

# Balance of Plant and In-service Inspections

## Background

Westinghouse, through its subsidiary WesDyne International, provides nondestructive examination (NDE) services and inspection equipment for both the nuclear and non-nuclear power generation industries. Within the nuclear industry, WesDyne has extensive experience with both pressurized water reactor and boiling water reactor plants throughout the world performing in-service inspections (ISI) and balance of plant (BOP) inspection services. WesDyne's NDE professionals have in-depth knowledge of various industry regulations.

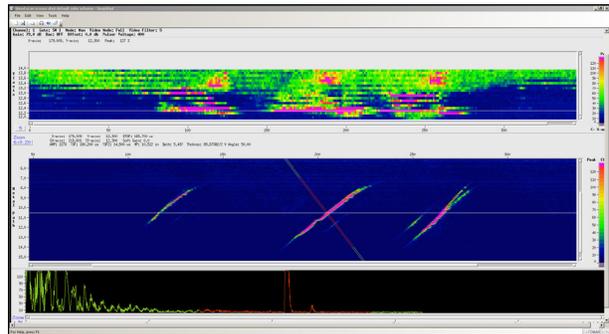


Nozzle inner radius scanner

## Description

WesDyne offers the full complement of NDE techniques, as well as an assortment of automated and manually manipulated equipment to provide BOP/ISI examination services. WesDyne's comprehensive inspection services portfolio includes performance demonstration initiative (PDI) ultrasonic (UT), dye penetrant, magnetic particle, visual, computed radiography and eddy current testing services. In addition to these traditional general NDE inspection services, WesDyne provides:

- Flow accelerated corrosion
- Manual phased array UT
- PDI UT qualified examinations
- In-vessel visual inspection
- Bare metal visual/borated bolting connections

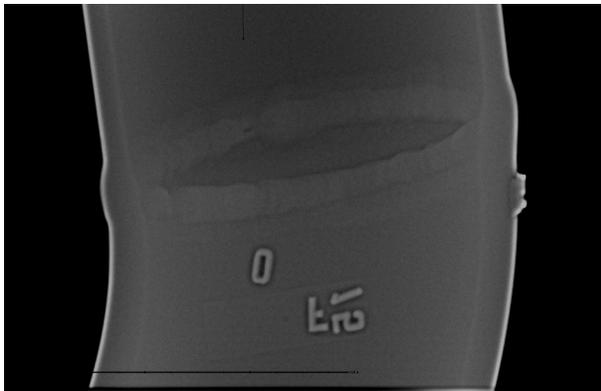


Typical data display from inner radius scanner

- MRP-227-A reactor internals inspections and training
- Thermal fatigue
- Reactor coolant pump shaft
- Buried pipe and storage tank
- Jet pump beam
- Vessel outer diameter examinations
- Quality assurance/quality control

Computed radiography has recently been added to the WesDyne inspection services portfolio. Computed radiography is the leading technology for radiographic imaging, where imaging plates are used instead of traditional film. Advantages over conventional film-based radiography include:

- Digital transference and analysis of images
- Less radiation used to produce image of similar contrast to conventional radiography
- Immediate image results
- No chemical processing
- Compact and reliable archiving



Computed radiographic image of a typical weld

WesDyne NDE engineers and technicians are qualified to various standards, including Automated Society of Nondestructive Testing, American Society of Mechanical Engineers and Electric Power Research Institute PDI.

## Benefits

- Automated and manual inspection equipment available for various inspection requirements
- Specialized techniques such as phased array and computed radiography provide reduced inspection time and lower radiation dosage, while allowing for more comprehensive data acquisition
- Personnel resources to meet a variety of NDE service needs
- Experienced team of NDE professionals to assist utilities in navigating through and complying with industry codes and regulations
- Full-service engineering department to assist customer needs

## Experience

WesDyne has nearly four decades of experience providing BOP/ISI services at more than 300 utilities worldwide. Its full-time project management and PDI-qualified personnel have extensive experience with a wide variety of nuclear power plant design configurations and can address a multitude of component NDE inspection issues.

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