



# NUCLEAR INNOVATION AT WORK

**BWXT**<sup>®</sup>  
BWXT Canada Ltd.



# MORE THAN 60 YEARS OF NUCLEAR INNOVATION

For over 60 years, BWXT Canada Ltd. and its subsidiaries, BWXT Nuclear Energy Canada Inc., BWXT Precision Manufacturing Inc. and Intech International Inc., (BWXT) has been a leader in the supply of nuclear fuel and the design, fabrication and service of commercial nuclear components for its customers around the world.

With five major manufacturing facilities in Ontario, Canada, including dedicated fuel fabrication operations, BWXT is the only remaining heavy component manufacturer in North America that is engineering and fabricating large pressure vessels and nuclear plant equipment for domestic and international customers.

BWXT's comprehensive product and service offering aligns with the needs of our customers to operate their plants safely and efficiently.



## PRODUCTS & SERVICES

- Engineering & Design Services
- Critical Component Manufacturing
- Precision Manufacturing
- Field Services
- Nuclear Fuel
- Fuel Handling Systems
- Remote Inspection & Maintenance Tooling

## ENGINEERING & DESIGN

BWXT offers comprehensive in-house engineering solutions, including those required for component design; project management; outage, inspection and maintenance pre-planning; and support for construction and installation.

Some of our capabilities include 3D thermal-hydraulic engineering analysis, weld and robotic process development, and metallurgy and materials engineering. BWXT engineering also offers custom tooling design, life cycle management, and engineering design for field modification of pressure vessels and supporting equipment.

- Structural engineering
- Performance engineering
- Material engineering
- Welding technology
- NDE technology
- Service site experience
- Systems engineering
- Mechanical engineering
- Software engineering
- Instrumentation & Control engineering
- Design services



CANDU® Steam Generator



**315**  
Original & replacement nuclear steam generators

## CRITICAL COMPONENTS

BWXT is a leader in the design and fabrication of critical components that enable the production of nuclear power around the globe. With 315 steam generators produced to date, BWXT is a trusted name when it comes to supplying pressure vessels and other critical plant components that meet the industry's quality and safety standards.

Our Cambridge headquarters is home to North America's largest nuclear clean room for the assembly of nuclear components. The clean room is used for assembling sensitive components which have stringent contamination controls to ensure safety, quality and reliability.

BWXT's diversified manufacturing services provide custom engineering and manufacturing support for complex equipment requiring any combination of large weldments, heat treatment, and machining, utilizing a wide variety of materials, all of which meet rigorous quality standards.

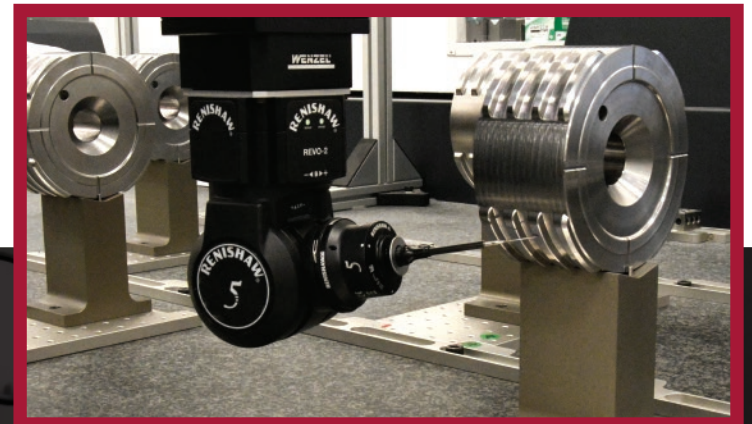


## PRECISION MANUFACTURING

We have dedicated infrastructure and extensive experience in the supply of precision manufactured reactor components for CANDU plants. BWXT's talented engineering and skilled trades personnel design and manufacture precision machined components that meet the unique needs of our customers and enable life extension of their assets.

