Canadian Environmental Law Association
EQUITY. JUSTICE. HEALTH.

September 6, 2019

Senior Tribunal Officer, Secretariat
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046, Station B
Ottawa, Ontario K1P 5S9

Sent by email cnsc.interventions.ccsn@canada.ca

Dear Sir or Madam:

RE: Canadian Nuclear Laboratories ("CNL") Nuclear Research and Test Establishment Decommissioning Licence Renewal Application for Whiteshell Laboratories (Ref. 2019-H-03)

I. INTRODUCTION

The Canadian Environmental Law Association (CELA) submits this letter in response to the Canadian Nuclear Safety Commission's (CNSC) Public Notice dated February 18, 2019 requesting comments on the proposed licence renewal by Canadian Nuclear Laboratories (CNL) for a 10-year Nuclear Research and Test Establishment Decommissioning Licence for its Whiteshell Laboratories site. A hearing for this matter is scheduled for October 2-3, 2019 in Lac du Bonnet, Manitoba.

II. INTEREST AND EXPERTISE OF THE INTERVENOR

By this letter, and pursuant to the CNSC's *Rules of Procedure* ("*Rules*"), CELA requests status to participate as an intervenor in the public hearing respecting the CNL licence renewal application and an opportunity to present oral submissions.

As noted below, CELA meets the test set out in the *Rules* for intervening on the basis of both: (1) interest in the matter being heard; and (2) expertise or information that may be useful to the CNSC in coming to a decision.[1]

CELA is a non-profit, public interest law organization. CELA is funded by Legal Aid Ontario as a speciality legal clinic to provide equitable access to justice to those otherwise unable to afford

[1] *Rules of Procedure*, SOR/2000-211, s. 19(1)(a)(b).

representation for environmental injustices. For nearly 50 years, CELA has used legal tools to advance the public interest, through advocacy and law reform, in order to increase environmental protection and safeguard communities across Canada. CELA has been involved in number of nuclear facility licensing and regulatory matters before the CNSC.

CELA has an extensive library of materials related to Canada's nuclear sector which is publicly available on our website.[2] CELA has previously commented on matters related to Whiteshell Laboratories, including CNL's request for a one-year licence extension in 2018 and the federal environmental assessment for the proposed in situ decommissioning of the Whiteshell reactor.[3]

III. BACKGROUND

The current CNL licence for Whiteshell Laboratories, which expires December 31, 2019, authorizes CNL to conduct decommissioning activities at the site's facilities. The Whiteshell site is composed of a range of nuclear facilities, including radioactive waste management facilities, research laboratories and support buildings. CNL is requesting to renew its Nuclear Research and Test Establishment and Decommissioning licence for a 10-year period, during which to continue conducting decommissioning activities.[4]

The concerns of the intervenor in regard to this licencing application pertain to:

(1) Discrepancies in the scope of licence;

(2) The reduced opportunity for public involvement should a 10-year licence be granted;

(3) The lack of a final safety assessment for numerous low level waste trenches;

(4) The licencee's inclusion of undertakings which may require an impact assessment as a "Physical Activity" under the *Impact Assessment Act;*

(5) The licencee's insufficient alignment with CNSC decommissioning guidance materials; and

(6) The potential for decision-making which is contrary to the precautionary principle.

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[2] Canadian Environmental Law Association, online: www.cela.ca
[3] *See* online: https://www.cela.ca/OneYearWhiteshellReactorLicenceRenewal and https://www.cela.ca/CELAcommentsOnDraftEIS
[4] Canadian Nuclear Safety Commission, Notice of Public Hearing and Participant Funding; Ref. 2019-H-03 (Ottawa: CNSC, 18 February 2019).

IV. SCOPE OF REVIEW

CELA received participant funding to review CNL's licence application and related documentation, including CNL and CNSC Commission member documents, with a focus on the environment and human health, best practices for environmental protection and sustainable development, and relevant international guidance. Therefore, this intervention considers the CNSC's jurisdiction per the *Nuclear Safety and Control Act* (NSCA) to ensure the adequate protection of the environmental and human health.[5] In meeting this objective, per s 24(4) of the *NSCA*, CELA has compiled its findings from its review of CNSC Staff and CNL Commission Member Documents (CMDs) and accompanying references, and has provided recommendations, suggested licence and licence condition revisions to the CNSC, to assist in its public interest and environmental review of the Whiteshell Laboratories site.

Within this review, CELA has considered the extent to which the CNSC, enabled by section 24(4) of the *NSCA* has incorporated principles of international environmental law, such as the precautionary principle, into its licensing application review. We also draw on international benchmarks and precedents, where relevant.

V. FINDINGS

For the reasons detailed below, we find that CNL's request for 10-year licence is premature and should not be granted.

We submit the Commission should only approve the CNL licence renewal for a period of one-year after enhancements to the licence and Licence Conditions Handbook (LCH) are completed and the deficiencies identified are remedied, as suggested in this report (see **Appendix A** for a Summary of Recommendations).

