

## Non-Intrusive/On Stream Inspection Program

#### **MINIMIZE OPERATIONAL RISKS AND OPTIMIZE ASSETS**

#### **IN SERVICE PRESSURE ASSETS**



At Acuren we understand that the ability to perform non-intrusive and "on-stream" inspection is paramount to the both the safe operation and bottom line for the plants. Our NII/on-stream solution assure mechanical integrity with only 50% of the cost of an internal inspection.

Acuren is the industry leader in nondestructive testing (NDT), inspection, engineering and rope access enabled industrial services, in North America, delivering a higher level of reliability to clients around the globe. We have over 30 years of experience in the industry and 14 years in rope access, making us the only provider you will need to complete your entire inspection project.

# Solutions for in service pressure assets and equipment, allowing owners to successfully prepare for downtime

## ELIMINATE OR REDUCE THE NEED FOR CONFINED SPACE ENTRY



## QUALITY

Acuren's enhanced quality is only attainable through our vast experience, thorough process, and comprehensive reporting ensuring repeatability and traceability that affords owners/operators ability to effectively plan downtime.



The in-service approach optimizes plant output, our defined targeted inspection approach reduces downtime/schedule allowing for a timely solution generating cost savings.

## SAFETY

Eliminating the need for confined space entry substantially reduces risk and exposure hours, when compared to conventional methods.

#### WHY ACUREN?

- Units and critical components can continue to keep running safely
- No safety exposures of personnel due to shutdowns and entries
- Significantly lower cost when compared to inspections during entries
- Ability for enhanced MI and FFS
- Deeper than "just taking a look inside"; more data than can be achieved from internal inspection
- Excellent quantitative documentation and 3D mapping
- Monitoring indefinite until repairs are actually required (RBI)

NII Advanced Ultrasonic Testing (AUT) allows for applications for just about any damage mechanism including but not limited to:

Tanks

- Pressure Vessels
- Exchangers, reactors, Piping coke drums

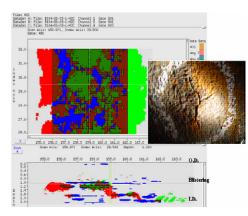
#### ACUREN'S NII/ON STREAM PROGRAM PROCESS

Our approved AUT-01 procedure including our unique damage rating assessment tool allows for evaluation of all material degradation including corrosion, HIC, stepwise cracking, ID cracking, weld cracking, and other damage mechanisms.

The in-service process ensures the correct solution is personalized to fit your unique needs.

## **Acuren's NII/On Stream Program Process**





Sample of AUT Data of Hydrogen Induced Cracking (HIC) that many times can be missed during an internal inspection; unless blistering reveals or burst to the I.D. surface first. Once our pre-discovery inspection is completed our team evaluates results and determines if;

A. Owner/operator can eliminate need to complete further inspections or, B. Use on stream to monitor without having to do full inspection

Over the past 20 years Acuren has mastered Non-Intrusive Inspection (NII) using Automated UT in lieu of Internal Inspection techniques. By using a combination of Automated and other Advanced UT techniques we can not only provide an alternative to an internal inspection but also offer a superior examination capable of evaluating not just the ID surface but the entire volume of welds and base material.

#### **Testing Techniques**

- Advanced UT Pulse Echo Exams C-Scan
- Advanced UT Time of Flight Diffraction TOFD
- Advanced UT- Phased Array



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