



Oral presentation

Exposé oral

**Written submission from
CANDU Owners Group**

**Mémoire de
CANDU Owners Group**

In the Matter of the

À l'égard de la

**New Brunswick Power Corporation,
Point Lepreau Nuclear Generating Station**

**Société d'Énergie du Nouveau-Brunswick,
centrale nucléaire de Point Lepreau**

Application for the renewal of NB Power's
licence for the Point Lepreau Nuclear
Generating Station

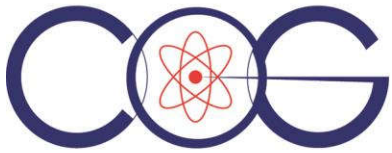
Demande de renouvellement du permis
d'Énergie NB pour la centrale nucléaire de
Point Lepreau

**Commission Public Hearing
Part 2**

**Audience publique de la Commission
Partie 2**

May 11 and 12, 2022

11 et 12 mai 2022



March 28, 2022

Canadian Nuclear Safety Commission

Secretariat
c/o Louise Levert
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046
Ottawa, ON K1P 5S9
Email: cns.interventions.ccsn@canada.ca

Subject: Point Lepreau Operating License Renewal {Ref. 2022-H-02}

Dear Ms. Levert,

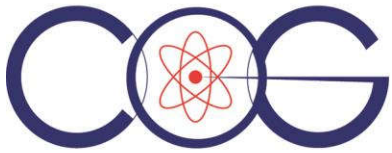
I am writing on behalf of the CANDU Owners Group (COG) in support of NB Power's application to renew its Point Lepreau Nuclear Generating Station (PLNGS) site licence for a 25-year period. I also wish to indicate my interest in attending the hearing on May 11-12, 2022 to provide an oral presentation. My presentation will elaborate on the points below.

Benefits of continued licensing

The renewal of PLNGS' operating licence supports Canada's ongoing plan to achieve net-zero by 2050. Nuclear power generation provides safe, reliable, low-carbon baseload electricity generation, a key pillar in fighting the climate change crisis. The station has safely and successfully generated emissions-free electricity for almost four decades and currently supplies over a third of all electricity used in the province. Successfully refurbished in 2012, the plant's life has been extended by 30-35 years, and the 25-year renewal timeframe aligns with the timeframe to determine whether to refurbish or decommission the station.

NB Power meets all Federal and International nuclear regulatory requirements for environmental protection, safety and security. The decades-long safety record of Point Lepreau and the entire Canadian nuclear fleet demonstrates a history of operating to the highest levels of safety and environmental protection.

Further, NB Power has a demonstrated commitment to openness and transparency and public engagement. PLNGS has many public forums in place, such as the Regulatory Oversight Report, and routine Status Report updates, which help to ensure continuous reviews of PLNGS performance. These activities are supported by Periodic Safety Reviews, which periodically compares PLNGS to the best world-wide industry codes and standards of safety and performance.



Collaboration through the CANDU Owners Group

This submission speaks to some of NB Power's efforts to continuously strengthen the nuclear industry through its leadership in collaborative efforts. In particular, I will speak to those undertaken in collaboration with other CANDU operators through COG.

COG is a non-for-profit organization with membership from all CANDU operators both in Canada and internationally. Our mission is "To improve performance of CANDU stations worldwide through member collaboration" with a vision to create excellence.

To fulfill this mission and vision, COG is organized around the following four operational program areas:

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

In addition, COG has developed a leadership and knowledge management training program to strengthen leadership and management skills amongst high-potential technical managers in the nuclear industry.

COG members spend approximately \$70 million a year in R&D and Joint Projects to strengthen the safety, reliability, environmental and cost performance of the CANDU nuclear plants.

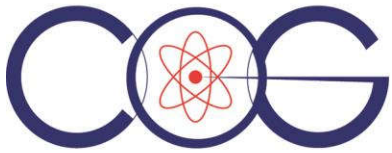
The work facilitated by COG on behalf of its members relies on capable, knowledgeable, suppliers with deep expertise, human capacity and facilities to undertake ground-breaking nuclear science. This research, and the associated engineering activity, is undertaken mostly in Canada by organizations such as Canadian Nuclear Laboratories, Kinectrics, SNC Lavalin and Stern Laboratories.

Point Lepreau employees play a significant role in our programs. They share their experiences with others, and contribute or play a lead role in all COG program areas. A member of Point Lepreau's senior management team, Jason Nouwens, is an active COG board member.

Key results achieved and enhanced through full involvement of Point Lepreau employees in collaboration with other CANDU operators, via COG, include:

1. Post-Fukushima Actions and Safety Analysis improvements:

- Probabilistic Safety Assessments
- Analysis of external hazards
- Research and Development into severe accidents
- Severe Accident studies and management
- Modifications to plant and procedures to enhance safety results



Result:

- Nuclear safety was further enhanced
- Emergency preparedness was further enhanced
- CNSC regulatory requirements met

2. Projects to mitigate environmental impacts and promote biodiversity including:

- Development of methods to characterize the entrainment of aquatic organisms
- Methods to determine the survival of entrained eggs and larvae

Result:

- Improved outcomes for the environment and integrity of biodiversity

3. Numerous projects to understand and mitigate material degradation for key components such as feeders and steam generators

Result:

- Improved safety and reliability in the latter part of the plant life cycle.

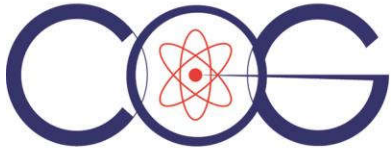
Through COG's network of peer teams, Point Lepreau employees collaborate with other members to enhance a number of aspects of plant safety and operations, including key areas of Human Performance, Equipment Reliability, Radiation Protection, Cyber Security and a coordinated industry effort to address Counterfeit, Fraudulent and Suspect Items. By sharing experiences and working on common approaches, Point Lepreau's contribution is of significant value to the entire CANDU industry.

On an international front, Point Lepreau has made significant contributions through the International Atomic Energy Agency (IAEA), especially in regards to post-Fukushima activities. These include contributions to probabilistic safety assessment, severe accident management and plant equipment design and modifications to enhance safety.

As well, Point Lepreau has led the CANDU-6 fleet initiative. The CANDU-6 reactors in Argentina, Canada, China, Korea and Romania are very similar in design, and the objective of this initiative is to leverage this similarity to enable the CANDU-6 operators worldwide to collaborate as a fleet, sharing operating experience, design modifications and safety analysis, as well as obsolescence management and operating and maintenance practices.

With Canada and countries around the world focused on addressing the critical challenges of climate change and its effects, the renewal of PNGS operations license is key to achieving Canada's net-zero goals. Based on the demonstrated track record of Point Lepreau employees improving operations performance and enhancing nuclear safety here in Canada and internationally, the CANDU Owners Group recommends approval of this license application.

CANDU Owners Group Inc.



"Excellence Through Collaboration"

I look forward to elaborating on aspects of this letter during my presentation.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Smith', with a stylized flourish extending to the right.

Stephanie Smith
President and CEO
COG