Canadian Environmental Law Association
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SUBMISSION BY THE CANADIAN ENVIRONMENTAL LAW ASSOCIATION TO THE CANADIAN NUCLEAR SAFETY COMMISSION REGARDING THE REGULATORY OVERSIGHT REPORT FOR CANADIAN NUCLEAR POWER GENERATING SITES: 2018

October 9, 2019

Prepared by
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I. INTRODUCTION

These submissions are filed in response to the Canadian Nuclear Safety Commission's ("CNSC") notice of meeting dated April 10, 2019 concerning the presentation of the *Regulatory Oversight Report for Canadian Nuclear Power Generating Sites: 2018* (herein "ROR").[1] A meeting in Ottawa with respect to this matter is scheduled for November 6-7, 2019. We note that while the notice was released on April 10, 2019, the ROR was not made publicly available until September 9, 2019. CELA appreciates the two-day extension provided by the CNSC for the filing of our comments.

Expertise of the Intervenor

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

CELA has engaged in detailed research and advocacy related to public safety and environmental protection by seeking improvements to nuclear emergency preparedness. We have been engaged

[1] CNSC, Notice of Participation in a Commission Meeting and Participant Funding, online: http://www.nuclearsafety.gc.ca/eng/the-commission/pdf/NoticeMeetingPFP-ROR-NuclearGeneratingSites-2018-e.pdf; CNSC, "Annual Report – Regulatory Oversight Report for Canadian Nuclear Power Generating Sites: 2018" (6 September 2019) **[ROR for NGS]**

on a number of licensing matters before the CNSC, as well as the federal environmental assessment proceedings relating to multiple Canadian Nuclear Laboratories sites. All of CELA's materials and submissions related to nuclear emergency planning and nuclear phase-out are publicly available on our website.[2]

II. BACKGROUND

CELA has routinely participated in the annual ROR meeting for nuclear power plants.[3] Our participation in this year's ROR draws upon the findings made by the Commission in the Bruce Nuclear Generating Station and Pickering Nuclear Power Plant relicensing hearings in 2018, specifically as it relates to emergency preparedness and environmental protection.

In this submission, we also raise a number of issues relating to the scope and delivery of the ROR's content, provide general comments applicable to all nuclear generating stations with accompanying recommendations, and specify requested actions from the Commission or CNSC Staff. A summary of CELA's requested actions and recommendations are reproduced in **Appendix 2.**

III. FINDINGS

For the reasons detailed below, we find that the ROR provides an insufficient level of detail necessary to pre-empt a detailed and in-depth discussion by the Commission during its ROR meeting. Further, as intervenors are not provided an opportunity to present orally before the Commission, the opportunity to engage in dialogue with Commissioners and CNSC Staff does not exist. This adds to the high-level nature of RORs, which as presently conducted, are not conducive to public engagement nor critical review.

1. Scope and Process for Regulatory Oversight Reports

CELA submits there remain deficiencies in the ROR which detract from its potential. First, CELA submits intervenors who provide comments on an ROR should have an opportunity to present orally before the Commission. Currently, intervenors are precluded from presenting and thus the opportunity to engage in dialogue with Commissioners and CNSC Staff does not exist. This maintains the high-level nature of RORs and does not facilitate a public awareness of the

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[2] Canadian Environmental Law Association, online: https://www.cela.ca/test-emergency-planning-around-canadian-nuclear-plants

[3] See CELA, "An Environmental Review of the CNSC's 2016 Regulatory Oversight Report on thee Use of Nuclear Substances" (11 Sept 2017), online: http://www.cela.ca/1131-publications/environmental-review-cnscs-2016-regulatory-oversight-report-use-nuclear-substances; CELA, "A Review of Canada's Nuclear Emergency Preparedness and Response Plans," (17 July 2017), online: http://www.cela.ca/review-nuclear-emergency

interests and considerations weighed by CNSC Staff in reaching the conclusions set out in the report. Should the CNSC retain the existing ROR procedure and not provide oral intervention opportunities to intervenors, CELA suggests the CNSC reframe its ROR as a "Discussion Paper," whereby the Paper provides information but also poses questions and actively seeks public feedback.[4]

Second, we submit 30 days is an insufficient amount of time for members of the public and civil society to review the material of the ROR and provide value-added comments to the Commission. The public's ability to weigh-in during the ROR process can be further constrained due to the time it takes to request and receive references or supporting material, and competing CNSC public comment deadlines. While CELA is not opposed to this ROR being reviewed by the Commission in tandem with other RORs (as will occur during the scheduled November 2019 meeting), the length of time granted for review should be extended in light of the other matters also open for public comment. Should the Commission choose to have multiple comment opportunities with the same closing date, at least 60 days should be provided as a recognition of the importance and value of public comments, and to further fairness and respect for adequate procedural rights.

