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**Written submission from the  
Canadian Environmental Law  
Association**

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

**Regulatory Oversight Report for  
Uranium and Nuclear Substance  
Processing Facilities in Canada: 2019**

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**Rapport de surveillance  
réglementaire des installations de  
traitement de l'uranium et des  
substances nucléaires au Canada :  
2019**

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Commission Meeting

Réunion de la Commission

December 8, 2020

Le 8 décembre 2020

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**SUBMISSION BY THE CANADIAN ENVIRONMENTAL LAW ASSOCIATION  
TO THE CANADIAN NUCLEAR SAFETY COMMISSION REGARDING the  
REGULATORY OVERSIGHT REPORT FOR URANIUM AND NUCLEAR  
SUBSTANCE PROCESSING FACILITIES IN CANADA: 2019**

**November 16, 2020**

**Prepared by  
Kerrie Blaise, Legal Counsel  
Morten Siersbaek, Legal Counsel**

**I. INTRODUCTION**

These submissions are filed in response to the Canadian Nuclear Safety Commission's ("CNSC") revised notice of Participation at a Commission Meeting and Participant Funding dated July 8, 2020, concerning the presentation of the *Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities in Canada: 2019* (herein "2019 ROR") released on October 2, 2020.<sup>1</sup> A virtual meeting with respect to this and other matters is scheduled for December 8-10, 2020.

CELA is a non-profit, public interest law organization. For 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 an extensive library of materials related to Canada's nuclear sector which is publicly available on our website,<sup>2</sup> and has engaged in detailed research and advocacy related to public safety and environmental protection by seeking improvements to the oversight of Canada's nuclear facilities and sites.

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<sup>1</sup> Canadian Nuclear Safety Commission, "Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities in Canada: 2019" (2 October 2020) [2019 ROR]; Notice: <http://nuclearsafety.gc.ca/eng/the-commission/pdf/NoticeMeetingPFP-ROR-CNL-2019-Rev1-e.pdf>.

<sup>2</sup> Canadian Environmental Law Association, online: [www.cela.ca](http://www.cela.ca).

## II. FINDINGS

In response to the 2019 ROR, CELA raises a number of issues relating to the ROR's scope and content and provides the following comments relating to Uranium and Nuclear Substance Processing Facilities. Our findings are set out below, accompanied by either requests or recommendations to the Commission and CNSC Staff.

The overarching goal of the comments submitted by CELA is to recommend improvements in the 2019 ROR, and make requests to ensure that CNSC Staff provides relevant, additional information when the ROR is before the Commission. CELA furthermore intends these comments to be considered when drafting the upcoming ROR for 2020 and during the drafting and review of the upcoming ROR Discussion Paper which according to the CNSC Staff's presentation for a prior ROR this Fall, is anticipated by end of year 2020.<sup>3</sup> CELA additionally submits that the upcoming Discussion Paper consultation is not a stand in for a response on the matters discussed below, specific to this ROR.

CELA would also like to note that, while COVID is not strictly speaking a 2019-related issue, CELA finds that the ROR meeting presents an important opportunity to discuss the impact of COVID on the activities covered by this ROR. As such, CELA believes the Commission should seize this opportunity to discuss emergency planning and the efficacy of existing emergency plans when emergency response and medical personnel may be at or beyond capacity, and should ensure a review of offsite emergency plans, including plans for evacuees and evacuation centres, to make sure that they have been reviewed and possibly revised with due consideration of public health guidelines.

### A. Scope and Process for Regulatory Oversight Reports

As further enumerated below, CELA is of the view that there are deficiencies in the report which detract from the potential of the 2019 ROR. A number of our recommendations are aimed at making the ROR more accessible and informative, and enhancing the data and analysis in support of the CNSC Staff's conclusions. These recommendations are based on the ROR's recognition that:

The [Nuclear Safety and Control Act] mandates the CNSC to disseminate objective scientific, technical and regulatory information to the public concerning its activities and the activities it regulates. CNSC staff fulfill this mandate in a variety of ways, including hosting in-person and virtual information sessions and through annual regulatory reports.<sup>4</sup>

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<sup>3</sup> Online: <https://www.nuclearsafety.gc.ca/eng/the-commission/meetings/cmd/pdf/CMD20/CMD20-M23-A.pdf>.

<sup>4</sup> 2019 ROR, p. 18.