In the alternative, we submit a one-year extension to the current licence should be granted. A one-year licence would also align with the Commission's findings in its Record of Decision dated August 1, 2018, which found granting a one-year licence extension was appropriate in the circumstances as the Whiteshell reactor is currently undergoing a federal environmental assessment and due to the high volume of interrogatories, greater time was needed to facilitate its review. Thus, the Commission found granting a licence for "a period one term, under the existing terms and conditions" was appropriate.

As the Commission held in its 2018 licencing decision:

> In 2016, CNL proposed that the decommissioning approach for the WR-1 reactor be

[5] *Nuclear Safety and Control Act*, SC 1997, c 9

> changed to in-situ decommissioning (WR-1 Project), which triggered the requirement for an environmental assessment (EA) under the Canadian Environmental Assessment Act 2012, (CEAA 2012). As part of the CEAA 2012 process, CNL submitted a draft environmental impact statement (EIS) in September 2017. CNL received a large number of information requests regarding the proposed in-situ decommissioning of the WR-1 reactor from Indigenous peoples, members of the public and other government regulators, and determined that it would require additional time to address all comments. Therefore, CNL submitted an application to renew the NRTEDL for the Whiteshell Laboratories for a period of one year, under the existing terms and conditions (emphasis added).[6]

We submit CNL has not demonstrated why in these circumstances a ten-year licence is appropriate when absent any material change, a one-year extension was sufficient in 2018. As CELA submitted to the Commission in 2018 for the one-year renewal of the Whiteshell licence (submission attached at **Appendix B**), a one-year extension was appropriate because it reflected the complexity of the undertaking proposed at Whiteshell and the need for greater study and review in the context of its environmental assessment (Ref No. 80124).

RECOMMENDATION NO. 1: CELA submits the Commission should follow the precedent of last year's licensing decision and only grant a licence extension for a period of one-year as there has not been a material change in the circumstances regarding the Whiteshell site and the federal environmental assessment between August 1, 2018 and present (September 6, 2019).

A. Discrepancies in scope of licence must be remedied prior to granting of licence and clarified in the CNSC's draft licence and Licence Conditions Handbook

CELA understands that the scope of this licence application excludes the decommissioning of the Whiteshell reactor, as it is undergoing a separate review per the *Canadian Environmental Assessment Act, 2012* (CEAA 2012); however, there remain discrepancies in CNSC and CNL's CMDs which require clarification prior to granting this licence.

As the CNSC states in its Staff's CMD:

> The matter before the Commission in this CMD does not include in situ decommissioning (ISD) of the WR-1 reactor. ISD of WR-1 is currently undergoing an environmental assessment under the Canadian Environmental Assessment Act (CEAA),

[6] Canadian Nuclear Safety Commission, "Record of Decision in the Matter of Canadian Nuclear Laboratories Application to Renew the Nuclear Research and Test Establishment Decommissioning Licence for the Whiteshell Laboratories" (1 August 2018), para 3

> 2012. This will be presented to the Commission at a separate public hearing. ISD of WR-1 is out of scope of this licence consideration.[7]

However, submissions made by CNL in its CMD contemplate a different scope, namely, a decommissioning undertaking which will be completed in its entirely within the span of the sought after 10-year licence. Accordingly:

> At the end of the proposed ten year licensing period, the CNL plan is that all of WL will have been decommissioned to its final end-state, including the final decommissioning of the WR-1 reactor and the proposed in situ decommissioning (ISD) of certain Low-Level Waste (LLW) trenches in the Waste Management Area (WMA) (see previous paragraph), and the implementation of postclosure Institutional controls[8] [emphasis added].

Despite CNL's request for 10-year licence *which includes* the "final decommissioning of the WR-1 reactor," CELA submits the CNSC cannot grant a licence with this scope due to the ongoing EA. Accordingly, it is premature for CNL to make this licensing request prior to a final decision on the merits of the EA. It is also premature because the EA process could lead to the revocation or revision of the Commission's decision on this licencing matter, thus making it and the issues currently before the Commission moot. Further, absent EA approval, the proponent is generally prohibited from undertaking work pertaining to the designated project.

As many of the decommissioning activities to be undertaken by CNL during the proposed licensing period are related to the federal EA, due to their interdependence, these ancillary activities should not proceed absent a decision on the principal project. Further, as the decision on the EA may trigger other physical works at Whiteshell Laboratories, the licence should not be for a 10-year period when other accessory works may need to be incorporated within its scope.

CELA requests the CNSC provide further explanation and text within the licence and LCH which expressly sets out how the EA decision on the decommissioning of the Whiteshell reactor will be reviewed in light of CNL's decommissioning licence in place at the time.

RECOMMEDNATION NO. 2: There is presently no language in the draft licence nor Licence Conditions Handbook for the requested 10-year licence that limits its scope to exclude the Whiteshell reactor. Thus, it must be made a requirement of licensing that upon the release of the EA decision, the licence or LCH be reopened for a licence review accompanied by a full public hearing, with adequate public notice, and both oral and written intervention opportunities.