Third, CELA is not aware of a process which sought to define the issues which guided the content of the ROR. To clarify the scope of RORs, CELA recommends the CNSC conduct a pre-meeting conference or discussion, which seeks input on issues to be discussed. Preliminary meetings are a widely used practice in anticipation of tribunal proceedings.[5] Not only would the CNSC, as a quasi-judicial tribunal, benefit from a pre-meeting conference, whereby the scope of the proceeding could be narrowed or expanded, upon input from the regulator, proponent, and intervenors, it would provide demonstrably clearer guidance to intervening parties regarding the acceptability of their submissions.

Issue identification is critically important, not only to ensure the efficient and best use of intervening parties' time, but to ensure matters of critical importance are not deemed out of scope and thus dismissed. While issue identification can require a significant amount of time, a clearer sense of the issues and providing the public an opportunity to comment advances procedural fairness.

Therefore, as there has not been a public scoping of issues, whereby the CNSC staff, licensees and intervenors can weigh in on the issues which should frame the report, we submit CELA's comments provided herein are not out of scope.

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[4] *See* for instance, Canada, "Environmental and Regulatory Reviews Discussion Paper" (June 2017), online: https://www.discussionpaper.ca/

[5] Jerry DeMarco and Paul Muldoon, "Environmental Boards and Tribunals – A Practical Guide, 2nd Ed" (LexisNexis: 2016), p 78.

Fourth, as stated in the introduction of the ROR, "there are no actions requested of the Commission. This CMD [ROR] is for information only."[6] CELA objects to this framing and requests that rather than serving an informational purpose, the aim of the ROR should be to identify gaps and propose action items (even if voluntary or for guidance) which improve licensee compliance within all Safety and Control Areas (SCAs). Until the SCAs for all nuclear generating sites are deemed "fully satisfactory," CELA submits this should be the guiding purpose of the annual ROR.

Recommendations

1. CELA remains of the view that ROR meetings are not a replacement for relicensing hearings[7] and the CNSC must remedy the discrepancy in participation rights among public intervenors and licensees by providing oral presentation opportunities.

2. The CNSC should extend the amount of time provided to the public for the review of RORs and ensure a minimum 60-day timeframe.

3. The ROR would be more effective if the CNSC canvassed a list of issues and topics to inform the scope of the ROR. Given the trend to longer, ten-year licences, soliciting public comment on the scope of issues addressed in ROR would provide a starting point for public engagement.

4. Rather than serving an informational purpose, the aim of the ROR should be to identify gaps and propose action items (even if voluntary or for guidance) which improve licensee compliance within all Safety and Control Areas. Until the SCAs for all nuclear generating sites are deemed "fully satisfactory," CELA submits this should be the guiding purpose of the annual ROR.

2. PNERP Technical Study

CELA has an extensive history participating in legal proceedings involving the interpretation, implementation, and enforcement of statutes relating to environmental protection and often intervenes in its own right in proceedings involving issues of public importance and environmental significance. This specifically includes lengthy and detailed review of the sufficiency of emergency preparedness in the context of nuclear power plants.[8] This remains a focus of CELA in this submission to the Commission.

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[6] ROR for NGS, p ii.

[7] *See* CNSC "Bruce Power Hearing Transcript – May 29, 2018," p 188.

[8] Canadian Environmental Law Association, "Publications: Emergency Planning around Canadian Nuclear Plants," online: http://www.cela.ca/test-emergency-planning-around-canadian-nuclear-plants

Therefore, it is based on this active involvement and continued commitment to reviewing the sufficiency of Ontario's emergency response plans that we inform the Commission that we were unsuccessful in obtaining a copy of the PNERP Technical Study from Ontario's Office of the Fire Marshall and Emergency Management (OFMEM), despite repeated attempts (**see Appendix 1**).

CELA submits ensuring the public availability of the PNERP Technical Study is not only highly relevant to this ROR, but as the findings of the Technical Study may have implications for the adequacy of the planning basis for severe accidents, there is an urgent and pressing need for the Commission to access the Technical Study, review it in full and provide a public account of its findings. This matter is critical to the licensing basis for all of Ontario's nuclear generating stations and tantamount to ensuring the protection of the millions of people's living in and around Ontario nuclear power plants.

As CELA is yet to receive a response from the OFMEM, we seek the Commission's assistance, as Canada's nuclear safety regulator, in order to obtain this study. As evidenced by our correspondence with OFMEM, we first requested the PNERP Technical Study on September 11, 2019. Our request was made to OFMEM after reviewing the ROR, released on September 9, 2019, and finding it excluded discussion of the PNERP Technical Study. A follow-up request was sent to OFMEM on September 25, 2019 and we have subsequently not received a response. Therefore, we **request** the Commission direct staff to seek the final version of the PNERP Technical Study and make it publicly available.

CELA submits that as the PERNP Technical Study has not been made publicly available, we reserve the right to provide further comments to the Commission on this matter.

Requested Action

5. CELA requests the Commission direct CNSC Staff to obtain the final PNERP Technical Study from OFMEM. Critically, the PNERP Technical Study may have implications for the adequacy of the planning basis for severe accidents. As the Technical Study has continued to be a matter of public discussion, it is crucial it be made a part of the public record.

i. Significance of PNERP Technical Study - Background

By way of background, this request to the CNSC builds on comments by CELA provided during last years' ROR, the 2018 Bruce and Pickering NGS relicensing hearings and our comments on

the "Discussion Paper on Planning Basis Review and Recommendations and List of Proposed Changes to the PNERP 2009" ("PNERP Discussion Paper") in 2017.

