



# Engineering, Procurement, Construction & Maintenance Services for the Nuclear Industry



**A HIGHER LEVEL  
OF RELIABILITY®**

# About Acuren Nuclear

Acuren Nuclear Services Inc. is an N285.0 certified Engineering, Procurement, Construction, and Maintenance (EPCM) company.

Our capabilities, experience, and customer knowledge in the nuclear market enable us to execute work scopes more cost effectively than other providers without compromise to safety, quality, or performance.

As a distinct entity under the industry-leading Acuren brand, Acuren Nuclear Services is uniquely qualified with a pedigree as an inspection leader and engineering service provider across North America. Our CSA N285.0 certification eliminates the need for a construction management contractor, enabling Acuren Nuclear Services to be a direct-work, single source provider of technology-enabled asset protection and inspection solutions to nuclear operators. We have an unparalleled track record of managing both large and small-scale projects, including many industry firsts.

We have seasoned professionals and a fully integrated approach in the areas of project management, construction management, project controls, engineering, inspecting, auditing, assessing, rope access, and nuclear procurement programs.

We support the building trades and site collective agreements.

By providing these services to our customers, we help them significantly reduce risk, ensure performance, and improve the overall transition to operations.

## OUR CERTIFICATIONS

- ▶ CSA N285.0
- ▶ CSA Z299.1
- ▶ ISO 9001:2008
- ▶ ISO 17025 – Acuren Laboratory



# Our Programs & Services

We provide unparalleled project management for tooling solutions, mechanical services and inspection programs that supports CANDU nuclear operators in Canada and internationally.

## NON-DESTRUCTIVE TESTING SERVICES

- ▶ Work package specific programs (*managed task*)
- ▶ Conventional (MT, PT, RT, UT, ET)
- ▶ Advanced applications (PAUT, TOFD, Digital/Comp RT, GPR)
- ▶ Visual inspections (CWB, CSA)
- ▶ API storage tank and piping (*certification*)

## PROJECT MANAGEMENT & CONTROLS

Acuren Nuclear Services can provide project management, responsible for executing a single project; or as a program manager, with overall responsibility for complex programs. Our model is based on industry standards and operation experience (OPEX) with functional disciplines and departments. Our Project Management Office possesses highly specialized, certified and experienced nuclear professionals including project managers, project control technicians and cost schedule analysts that can execute large and small scopes of work. Our project teams have a reputation of acute emphasis on scope and cost control and ensure that every project is executed with precision in order to meet budget and timeline expectations. Our confidence in the functionality of our internal Project Work Management Program enables us to stand behind our project performance with contractual performance guarantees.

- ▶ Procurement
- ▶ PMP
- ▶ Construction management
- ▶ Project controls (*in line with station work management systems*)
- ▶ Scheduling, resource loading, Critical Path Method (CPM)
- ▶ Primavera P6 intelligent software

## RELIABILITY ENGINEERING

- ▶ Remote and/or on-site asset monitoring
- ▶ Uncover root cause of failures with advanced diagnostics
- ▶ Structural evaluation and corrective services
- ▶ Condition monitoring
  - ▶ Vibration analysis and advanced diagnostics
  - ▶ Motor Current Evaluation (MCE)
  - ▶ Ultrasound and infrared
  - ▶ Oil analysis
- ▶ Dynamic and static asset management
- ▶ Structural integrity
- ▶ Life cycle assessment and field services

## MATERIALS ENGINEERING

- ▶ Failure and chemical analysis
- ▶ Weld qualification and weld process qualification
- ▶ In-situ metallography
- ▶ Full ISO 17025 lab services certified by A2LA

## TOOLING & INSPECTION

- ▶ Tooling qualification and development
  - ▶ Design and manufacture
  - ▶ Inspection system qualification
  - ▶ Inspection personnel qualification
  - ▶ Inspection procedure qualification
- ▶ Maintenance work management programs
  - ▶ API compliant repairs and inspections
  - ▶ Standby generator storage fuel tanks
- ▶ Laser mapping
  - ▶ Long range (*as built/left, correct component verification, training*)
  - ▶ Short range (*fit-ups, designs, conditions*)
- ▶ Ground penetrating radar
  - ▶ Location of buried services



## INSPECTION PROGRAMS

Repeatable analysis is an essential outcome; therefore, PAUT analysts are certified to both CGSB Ultrasonic Level 2, CSWIP/PCN EN473 in PAUT as well as qualified to the inspection program requirements. Additionally, the analysis process and inspection data management is designed to encompass construction parameters to ensure data artifacts will result in repeatable analysis reporting in line with code and technical specification requirements demonstrated in the technical justification.