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[7] Canadian Nuclear Safety Commission, "A Licence Renewal: Canadian Nuclear Laboratories Ltd. Whiteshell Laboratories," CMD 19-H4 (August 6, 2019), p 1 **[CNSC CMD]**

[8] Canadian Nuclear Laboratories, "Written Submission from Canadian Nuclear Laboratories Ltd. In the Matter of Whiteshell Laboratories," CMD 19-H4.1 (August 1, 2019), p ii **[CNL CMD]**

B. Ten-year licence reduces public involvement and potential for licence review

As CELA and other civil society organizations have previously submitted to the CNSC, we oppose the CNSC's move towards 10-year licences as it significantly reduces public scrutiny of licensee operations, access to information, and effectively eliminates meaningful public participation.[9]

The reduced role for public involvement is particularly salient in this instance as there is a federal EA ongoing for significant activities at the Whiteshell site. Thus, there should be an opportunity for the public to weigh in on future decommissioning licensing decisions in light of the EA's findings. Further, as a public hearing before the Commission provides greater procedural rights and protections than a Regulatory Oversight Report and its meetings (which in the majority of instances, excludes the public from oral presentations), we submit an ROR would not be a sufficient stand in.

C. Approval of Low Level Waste trenches final safety assessment should be a prerequisite to this licence application

CNL indicates in its CMD that 21 of the 25 Low Level Waste (LLW) trenches in its Waste Management Area were identified as being able to be left in situ, pending a final safety assessment. CNL proposes that the final safety assessment for this undertaking will be developed and presented to the CNSC for acceptance during the next licensing period.[10] The development of a final safety assessment is one of the activities CNL proposes to undertake within the scope of this 10-year licence as part of its LLW decommissioning work.

First, CELA submits that the development, completion and approval of this final safety assessment should be a prerequisite to this licence application on the basis that a final safety analysis report is a requirement of licensing per the *Class I Nuclear Facilities Regulations.*[11]

Secondly, should these trenches *not* be reflected in the current final safety assessment of this licence, CELA recommends the Commission explain why and on what basis it will ensure the safety of the site. Also, per draft Licence Condition 4.1, CELA submits it should be noted in the Preamble that a final safety assessment for the trenches has not be approved. Thus, as part of the verification criteria, a date for submission of a safety assessment which includes the trenches should be stipulated within the LCH.

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[9] Canadian Nuclear Safety Commission, "Public Hearing " Transcript (May 29, 2018), online: http://www.nuclearsafety.gc.ca/eng/the-commission/pdf/2018-05-29-HearingCorrected.pdf, p 292
[10] CNL CMD, p ii
[11] *Class 1 Nuclear Facilities Regulations*, SOR/2000-204

RECOMMENDATION NO. 3: The Preamble to Draft Licence Condition 4.1 should be updated to state a final safety assessment for the LLW trenches has not be approved. Further, as part of the LCH's verification criteria, a date for submission of a safety assessment which includes the trenches should be stipulated.

D. The proposed decommissioning activities may include undertakings which require an impact assessment as a "Physical Activity" under the *Impact Assessment Act*

The *Impact Assessment Act* (IAA) received Royal Assent on June 21, 2019 and was proclaimed into force as of August 28, 2019. The *IAA* supersedes the *Canadian Environmental Assessment Act, 2012.* As Canada's federal environmental assessment statute, it outlines which federal undertakings require an impact assessment (formerly, environmental assessment).

CELA submits the in situ decommissioning of 25 underground Low Level Waste (LLW) trenches contemplated by CNL[12] constitutes the disposal of nuclear waste and thus a physical activity requiring an IA under the *IAA*. CNL states that with the exception of 25 LLW Trenches, all wastes from the waste management area are planned to be retrieved and relocated to Chalk River Laboratories.[13] It is proposed that these trenches will undergo final disposal in place (*i.e*. in situ) and accompanying controls for fencing, signing, and monitoring equipment may be required and installed above the trenches.

Thus, CELA submits this undertaking qualifies as a "Physical Activity" under subsection 28(b) of the *Physical Activities Regulations* pursuant to the *IAA*:

> **28** The construction and operation of either of the following:
> […]
> **(b)** a new facility for the long-term management or disposal of irradiated nuclear fuel or nuclear waste.[14]

While the term "nuclear facility" is defined in the *Nuclear Safety and Control Act*, "facility" as used in the *Physical Activities Regulations* is not. In the context of the undertaking being proposed by CNL, CELA submits that the in situ decommissioning of the LLW trenches is a facility for the purpose of long-term radioactive waste storage, and thus a Physical Activity within the *IAA*.

[12] CNL CMD, p iii; CNSC CMD, p 13
[13] CNL CMD, p 25
[14] SOR/2019-285

Section 7 of the *IAA* generally prohibits a proponent from proceeding with a designated project unless an *IA* is conducted and until approval is granted under the Act. Furthermore, section 8 generally prohibits federal authorities from doing anything to permit a designated project to proceed unless there has been compliance with the Act's requirements.

Thus, as the CNSC Staff's CMD has not classified the project as such, CELA submits the CNSC should opine on this issue in the context of this hearing. Should it be decided that this undertaking constitutes a Physical Activity requiring an IA, the licence and LCH should be limited in scope to exclude these works.

