



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

CMD 26-M5.5

Date: 2026-01-23

**Written Submission from
Conexus Nuclear Inc.**

In the matter of the

**Regulatory Oversight Report for
Canadian Nuclear Power Generating
Sites for 2024**

Commission Meeting

March 2026

**Mémoire de
Conexus Nuclear Inc.**

À l'égard du

**Rapport de surveillance réglementaire
des sites de centrales nucléaires au
Canada : 2024**

Réunion de la Commission

Mars 2026



January 22, 2025

Canadian Nuclear Safety Commission Secretariat
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046
Ottawa, ON K1P 5S9
Email: interventions@cnsc-ccsn.gc.ca

Subject: Regulatory Oversight Report for Canadian Nuclear Power Generating Stations for 2024.

Dear Sir or Madam,

This submission supports the Regulatory Oversight Report for Canadian Nuclear Power Generating Stations for 2024. Conexus Nuclear Inc. represents all operators of CANDU reactors, both in Canada and internationally. Conexus' mission is to achieve excellence through collaboration in CANDU and advanced nuclear technologies. In partnership with its members, suppliers, research institutions, and various organizations, Conexus continuously innovates nuclear plant equipment and processes to ensure the highest standards of safety, efficiency, and environmental performance.

To fulfill our mission, Conexus is organized around the following five operational program areas:

- Nuclear Safety and Environmental Affairs
- Information Exchange
- Learning and Development
- Research and Development, and
- Joint Projects

Bruce Power, Ontario Power Generation, and New Brunswick Power play significant roles by offering their expertise and sharing their experiences with others. They contribute to or take the lead in all program areas. The top priority for our members is nuclear safety.

Key results which have been achieved and enhanced through the full involvement of the Canadian nuclear utilities in collaboration via Conexus include:

Safety Analysis improvements:

- Aging Management assessments
- Probabilistic and Deterministic Safety assessments
- Severe Accident studies and management
- Analysis of external hazards
- Modifications to the nuclear power plants and procedures to enhance safety



Numerous projects to ensure ongoing safe, long-term operation, including:

- Fuel Channel Life Management
- Research into pressure tube behaviour and longevity
- Optimization of plant processes through innovation and artificial intelligence
- Plant modernization
- Waste management and minimization
- Research on civil structures and electric cables

Through Conexus' network of peer teams, staff from CANDU operators work together to improve plant safety and operations. They focus on important areas such as Human Performance, Equipment Reliability, and Radiation Protection. By sharing their experiences and developing common approaches, CANDU operators can support each other, as well as international partners and emerging nuclear utilities. Additionally, the CANDU operators are leveraging over 40 years of knowledge to implement advanced technologies and Small Modular Reactors (SMRs), ensuring that safe, reliable, and clean electricity is available worldwide.

CANDU operators are committed to nuclear safety and also emphasize the training and development of their staff. Each year, these utilities send employees transitioning into or recently starting leadership roles in the industry to the Conexus Nuclear Professional Development Seminar. This intensive three-week course covers essential topics such as safety culture, strategic thinking, and leadership qualities.

CANDU operators have made significant contributions to the technical documents and safety standards of the International Atomic Energy Agency (IAEA) on an international level. Their efforts are particularly focused on enhancing nuclear safety in response to the Fukushima Nuclear Power Plant incident. This work includes developing strategies for dealing with events involving the loss of electrical power, modifying plant equipment to improve safety, and implementing aging management strategies for Pressurized Heavy Water Reactors.

Thanks to the ongoing collaboration and commitment to continuous improvement by CANDU operators, Conexus supports the CNSC staff's conclusion that the nuclear power generating stations and waste management facilities at their Canadian sites were operated safely. They complied with all applicable requirements for safety and control areas in 2024, as well as Canada's international obligations.

Sincerely,

Rachna Clavero
President and CEO
Conexus Nuclear Inc.