



**Oral presentation**

**Exposé oral**

**Written submission from  
PEACE-NB**

**Mémoire de  
PEACE-NB**

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**

Filed on March 24, 2022

Written submission from PEACE-NB for the PLNGS licensing hearings May 11/22

Submitted by Sharon Murphy, PEACE-NB Chair

Members of the CNSC , PLNGS relicensing panel,

We have decided to intervene in the PLNGS relicensing hearing due to several issues of concern.

We believe that NB Power's application does NOT meet the requirements of Reg DOC-1.1.3, License Application Guide: License to operate a nuclear power plant. Historically, we have presented to you regarding safety concerns around climate, public emergency preparedness, post operation and decommissioning, political instability, seismic and study methodology as well as environmental monitoring. We are not content that any of our concerns have been adequately addressed over the years- and therefore are again participating in the relicensing hearing. As well, in regards to the Technical assessment to the CNSC staff committee member Doc: We do NOT conclude the following;

Impact of Covid 19 continues to be minimal-nonvaccinated operators and staff were fired

Sufficient number of qualified staff are maintained (see above)

Safety analyses were updated and considered aging(see below)

Components , structures, and systems remain fit for service (not without doing the studies)

Provisions were made to protect workers, the public and the environment (minimally using opinion not science)

Above and beyond our historical concerns which we have new and relevant questions about, we have new issues, including the length of the license requested.

-climate change impacts

To date, we have not seen NB Power take the issue of climate change seriously. Our past answer that we have historically gotten when questioning NB Power about the impact of climate on the plant, we are told that they are "unaware" of any climate change impacts that would affect the plant. This is no longer an acceptable answer. The impact of climate change is real and extreme. Sea levels are rising quickly and war, famine, destruction and previously unknown monstrous storms are now the new normal. Lepreau was built on the ocean for the simple reason of cooling the plant and waste. Now, the ocean is rising and the storms are coming. The

unexpected in the past is now expected including extremely strong winds and waves. Lepreau is certainly at risk as was proven during the first of these events, the historical Ground Hog gale where boulders were tossed like beachballs towards the plant. As well, the plant cannot have been built to withstand winds stronger than we have ever seen.

Where are the studies to show Lepreau is safe from all such extreme events and further, when the SMNRs are also at the site, will they not prove an extra risk should a storm knock out roads, power, flood the site and make external aid impossible? The site was poorly chosen at the time and is now one of the worse sites for a nuclear plant and experimental nuclear technology ever!....if the site was chosen because the Saint John area people are worth less to Canada than other citizens, that is also immoral and unacceptable.

We would appreciate an updated full environmental risk assessment , including the full impact of climate change, be ordered of NB Power. Is climate even dealt with in a small way in the probabilistic safety review? How else will we get the answers to our questions and concerns in this regard? Without such an assessment, we are left with "judgement" and "opinion" which is not science based.

With the impacts of a nuclear accident due to climate upset very possible in our opinion, it is also worth noting that the decision makers are not liable for an accident and no insurance will cover the destruction. Therefore, it is definitely not acceptable for those who are not fiscally responsible for the destruction of our land and people to make the decision that the risk is worth it....especially in the presence of federal propaganda and the absence of sound science.

-environmental monitoring

We are concerned that the lack of base information will skew any environmental monitoring data from the beginning. We understand that some monitoring of radiation in the flora and fauna around the plant is done but share concerns for the environmental health of the people, animals and plants where the Lepreau plume falls (red head?), where the outflow goes into the Bay of Fundy and even for the people with prolonged exposure to Bay of Fundy fog. We have not been able to find any studies at all in this regard-pre Lepreau, during the past 30 years of operation or currently. Therefore the question of how many extra cancers and other illnesses we could expect and are seeing as a result of the routine PLNGS operation are unknown. Were there to be an upset condition arise, we wonder who would be responsible for such monitoring and were it to be our own EMO and other public employees, do they know how and where or would they simply evacuate and let God protect us?

-public emergency management and nuclear security

Filed on March 24, 2022

We wonder why the request to intervene in these hearings was made to citizens within 70 km of the project but the potassium iodide program stops at 50?

As Saint John area residents, our members do not feel prepared or informed were a nuclear accident to happen. We have noticed the "E" signs that point citizens in a variety of directions were an evacuation be necessary but of course, prevailing winds would mean that some of the static signs point folks directly into danger. As well, it was found that in an informal survey of friends and family, no one knew what to do were a nuclear accident to happen. Indeed, the cbc isnt even the public emergency broadcast system any more. So, would the emergency measures folks be relying on independent small media outlets to inform the public as to where to go and what to do? We sincerely doubt the effectiveness of that endeavour.