Further, CELA requests the CNSC contact the newly formed Impact Assessment Agency of Canada for clarification and advice as to whether the proponent needs to file an initial project description to trigger the *IAA* process, if found to be applicable.

RECCOMENDATION NO. 4: The CNSC should opine on the issue of whether the in situ decommissioning of the 25 LLW trenches constitutes a "Physical Activity" per s 28(b) of the *Physical Activities Regulations,* and thus requires an impact assessment.

RECOMMENDATION NO. 5: CELA requests the CNSC contact the newly formed Impact Assessment Agency of Canada for clarification and advice as to whether the proponent needs to file an initial project description to trigger the *IAA* process, if found to be applicable.

E. Insufficient alignment with draft RegDoc 2.11.2 *Decommissioning* and existing CNSC decommissioning guidance materials

i. Revised decommissioning Regulatory Document

We are aware that the CNSC is currently seeking public comments on the draft REGDOC-2.11.2, *Decommissioning* ("RegDoc 2.11.2").[15] Therefore, we request that the CNSC clarify in its Record of Decision how it will ensure the CNL's LCH will comply with the requirements of this new decommissioning RegDoc once it is released and in force.

RECOMMENDATION NO. 6: Upon the finalization of draft RegDoc 2.11.2 *Decommissioning,* the CNSC should require CNL to update is decommissioning plans and related documents to ensure compliance with the most up to date CNSC guidance.

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[15] Canadian Nuclear Safety Commission, "REGDOC-2.11.2 *Decommissioning*," online: http://nuclearsafety.gc.ca/eng/acts-and-regulations/consultation/comment/regdoc2-11-2.cfm

ii. Decommissioning Strategy

CELA requests the Commission clarify the decommissioning strategies selected by CNL for each of its proposed decommissioning activities described in its licence application.

As required by s. 4 of draft RegDoc 2.11.2 *Decommissioning*:

> The licensee shall select a decommissioning strategy that will form the basis for the planning for decommissioning and facilitate achieving the desired end state of the decommissioning project. For facilities and uranium mines and mills, the decommissioning strategy shall be selected early in the lifecycle of the facility. The following decommissioning strategies should be considered individually or in combination:
>
> - immediate (prompt) decommissioning – to decontaminate and dismantle without any planned delays
> - deferred decommissioning – to place the facility in a period of storage with surveillance followed by decontamination and dismantlement, or to conduct activities directed at placing certain buildings or facilities in a safe, secure interim end state, followed by a period of storage with surveillance, and ultimately decontamination and dismantlement
> - *in situ* decommissioning – to place the facility, or portions of the facility, in a safe and secure condition, in which some or all of the radioactive contaminants are disposed of in place, which may result in the creation of a waste disposal site

Similar guidance appears at s. 8 of the G-219 *Decommissioning Planning for Licensed Activities* which is yet to be superseded by RegDoc 2.11.2.

While information in CNL's Comprehensive Study Report (Vol 1) ("CSR") speaks, in general terms, to its decommissioning strategy, it does not adopt the terminology suggested in these RegDocs. Instead the CSR, for instance, states "the general strategy is to remove facilities entirely from the site."[16] CELA also reviewed the Detailed Decommissioning Plan (DDP) and while it provides an informative rationale for the WL decommissioning strategy, none of the decommissioning activities are classified per the strategies listed above.

Further, both the CSR and DDP include the message that "the Overview DDP describes the WL site and facilities in a general, high-level document, and summarizes the overall decommissioning strategy for WL" and "in keeping with the evolution of international best practices, CNL's decommissioning strategy has been moving towards reduced deferment

[16] Canadian Nuclear Laboratories, "Comprehensive Study Report - Volume 1" (March 2001), p 5

periods,"[17] neither document state which decommissioning strategy, among those to be considered per RegDoc 2.11.2 have been selected.

As Canada's nuclear sector is entering an era of decommissioning - with nine of Canada's twenty-two CANDU reactors to be permanently shut down by 2024, and globally, the age profile of the world's nuclear stations increasing with more than 60% of operating reactors being over thirty-years-old, and 18% over forty[18] - CELA submits it is crucial that the CNSC not only have the requisite baseline for regulatory guidance and oversight in place prior to decommissioning licence applications being decided, but, that there be consistency among licencees.

While CELA is not, in the context of this submission, commenting on the merits of draft RegDoc 2.11.2, we submit it may be a helpful guidance document to ensure the Commission has a benchmark from which to decide whether a Class I nuclear facility has adequately established its plans to support decommissioning activities and ensure the protection of the environment and human health.

Further, as CNL's licence application and their CMD are among the most read licensing documents (and most accessible as they available on CNL's website and do not need to be requested through the CNSC), information regarding preferred decommissioning strategies should be included within primary licensing documents.

