



Supplementary Information

Written submission from the Canadian Environmental Law Association

In the Matter of

**Bruce Power Inc. – Bruce A and B
Nuclear Generating Station**

Request for a ten-year renewal of its Nuclear Power Reactor Operating Licence for the Bruce A and B Nuclear Generating Station

Commission Public Hearing – Part 2

May 28-31, 2018

Renseignements supplémentaires

Mémoire de l'Association canadienne du droit de l'environnement

À l'égard de

**Bruce Power Inc. - Centrale nucléaire de
Bruce A et Bruce B**

Demande de renouvellement, pour une période de dix ans, de son permis d'exploitation d'un réacteur nucléaire de puissance à la centrale nucléaire de Bruce A et Bruce B

**Audience publique de la Commission –
Partie 2**

28-31 mai 2018

May 16, 2018

Louise Levert, Senior Tribunal Officer
Canadian Nuclear Safety Commission
280 Slater Street, PO Box 1046
Ottawa, ON K1P 5S9

Delivered via email cnscc.interventions.ccsn@canada.ca

Dear Ms. Levert:

**Re: Supplemental Submission from the Canadian Environmental Law Association
Regarding the PNERP Implementing Plan for Bruce NGS (Hearing Ref No. 2018-H-02)**

In a joint letter dated April 3, 2018, the Canadian Environmental Law Association (CELA) and Greenpeace requested the Canadian Nuclear Safety Commission (“Commission”) postpone the relicensing hearing for the Bruce Nuclear Generating Station on the basis that the Bruce Nuclear Generating Station Implementing Plan (“Implementing Plan”),¹ required pursuant to the Provincial Nuclear Emergency Response Plan (PNERP), was not publicly available prior to the intervention deadline.

By letter dated April 9, 2018, the Commission denied our request for a deferral and instead, provided an extension within which we could provide comments specific to the newly revised Implementing Plan. CELA commenced its review of the Implementing Plan on April 30, 2018, when it became publicly available. While we are appreciative of this opportunity to provide a supplemental submission, we maintain that a deferral of the hearing, which would have allowed all public interveners the opportunity to review recent amendments to emergency planning and preparedness for the duration of the public notice period (at least 60 days) would have facilitated more meaningful public engagement.

¹ Ministry of Community Safety and Correctional Services, “Provincial Nuclear Emergency Response Plan (PNERP), Implementing Plan for the Bruce Nuclear Generating Station” (March 2018) [**Implementing Plan**]

CELA has undertaken a detailed review of the Implementing Plan and we confirm that all conclusions and recommendations in our primary submission² remain in place. However, the following recommendations specific to our review of the Implementing Plan are provided to assist the Commission in its review of emergency planning pursuant to section 24(4) of the *Nuclear Safety and Control Act*.

1. The relicensing hearing is premature

Currently, the only updated emergency planning documents which are complete and publicly available are the PNERP and Bruce NGS's Implementing Plan. The Kincardine Emergency Response Plan, Bruce's onsite Emergency Response Plan, Ontario's Radiation Health Response Plan and the Unified Transportation Management Plan remain outstanding. Additionally, the Office of the Fire Marshall and Emergency Management's (OFMEM) Technical Study of the revised PNERP is ongoing.³ Without these plans in place and available for review, CELA submits it is premature to be assessing the adequacy of emergency preparedness for Bruce Power's proposed licence to 2028. CELA requests the Commission inquire into the state of development of these plans, their timelines for completion and how they will be publicly reviewed for adequacy.

In specific reference to the Kincardine Emergency Response Plan, we also ask that the Commission inquire as to the level of guidance provided, pursuant to 2.6.2 of the Implementing Plan to support the municipal planning process. For instance, what is meant by "institutional data," and what is "critical infrastructure" which should be detailed? We ask that the Commission members query if such guidance exists for the municipality while it revises its emergency response plan.

2. The size of planning zones in the Implementing Plan should be expanded

For the reasons highlighted below, CELA reiterates the Commission should require the expansion of the Detailed Planning Zone (DPZ) from 10 km to 20 km and the Ingestion Planning Zone (IPZ) from 50 km to 100 km.

² Canadian Environmental Law Association, "Evaluating Emergency Preparedness and Environmental Protection for Bruce Power's Proposed Life Extension and Refurbishment" (16 April 2018), online: <http://www.cela.ca/publications/brucepower-refurb-emergprep> [CELA Bruce NGS Submission]

³ CELA Bruce NGS Submission, *supra* note 2, p 31, 36

Beyond Design Basis Accidents

Section 2.2.4(d) of the Implementing Plan notes that in response to the need to mitigate more severe, off-site effects of Beyond Design Basis Accidents, protective actions may extend into the Contingency Planning Zone (CPZ). We object to the Implementing Plan's assumption that in the event of a radioactive hazard, the expansion of default protective measures can be as effective as those which are pre-planned and tested in the DPZ. We reiterate the Commission should not accept the province's continued reliance on improvisation and adaptation as its main strategy for responding to large off-site accidents that require evacuation and other measures beyond the DPZ. We therefore request the Commission obtain and review the information which details the protective measures for accidents whose effects extend beyond the 10 km DPZ and query the capacity and readiness of first responders and medical facilities, and the public's awareness of protective actions.