As we noted in our comments on the PNERP Discussion Paper:

> We particularly call on the province to immediately commence a study regarding the potential impact of a nuclear accident on drinking water sources in Ontario, particularly in the Great lakes, and to develop contingency plans for drinking water in such an event.[9]

Therefore, we were supportive when OFMEM announced the PNERP Technical Study which would include an assessment of the impacts of weather and topographical features on dose projection modelling.[10] The Technical Study was frequently mentioned during the Pickering relicensing hearing and discussed at last year's ROR meeting for nuclear generating stations where OFMEM stated:

> The impact on water supply to the nuclear accident is a part of the technical study that is currently underway. We've referenced this study in the past. We're well into the study at this point, and one of the key deliverables on this is to assess severe accidents and, among other things, impact on drinking water supplies.[11]

ii. Excerpts from Bruce Power and Pickering NGSs' Relicensing Hearings

Given the outstanding nature of this matter and its critical importance to verifying the adequacy planning basis for severe accidents, we reiterate our submissions from the Bruce and Pickering relicensing hearings.

The following excerpt highlights CELA's recommendations related to drinking water contingency planning, as provided to the Commission for the Bruce Power NGS licence renewal:

> The 2017 PNERP states that within the IPZ, "plans or arrangements are made to …protect drinking water supplies."[12] Given that all of Ontario's nuclear reactors are located on the Great Lakes - which supplies the drinking water to 40 million Canadians

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[9] Canadian Environmental Law Association, "Publications: Emergency Planning around Canadian Nuclear Plants," online: http://www.cela.ca/test-emergency-planning-around-canadian-nuclear-plants

[10] *See* online: http://www.nuclearsafety.gc.ca/eng/the-commission/pdf/FinalMinutesofCommissionMeeting-April4,2018.pdf, p 4.

[11] CNSC, Transcript November 8, 2018, online: http://www.nuclearsafety.gc.ca/eng/the-commission/pdf/2018-11-08-Meeting-e.pdf

[12] Ontario, "Provincial Nuclear Emergency Response Plan, Master Plan 2017" online: https://www.emergencymanagementontario.ca/english/emcommunity/response_resources/plans/provincial_nuclear_emergency_response_plan.html at 2.2.5(f)

> and Americans – it is necessary to not only "protect drinking water supplies" but require contingency planning in the event of an accident.
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> Current monitoring of drinking water, under the Ministry of Environment and Climate Change's drinking water surveillance program assesses potential risks from existing nuclear power plant operations and activity. [13] While this program is needed to ensure plant operations due not exceed drinking water standards during the course of normal operation, there is no discussion of drinking water protection in the event of an emergency. CELA submits that detailed contingency planning in the event of accident is required, given the interconnectivity of the Great Lake system and the millions of people who rely on it as their source of drinking water.
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> In advance of relicensing, it is incumbent that the CNSC ensure that provisions are in place for an alternative source of drinking water is available for residents whose current drinking water source is from Lake Huron. There has not being a study on drinking water replacement in case of accident, nor has a contingency plan been developed. Additionally, alternative drinking water sources must be identified, and logistical plans put in place to supply the impacted communities with water, indefinitely.
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> **Recommendation:** The CNSC should require proof of adequate contingency planning for the protection of drinking water in the event of an emergency as a requirement for licensing. Drinking water monitoring is insufficient in scope to ensure that there are actually sufficient drinking water supplies available in the event of a major radioactive release.

The following excerpt highlights CELA's recommendations related to drinking water contingency planning, as provided to the Commission for the Pickering NGS licence renewal:

> The Pickering Implementing Plan states that "if venting over Lake Ontario, ground monitoring teams from PNGS shall complete radiological surveys following the shoreline, out to 20 km on either side of the plant." While CELA welcomes the inclusion of radionuclide monitoring for Lake Ontario in the revised PNERP, it is unclear to what degree monitoring occurs in the inshore and offshore areas, and whether currents and flow unique to Lake Ontario have been considered.

[13] CNSC, "CMD 18-H4 Bruce Power Inc. - Bruce Nuclear Generating Station A and B" (12 February 2018), p 102.