Relatedly, while in situ decommissioning is among the CNSC's listed decommissioning strategies, the International Atomic Energy Agency does not recognize entombment or in-situ confinement as a decommissioning strategy except in exceptional circumstances. The IAEA advises that it would only be appropriate for short-lived or limited concentrations of long-lived radionuclides:[19]

> Entombment is not relevant for a facility that contains long lived isotopes because these materials are not suitable for long term surface disposal. Consequently, reprocessing facilities, fuel fabrication facilities, enrichment facilities or facilities that use or process thorium or uranium would not be appropriate for entombment. However, entombment could be a viable option for other nuclear facilities containing only short lived or limited concentrations of long lived radionuclides, i.e. in order to comply with the site release criteria.

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[17] Canadian Nuclear Laboratories, "Application for Renewal of the Nuclear Research and Test Establishment Decommissioning Licence for the Whiteshell Laboratories," (November 15, 2018), p 37 **[CNL Licence Application]**

[18] Schneider M et al (2018) World Nuclear Industry Status Report – 2018, A Mycle Schneider Consulting Project, p 17.

[19] Decommissioning Strategies for Facilities Using Radioactive Material, IAEA SRS 50, IAEA, Vienna (2007). <online: http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1281_web.pdf>, at 3.2.2 [**SRS 50**]

Thus, we request the CNSC request further information from CNL regarding its selection of in situ decommissioning as the preferred decommissioning strategy for its 25 LLW trenches and confirm, despite their characterization as LLW, that they only contain short lived radionuclides.[20]

RECOMMENDATION NO. 7: CELA requests the Commission clarify the decommissioning strategies selected by CNL for each of its proposed decommissioning activities described in its licence application. This information should be included within CNL's primary licensing documents (*ie*. Licence Application and CMD), as the most readily accessible public documents.

iii. Surveillance Planning

As part of a deferred decommissioning strategy, s. 6.1 of draft RegDoc 2.11.2, requires that licensees detail their surveillance strategy. While the CNL mentions the existence of a surveillance plan in their CMD, no details are provided. The details which are to be provided within a surveillance plan per draft RegDoc. 2.11.2 include:

- responsibilities
- functional services and systems
- maintenance, inspection and surveillance
- building hazard identification
- hazard control measures
- activities envisioned or planned to reduce the risks
- access control and zoning
- environmental protection control measures
- emergency plan and procedures
- usage boundaries during storage with surveillance
- facility change or modification process
- waste management
- quality assurance
- qualification and training program
- records

RECOMMENDATION NO. 8: CELA requests that the details of the licensee's surveillance plan be clearly set out in their licence application and CMD. We also request that the Commission review the proponents most recent surveillance plan to ensure conformance with draft RegDoc 2.11.1. In the event there is non-conformance, we ask that the CNSC include in its written decision a description of the extent of this non-conformance and prescribe timelines for remedying any gaps.

[20] *Ibid*. at 3.3.3.

iv. Institutional Controls

Among the provisions set out in draft RegDoc 2.11.2, is the requirement per s. 6.2 that Detailed Decommissioning Plans for Class I facilities include "a description of the requirements for any institutional controls." This requirement is also present in G-219 *Decommissioning Planning for Licensed Activities* which per s. 6.2.2 requires that that DDP include "a description of any specific requirements for long-term institutional controls."

CELA has reviewed CNL's DDP in full and while it repeatedly makes reference to institutional controls which are to extend for a period of approximately 200 years, it lacks description of the controls that will be in place, or variants on control measures, to be undertaken throughout the Whiteshell site.

Therefore, CELA submits the CNSC should require the licensee to update their DDP to ensure compliance with the current G-219 and RegDoc 2.11.2. These deficiencies in the CNL's DDP are not remedied by its licence application nor CMD as neither provide further detailed description of the nature of institutional control undertakings. This is also not a gap addressed by CNSC Staff in its CMD.

RECOMMENDATION NO. 9: The CNSC should require the licensee to update their Detailed Decommissioning Plan to ensure compliance with the CNSC's current regulatory guidance, G-219 and draft RegDoc 2.11.2.

v. Post-Closure Activities

Periodically throughout CNL's and CNSC Staff's CMDs, post-closure activities are referenced. CNL for instance states "plans for regulatory approval, including any required institutional controls, for the post-closure period will be developed and submitted to the CNSC"[21] while the CNSC states "following the completion of decommissioning of a building or a location on site, the licensee is required to submit a post-decommissioning report called the end-state report to the CNSC. This report is reviewed by CNSC staff to verify licensee's compliance with the approved plans."[22]

In lieu of these references, we request the CNSC include within its requirements for post decommissioning activities, an opportunity for public review. As the IAEA's GSR Part 6

[21] CNL CMD, p 47
[22] CNSC CMD, p 52

requires, the licensee must meet end state requirements stipulated in the final decommissioning plan and public input is to be sought prior to authorization for decommissioning termination:[23]

> On the completion of decommissioning actions, the licensee shall demonstrate that the end state criteria as specified in the final decommissioning plan and any additional regulatory requirements have been met. The regulatory body shall verify compliance with the end state criteria and shall decide on termination of the authorization for decommissioning.
> …
> Inputs from the public shall be addressed before authorization for decommissioning is terminated (emphasis added).[24]

RECOMMENDATION NO. 10: In furtherance of its capacity as a regulator acting in the public interest, the Commission should include a requirement for public input within its description of post decommissioning activities to ensure alignment with international standards.

vi. Public Disclosure

First, as part of the licencee's public information and disclosure program licence condition, CELA submits that Licence Condition G.4 should specific that all plans related to Whiteshell decommissioning activities be publicly available and posted online. Presently, only the licensee's licence application and CMD are posted on their designated Whiteshell website.[25] Ensuring all accompanying plans and documents are publicly available online eliminates many barriers to information access.

