

Digital Radiography

DIGITAL & COMPUTED IMAGING



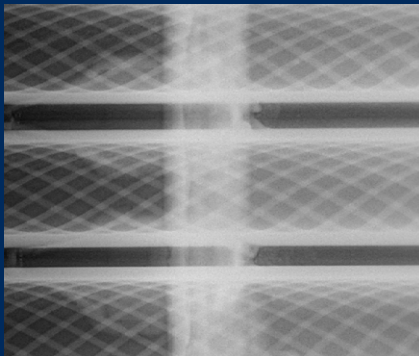
ACUREN

**A HIGHER LEVEL
OF RELIABILITY®**

Safe & Cost Effective

ACUREN'S DIGITAL IMAGING SERVICES OFFER NUMEROUS BENEFITS OVER CONVENTIONAL X-RAY WHERE PROFILE RADIOGRAPHY IS UTILIZED

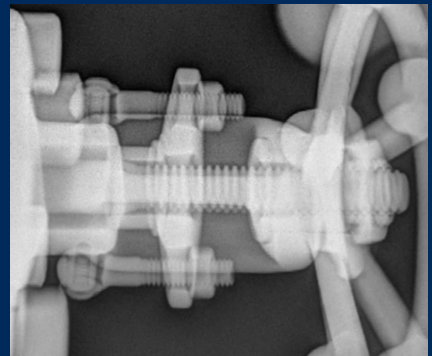
Enjoy safer testing with Acuren's Digital Radiography (DR) and Computed Radiography (CR) services. DR is a form of x-ray imaging where digital x-ray sensors are used instead of traditional photographic film; CR uses a flexible phosphor Imaging Plate to capture digital images in place of photographic film. The resulting digital images can be emailed for additional analysis and enhanced to aid in interpretation of test results. Creating digital files also eliminates risks from exposure to silver-based film or chemicals. Acuren's DR takes less energy to operate, resulting in smaller exclusion zones and the elimination of RT windows. In addition to being safer this also results in faster, more-informed decision making, a clear understanding of next steps and significant cost savings.



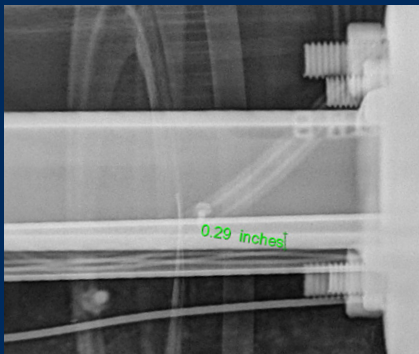
Boiler Tube Inspections



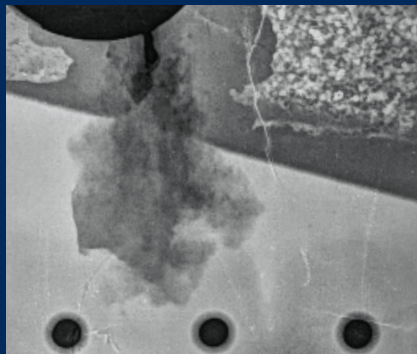
Flow Accelerated Corrosion



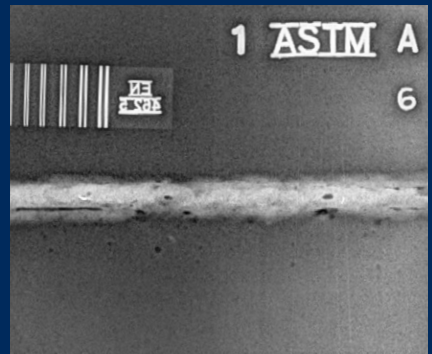
Valve Inspection



Corrosion Under Insulation



Point of Contact Corrosion



Weld Inspection

The perfect solution for challenging inspection environments

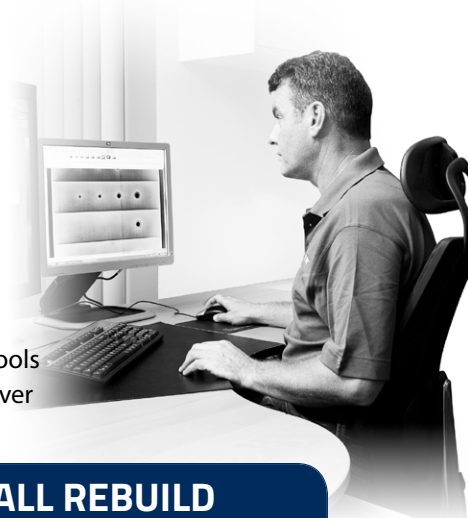
FASTER, SAFER, REDUCED ENVIRONMENTAL FOOTPRINT AND MORE ACCURATE THAN CONVENTIONAL X-RAYS

You know instantly whether your image has been captured. There are no reshoots, no developing or processing time required, and no need for multiple shots for material of varying thickness. Since there is no film or imaging plates, film storage and chemical disposal costs are eliminated.

ISO 14001 Compliant

PRINCIPAL ADVANTAGES OVER FILM RADIOGRAPHY

- Safer work environment
- Saves both time and money
- High resolution images
- Faster shot times
- Elimination of film and chemicals
- ASTM E 2339-04 (DICONDE) compliant
- ISO 14001 compliant for environmental management systems
- Reduced exclusion zones
- No need to remove insulation
- Measures pitting corrosion
- Reduced doses of radiation to technicians
- Portability and ease of use
- Digital files can be delivered via email
- Versatile software exposure and interpretation tools
- Reliable, repeatable service only Acuren can deliver



DIGITAL RADIOGRAPHY: RECOVERY BOILER WATER WALL REBUILD

CHALLENGE

- Inspection of 1700 welds (A/B shot = 3400 images) as part of Recovery Boiler wall replacement 2.5" to 3" tubes composite stainless over carbon
- Needed quality of film with production of CR Film / CR would require more shot windows, longer shot windows and all other trades to stop production
- Minimize boiler downtime

SOLUTION

- Use of AcuView solution (low-energy radiography paired with DR)
- Utilized "Baby SCAR" system (13Ci Se75)
- Reduced exclusion zone to 13' inside boiler and 17' outside boiler
- 3 - 15 second exposures per image (13 days total for project)

BENEFITS

- No disruption to welders – using low energy radiography allowed Acuren crews to work alongside Boilermakers
- Elimination of shot windows shortened overall duration of project by 7 days
- No lag time between inspection and identification of problem
- Identified porosity issue (53% reject rate) in first 4 hours of inspection due to liquid argon being drawn into tig rigs
- Switched to gas, project reject rate <4%
- DR saved one day of welding (300 welds) from having to be redone

RADIOGRAPHY EXPERTS

With over 3,500 professionals in 90+ locations, we can mobilize quickly and efficiently to deliver superior Acuren performance in a matter of hours. Our arsenal includes the latest, most advanced radiography equipment available today.

WCBLRBAC study by Acuren

RADIOGRAPHY INSPECTION EFFICIENCY ANALYSIS – DR TO RT

DR performed with GE's portable wireless DXR 250 detectors.

% Difference
DR to RT

Data
Collection

-44%

Data
Processing

-92%

Data
Analysis

-34%

Total
Time

-71%

GAGE R&R study by Acuren



www.acuren.com
info@acuren.com



West	503.652.8878
Midwest	937.228.9729
Gulf Coast	281.228.0000
Southeast	919.875.8240
Northeast	724.228.2155



Pacific	604.275.3800
Western	780.440.2131
Central	519.336.3021
Atlantic	709.753.2100



BEYOND INSPECTION