



Supplementary Information

Renseignements supplémentaires

Presentation from Northwatch

Présentation de Northwatch

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

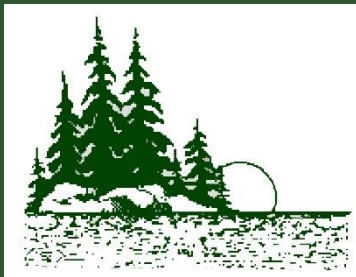
**Commission Public Hearing
Part 2**

**Audience publique de la Commission
Partie 2**

May 10 to 12, 2022

10 au 12 mai 2022

AN APPLICATION FROM NEW
BRUNSWICK POWER TO RENEW ITS
LICENCE FOR THE POINT LEPREAU
NUCLEAR GENERATING STATION



Ref. 2022 -H-02

Northwatch

CMD 22-H2.220

May 2022

Presentation to the Canadian Nuclear Safety Commission



FUEL DEFECTS

- In 2018 NB Power was requested to provide their strategy to address the elevated fuel defect rates
- CNSC concluded that “NB Power has established a response strategy including increased fuel inspections and is working with a third party to address the root cause of the issue”
- CNSC staff have previously acknowledged that fuel defects are a precursor to public dose
- CNSC staff presentation of fuel defects at the Point Lepreau nuclear station understates the problem and omits the risk the fuel defects and associated issues present.
- the damage to the fuel and the “significant threat to the integrity and lifespan of the Point Lepreau Nuclear Generating Station (PLNGS) pressure tubes” are serious matters and should be fully and immediately addressed.

FUEL DEFECTS

- **REQUEST:** NB Power should provide a stand-alone report which is made publicly available on the condition of the issues related to the potential presence of foreign material in the primary heat transport system, and related fuel damage and risks to the pressure tubes. The investigation should include the degree and potential consequences of the resulting fuel damage / fuel defects, including over various time frames (short, medium and very long term).

IRRADIATED FUEL WASTE

- inadequate information has been provided about the status of the irradiated fuel bays, the aging management systems in place for the irradiated fuel bay, or the function and performance of the irradiated fuel bays
- there is no description or even statement of the long-term management strategy for irradiated fuel waste, except a reference to the Nuclear Waste Management Organization (NWMO) having provided cost estimated for the Financial guarantee calculations
- assumed reliance on the NWMO's intended deep geological repository raises multiple issues (project uncertainties, siting uncertainties, transportation and packaging uncertainties)
- According to the NWMO it is the responsibility of each operator to develop the method and technology to transfer the irradiated fuel into transportation containers for the presumed transfer off-site; NB Power not provided this
- Despite all the uncertainties with the NWMO program, NB Power has not developed long term alternatives for the management and isolation of high-level radioactive waste.

IRRADIATED FUEL WASTE

- **REQUEST:** Direct New Brunswick Power to develop as an alternative a plan for extended on-site storage of the irradiated fuel; this alternative should be developed as alternative to off-site shipments, and should include comparative costs and benefits (environmental, social and fiscal) of on-site versus off-site, which incorporate transportation impacts.

LICENSE TERM

- **REQUEST:** CNSC renew the license for the Point Lepreau PROL for a period not longer than 5 years.

DELEGATION OF AUTHORITY

- **REQUEST:** Insert a hold point into the license conditions and require New Brunswick Power to provide a detailed status report on developments since the 2004 approval of the Phase II extension, all of which should be the subject of a public comment opportunity prior to the Commission making its decision

WORKER DOSE

- **REQUEST:** that additional details on worker exposure and exposure sources be provided in Regulatory Oversight Report and Commission Member Documents for future license reviews
- **REQUEST:** that dose and exposure levels be presented to include a comparison of exposure levels per worker category, including and for example the comparative levels of exposure for management, supervisors, trades and labourers

RELEASE OF RADIONUCLIDES TO AIR

- **REQUEST:** that radiological monitoring results be included in Commission reporting (for example, releases of radionuclides to air), and that radiological releases be given at least commensurate attention, relative to non-radiological releases.

Having reviewed New Brunswick Power's Application and supporting attachments, we draw the following conclusions:

- The recommendations set out in earlier sections of this submission should be adopted by the Commission
- New Brunswick Power's request for a 25 year license and CNSC staff's recommendation of a 20 year license should both be rejected; if the Commission determines that the PROL for Point Lepreau is to be renewed, it should be for no longer than a five year term
- CNSC staff recommendation that decision-making with respect to Phase II extended of the SWRMF should be rejected; instead, a hold point should be inserted into the license and New Brunswick Power should provide a detailed status report on developments since the 2004 approval of the Phase II extension, all of which should be the subject of a public comment opportunity prior to the Commission making its decision

CONCLUSIONS

REQUEST FOR COMMISSION ACTION

- **REQUEST:** NB Power should provide a stand-alone report which is made publicly available on the condition of the issues related to the potential presence of foreign material in the primary heat transport system, and related fuel damage and risks to the pressure tubes. The investigation should include the degree and potential consequences of the resulting fuel damage / fuel defects, including over various time frames (short, medium and very long term).
- **REQUEST:** Direct New Brunswick Power to develop as an alternative a plan for extended on-site storage of the irradiated fuel; this alternative should be developed as alternative to off-site shipments, and should include comparative costs and benefits (environmental, social and fiscal) of on-site versus off-site, which incorporate transportation impacts.
- **REQUEST:** CNSC renew the license for the Point Lepreau PROL for a period not longer than 5 years.
- **REQUEST:** Insert a hold point into the license conditions and require New Brunswick Power to provide a detailed status report on developments since the 2004 approval of the Phase II extension, all of which should be the subject of a public comment opportunity prior to the Commission making its decision
- **REQUEST:** that additional details on worker exposure and exposure sources be provided in Regulatory Oversight Report and Commission Member Documents for future license reviews
- **REQUEST:** that dose and exposure levels be presented to include a comparison of exposure levels per worker category, including and for example the comparative levels of exposure for management, supervisors, trades and labourers
- **REQUEST:** that radiological monitoring results be included in Commission reporting (for example, releases of radionuclides to air), and that radiological releases be given at least commensurate attention, relative to non-radiological releases.