Secondly, from a public disclosure and accessibility perspective, we object to the CNSC's continued reliance on CSA Standards. As the preamble in the draft LCH states:

> Domestic and international standards (in particular consensus standards produced by the CSA Group) are an important component of the CNSC's regulatory framework.[26]

While it has also become common practice for the CNSC to mandate compliance with CSA N294-09, *Decommissioning of facilities containing nuclear substances*, and other CSA standards by adding a condition to the licences issued to major nuclear facilities, CSA standards are

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[23] Decommissioning of Facilities Using Radioactive Material, IAEA Safety Standards Series No. GSR Part 6, IAEA, Vienna (2016). <online: http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1652web-83896570.pdf> at 15, 9.6 [**GSR Part 6**]
[24] *Ibid*
[25] *See:* https://www.cnl.ca/en/home/about/WLSiteRelicensing2018.aspx
[26] CNSC CMD, Draft Licence Conditions Handbook, p 1

privately developed standards, which are not subject to the same level of public scrutiny as the legislative process for public laws and regulations.[27]

From our perspective, the CNSC's reliance on CSA standards inappropriately delegates the setting of regulatory standards to an industry body, not easily accessible by the public. Further, while recognizing that the individuals can request 'free' access to nuclear-related CSA standards, this gratuitous setting lacks the functionality of paid memberships and subscriptions. Users who do not pay are not able to download the standards as PDFs, can only view in the CSA web-based document viewer and are prohibited from quoting or reproducing any parts of the text due to copyright.

RECOMMENDATION NO. 11: All plans related to CNL's Whiteshell decommissioning activities should be publicly available and posted online on their designated Whiteshell website.

RECOMMENDATION NO. 12: The CNSC should cease reliance on CSA standards for any matters relevant to nuclear licensing, and instead conduct all standard setting and guidance within the CNSC's processes.

vii. Prescribed Timelines

Based on our review, CELA has observed that a number of components within the decommissioning licence will require updating because of parameters set out in the draft LCH or, as a result of requirements in draft RegDoc 2.11.2. We make the following submission on the scope of these revisions and suggested timelines.

First, in reference to the DDP, draft RegDoc 2.11.2 stipulates revisions to the DDP shall occur every 5 years when the licensee is undertaking a deferred decommissioning approach. Accordingly:

> For deferred decommissioning, prior to the execution of decommissioning, the DDP shall be revised and submitted to the CNSC for acceptance, detailing the dismantling work to be completed. Where the execution takes longer than five years, the DDP should be updated every five years.

We ask that CNL more clearly articulate which of its decommissioning activities are "deferred" and, that the CNSC confirm whether this 5-year review applies in the context of CNL's decommissioning activities.

[27] CSA, "N294-09 (R2014) Decommissioning of facilities containing nuclear substances" (2014)

As the DDP and CNL's CMD frequently makes reference to a "deferment period,"[28] CELA is of the impression that this 5-year review period does apply. We therefore ask that the CNSC specify a date in the LCH which reflects the timing of this 5-year review.

Secondly, in regard to the financial guarantee for decommissioning, draft Licence Condition G.3 states:

> The financial guarantee for decommissioning is to be reviewed and revised by the licensee every 5 years, or; when required by the Commission or person authorized by the Commission, or; following a revision to the cost estimate for decommissioning if it significantly impacts the financial guarantee.

This provision, as currently drafted, does not clearly indicate to what extent the 5-year timeframe may be exceeded. To ensure that the review of the financial guarantee does not exceed a period of 5 years, we suggest the following edit:

> The financial guarantee for decommissioning shall be reviewed and revised by the licensee within a period not exceeding 5 years, or; at a time less than five years when required by the Commission or person authorized by the Commission, or; following a revision to the cost estimate for decommissioning if it significantly impacts the financial guarantee.

We submit prescribed timelines are necessary to ensure the timely review of these plans and that new information which may be relevant to their scope, is incorporated and considered. A five-year timeframe is reasonable and ensures transparency and accountability of the CNSC and its oversight of CNL's decommissioning activities. Lacking a prescribed timeline, there is no impetus for revision. Should the Commission choose not to accept this LCH amendment, CELA submits the Commission needs to clearly indicate why a decision not to prescribe five-year reviews has been made.

RECOMMEDNATION NO. 13: Draft Licence Condition G.3 should be updated to read "the financial guarantee for decommissioning shall be reviewed and revised by the licensee within a period not exceeding 5 years, or; at a time less than five years when required by the Commission or person authorized by the Commission, or; following a revision to the cost estimate for decommissioning if it significantly impacts the financial guarantee."

