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Written submission from Benjamin Fortier

Mémoire de Benjamin Fortier

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

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Good day,

Please consider this email my written intervention to the Canadian Nuclear Safety Commission, regarding the licence renewal of the NB Power Point Lepreau Nuclear Generating Station.

I am a young person whose future will be directly impacted by choosing nuclear over renewables for these nine following reasons:

1. Limiting public input

NB Power's request to renew the licence of PLNGS for 25 years would effectively prevent any public input during the remaining life of the station.

A lengthy renewal at a time when there are so many uncertainties that could affect the station's safety, reliability and financial viability, would show a flagrant disregard for the public interest. It is critical that there be regular, timely opportunities to input the evolving needs and concerns of upcoming generations in New Brunswick.

NB Power's request to renew the licence of PLNGS for 25 years would effectively prevent any public input during the remaining life of the station.

A 25-year licence means that we will have no chance to have our say again until 2047!

The Bay of Fundy is one of the natural wonders of North America. We already know that the Lepreau nuclear plant is killing fish in the Bay due to entrainment from the water intake. A 25-year licence period may decrease the amount of regular assessments of the decline in marine health.

The Lepreau nuclear plant emits radioactive tritium, a carcinogen, into air and water. Canada's current "safe" limits for tritium are many times higher than in other countries.

The Point Lepreau plant is a financial boondoggle. New Brunswickers may decide to close it down before 25 years.

Conclusion: The CNSC must not renew the operating licence for Point Lepreau power station for the requested 25 years. Instead, the CNSC should continue to consider 5-year relicensing periods, and work toward decommissioning.

2. Uncertain times and best management practices

This is a time of uncertainty as we face climate change and rapid technological advancement. The nuclear industry, in particular, is experiencing significant cost increases and lengthy delays in refurbishment and replacement of nuclear facilities. At the same time, the costs of alternate sources of power and energy efficiency are falling.

The Lepreau station has a history of reliability issues:

Electricity production at Lepreau has not met production targets, in the first seven and a half years since a disastrously long and over-budget refurbishment, requiring an additional $500 Million in capital expenditures.

The most recent unplanned outage, only 11 weeks after a two-month planned maintenance, was 40 days in January and February 2021 during peak demand.

The pace of the reactor's aging and the emerging reliability and costs of operation, need to be regularly shared with the public in a relicensing format, to allow input on decisions about continued operations, in the public interest. Those decisions will include committing to expenditures required for Lepreau, versus investments in alternate sources of power.

Conclusion: In the interest of ensuring flexible, responsive, publicly-sanctioned decision-making for such uncertain times, the CNSC must not renew the operating licence for Point Lepreau power station for the requested 25 years. Instead, the CNSC should continue to consider 5-year relicensing periods, to ensure regular public review allowing for public input to planning as patterns emerge, and before choices are forced.

3. Disposal of high-level radioactive waste

I am concerned that there is no proven-safe option for permanent disposal of the radioactive waste that will continue to add up for another 25 years, if the requested renewal period is approved. Further, the proposal to transport all this additional waste for thousands of miles to a deep geologic repository in Ontario, multiplies the risk of serious accidents resulting in radio-active release, having potential impacts on human health and the environment.

Conclusion: The CNSC must consider the impact of radioactive wastes within this licensing hearing. The CNSC should not continue to licence nuclear power plants when no known solution yet exists for radioactive wastes.

4. Impacts of climate change

Nuclear power is particularly vulnerable to climate change effects, including thermal disruptions (e.g. heatwaves and droughts) and extreme weather events. For example, a recent study showed that extreme weather events have become the leading cause of nuclear power plant outages in North America and South and East Asia.

Conclusion: Recommend that the CNSC expressly consider climate impacts and vulnerabilities when granting a licence. As climate impacts become more frequent and pronounced, the CNSC must consider climate change in the context of licensing because of the major safety and environmental issues it poses to operations, health and safety. The precautionary principle would guide the CNSC to, at maximum, only continue to consider 5-year relicensing periods.

