

SYSTEMS ENGINEERING

Highlights

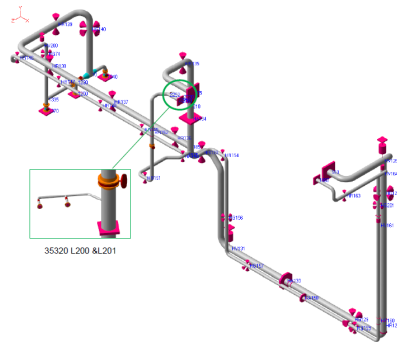
- Multi-disciplinary department which possess technical systems level expertise and is structured to execute projects utilizing cross-functional coordination from early in the development cycle through design, operations, performance, test/verification, manufacturing cost/scheduling to final system validation
- As part of Systems Integration, the behaviour of fully-integrated software on an integrated hardware target system is evaluated against functional, non-functional, and performance requirements. Project-specific Acceptance Test Plans and Procedures are written to address the top-level requirements of the system. BWXT Nuclear Energy Canada Inc. (BWXT) Systems Engineering is practiced in design completion techniques, including the traceability of all requirements for the modification(s).
- Well versed in a multitude of tools considered critical in today's demanding design environment (Failure Modes and Effect Analysis (FMEA), Reliability-Availability-Maintainability (RAM) Analysis, and Personnel & Nuclear Safety Analysis).
- Performs qualifications of both Commercial-Off-the-Shelf (COTS) pre-developed software, and custom-developed software to a variety of standards, using various methods suitable for all categories of software up to and including Category II.
- Dedicated, experienced Engineering Change Control (ECC) Services team with focus on the application of our customer's ECC process. Our team is capable of performing all aspects of the ECC process including modification planning, conceptual design, detail design, installation and commissioning, as well as close-out and AFS activities.

Knowledge Areas

- Handling control systems: hardware, design, replacement
- Software/firmware & hardware categorization and qualification
- Human Factors Assessments
- Failure Modes and Effects Analysis (FMEA) reporting
- System Design Requirement Management, including requirement development and traceability
- Design & integration of systems
- Design of system architectures and operations
- Personnel & Nuclear Safety Analysis
- Reliability-Availability-Maintainability (RAM) Analysis
- Qualification of equipment to environmental, EMI and EMC standards
- Testing & commissioning plans and procedures
- RSE/SRE On-Site support roles including DTL (or equivalent), MTL & FTL site roles.
- Temporary/Permanent Modifications, close-outs

Products & Services

- Defuelling & Refurbishment
- Fuel Handling protective computer replacement
- Legacy inverter replacement
- Trolley Rehab
- Automated Reactor Inspection and Maintenance Tooling
- Ageing and Obsolescence Programs
- CANMOX



People Strong

INNOVATION DRIVEN >

BWXT Nuclear Energy Canada Inc. is a subsidiary of BWXT Canada Ltd. (BWXT Canada), headquartered in Cambridge, Ontario. BWXT Canada has over 60 years of expertise and experience in the design, manufacturing, commissioning and service of nuclear power generation equipment. This includes steam generators, nuclear fuel and fuel components, critical plant components, parts and related plant services. BWXT Canada's sister company, BWXT Medical Ltd. (BWXT Medical) provides its customers, who conduct life-saving medical procedures for patients around the world, the benefit of decades of experience in the development, manufacturing, packaging and delivery of medical isotopes and radiopharmaceuticals. Headquartered in Cambridge, Ontario, BWXT in Canada has approximately 1,400 employees at locations in Cambridge, Dundas, Peterborough, Toronto, Arnprior, Pickering, Port Elgin, Owen Sound, Kanata and Oakville, Ontario and Vancouver, British Columbia. BWXT Canada is a subsidiary of BWX Technologies, Inc. (NYSE: BWXT). Follow us on Twitter @BWXTech and learn more at www.bwxt.com.

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E101-3204