage Tank 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 and tanks in contact with the soil at nuclear power plants. Based on the number of materials, systems and geometries that are involved in buried pipe applications and storage tanks, a variety of inspection techniques are applicable.

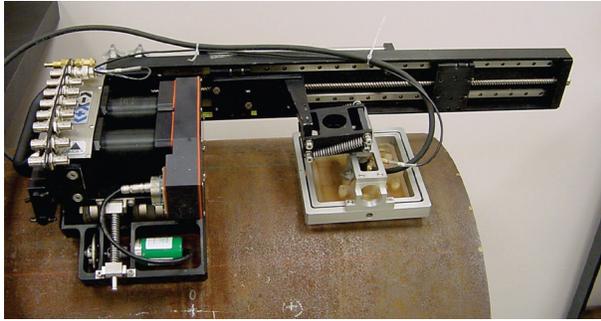
Westinghouse, through its subsidiary WesDyne International, offers a full range of services that can provide for the inspection of buried pipe and storage tanks. Specific inspections can be accomplished without excavation, pipe cleaning or draining of the contents.

## Description

WesDyne offers multiple inspection techniques due to the many different applications customers may have. For years, WesDyne has been inspecting pipe corrosion and welds from the outside diameter (OD) of the pipe for the oil and gas industry, producing fast, reliable results. Now to assist with the inspection of underground piping and tank integrity, WesDyne has developed the ability to inspect buried pipe and storage tanks from the inside diameter (ID). In most cases, these inspections can be accomplished with no need for excavation and, optionally, in a fluid environment.



Lamb Wave Crawler

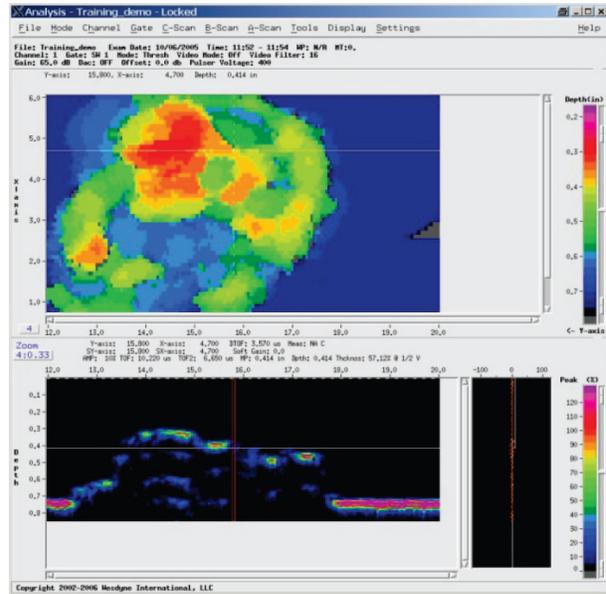


The WesDyne 5080 Scanner with an OD corrosion sled scanning a pipe

WesDyne's existing inspection capabilities include:

- Visual inspection:
  - Non-contact technique for all types of pipe ID inspections and storage tanks
- Electromagnetic technology:
  - Direct contact technique for ferrous pipe ID inspections and ferrous storage tanks (occasionally performed without draining contents)
- Automated ultrasonic testing inspection to map corrosion:
  - Direct contact technique used for pipe ID and OD and empty storage tanks
- Lamb Wave Crawler:
  - Direct contact technique requiring a clean, narrow path for pipe ID inspection and storage tanks (occasionally performed without draining contents)
- High-density polyethylene (HDPE) inspection services:
  - Ability to inspect merged sections of HDPE pipe using time of flight tip diffraction and phased array
- Tank inspection services:
  - Ability to inspect tanks without draining contents

Westinghouse can also accommodate other services involving buried pipe, including pipe cleaning, fitness-for-service evaluation, mitigation and licensing support.



IntraSpect™ software displaying a top view and cross-sectional view of a corroded pipe

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