[28] CNL CMD, p 19; CNL Licence Application, p 37

viii. Public Disclosure of CNL's 'Environmental Data Management System'

CNL states that as part of its waste management work, it will implement an "Environmental Data Management System across CNL providing a consolidated storage location for historic and current environmental data."[29] While we are supportive of data portal which comprehensively stores environmental data, we request the Commission inquire as to the public availability of this information. We submit this Environmental Data Management System should be publicly available to facilitate the public's right to know and right to information regarding environmental releases and emissions.

The right to information, or "right to know" is based upon a basic human entitlement to information which directly impacts upon their health and bodily integrity.[30] The right to know includes public information frameworks, inventories and databases which require the identity of chemicals used at work to be disclosed, alongside their hazardous properties and potential health hazards. Through these mechanisms, the right to know increases the transparency and accountability of the licensee's operations. Having accessible, high-quality information also raises the expectation of more rigorous oversight.

A persistent barrier to the right to know are claims of security sensitivity or the data being proprietary information. CELA submits that if this Management System is not publicly available, the CNSC should – in exercising its authority as a public interest regulator - require it be publicly disclosed to advance the public's right to know.

RECOMMENDATION NO. 14: CNL's Environmental Data Management System should be publicly available to facilitate the public's access to information regarding environmental releases and emissions. The Commission, in exercising its authority as a public interest regulator, should require this System to be publicly disclosed to advance the public's right to know.

F. Granting a ten-year licence is contrary to the precautionary principle

In light of the above noted deficiencies in CNL's decommissioning plans and licensing documents, CELA submits that should the CNSC grant a ten-year licence, it would be inconsistent with the international law principle, the precautionary principle, which was adopted into Canadian law by the Supreme Court of Canada in *Spraytech*.[31] In *Spraytech*, the Supreme Court of Canada adopted the following definition of the "precautionary principle" from the *Bergen Ministerial Declaration on Sustainable Development* (1990):

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[29] CNL CMD, p 43;
[30] Richard M. Brown, 1982 "Canadian Occupational Health and Safety Legislation" (1982) 20:1 Osgoode Hall LJ)
[31] *114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town),* [2001] 2 SCR 241 at paras 30 – 32.

> In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.[32]

In order to ensure the Commission's decision-making aligns the with precautionary principle, it should not be making a licensing decision spanning ten years when many environmental protection and remedial actions are still in development and decommissioning planning documents either outdated or not in compliance with existing and soon to be established CNSC guidance.

In circumstances of potentially serious or irreversible environmental harm,[33] the CNSC must only licence decommissioning activities which prioritize environmental protection, and human health and safety.

RECOMMENDATION NO. 15: The Commission must ensure its decision-making aligns with the precautionary principle and only licence decommissioning activities which prioritize environmental protection, and human health and safety.

VI. ORDER REQUESTED

For the foregoing reasons provided in this intervention, we request the CNSC issue an order:

(1) Granting CELA the status of intervenor;

(2) Granting CELA the opportunity to make an oral presentation at the October 2-3, 2019 hearing;

(3) Only approving the CNL licence renewal application for a period of one year after enhancing the licence and licence conditions handbook in all the ways suggested in this report, as summarized in Appendix A.

(4) In the alternative, extending the current licence for a period of one-year.

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[32] *Ibid*

[33] European Environment Agency, Late Lessons from Early Warnings: The Precautionary Principle 1896-2000 (Copenhagen: EEA, 2002) at 13, 15; Nicolas de Sadeleer, "The Principles of Prevention and Precaution in International Law: Two Heads of the Same Coin?", chapter 9 in Research Handbook on International Environmental Law, Malgosia Fitzmaurice, David M. Ong and Panos Merkouris, eds (United Kingdom: Edward Elgar, 2014) at 184.

Yours truly,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Kerrie Blaise
Counsel

APPENDIX A

Summary of Recommendations

RECOMMENDATION NO. 1: CELA submits the Commission should follow the precedent of last year's licensing decision and only grant a licence extension for a period of one-year as there has not been a material change in the circumstances regarding the Whiteshell site and the federal environmental assessment between August 1, 2018 and present (September 6, 2019).

RECOMMEDNATION NO. 2: There is presently no language in the draft licence nor Licence Conditions Handbook for the requested 10-year licence that limits its scope to exclude the Whiteshell reactor. Thus, it must be made a requirement of licensing that upon the release of the EA decision, the licence or LCH be reopened for a licence review accompanied by a full public hearing, with adequate public notice, and both oral and written intervention opportunities.

RECOMMENDATION NO. 3: The Preamble to Draft Licence Condition 4.1 should be updated to state a final safety assessment for the LLW trenches has not be approved. Further, as part of the LCH's verification criteria, a date for submission of a safety assessment which includes the trenches should be stipulated.

RECCOMENDATION NO. 4: The CNSC should opine on the issue of whether the in situ decommissioning of the 25 LLW trenches constitutes a "Physical Activity" per s 28(b) of the *Physical Activities Regulations,* and thus requires an impact assessment.

RECOMMENDATION NO. 5: CELA requests the CNSC contact the newly formed Impact Assessment Agency of Canada for clarification and advice as to whether the proponent needs to file an initial project description to trigger the *IAA* process, if found to be applicable.

