



The ***Nuclear Waste Management Organization (NWMO)*** is responsible for the safe, long-term management of used nuclear fuel in Canada. The approach it is implementing, known as Adaptive Phased Management (APM), involves developing a centralized underground repository, supported by a robust social and technical research program in collaboration with Canadian universities, consultants and international waste management organizations.

Join our growing team of scientists, engineers and other professionals to work collaboratively with Canadians in implementing our management approach in a manner that safeguards people and respects the environment, now and in the future.

Engineer/Scientist/Technical Officer – Engineered Barrier System (Sealing Processes)

Reporting to the Manager, Fuel Handling and Sealing System Design, the successful candidate will be a member of a dedicated team responsible for the full-scale demonstration of the prototype Engineered Barrier Systems (EBS) that safely contain and isolate the used fuel in the future Deep Geological Repository (DGR).

This position offers an exciting opportunity for professional growth with a unique balance of design, experimentation, and project management responsibilities. The incumbent will collaborate with the Senior Engineer Sealing Processes and will be provided an opportunity for internal and external training in design, robotics, and programming. This role is considered a developmental role however, senior candidates will be considered at a level commensurate to their experience.

The position is located at our Oakville location (walking distance via Bronte GO Station).

Responsibilities

In this role, you will:

- Develop conceptual designs for the systems, structures, equipment, and processes to fabricate, assemble, handle, transfer, and emplace the EBS components consisting of the Used Fuel Container (UFC) and Highly Compacted Bentonite (HCB) Clay Blocks into an emplacement room in the Deep Geological Repository (DGR).
- Project manage external contracts for the detailed design and fabrication of the above systems, structures, equipment, and processes. This will include the development of request for proposals, bid evaluation, project kick-off, development of work and quality plans, ongoing project meetings, and review/approval of design outputs (i.e. design requirements, drawings, reports, etc.).

- Operate a Robotic Shaping Cell and use the cell to machine HCB clay blocks into the required dimensions. This will include being responsible for the implementation of software programming changes, as well as, hardware upgrades as necessary.
- Plan experiments for testing the novel, first-of-a-kind systems, structures, equipment, and processes discussed above. This may include optimized HCB block forming equipment, testing remotely operated vehicles for emplacement of the HCB blocks, robotic cell upgrades, etc.
- Generate technical reports documenting findings and manage project documentation through configuration management software.
- Represent the engineering team as a subject matter expert in EBS Processes including presenting to community members and participating in regulatory meetings.
- Ensure all work activities and programs reflect an awareness of and compliance with applicable regulations and with the divisional and customer safety program.
- Perform other duties as assigned.

Qualifications

This position requires the following skills and experience:

- Four year Bachelor's degree in Engineering or Applied Science with specialization in Mechanical, Mechatronics, Electrical, or Nuclear disciplines.
- Over two years' experience in computer and/or robot programming.
- 3D Modeling experience using Computer Aided Design (CAD) software.
- A strong personal interest in computer programming, robotics, automation, and machine design.
- Experience generating technical reports and documenting findings.
- Familiarity with legislated safety requirements.
- Excellent verbal and written communication skills.
- Must be able to effectively apply theoretical and practical technical knowledge and use sound analytical thinking to solve problems.
- Must be a self-starter with an inherent desire to learn and the ability to quickly self-teach new skillsets.
- Must be eligible to work in Canada and must be able to meet security clearance requirements.

The following skills and experience are considered assets:

- Previous experience and/or knowledge of the nuclear industry
- Experience with PLC, HMI, and/or Robot Programming. Specifically, OMRON Sysmac, OMRON NB-Designer, and FANUC RoboGuide.
- Experience with Solidworks CAD software.
- An understanding of machining processes including cutting, grinding, and milling.
- Project and contract management experience in design and/or fabrication contracts.
- Experience developing technical documentation including design requirements, technical specifications, design drawings, design reports, journal papers, etc.
- Experience presenting in a public forum (e.g. national or international conferences or equivalent).

The position may require periodic overnight travel.

We offer a competitive base salary and comprehensive pension and health care benefits package.

The NWMO supports the principles and practices of diversity and is committed to providing a respectful, accessible, and inclusive environment for all persons with disabilities in a way that is respectful of the dignity and independence of people with disabilities and in a manner that takes into account the person's disability and embodies the principles of integration and equal opportunity. The NWMO will provide accommodation to applicants with disabilities. If you require accommodation, please **Contact Us**.

Please submit your application quoting **Engineer/Scientist/Technical Officer – Engineered Barrier Systems (Sealing Processes)** to: Employment@nwmo.ca