Were a natural disaster like a tidal wave or a large earthquake( as is expected to happen in the Passamaquoddy bay area)happen, many other industries and systems would possibly go down making evacuation and public health protection practically impossible. These are not unlikely events but actually possible as was discovered at the last licensing hearings.

Most citizens in the Saint John area do not keep potassium iodide in hand and furthermore do not know where to get them or even why they would be important for their survival. This fact alone should give us a moment to pause and wonder whether our health and safety is less important than the proliferation of canadian nuclear technology around the globe.

We would like to hear from the provincial/municipal governments and emergency responders on how they decided what protective measures for the public are necessary? Evacuation? Shelter in place? Potassium iodide pills? Radiation monitoring? Evacuation Centers? If all licensees must be well prepared to respond and cooperate, must local, provincial, federal and international authorities also "be well-prepared"? If so, what does that mean? Aside from the documents on the CNSC site, what do they know and what input do we get from them? For example, who gets the potassium pills if the wind is blowing a gale straight into Saint John? Do they evacuate or stay and find and circulate the pills to all 150-200,000 of us?

-seismic assessments and methodology

We have read the Status Update on Seismic-Related Work and the Summary of Evaluation of Updated Seismic Hazards and are left with more questions than answers.

From #2 Status Update on Seismic-Related Work, from the Summary.

-Where is the update and does it include the recent info that we found in the past licensing hearing?

Filed on March 24, 2022

2. Updating the PSA-based Seismic Margin Assessment methodology to reflect the new seismic hazard information This work is in progress. An update to the PSA-based Seismic Margin Assessment is scheduled for completion by the end of year 2016.

Is this "work in progress" complete? where is the new methodology and the new assessment? and does it reflect the information found at last license hearing where it was shown that the next likely earthquake would be in the passamaquoddy bay region?

From #3

-Have you included aside from the structural and integrity, the affect to refueling equipment, during refueling of a seismic event? If so, where?

From #6

-was it? Where is it?

From #7

-In lieu of a full seismic psa, nb power hired experts for their opinion or judgement???? This is NOT science.

-an "off site consequence assessment" is NOT a full PSA!

-"our current understanding of the seismic hazard"-using opinion and no study means that your understanding is based on ignorance.

-----Has the earthquake data been updated in the last five years or even since we updated it for you? Did you use our updated data showing that the next likely major earthquake will happen in the Passamaquoddy Bay region?

-an "Interim risk assessment" from Dec 30 2014 is still not a full seismic PSA.

From the Summary again...

"considerable data exists....the work is highly complex....the data related to very rare, large earthquakes is scarce....resulting in higher uncertainty..."

Therefore, do a full seismic PSA and include all updated data.Nuclear is complicated and safety is necessary.

"While PLGS staff expected the work to be completed by end of 2014....to finalize the assessment to better support its overall conclusions"....

Filed on March 24, 2022

What? That is opposite to what the public expects of you. You do not honestly make the science fit your desired outcomes unless you are selling a product that will not hurt anyone and even then, it is false science.

"NB Power is reviewing results...." So where is that document?

The question is asked and answered "how has our understanding of earthquakes changed" without actually studying it but instead relying on judgement and opinion.

"shows the magnitudes of very rare earthquakes...are larger than historically regarded as credible"

Therefore, how does that affect a full seismic PSA if it were done?

"NB Power has consulted with Electric Power Research Institute....which we believe in unlikely to have an adverse effect...."

What did they study and what did they actually say?

"NB Power is planning to perform a full seismic PSA..."

Did they?

"The CNSC has recently requested the Canadian industry to aggregate risks estimates....for comparison against safety goals....while work is ongoing to determine what the appropriate method...a simple and conservative summation is provided..."

Update on this please.

"It should be noted that the risk estimates...is based on an interim approach. Going forward we plan to update our methods for calculating the risks and performing a full seismic PSA."

???? did they update the methods? Did they do a full PSA?

How can NB Power Nuclear say "NO that current earthquake hazard doesnt increase the risk to the public" without the studies and methodology? Opinion and judgement are not enough.

Please update where we are on #s 1-7 from "Is there any future work....?"

Then, we question the word "reasonably" in relation to public safety. Who judges what is reasonable?

Filed on March 24, 2022

We read that "NB Power had identified some opportunities that could further improve plant seismic design and safety".

and

"our conclusion...no consequence to the public and the environment"

What are the opportunities to improve safety and why would NB Power be looking at cost when safety is at risk? As well, how can they truthfully say that there is no consequence when obviously there is?