RECOMMENDATION NO. 6: Upon the finalization of draft RegDoc 2.11.2 *Decommissioning,* the CNSC should require CNL to update is decommissioning plans and related documents to ensure compliance with the most up to date CNSC guidance.

RECOMMENDATION NO. 7: CELA requests the Commission clarify the decommissioning strategies selected by CNL for each of its proposed decommissioning activities described in its licence application. This information should be included within CNL's primary licensing documents (*ie*. Licence Application and CMD), as the most readily accessible public documents.

RECOMMENDATION NO. 8: CELA requests that the details of the licensee's surveillance plan be clearly set out in their licence application and CMD. We also request that the Commission review the proponents most recent surveillance plan to ensure conformance with draft RegDoc 2.11.1. In the event there is non-conformance, we ask that the CNSC include in its written decision a description of the extent of this non-conformance and prescribe timelines for remedying any gaps.

RECOMMENDATION NO. 9: The CNSC should require the licensee to update their Detailed Decommissioning Plan to ensure compliance with the CNSC's current regulatory guidance, G-219 and draft RegDoc 2.11.2.

RECOMMENDATION NO. 10: In furtherance of its capacity as a regulator acting in the public interest, the Commission should include a requirement for public input within its description of post decommissioning activities to ensure alignment with international standards.

RECOMMENDATION NO. 11: All plans related to CNL's Whiteshell decommissioning activities should be publicly available and posted online on their designated Whiteshell website.

RECOMMENDATION NO. 12: The CNSC should cease reliance on CSA standards for any matters relevant to nuclear licensing, and instead conduct all standard setting and guidance within the CNSC's processes.

RECOMMEDNATION NO. 13: Draft Licence Condition G.3 should be updated to read "the financial guarantee for decommissioning shall be reviewed and revised by the licensee within a period not exceeding 5 years, or; at a time less than five years when required by the Commission or person authorized by the Commission, or; following a revision to the cost estimate for decommissioning if it significantly impacts the financial guarantee."

RECOMMENDATION NO. 14: CNL's Environmental Data Management System should be publicly available to facilitate the public's access to information regarding environmental releases and emissions. The Commission, in exercising its authority as a public interest regulator, should require this System to be publicly disclosed to advance the public's right to know.

RECOMMENDATION NO. 15: The Commission must ensure its decision-making aligns with the precautionary principle and only licence decommissioning activities which prioritize environmental protection, and human health and safety.

APPENDIX B

Intervention from CELA for the 1-Year Licence Renewal (2018)

Senior Tribunal Officer, Secretariat
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046, Station B
Ottawa, ON K1P 5S9

May 25, 2018

Submitted via email: cnsc.interventions.ccsn.canada.ca

RE: Canadian Environmental Law Association's Submission for the Whiteshell Laboratories One-Year Licence Renewal for the Nuclear Research and Test Establishment Decommissioning Licence (Ref. 2018-H103)

The Canadian Environmental Law Association provides the following written submission to the Canadian Nuclear Safety Commission ("Commission") for consideration in response to the Canadian Nuclear Laboratories Limited (CNL) application to renew the Whiteshell Laboratories nuclear research and test establishment decommissioning licence for a period of one year.

CELA has reviewed the proposed licence, finding no changes to its conditions or licencing basis. Therefore on its face, CELA does not object to the one-year extension. However, the need for a one-year extension reflects the complexity of the undertaking proposed at Whiteshell and the need for greater study and review in the context of its environmental assessment (Ref No. 80124).

As CELA noted in its submission on the *in situ* decommissioning of the Whiteshell reactor, Canada lacks a regulatory framework which provides guidance on acceptable practices and strategies for the decommissioning of nuclear power plants.[34] This should be a prerequisite to any consultation on proposed decommissioning strategies.

[34] Canadian Environmental Law Association, "Submission to the CNSC on the Draft Environmental Impact Statement of the Whiteshell Reactor" (December 19, 2017), online: http://www.cela.ca/CELAcommentsOnDraftEIS

We reiterate that in the absence of a policy framework and robust regulatory regime, the best practices of other jurisdictions that provide the greatest protection for the safety and well-being of the environment and Canadians, both present and future, should be adopted. Approval for termination of decommissioning activities should not be granted unless:

1. The CNSC verifies that the licensee has demonstrated that the end state criteria as specified in the final decommissioning plan and any additional regulatory requirements have been met;
2. The end state criteria reflect the best available science and highest level of safety feasible for Canadians and the environment;
3. The public has been consulted before authorization for decommissioning is terminated, and the site of the nuclear facility is released from regulatory control.

While CELA supports the proposed licence extension to ensure the safety and oversight of the Whiteshell site, CNL's request for a one-year extension is indicative of an EA process which is fraught with challenges, and timelines not proportionate to the complexity of the undertaking. As Canada's nuclear regulator and EA authority under the *Canadian Environmental Assessment Act, 2012*, we ask that expediency not be favoured over necessity for greater scientific study and broader public dialogue.

Sincerely,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION
Kerrie Blaise
Counsel