



## About Calian Nuclear

For more than 20 years, the Calian Nuclear team has helped ensure the safety and security of Canada's nuclear infrastructure. This approach has resulted in full participation in hundreds of projects serving the nuclear industry and all levels of government, both in Canada and internationally.



We also have experience with effective CNSC correspondence and ongoing regulatory support.

# Nuclear solutions all in one place

## A full-service approach covering the entire nuclear lifecycle

Whether it be on-site monitoring and evaluation programs, or waste management and emergency response training, Calian has expertise and experience working with industry and government to effectively deliver nuclear and environmental solutions.

Consider all the ways Calian Nuclear solutions can support your organization's nuclear and environment needs, while setting you up for the future, too.

## Environmental Protection

We have substantial knowledge in modelling and assessing the radiological impact of nuclear facilities and activities on the environment. We have capabilities to support environmental programs at your nuclear facility with:

- Gap analysis and follow-up action plans
- Effluent and monitoring programs
- Derived release limits (DRL)
- Environmental action levels (AL)
- Environmental and impact assessments (EA and IA)
- Environmental risk assessments (ERA)
- Environmental modelling

## Radiation Protection

We can help you in developing, implementing and certifying radiation protection and dosimetry programs and protocols. We have extensive experience in designing radiation shielding and evaluating its effectiveness for all forms of ionizing radiation. We provide on-site radiation surveys and evaluations, protection plans and procedures—as well as radiation safety training courses and ALARA assessments.

## Nuclear Safety and Licensing

We can support all your facility's nuclear safety and licensing activities and are experts in deterministic and Level 3 probabilistic safety assessments. We provide comprehensive services including: HAZID, FMEA, on-site and off-site dose consequences, shielding evaluations, criticality evaluations, licensing requirements, regulatory compliance, and internal process compliance.

## Emergency Preparedness

Emergencies happen and we know it's important for organizations to be prepared. That's why we provide nuclear response training and exercises both nationally and internationally. We develop, conduct and evaluate full-scale interoperability and tabletop exercises, as well as drills and workshops. We also create emergency response plans and procedures so you're always ready for the unexpected.

## Calian® ResponseReady™

Our state-of-the-art software platform is the engine behind Canada's largest interoperability exercises. ResponseReady™ is ideal for developing, delivering and evaluating realistic emergency exercises and training. Exercise designers can choose scenarios from our library or customize their own.

## Decommissioning and Waste Management Capabilities

We are committed to the safe management of radiological waste and decommissioning of nuclear facilities to protect the public and our environment. Here are the ways we can help your organization do that:



### Characterization

- Establish characterization objectives and DQOs
- Develop characterization plan
- Sampling and laboratory analyses
- Develop characterization report



### Packaging

- Package shielding and criticality evaluations
- Shielding integrity testing
- Drop analyses



### Transportation

- Transport package SAR/licensing
- Logistics and cost studies
- Shielding integrity tests
- Drop analyses



### Storage

- Shielding evaluations
- HAZID/FMEA
- Safety analyses

## Small Modular Reactors

We are an independent and technology-neutral team that is proudly supporting Canada's next generation of nuclear reactors. Our services include planning, siting, technology selection, licensing and regulatory support, impact assessments, stakeholder engagement, and implementation of management systems for a complete and holistic approach to SMR planning and deployment.