As the Toronto Region Conservation Authority explains, the nearshore is the region which extends 3 – 5 km offshore.[14] Therefore, potentially 15 km of the '20 km monitoring on either side of the plant' could extend into the offshore region. There are a number of distinctions between the near and offshore regions, including coarser-grained bottom sediments in the nearshore and finer-grained sediments in the offshore,[15] and faster moving alongshore currents (which travel along the shoreline) than cross-shore currents (which move towards or away from the shoreline).[16]

The revised PNERP and the Implementing Plan lack contingency measures to protect and monitor Lake Ontario, despite its recognition that during a design basis accident, venting of containment will occur "over the lake."[17]

Given that all of Ontario's nuclear reactors are located on the Great Lakes - which supplies the drinking water to 40 million Canadians and Americans – it is necessary that detailed planning be required in the IPZ to protect drinking water supplies and require contingency planning in the event of an accident. With nine million people relying on Lake Ontario for drinking water, there is an even greater imperative that emergency planning be in place for the Pickering NGS.[18]

In advance of relicensing, it is incumbent that the CNSC ensure that provisions are in place for an alternative source of drinking water for residents whose current drinking water source is Lake Ontario. The licensing materials do not demonstrate that either OPG or CNSC have studied drinking water and contingency planning. Such a study is not only necessary to identify alternative sources of drinking water, but to logistically plot how an alternative supply would be delivered to impacted communities, indefinitely.

Recommendation: The CNSC should require proof of adequate contingency planning for the protection of drinking water in the event of an emergency as a requirement for licensing. The CNSC ensure that provisions are in place for an alternative source of drinking water for residents whose current drinking water source is Lake Ontario.

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[14] Toronto Region Conservation Authority, "Watershed Management" online: https://trca.ca/conservation/watershed-management/lake-ontario-waterfront/projects/western-durham-nearshore-monitoring-program/lake-comparison/

[15] Toronto Region Conservation Authority, "Lake Comparison" online: https://trca.ca/conservation/watershed-management/lake-ontario-waterfront/projects/western-durham-nearshore-monitoring-program/the-nearshore-environment/

[16] Toronto Region Conservation Authority, "Currents" online: https://trca.ca/conservation/watershed-management/lake-ontario-waterfront/projects/western-durham-nearshore-monitoring-program/currents/

[17] Ontario, "Implementing Plan for the Pickering Nuclear Generating Station" (March 2018), s 4.6.6(a)

[18] Daniel Otis, "Is Toronto ready for a radiation emergency" 5 Jan 2016, The Toronto Star, online: https://www.thestar.com/news/gta/2016/01/05/is-toronto-ready-for-a-radiation-emergency.html

3. Radionuclides and the National Pollutant Release Inventory (NPRI)

In previous ROR submissions, CELA has discussed the need for consistent, comprehensive data on radionuclides released from CNSC regulated facilities. [19] Unfortunately, despite these submissions, radionuclides remain exempt from Canada's National Pollutant Release Inventory (NPRI) and are not reported. The NPRI is an online data portal and a key resource for identifying pollution prevention priorities, supporting the assessment and risk management of chemicals, and encouraging actions aimed at reducing pollutant releases.

Sections 46 – 53 of the *Canadian Environmental Protection Act, 1999* set out the functions of the NPRI. The legislation enables the NPRI to track pollution using a listing approach and categorize substances by threshold. As radioactive substances are not part of the substance list, CELA has continued to advocate for the inclusion of radionuclides on the NPRI substance list.

CELA again submits that given the threat radionuclides pose to human health and the environment, we respectfully **recommend** the CNSC support the inclusion of radionuclides on the NPRI's substance list. The lack of comprehensive and accessible, publicly-available data infringes on the ability of the public and independent scientific experts to know about pollutants from the nuclear sector.

While the ROR notes that the CNSC and NPRI are working together to establish active links between the CNSC and NPRI websites, we submit this is an improper substitute for the inclusion of radionuclides on the NPRI.[20] We **request** the Commission seek further direction on the status of this CNSC-NPRI linkage and what means are being advanced to ensure those who actively use and access the NPRI will be made aware of a parallel CNSC-based site. Further, prior to the release of the active beta testing in the latter part of 2019, as mentioned in the ROR, we **request** the CNSC make a test site available for public comment and review.

Recommendations

6. Radionuclides should be reportable to Canada's National Pollutant Release Inventory (NPRI), an online data portal and a key resource for identifying pollution prevention

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[19] *See for instance*, Canadian Environmental Law Association, "CELA's Comments on the CNSC's Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities in Canada: 2017 - Recommendations to Improve the Oversight of Environmental Protection and Waste Management" (19 Nov 2018), online: https://www.cela.ca/Review-Uranium-and-Nuclear-Substance-Facilities; Northwatch and Canadian Environmental Law Association, "Review of the CNSC's Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities in Canada: 2016" (20 Nov 2017), online: http://www.cela.ca/ReviewOfCNSCregulatoryOversiteReport.

[20] ROR for CNL, p 90.

priorities, supporting the assessment and risk management of chemicals, and encouraging actions aimed at reducing pollutant releases.

7. Prior to the release of the CNSC-NPRI linked site, the Commission should release a test site for public comment and review.

4. Asbestos Phase Out

Canada's *Prohibition of Asbestos and Products Containing Asbestos Regulations* entered into force on December 30, 2018 prohibiting the import, sale and use of asbestos, as well as the manufacture, import, sale and use of products containing asbestos, with some exceptions. Canada's regulation was welcomed country wide by workers' health and safety experts, families affected by asbestos related diseases, public health and environmental advocates, after decades of efforts seeking federal action on asbestos.