### PRODUCT & SERVICE SUMMARY

- Precision Manufactured Components
- Fuel Channel End Fittings
- Feeders
- Reactivity Adjustment & Shut-Off Drive



### PRODUCT & SERVICE SUMMARY

- Steam generators (CANDU & PWR)
- Reactor components (CANDU & PWR)
- Heat exchangers
- Storage containers



## PLANT SERVICES

BWXT is a trusted and dependable field services provider for the inspection and maintenance of primary and secondary systems, reactors, pressure boundary modifications, and plant refurbishment projects. Through our advanced planning and execution of field services projects and scheduled outages, BWXT is aligned with our customers' goals to improve plant performance and to extend the life of plant equipment.



### SERVICE SUMMARY

- Steam generator inspection and repair
- Heat exchanger inspection and repair
- Reactor inspection and maintenance
- Feeder inspection and maintenance
- Specialized tooling design
- Component modification and repair services
- Replacement parts, engineered products
- Life cycle management and engineering



895  
CANDU  
Fuel Channels Shifted



BWXT's Hands-On Training Centre

1.2 Million

Nuclear fuel bundles  
supplied to CANDU®  
stations since  
the 1950s

## NUCLEAR FUEL

BWXT is a leading provider of CANDU® fuel and operates dedicated fuel fabrication facilities that are licensed by the Canadian Nuclear Safety Commission. Utilizing state-of-the-art automated manufacturing and inspection technology, BWXT offers the optimum product quality, traceability and responsiveness demanded by our nuclear customers.



Natural Uranium Fuel Pellet

### PRODUCT & SERVICE SUMMARY

- CANDU® fuel
- Zirconium Alloy Tubes



Target Delivery System - Isotope Irradiation System

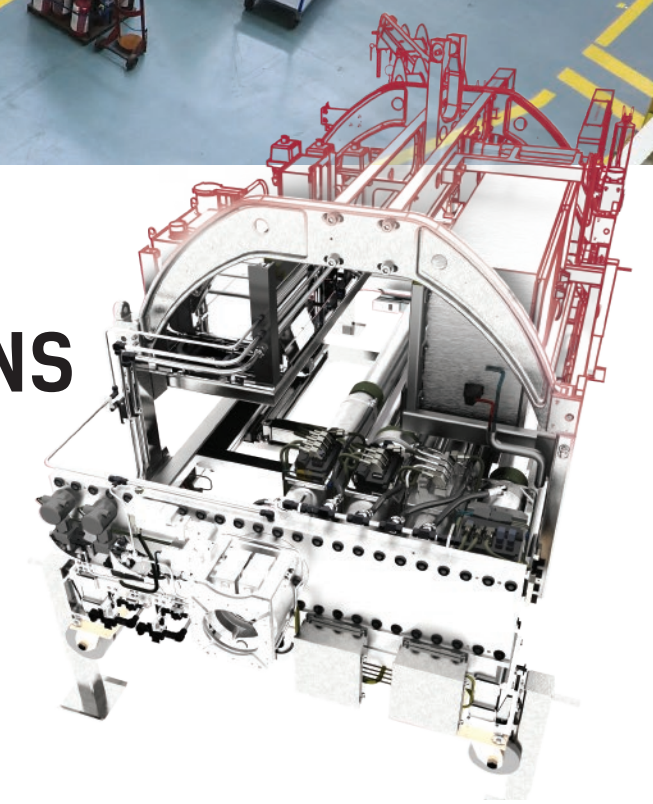
## FUEL HANDLING & ENGINEERED SOLUTIONS

As the original designer and manufacturer of CANDU® fuel handling systems used at several plants operating today, BWXT's services range from the fuel handling system design to fabrication, delivery, installation, commissioning and on-site support. We also supply remote on-line fuel handling systems, both new and spent fuel transfer systems, as well as specialized maintenance and recovery tooling. Our experienced and adaptable team of engineers and technicians partner with our customers to meet their needs.