5. Impacts on the Bay of Fundy

The marine environment immediately around the plant has abundant species of fish and many commercially significant species like cod, lobster, scallops and dulse. In addition to the marine mammals like whales, porpoises, dolphins and seals that frequent the Bay of Fundy, colonial waterbirds also use the area during seasonal migrations.

The Bay of Fundy is home to a number of federally protected species under the Species at Risk Act, including the north Atlantic right whale, blue whale and fin whale. Given the globally recognized significance and biodiversity of this region, I am concerned about the long-term environmental effects of the plant, potential accidents and its eventual decommissioning on the Bay of

Fundy.

Conclusion: The CNSC must require emergency response and environmental monitoring measures be in place which are specific to the non-human biota of the Bay of Fundy. The CNSC must not grant a licence until it is demonstrated that the Bay of Fundy region is protected from radionuclide emissions at the ecosystem level and that it will be protected in the event of an accident.

6. Indigenous rights / UNDRIP

I understand that the Point Lepreau nuclear generating station is located on the traditional territory of the Peskotomuhkati. The Free, Prior, and Informed Consent (FPIC) is a principle protected by international human rights standards. FPIC describes that 'all peoples have the right to self-determination' and is linked to the right to self-determination, namely that 'all peoples have the right to freely pursue their economic, social and cultural development'. The United Nations Declaration on the Rights of Indigenous People explicitly requires the Free Prior and Informed Consent of Indigenous peoples for activities occurring in their territory. The Peskotomuhkati people are also making an intervention to the NB Power licence hearing. We must support their voices.

Conclusion: The CNSC must affirm its commitment to reconciliation, fully adopt UNDRIP, and support Treaty relationships based on the principles of mutual recognition and shared responsibilities as recommended by the Truth and Reconciliation Commission of Canada's Calls to Action. Therefore, I/we recommend that the Peskotomuhkati Intervention recommendations are followed.

7. Emergency planning and preparedness

Sufficiently detailed nuclear emergency planning and preparedness is essential to help prevent the widespread health and safety consequences that would otherwise result after a severe or catastrophic accident with widespread release of radioactive substances. The aim of emergency planning should be to avoid as many of the health effects as possible. In a catastrophic case this can only happen if emergency planning is sufficiently detailed, implemented and resourced for that type of accident.

Conclusion: The CNSC must review and report on the sufficiency of the

planning basis, the response plan and the province's readiness for largescale radiation releases in New Brunswick as part of every licence application. Until the planning basis for a potential offsite nuclear accident in New Brunswick accounts for a catastrophic offsite accident, and until such emergency plans are in place and proven to be effective for a catastrophic accident, the site should not be licensed for continued operation.

8. Global Security issues

Recently, military attacks have been initiated on a nuclear power plant in the Ukraine, including a hostile take over of the Chernobyl nuclear plant, and the use of explosives. There are many catastrophic associated risks. Russia is a nuclear power and recently threatened NATO allies with consequences like the world has never seen. Terror attacks such as 9-11 have taken place close to home on the Eastern Seaboard.

Conclusion: The CNSC must require an emergency response plan in the event of a military or terrorist attack on the Point Lepreau Nuclear plant.

9. Nuclear weapons proliferation

The civil nuclear industry is the source of the material used to make nuclear weapons. Nuclear weapons proliferation risks will be among us as long as the civil and military nuclear industry continue to exist.

President Macron of France explained this in a speech on December 8, 2020: *"The nuclear industry lives from its complementarities and it must be thought of in terms of its complementarities. One cannot exist without the other. Without civil nuclear power, there is no military nuclear power, and without military nuclear power, there is no civil nuclear power. Organizations like the French Atomic Energy and Alternative Energies Commission are living proof of this."*

NB Power is supporting the development of a reprocessing plant that will extract plutonium from the spent (irradiated) fuel made by the Lepreau Nuclear reactor. Extracting plutonium raises concerns about nuclear weapons proliferation. See the article in the Bulletin of Atomic Scientists about New Brunswick's plutonium plans.

Conclusion: The CNSC must ban the extraction of plutonium from the spent fuel made by the Point Lepreau Nuclear reactor.

Please acknowledge receipt of this email

Regards,

Benjamin Fortier