Public awareness of protective actions

Furthermore, we ask the Commission review the public's awareness and knowledge of protective and exposure control measures, as detailed in section 2.3.3 of the Implementing Plan. The Commission members must satisfy themselves that (1) there is appropriate emergency planning in place, particularly for the vulnerable communities in these zones, (2) the public knows how to respond in an emergency and (3) where to find the necessary information. Section 4.3 of the Implementing Plan describes default protective measures and thus we also ask the Commission confirm the ability of evacuees beyond 10 km and 20 km to implement these protective measures, without planning in advance having occurred.

Ingestion Planning Zone

We ask that the Commission ascertain the information which has already been communicated to residents, farmers, and other businesses who may be affected by the restrictions in the IPZ. We ask that examples of the information already disseminated be provided to confirm the existence of this communication, per section 2.4.3 of the Implementing Plan. We also request the Commission inquire into the level of advance planning that has occurred, to ensure that in the event of a radioactive release, the food chain is protected.

3. The Evacuation Time Estimate study needs to be updated before a license is issued

Section 2.6.3 of the Implementing Plan requires that evacuation time estimate studies "be prepared and regularly updated to facilitate transportation planning and the management of

transportation during a response.”⁴ CELA reiterates that this study should be updated before a license is issued to align (1) with the revised PNERP and (2) CELA’s recommendations in our primary submission that evacuation outside of the DPZ be required.⁵ CELA maintains its recommendations that detailed evacuation planning be required for both the CPZ and the IPZ.

CELA also requests that evacuation estimates be updated annually as a condition of licensing, and be reviewed annually at the Commission’s nuclear power plant oversight meeting. Evacuation estimates should reflect expected changes such as highway construction and inclement weather scenarios.

4. The required distribution of KI pills remains insufficient to protect vulnerable populations

Section 5.33 of the Implementing Plan requires Bruce Power to procure adequate amounts of KI pills for the DPZ, and that Designated Municipalities outline how the DPZ population can obtain the KI pills. CELA reiterates its recommendation from its previous submission that the Commission require Bruce Power to make KI pills available online for everyone in the 50 km region, mirroring OPG’s online request form for the Pickering and Darlington nuclear power plants.⁶

Further, CELA echoes its recommendation that KI pills be made available and pre-stocked up to 100 km from the nuclear station, especially in places frequently by vulnerable groups such as children and pregnant women. We ask the Commission inquire into the process currently in place to document vulnerable communities within the planning zones and whether actions specific to their protection are specified in any plan.

5. The efficacy of public alerting measures remain unknown

Section 6.2.2 of the Implementing Plan states that the Municipality of Kincardine shall have a public alerting system in place for the Automatic Action Zone. CELA echoes its recommendation in its primary submission that public notification and response systems also be tested and operable within the DPZ and CPZ.⁷

Given the technical difficulties with Canada’s new emergency alert system, Alert Ready, its failure to successfully deliver emergency alerts during its testing on May 7, 2018, and the lack of

⁴ *Implementing Plan*, *supra* note 1, s 2.6.3

⁵ *CELA Bruce NGS Submission*, *supra* note 2, p 33

⁶ *CELA Bruce NGS Submission*, *supra* note 2, p 28

⁷ *CELA Bruce NGS Submission*, *supra* note 2, p 27

consistent cell coverage extending 100km from the Bruce NGS, the Commission should require that the public alerting systems of the Municipality of Kincardine and Bruce Power be regularly tested. Outcomes from these tests should be reported to the Commission and reviewed publicly, at their annual nuclear power plant oversight meeting.

6. Annual emergency drills/exercises and subsequent sufficiency reviews should be required as a condition of licensing

Section 3.2.9 of the 2017 PNERP recognizes the importance of emergency drills. However, absent from the Implementing Plan is any guidance or requirements for emergency drills/exercises conducted by Bruce Power. The Commission should require as a condition of licensing that Bruce Power not only be required to simulate large, offsite radiation release drills extending within the IPZ, but that after-action reports or lesson-learned reports be made available to the public. This will improve confidence in the ability of Bruce Power and the Municipality of Kincardine to respond to a nuclear emergency and facilitate the public's awareness of protective actions.

7. Transition to the recovery phrase requires greater detail and guidance

Section 4.8.3 of the Implementing Plan outlines measures which should be addressed in a stakeholder recovery plan. However, the Implementing Plan does not specify who is to develop the stakeholder recovery plan. Therefore, we ask the Commission to inquire into a timeline for its drafting and completion and how it will be made available for public review and comment.

8. The availability of protection equipment for first responders must be confirmed

Section 6.8.9 of the Implementing Plan lists the equipment emergency services should carry (ie. respiratory protection, gloves, dosimetry). First, we ask the Commission to inquire as to the availability of this equipment for *all* first responders and the immediacy of its availability in the event of an emergency. Second, we ask the Commission to inquire into the levels of supplies and whether their quantity and the number of emergency service personnel is updated routinely. Third, we submit the Commission should query the availability of this equipment beyond the 10 and 20 km zones. Lastly, we reiterate the Commission should confirm to what extent prior and informed consent has been sought from emergency responders and training undertaken, to ensure the proper use of protective equipment.⁸

⁸ CELA Bruce NGS Submission, *supra* note 2, p 40

Conclusion

CELA respectfully reiterates our request, as stated in our primary submission, that the Commission reconsider its 10-year approach to the nuclear power plant licensing and in light of Bruce Power's request licence, not grant a licence exceeding five years.⁹

Thank you for your consideration of these matters.

All of which is respectfully submitted this 16th day of May 2018.

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Per



Kerrie Blaise



Monica Poremba

⁹ CELA Bruce NGS Submission, *supra* note 2, p 64