However, nuclear facilities were exempted from the ban until January 1, 2023. As the *Prohibition of Asbestos and Products Containing Asbestos Regulations*, SOR/2018-196 states:

> Servicing equipment of nuclear facilities
>
> 11 (1) A person may import, sell or use a product containing processed asbestos fibres to service equipment of a nuclear facility before January 1, 2023, if there is no technically or economically feasible asbestos-free alternative available at the time of the import, sale or use, as the case may be.

CELA submits that in light of the 2023 asbestos phase-out deadline for nuclear facilities, the ROR should consider the industry's readiness for this transition. We also query how the Commission will ensure compliance with this prohibition. Further, CELA submits the ROR should be forward looking to anticipate and respond to challenges which may require planning in advance. Therefore, CELA **recommends** it would have been timely for the ROR to discuss measures taken by nuclear facilities to (1) phase out asbestos use in nuclear facilities by December 31, 2022 and (2) pursue technically and economically feasible asbestos-free alternatives.[21]

We also question whether the CNSC or any of the nuclear generating station licensees have identified safe alternatives, developed standards for disposal or, voluntary implemented this ban in advance of the 2023 deadline? Further, how will the CNSC and licensees ensure occupational exposures are limited to 0.01 fibre/cc (as already in force in countries such as France and the Netherlands)? Lastly, has the CNSC established an inventory of asbestos in nuclear facilities,

[21] Prohibition of Asbestos and Products Containing Asbestos Regulations: SOR/2018-196

which is also publicly accessible? CELA **recommends** all of these questions be discussed at the upcoming ROR meeting and updates included in subsequent RORs.

Recommendations

8. The ROR meeting should include submissions from CNL and CNSC Staff on measures being taken by nuclear facilities to (1) phase out asbestos use in nuclear facilities by December 31, 2022 and (2) pursue technically and economically feasible asbestos-free alternatives.

5. Waste Management Facilities

The ROR profiles Canada's waste management facilities, concluding they were safely operated in 2018.[22] However, the ROR has excluded consideration of pressing issues which require planning in advance. This scope is at the detriment of planning which could be occurring, to ensure the ongoing protection of human health and the environment. As detailed below, this is particularly the case for the storage and oversight of Canada's spent fuel and radioactive waste, currently being stored onsite at nuclear power plant facilities. Therefore, CELA **recommends** the CNSC include a discussion of interim waste storage in its ROR meeting.

This recommendation is precipitated by CELA's visit and tour of the Darlington Waste Management Facility (WMF) and its high-level waste storage in 2019. During the tour, CELA was informed by OPG that high-level waste (HLW) storage containers have a set life span. It was intended that prior to their expiration, the HLW would be relocated to a permanent storage facility (ie. a deep geological repository (DGR)). It came to our attention however, that given the shifting timeframe for the completion of permanent, long-term waste facilities, the lifespan of these HWL storage containers may be exceeded. In response, CELA **requests** this matter be discussed at the upcoming ROR meeting. We further **request** OPG provide an update on the testing of storage containers which sought to review their effectiveness beyond their intended lifespan. Relatedly, we query if the CNSC has required licensees to study and identify alternative, potentially interim storage methods.

Furthermore, while OPG staff at the Darlington WMF indicated they had more land and could expand their storage buildings to accommodate more waste, CELA **requests** the CNSC review whether this would have repercussive effects on the scale of monitoring and security at the site. For instance, would the proliferation risk, security and environmental monitoring needs been re-evaluated, should an expansion of the waste management facility occur? If the WMF were to expand, would this be by way of an amendment to the existing facility's licence, or as new project or facility for the storage of waste?

[22] ROR for NGS, p ii.

Recommendations

9. Given the shifting timeframe for the completion of permanent, long-term waste facilities, and the potential that HWL storage containers may exceed their intended lifespan, CELA recommends the CNSC include a discussion of interim waste storage in its ROR meeting.

6. Updates and Outstanding Action Items

CELA makes the following comments regarding outstanding action items and seeks update on a number of matters mentioned in the ROR.

First, Table 2 lists the actions from the Commission addressed by the report. In a number of instances, the action is accompanied by the statement "Info not available."[23] This occurs for the following actions:

- Results from the technical study for 2017 PNERP
- Ontario's unified transport management plan
- Revision of public information and disclosure program for
- PNGS in regard to emergency preparedness and provision of information to populations beyond the detailed planning zone
- Provide update on PNGS fish diversion system (i) improvements and resulting fish impingement rate and (ii) results of OPG's thermal plume monitoring

In response, CELA **requests** the ROR be updated by way of an addendum to explain why 'no info is available.' CELA also **requests** the Commission's attention to these outstanding actions at the ROR meeting and **recommends** each is addressed in turn to identify (1) actions taken to address these issues, (2) barriers to their implementation or next steps, and (3) timelines for completion.

Secondly, CELA **recommends** updates and further information be provided at the ROR meeting in response to the following statements:

- "All licences were requested to provide [PNERP] implementation plans in 2019"[24] CELA **requests** the Commission confirm that this undertaking is now complete for all of Ontario's nuclear generating stations.

