Mechanical Engineering

BWXT Nuclear Energy Canada Inc. (BWXT) has over 50 years’ experience in the design and manufacture of sophisticated nuclear power station equipment, including complex mechanical fuel handling equipment, on-reactor/in-reactor tooling, and maintenance tooling.

BWXT Mechanical Engineering possess expert knowledge of mechanical equipment design and fabrication including conceptual and detailed design skills, planning, complex stress analysis (ANSYS®), and modelling (INVENTOR®); all to provide innovative engineering designs and/or equipment modifications.

We support our customers with training, maintenance strategies and provide troubleshooting. We also track recurring maintenance, obsolescence, and design modification parts data used to develop Fuel Handling equipment overhaul and maintenance Parts Kits.

With extensive experience completing modification packages, BWXT Mechanical Engineering possesses in-depth understanding of the Utility engineering change control process, (ECC), including the preparation of change papers and directly interfacing with our customers’ enterprise asset management systems (Asset Suite, PassPort).

Put the experience of BWXT Mechanical Engineering to work for you. Our scalable approach can help whether you have a large, multi-year project in mind or you require resources to augment your staff.

BWXT Mechanical Engineering can provide a customized solution to meet your requirements.

Services Offered/Knowledge Areas

- Remote Handling Systems
- Mechanisms, Structures, Drives, Vessels
- Auxiliaries and Process Systems
- Analysis - Structures, Pressure Boundary, Piping
- Seismic qualification
- ASME Code Design
- Welding Design
- Development and Test Programs
- Tooling Design and Manufacturing Technology
- ASME Section III, Section VIII, B31.1 and CSA N285 Codes and Standards
- Drawing and document revision
- Troubleshooting, maintenance, support & training
Projects & Jobs

- Fuelling Machines & Fuelling Machine Suspensions
- Reactor Carriages & Bridges
- Inspection & Maintenance Systems (MiniSLAR, UDM)
- Aging & Obsolescence & Life Cycle Management
- Pressure Vessels & Comps
- FH D2O process systems
- Fuel Channel Components
- Containment Penetrations
- Platform Structures
- Trolley
- Power Tracks
- Retube Tooling
- I/F & N/F equipment
- Bruce DN Monitoring System