BWXT also has decades of experience in the design and supply of reactor inspection and maintenance tooling and delivery systems. This applied experience enables our customers to meet outage and refurbishment requirements for reactor defueling and fuel channel inspection, installation and replacement.

### PRODUCT & SERVICE SUMMARY

- Fuel handling equipment
- Reactor inspection and maintenance tooling
- On-site and remote support
- Maintenance Kits Program





## OUR SAFETY COMMITMENT

Safety is the cornerstone of our business and is an integral part of the BWXT culture. We maintain a robust safety program with a focus on continuous improvement and a goal of finishing each and every day injury and incident free. Our nuclear safety culture is reinforced through continuous communication and feedback to ensure we maintain the highest level of safety in everything we do. Employees are routinely trained in procedures that promote safe work practices to ensure they can safely return home to their families every day.

We take our environmental and community stewardship responsibilities seriously and are dedicated to the long-term well-being of the facilities we own and operate, the communities in which we operate, and the environment that surrounds them all.



## STANDARD OF QUALITY

BWXT offers trusted and industry-leading component engineering, material procurement, manufacturing, project management, and site services.

### BWXT Cambridge operations:

- Various TSSA certificates qualify CSA N285 component design, manufacture and service
- N-Stamp certified by the American Society of Mechanical Engineers (ASME),
- Certified as a Material Organization
- National Board certification for repair and replacement activities for various components
- Quality Program meets the requirements of CSA N299.1, and is certified to ISO-9001:2015
- HAF604 supplier to China and qualified by customers as an EPC supplier

### BWXT's Peterborough, Toronto, and Arnprior operations:

- Various TSSA certificates of authorization per CSA N285.0 for construction of vessels, pumps, line valves, piping system, fittings, storage tanks, shop assembly, supports.
- TSSA certificate of authorization per CSA N285.0 as material organization supplying ferrous and non-ferrous material
- TSSA certification of authorization per CSA N285.0 for repair, replacement and modification of welded and non-welded fittings and supports.
- TSSA certificate of authorization per CSA N285.0 for repair replacement and modification of fittings and non-welded supports at CNSC licensed field sites.
- Various TSSA certificates of authorization per CSA B51 for design and fabrication of pressure vessels, gittings
- Various TSSA certificates of suthorization per CSA B51 for fesign, fabrication and assembly of process piping per ASME B31.3, power piping per ASME B31.1 including field sites controlled from BWXT-NEC Peterborough.
- TSSA certificate of suthorization per CSA B51 for repair and alteration of pressure vessels, piping and gittings including field sites controlled from BWXT-NEC Peterborough.
- Certified to ISO 9001:2015
- Qualified to CSA N299.1, CSA N286 for EPC projects and CSA N286.7 by CANPAC

### BWXT's Oakville operations:

- Various TSSA certificates qualify CSA N285 for component design and manufacture
- Certified as a Material Organization
- Quality Program meets the requirements of CSA N299.1, and is certified to ISO-9001:2015



People Strong  
**INNOVATION DRIVEN** > . . . . .

BWXT Canada Ltd. (BWXT Canada) has over 60 years of expertise and experience in the design, manufacturing, commissioning and service of nuclear power generation equipment. This includes CANDU® and Pressurized Water Reactor steam generators, nuclear fuel and fuel components, critical plant components, parts and related plant services. Headquartered in Cambridge, Ontario, BWXT Canada has approximately 850 employees at locations in Cambridge, Peterborough, Toronto and Arnprior, Ontario. BWXT Canada is a subsidiary of BWX Technologies, Inc. (NYSE:BWXT). BWXT is a leading supplier of nuclear components and fuel to the U.S. government; provides technical, management and site services to support governments in the operation of complex facilities and environmental remediation activities; and supplies precision manufactured components, fuel and services for the commercial nuclear power industry. Learn more at [www.BWXT.com](http://www.BWXT.com).

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