[23] ROR for NGS, p 11.
[24] ROR for NGS, p 24.

- "Accident management and recovery – All NPP licensees have adequate procedures in place"[25]
  CELA notes the ROR fails to mention draft RegDoc 2.10.1 Volume II Framework for Recovery After a Nuclear Emergency. Public comments on this draft RegDoc closed in September 2018 and thus we **request** its status be discussed at the ROR meeting.

- In a number of instances, emergency drills and exercises are referenced. For each, we **request** the CNSC provide a reference to after-action reports. Should after-action reports not be publicly available, CELA **recommends** they be required and forthcoming from licensees.

Recommendations

10. For each matter listed in Table 2 and marked 'info not available,' the CNSC should identify (1) actions taken to address these issues, (2) barriers to their implementation, and (3) timelines for completion.

11. The Commission should seek updates and further information in response to the following statements in the ROR:

    - "All licences were requested to provide [PNERP] implementation plans in 2019"[26]
      CELA requests the Commission confirm that this undertaking is now complete for all of Ontario's nuclear generating stations.
    - "Accident management and recovery – All NPP licensees have adequate procedures in place"[27]
      CELA notes the ROR fails to mention draft RegDoc 2.10.1 Volume II Framework for Recovery After a Nuclear Emergency. Public comments on this draft RegDoc closed in September 2018 and thus we request its status be discussed at the ROR meeting.
    - In a number of instances, emergency drills and exercises are referenced. For each, we request the CNSC provide a reference to after-action reports. Should after-action reports not be publicly available, CELA recommends they be required and forthcoming from licensees.

[25] *Ibid*, p 35.
[26] ROR for NGS, p 24.
[27] *Ibid*, p 35.

7. Consultation on Ontario's Provincial Policy Statement (PPS)

On July 22, 2019, the Province of Ontario's Ministry of Municipal Affairs and Housing announced a review of Ontario's Provincial Policy Statement.[28] As the notice states, "the government is proposing changes to the Provincial Policy Statement to help increase the supply of housing, support jobs and reduce barriers and costs in the land use planning system."[29]

In response, our request to the CNSC is twofold. First, we **request** the Commission direct CNSC Staff to provide comments to the Ministry, noting implications for emergency management and planning should increases to density in the detailed planning (0-10km) and contingency planning zones (10 -20km) be proposed. Specifically, CELA **recommends** the Commission communicate to the Ministry the need to limit the use and occupation of land within 20 km of the Pickering nuclear power plant, to ensure the maintenance of safety margins for the fifth level of Defence in Depth by preventing the intensification and development of residential dwellings.

As CNSC Staff noted during the 2018 Pickering relicensing hearings, the Commission does have a role in engaging on updates to the Provincial Policy Statement, however, Staff can only act if given the direction to do so. As the CNSC's Executive Vice President noted:

> [T]he province's policy statement of 2014 now includes the land use compatibility and the definition of major facility. So it's all municipality now, and the Province of Ontario [that] need to demonstrate alignment with the 2014 [PPS]. So, if there is a sense from the Commission that a municipality is not in alignment, the Commission can direct them to do so.[30]

Secondly, given the Province of Ontario's encouragement of population growth around the Pickering nuclear station and the repercussive reduction in public safety this precipitates (ie. by making it more difficult to effectively implement emergency response measures, including evacuation, in the event of an emergency) we **recommend** the Commission review the sufficiency of all offsite emergency planning immediately following the publication of the revised PPS. CELA also **recommends** the Commission provide a public disposition of the actions stemming from the revised PPS and require licenses to update Evacuation Time Estimate (ETE) studies.

CELA has already queried the sufficiency of Pickering NGS's ETE study during its 2018 relicensing hearing, and this again becomes a pressing issue in light of new population

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[28] Environmental Registry of Ontario Notice 019-0279, online: https://ero.ontario.ca/notice/019-0279
[29] *Ibid*
[30] CNSC, "Transcript, Public Hearing, June 29, 2019" online: https://nuclearsafety.gc.ca/eng/the-commission/pdf/FinalTranscript-OPG-Pickering-Hearing-June29-2018.pdf, p 197.

predictions and objectives.[31] For instance, as set in Ontario's Growth Plan for the Greater Golden Horseshoe (2017), Downtown Pickering has been designated an 'urban growth centre.' This designation requires it meet a minimum density threshold (200 residents or jobs per hectare) and serve as a hub for regional transit networks. As the Pickering urban growth centre is located approximately 3 km from the Pickering NGS, CELA submits it is crucial CNSC require OPG to revise its ETE for Pickering.

In light of a new PPS, updated ETEs should also review the impact of 50 km evacuation zones, considering impacts on Emergency Workers Centres, numbers of emergency workers required for evacuation management, traffic routes, size of evacuation centres, and locations and capacity of Decontamination and Monitoring Units. CELA **recommends** these findings be reported to the CNSC at the 2019 ROR and publicly reviewed.

