



The ***Nuclear Waste Management Organization (NWMO)*** is responsible for the long-term management of used nuclear fuel produced in Canada. 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. We are now offering a challenging position at our Toronto headquarters.

The NWMO is mandated with implementing Adaptive Phased Management, Canada's approach for long-term management of used nuclear fuel. This approach involves the development of a centralized underground repository, supported by a robust social and technical research program in collaboration with Canadian universities, consultants and international waste management organizations.

### **MECHANICAL STRUCTURAL ENGINEER**

This position offers an opportunity for professional growth. The successful candidate will be a member of a team responsible for the conceptual design and full size demonstration of used fuel storage containers. These containers will be steel with a copper corrosion barrier designed and built to stringent requirements. As NWMO launches the engineering programs required for implementation of Canada's permanent used fuel management program, we are seeking innovative engineers to grow with the implementation program.

In this role, the Mechanical Structural Engineer will act as the subject matter expert for the Used Fuel Container Design. This position will be of interest to those who have strong analytical skills and prior experience with performing complex structural analysis on pressure retaining vessels, piping or related components/systems. This position will report to the Manager, Used Fuel Container Design.

Specific duties will include:

- Performing non-linear Finite Element Analysis (FEA) on potential container designs. Example analyses include, non-linear buckling, large plastic deformation, non-linear contact models, cohesive zone modeling for coatings, drop testing, etc.
- Preparing design documentation for the Used Fuel Container and associated equipment, including Design Requirements, Design Reports, Design Descriptions, Design Drawings, etc.
- Presenting evidence to support conclusions reached for the container design during internal and external review meetings, and with the Regulator (CNSC).
- Assisting junior design engineering staff in the resolution of problems that arise in the course of the work, as required.

### **Qualifications and Experience:**

- Four-year university degree in Mechanical Engineering.
- Over 6 years relevant experience in the application of Finite Element Analysis software, preferably ANSYS and/or LS-DYNA in the structural analysis of pressure retaining components
- Experience with a CAD package, preferably Solid Works
- Ability to prepare technical design documents such as Technical Specifications, Design Requirements, Design Specifications, Design Report, Design Description, Design Manual, Design drawings, Bill of Materials (BOM), etc.
- Working knowledge of Nuclear Codes and Standards (e.g. CSA N285.0, ASME Section III Div.1 / Div.3, etc.)
- Excellent written communication skills, demonstrated via technical report publication
- Proficient interpersonal skills to interact with peers, external contractors and the Regulator as required

This position may require periodic overnight travel.

You must be eligible to work in Canada and must be able to meet security clearance requirements.

We offer 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 which 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 via e-mail quoting **Mechanical Structural Engineer** to: [Employment@nwm.ca](mailto:Employment@nwm.ca).