YOUR PARTNER IN
NUCLEAR POWER SOLUTIONS
Since the dawn of nuclear power, BWXT Canada Ltd. and its subsidiary, BWXT Nuclear Energy Canada Inc., (together BWXT) have been supplying the nuclear industry with the fuel, equipment, components, engineering and field services needed to successfully operate nuclear power plants.

BWXT is the only heavy commercial nuclear component manufacturer in North America and operates a dedicated fuel fabrication facility and three manufacturing operations across Ontario.

BWXT has the skills, knowledge and infrastructure for fabricating nuclear fuel, fuel handling systems, reactor inspection and maintenance tooling, pressure vessels, steam generators, heat exchangers, reactor vessel closure heads, specialty piping, nuclear fuel and component storage containers, and other balance of plant equipment.

With some of the best talent the industry has to offer, BWXT’s nuclear experts offer comprehensive engineering and field services to enable its customers to get the most out of their equipment while operating their utility safely and efficiently.
Whether the needs are component design; project management; outage, inspection and maintenance pre-planning; or support for construction and installation, BWXT has comprehensive in-house engineering expertise.

Specialized capabilities include structural component design, 3-D thermal-hydraulic engineering analysis, weld and robotic process development, and metallurgy and materials engineering. BWXT engineers are also qualified in custom tool design, life cycle management, cleaning process development and qualification, engineering design for field repair and modification of pressure vessels, piping and support.

From input to throughput, BWXT is qualified and available to provide expertise and support in every aspect of nuclear component manufacturing, life cycle management and life extension.

- Structural engineering
- Performance engineering
- Material engineering
- Welding technology
- NDE technology
- Service site experience
- Systems engineering
- Mechanical engineering
- Software engineering
- Instrumentation & Control engineering
- Design services
BWXT is a trusted supplier of nuclear fuel, fuel handling equipment, specialty reactor tooling solutions and machined specialty parts and precision tubing. In addition, BWXT is a leading supplier of heavy nuclear components, such as steam generators, heat exchangers, reactor vessel closure heads, nuclear fuel and component storage containers and specialty piping.
• Largest nuclear clean room in North America
• State-of-the-art welding technologies
• Large machining, boring and bending capabilities
• CANDU® fuel fabrication facility
• Precision machined parts and components

At 275,000 square feet, the Cambridge, Ontario production facility is the only heavy commercial nuclear component manufacturing facility in North America. It is also home to North America’s largest nuclear clean room for commercial nuclear component assembly. The clean room is used for assembling sensitive components which have stringent contaminant controls to ensure safety, high 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.
BWXT has a proven track record of providing reliable and effective nuclear field services, such as inspection and maintenance for primary and secondary systems, including the reactors themselves, pressure boundary modifications, engineer, procure and construct (EPC) capabilities, and plant refurbishment services.

With experience and expertise on everything from the fuel and fuel handling systems to the maintenance of essential plant components, BWXT is aligned with our customers’ goals to increase safety, improve plant productivity and availability, and to extend the life of plant equipment.
We are committed to working in concert with our customers from project inception to completion, to ensure our services are executed safely, on time and within budget. As a peer group leader, BWXT has the relationships necessary to bring together the competencies from across the industry to address large and complex field services projects.

Each project requires unique solutions and our multi-disciplinary team is ready to deliver with custom engineering capabilities, industry leading quality control, innovative research and development, and superior field service personnel.
CANDU® fuel pellets are manufactured in BWXT’s 38,000 square foot Toronto fuel fabrication facility while the zirconium tubing for the CANDU® fuel bundles are manufactured at the 52,000 square foot Arnprior tubing operation. The Arnprior facility also has the capabilities to fabricate Calandria and pressure tubes that are qualified to meet the rigorous criteria for use in reactors.

Fuel bundles are assembled in BWXT’s 187,000 square foot Peterborough facility where they are inspected to meet the stringent requirements of reactor operating conditions.

BWXT has supplied trusted fuel handling equipment and over a million fuel bundles to its nuclear customers since the 1950’s.

BWXT’s Toronto and Peterborough facilities are licenced by the Canadian Nuclear Safety Commission, including the Class 1B Nuclear Fuel Facility in Toronto and our fuel channel components, handling systems and fuel services operation in Peterborough.
INNOVATIVE TOOLING SOLUTIONS

BWXT’s fuel handling and reactor inspection and maintenance tooling and delivery systems, designed and manufactured in Peterborough, enable customers to meet outage and refurbishment requirements for reactor defueling and fuel channel inspection, installation and replacement.

BWXT is proud of its long history of partnering with CANDU® utilities to develop advanced inspection delivery systems to enhance reactor planned outages, saving customers time and money.
Safety is a guiding business principle at BWXT. It is an ingrained attribute that defines BWXT’s work culture – a quality that requires attention to detail with each and every task and project.

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.

Over the years, BWXT has developed detailed procedures and processes that result in superior quality products. The established standards integrate safety – safe operations that support quality of product and the well-being of each employee.

BWXT is committed to providing and promoting a safe work environment for its workforce. This is achieved through corporate and site-specific safety programs that take into consideration the operations, worker behaviour, and work environment.

Safety awareness is a key component to strong safety programs. Employees are routinely trained in procedures that promote safe work practices so that employees safely return home to their families.

BWXT commits to always placing the safety of its workers, members of the public, and the environment as its top priority.
BWXT offers trusted and industry-leading component engineering, material procurement, manufacturing, project management, and site services.

Various TSSA certificates qualify BWXT in Cambridge to CSA N285 for component design, manufacture and service in the Canadian nuclear industry. BWXT’s Cambridge facility is also N-Stamp certified by the American Society of Mechanical Engineers (ASME), and is also certified as a Material Organization. BWXT in Cambridge also holds current National Board certificates for repair and replacement activities in its shop and at site for various components. The BWXT Cambridge Quality Program meets the requirements of CSA Z299.1, and is certified to ISO-9001:2008. Additionally, BWXT in Cambridge is certified as a HAF604 supplier to China, and has been qualified by customers as an EPC supplier. BWXT in Cambridge has a long, comprehensive list of Approved Supplier-Partners to support the broad range of activities and capabilities provided to the global nuclear industry.

BWXT’s Peterborough, Toronto, and Arnprior sites are certified to ISO 9001:2008 and ISO 14001:2004. Fuel sub-component operations are compliant to CSA Z299.2 and our Peterborough Fuel and Nuclear Services for design and manufacturing of equipment are compliant to CSA Z299.1. The Peterborough and Arnprior sites hold a variety of certificates of authorization from the TSSA for a comprehensive scope of design and manufacturing.
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.

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