Requested Action

12. We request the Commission direct CNSC Staff to provide comments to the Ministry of Municipal Affairs and Housing during the review of Ontario's Provincial Policy Statement, noting implications for emergency management and planning should increases to density in the detailed planning (0-10km) and contingency planning zones (10 -20km) be proposed.

Recommendation

13. The Commission should communicate to the Ministry the need to limit the use and occupation of land within 20 km of the Pickering nuclear power plant, to ensure the maintenance of safety margins for the fifth level of Defence in Depth by preventing the intensification and development of residential dwellings.

8. Decommissioning Planning & Impact Assessment

The ROR contains a helpful discussion of the decommissioning planning process, and the RegDocs and standards which inform decommissioning licensing for all nuclear facilities. However, its discussion regarding the pending decommissioning of the Pickering Nuclear Generating Station is limited to the following brief statement:

> The preliminary decommissioning plans (PDPs) for the PNGS and the PWMF met or exceeded the applicable regulatory requirements in 2018. In 2017, OPG revised the PDPs for all of its facilities for the period up to 2022. OPG selected a deferred

[31] Ministry of Municipal Affairs, "Growth Plan for the Greater Golden Horseshoe, 2017" (May 2017), online: http://placestogrow.ca/index.php?Itemid=14&id=430&option=com_content&task=view#2.2.3

> decommissioning strategy for the decommissioning of the PNGS and an immediate decommissioning strategy for the PWMF, following the completion of the PNGS decommissioning. There were no changes made to the PDPs for the PNGS or the PWMF in 2018. The associated financial guarantee is discussed in section 2.15.

CELA submits this level of the detail is not proportional to the environmental and public significance of decommissioning one of the world's largest nuclear power plants.[32] Nor, does the ROR respond to outstanding requests from Durham Region and other civil society organizations who have requested a federal environmental assessment for the decommissioning of the Pickering nuclear generating station.[33]

Currently, Canada's federal environmental assessment law, the *Impact Assessment Act*, does not list the 'decommissioning of a nuclear power plant' as a project requiring a federal impact assessment (IA). This means that the decommissioning of the Pickering nuclear generating station will not be subject to a comprehensive, environmental assessment and the public will lack an opportunity to weigh-in on the project's purpose and potential methods of decommissioning.

Should an IA not occur for the decommissioning of the Pickering NGS, directly affected communities (ie. Durham Region), will also be excluded from a public, decision-making process which statutorily requires consideration of a project's social, economic and environmental effects.[34] As the CNSC publicly recognized during the 2018 Pickering relicensing hearings, they do not consider socioeconomic aspects in their review of projects.[35] Further, the *Nuclear Safety and Control Act* does not share in the purposes of the *IAA*, which requires decision-making that fosters sustainability, considers effects on environment, health and socio-economic conditions, and alternatives to the undertaking.

Given the lacunae of legislative and regulatory frameworks which applies to major nuclear projects, such as the decommissioning of nuclear power plants, CELA **recommends** this be a required agenda item for discussion at the ROR meeting.

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[32] OPG, online: https://www.opg.com/powering-ontario/our-generation/nuclear/pickering-nuclear-generation-station/

[33] *See* Durham Region, "Oral Presentation to the CNSC in the matter of the Ontario Power Generating Inc. Pickering Nuclear Generating Station," online: http://www.nuclearsafety.gc.ca/eng/the-commission/hearings/cmd/pdf/cmd18-h6/CMD18-H6-67A.pdf

[34] *Impact Assessment Act*, s 22.

[35] *See* Canadian Nuclear Safety Commission (2018) Transcript of Proceeding dated 28 June 2018.

Recommendations

14. Given the lacunae of environmental assessment legislation that applies to major nuclear projects, such as the decommissioning of nuclear power plants, and the outstanding requests from Durham Region and other civil society organizations for a federal environmental assessment for the decommissioning of the Pickering nuclear generating station, CELA requests this topic be a required agenda item for discussion at the ROR meeting.

IV. CONCLUSIONS

We respectfully provide these comments to assist the Commission in its review of the Regulatory Oversight Report for Canadian Nuclear Power Generating Sites: 2018.

Truly,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

Theresa McClenaghan, Executive Director and Counsel

Kerrie Blaise, Counsel

APPENDIX 1

REQUEST FOR PNERP TECHNICAL STUDY

Canadian Environmental Law Association

Kerrie Blaise <kerrie@cela.ca>

PNERP Technical Study

2 messages

Kerrie Blaise <kerrie@cela.ca> Wed, Sep 11, 2019 at 9:49 AM
To: Dave.Nodwell@ontario.ca
Cc: Theresa McClenaghan <theresa@cela.ca>, "Participant Funding Program / Programme de financement des participants (CNSC/CCSN)" <cnsc.pfp.ccsn@canada.ca>

Good morning Mr. Nodwell,

CELA will be submitting written comments to the CNSC for its Regulatory Oversight Report for Nuclear Power Plants and to facilitate our review, I was hoping you could provide a copy of the PNERP Technical Study.

Last time we spoke at the DNHC meeting in January 2019, I believe the report was near completion and pending release in February 2019.