Acuren Nuclear Services has gained extensive experience completing inspection campaigns. We understand that in addition to qualified inspection processes it is paramount that an experienced program team dedicate equal time to initiating, planning, executing, and closing out the project. A typical inspection program consists of:

- ▶ Project managers
- ▶ Planners
- ▶ CSA's
- ▶ Results coordinators
- ▶ Supervisors
- ▶ Data management system
  - ▷ Process control for human performance
  - ▷ Component based architecture for correct component verification
  - ▷ Role based accessibility and controlled qualification of task
  - ▷ Ensured adherence to procedure
  - ▷ Audibility
  - ▷ Data inputs (*designed for mineable metrics to drive continual improvement and statistical analysis*)
  - ▷ Performance
- ▶ Engineering
  - ▷ Weld engineer
  - ▷ Results coordination and reporting

- ▶ Quality
  - ▷ Quality control review and sign-off
  - ▷ Inspection test plan and traveler process
  - ▷ Performance statistics and LEAN methods for process improvement
  - ▷ Document control (*digital and physical work package*)
- ▶ Training and qualification program for feeder weld analysts (*primary/secondary/resolution*)
- ▶ Accepted feeder weld analysis procedures and project documentation (*plans and ITP*)
- ▶ Large pool of inspection personnel

## ACCESS OPTIMIZATION

"Access Optimization" means we customize an appropriate access solution utilizing rope access, or traditional methods such as scaffold, in alignment with specific site constraints. Our approach typically yields significant productivity and efficiency gains with a lower cost of execution. Our RAT Team ropes experts have consistently led the industry in performing advanced scopes of work in difficult to reach locations.

We take an integrated approach to industrial inspection, monitoring, repair, and maintenance.

- ▶ Composite crews with multi-disciplined trades
- ▶ Certified IRATA personnel
- ▶ Customized access optimization programs
- ▶ Reduced down time, reduced risk, reduced cost

## ENGINEERING, PROCUREMENT, AND CONSTRUCTION (EPC)

We offer fully integrated engineering, procurement, and construction services in addition to project and construction management. By providing these services to our customers, we can help them significantly decrease risk, ensure performance, and improve the overall transition into operations.

- ▶ Engineering and Design
  - ▶ We perform traditional and advanced engineering, as well as detailed design for diverse clients worldwide.
- ▶ Procurement
  - ▶ We promote project cost controls and schedule certainty by managing the purchase and delivery of materials required for clients worldwide.
- ▶ Fabrication
  - ▶ We have the capabilities to provide, self-perform and subcontract fabrication solutions to meet client's needs.

- ▶ Construction
  - ▶ We have experience using proven construction technologies and systems to meet clients demands.
- ▶ Maintenance
  - ▶ Acuren Nuclear Services can provide Operations and Maintenance (O&M) services to domestic and international clients to meet the needs of today's challenges.
- ▶ Project Management
  - ▶ Acuren Nuclear Services can provide project management, responsible for executing a single project; or as a program manager, with overall responsibility for complex programs.

## SAFETY AND QUALITY

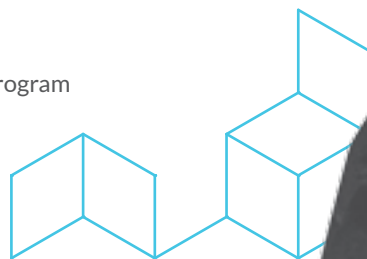
Acuren Nuclear Services is built upon values of excellence and integrity. We work to the highest standards and being measured by the quality of execution within our projects. Year after year we are among the safest companies in our industry.

# Our Experience

With over four decades of experience in the nuclear industry, we have the quality programs and certifications to execute large capital projects or intimate scopes of work.

## MAJOR PROJECTS

- ▶ Active projects on major CANDU sites globally (OPG, Bruce Power, Pt. Lepreau Nuclear Generating Station, NASA)
- ▶ Refurbishment activities
- ▶ MSA's for conventional NDT/NDE inspections with various major sites
- ▶ Nuclear operations and work management
- ▶ Feeder PAUT (*qualification and execution*)
- ▶ Feeder thinning (*baseline and inaugural*)
- ▶ Nuclear balance-of-plant Eddy Current Program
- ▶ Storage tank repair and certification





# Contact Us

At Acuren Nuclear Services, our crews are scalable and mobile, allowing us to deploy nuclear solutions worldwide.

## GENERAL CONTACT

nuclear@acuren.com  
1.866.443.3303

## PORT ELGIN HEAD OFFICE

1246 Wellington Street, Units 1 & 2  
Port Elgin, Ontario N0H 2C0

519.389.6797

## AJAX

230 Westney Road South, Unit #303  
Ajax, Ontario L1S 7R3

905.686.9557

## WATERLOO

440 Phillip Street  
Waterloo, ON N2L 5R9

519.389.6797

For a complete list of ALL  
the Acuren office locations,  
please visit us online.

[acuren.com](http://acuren.com)