License Renewal length

PLNGS is requesting an unusual and irresponsible timeline for their license. We do not believe that any more than 5 years should pass without public scrutiny. In particular, we do not believe that the site will be without significant change over the next few years with the introduction of the experimental and unknown SMNRs onsite. We do not know what will be added to the air shed in regards to nuclear substances (we have heard plutonium will be experimented on); we do not know what type of extra waste will be onsite; we do not know what experimental technology will be onsite and we do not know what waste will be added to the waste storage. At this time, considering the extra SMNR waste at the very least should be part of the hearing. It will definitely make a difference and the certainty of the SMNR experiment is most definite with the federal government funding it. How can NB Power truthfully say that there will not be any major changes in the operations at the plant site for a quarter of a century? Either they are not being truthful or are wilfully ignorant to what the federal government is up to-in the light of day in front of us all.

Doc 2.3.3 is referenced to say "every 10 years meeting modern codes and standards in a reasonable way"

Without public scrutiny, who will decide what is reasonable? If staff is tired for example, reading a study may not be reasonable to them and without public oversight, who will know?

As well, without public input and scrutiny, who will ask the unpopular questions that do not fall within the shiny and well marketed nuclear industry line that is promoted and sold by the federal government? The CNSC has been clear to the Canadian public that the Canadian nuclear industry is without fault and would never compromise public safety. We beg to differ. Therefore, without answering our and other intervener's questions and concerns, what tom

foolery will ensue? We wonder, considering the recommendation that a 20 year license is acceptable, if the people and environment in our region are expendable? If this is the case, this alone is immoral and unacceptable.

#### Political instability

The threat of war, nuclear war and other acts of terrorism due to political instability are becoming the norm these days. We do not believe that the staff or citizens surrounding PLNGS are in any way prepared for such an occurrence. A plant so vulnerable and dangerous that one attack would render the entire eastern seaboard uninhabitable is a reality with Lepreau. The risk is not worth the benefit for expensive power we dont need. We understand that the CNSCs hands are tied by a federal government blinded by profits and patriotic fervour. However, we expect the agency to act independently and without influence from the nuclear hucksters on the doorstep. At least we wish that were the case.

It is not lost on us that if the 20 year license is acceptable to the nuclear industry, an entire generation will be ignorant as to what is going on at Pt Lepreau and what might happen if there was an accident or attack on the site. We have seen recently, in Ukraine, citizens who knew that the largest nuclear plant in Europe needed to be protected from a Russian military attack. Indeed, the entire community surrounding the plant went to the site and blocked it with their own bodies. This act of bravery would not happen at Lepreau if the public is (purposefully)ignorant of what is even going on at the site.

Regarding an accident, it also follows that an uninformed public will not be prepared for an evacuation or other life saving actions if it has been a generation since any members of that public were engaged in the licensing of the facility.

#### Protection of Human Health

We do not believe that the protection of human health is paramount for the CNSC or NB Power Nuclear, above the marketing of Canada's nuclear industry worldwide. We have found, after reviewing the documents available to the public for this relicensing hearing, that although lip service is paid to the CNSC, assuring all that the plant is indeed safe, very little science and effort has been put into proving that assumption. It appears to us that NB power would rather hire friendly "experts" to judge whether or not the plant is safe rather than spend the time and money to actually prove that assumption.

Were the plant become at risk from war, terrorism, cyber attack, seismic events or climate change, the public and the environment would not be protected from a nuclear release. We



Filed on March 24, 2022

have come to that conclusion the same way that NB power and the CNSC has comes to their conclusions-using judgement and experience. Without sound science to back up these claims, they stand as unsubstantiated fact which seems to be good enough for our regulators and government. In our case, however, as the public, the repercussions of this gamble are unacceptable.

An example of this folly would be in regards to the dissemination of potassium iodide pills. As it stands, as far as we, the public, knows, were an accident to happen, Saint John would not receive potassium iodide in a timely fashion thus sacrificing all of the 200, 000 plus residents living downwind from the plant. Perhaps in the last 5 years, the people at NB Power have devised a forcefield that would stop nuclear substances from accessing anyone outside of 50 km but since we havent heard of this incredible invention, we doubt it. Not included in this would also be the residents of Nova Scotia who would , in the prevailing winds also receive a lethal dose of radiation in a nuclear accident.

Decommissioning

Where are the decommissioning studies? Is the money being put aside for decommissioning adequate for the future? Are staff being trained adequately for the decommissioning job when it happens?

In closing, we are requesting 10 minutes of your time to orally present at the relicensing hearings as well as your blessings to make closing remarks at the end of the hearings.

Thank you

Sharon Murphy on behalf of PEACE-NB