I've been unable to locate a copy online and in keeping with the PNERP's commitment to transparency (*1.3.4 The purpose of the PNERP review process is to uphold the province's commitment to transparency and accountability, and to ensure that these plans reflect current emergency response directives, legislation, lessons learned and improvements to emergency management methodologies*), CELA would like to request a copy to review.

Thanks so much, I look forward to your response.

Kerrie

Kerrie Blaise

Northern Services Counsel

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Canadian Environmental Law Association

Kerrie Blaise <kerrie@cela.ca>

PNERP Technical Study

Kerrie Blaise <kerrie@cela.ca> Wed, Sep 25, 2019 at 11:12 AM
To: Dave.Nodwell@ontario.ca
Cc: Theresa McClenaghan <theresa@cela.ca>, "Participant Funding Program / Programme de financement des participants (CNSC/CCSN)" <cnsc.pfp.ccsn@canada.ca>

Hello Mr. Nodwell,

I wanted to follow up on my email dated September 11 regarding the PNERP Technical Study. It would be appreciated if you could advise when it may be available.

Thank you,
Kerrie

Kerrie Blaise

Northern Services Counsel

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[Quoted text hidden]

APPENDIX 2

SUMMARY OF REQUESTED ACTIONS AND RECOMMENDATIONS

Recommendations

1. CELA remains of the view that ROR meetings are not a replacement for relicensing hearings and the CNSC must remedy the discrepancy in participation rights among public intervenors and licensees by providing oral presentation opportunities.

2. The CNSC should extend the amount of time provided to the public for the review of RORs and ensure a minimum 60-day timeframe.

3. The ROR would be more effective if the CNSC canvassed a list of issues and topics to inform the scope of the ROR. Given the trend to longer, ten-year licences, soliciting public comment on the scope of issues addressed in ROR would provide a starting point for public engagement.

4. Rather than serving an informational purpose, the aim of the ROR should be to identify gaps and propose action items (even if voluntary or for guidance) which improve licensee compliance within all Safety and Control Areas. Until the SCAs for all nuclear generating sites are deemed "fully satisfactory," CELA submits this should be the guiding purpose of the annual ROR.

Requested Action

5. CELA requests the Commission direct CNSC Staff to obtain the final PNERP Technical Study from OFMEM. Critically, the PNERP Technical Study may have implications for the adequacy of the planning basis for severe accidents. As the Technical Study has continued to be a matter of public discussion, it is crucial it be made a part of the public record.

Recommendations

6. Radionuclides should be reportable to Canada's National Pollutant Release Inventory (NPRI), an online data portal and a key resource for identifying pollution prevention priorities, supporting the assessment and risk management of chemicals, and encouraging actions aimed at reducing pollutant releases.

7. Prior to the release of the CNSC-NPRI linked site, the Commission should release a test site for public comment and review.

8. The ROR meeting should include submissions from CNL and CNSC Staff on measures being taken by nuclear facilities to (1) phase out asbestos use in nuclear facilities by December 31, 2022 and (2) pursue technically and economically feasible asbestos-free alternatives.

9. Given the shifting timeframe for the completion of permanent, long-term waste facilities, and the potential that HWL storage containers may exceed their intended lifespan, CELA recommends the CNSC include a discussion of interim waste storage in its ROR meeting.

10. For each matter listed in Table 2 and marked 'info not available,' the CNSC should identify (1) actions taken to address these issues, (2) barriers to their implementation, and (3) timelines for completion.

11. The Commission should seek updates and further information in response to the following statements in the ROR:

    - "All licences were requested to provide [PNERP] implementation plans in 2019" CELA requests the Commission confirm that this undertaking is now complete for all of Ontario's nuclear generating stations.
    - "Accident management and recovery – All NPP licensees have adequate procedures in place"
      CELA notes the ROR fails to mention draft RegDoc 2.10.1 Volume II Framework for Recovery After a Nuclear Emergency. Public comments on this draft RegDoc closed in September 2018 and thus we request its status be discussed at the ROR meeting.
    - In a number of instances, emergency drills and exercises are referenced. For each, we request the CNSC provide a reference to after-action reports. Should after-action reports not be publicly available, CELA recommends they be required and forthcoming from licensees.

Requested Action

12. We request the Commission direct CNSC Staff to provide comments to the Ministry of Municipal Affairs and Housing during the review of Ontario's Provincial Policy Statement, noting implications for emergency management and planning should increases to density in the detailed planning (0-10km) and contingency planning zones (10 -20km) be proposed.

Recommendations

13. The Commission and CNSC Staff should communicate to the Ministry the need to limit the use and occupation of land within 20 km of the Pickering nuclear power plant, to ensure the maintenance of safety margins for the fifth level of Defence in Depth by preventing the intensification and development of residential dwellings.

14. Given the lacunae of environmental assessment legislation that applies to major nuclear projects, such as the decommissioning of nuclear power plants, and the outstanding requests from Durham Region and other civil society organizations for a federal environmental assessment for the decommissioning of the Pickering nuclear generating station, CELA requests this topic be a required agenda item for discussion at the ROR meeting.