We also make the following general comments about the efficacy of the CNSC's regulatory oversight review process. *First*, CELA submits that 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 critical review.

*Second*, we submit 30 days remains 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 lag in requesting and receiving references or supporting material, or, as in this case, other competing CNSC review 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 December 2020 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 recognition of the importance and value of public comments, and to further fairness and respect for adequate procedural rights.

## **Recommendations**

1. CELA remains of the view that ROR meetings are not a replacement for relicensing hearings<sup>5</sup> 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 is provided.

## **B. Level of Detail in 2019 ROR is Significantly Reduced Compared to 2018 ROR**

Compared to the 2018 ROR, CELA notes a significant reduction in how much information is provided in the 2019 ROR. While the 2018 ROR<sup>6</sup> spans 167 pages, including 43 pages of appendices, the 2019 ROR spans 89 pages, including 64 pages of appendices. A large amount of information has thus been removed from the 2019 ROR. The specifics of this concern are outlined further later in this submission, as well as CELA's analysis of the significance and implications arising from these reductions and omissions in the 2019 ROR.

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<sup>5</sup> See CNSC "Bruce Power Hearing Transcript – May 29, 2018," p. 188.

<sup>6</sup> Canadian Nuclear Safety Commission "Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities in Canada: 2018" (October 11, 2019) [**2018 ROR**].

CELA presumes that the additional information was included in the 2018 ROR because it was deemed relevant and necessary to the deliberations of the Commission and to allow the public a reasonable opportunity to review the oversight of the licensees covered by this ROR. Yet, it would seem that the CNSC has since changed its view on what information should be included in the ROR. CELA therefore **requests** an explanation as to why the CNSC has decided to significantly reduce the amount of information included in the ROR. In doing so, the CNSC should explain how they made the choice to remove the specific information that has been taken out of the 2019 ROR, compared to the 2018 ROR. The CNSC should also explain what documents, if any, might provide this information to the Commission and the public in a similarly accessible and cohesive way, now that it has been removed from the 2019 ROR.

CELA notes that, the less supporting information is provided, the less likely it will be that the public can fully assess the foundation of the CNSC's conclusions in the ROR. And in turn, the less is achieved by providing these reports available for consideration by the public. If the report barely discusses the basis for the ratings, this begs the question whether the 2019 ROR is fully able to serve its stated purpose?

CELA furthermore notes that the CNSC's PowerPoint presentation<sup>7</sup> for the December 10 Commission Meeting contains some information that is not included or discussed in the 2019 ROR itself. The CNSC does not address the role of the PowerPoint presentation, including whether the intention is for this presentation to complement the ROR. Regardless, CELA finds the approach of including some important information only in the PowerPoint presentation – but not in the ROR itself – to be problematic. CELA therefore **recommends** including this information in the 2019 ROR, and to provide relevant discussions of said information within the ROR. Important information for each site such as the amount of hours spent on compliance and licencing work, overview of number of inspections and associated action items, and licence expiry year is included in CNSC's presentation, but not in the 2019 ROR itself. Including details in the presentation, but not in the Report that forms the basis of said presentation, appears somewhat illogical.

## **Recommendations**

3. CELA **requests** an explanation as to why the CNSC has decided to significantly reduce the amount of information included in the ROR.
4. Given the above mentioned issues, as well as the specific comments provided below, CELA **recommends** issuing a revised ROR containing more complete and detailed information with regards to all of the licensed activities covered by the ROR.

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<sup>7</sup> CMD 20-M36.A.

### C. Limited Basis for Assessing Licensee Compliance

Throughout the 2019 ROR, the CNSC makes conclusive statements about licensees' compliance with licence conditions and compliance requirements (i.e. with CSA standards or Environmental Risk Assessments). However, as CELA has previously commented upon in its review of RORs, including the 2017 ROR,<sup>8</sup> there is a lack of data and other contextual information accompanying these statements which explains on what basis these conclusions are reached – a problem that has only been further exacerbated in the 2019 ROR given the further reduced level of details described above.

CELA also finds that there is a great degree of variation in the amount of data provided. In some instances, actual data and limits are provided. In other instances, no data is provided, and instead general statements are made regarding the degree of compliance. CELA **recommends** that, whenever conclusions are made on the basis of data, key examples of the underlying data (and associated limits) be included in the ROR. This could be done by including, for example, the highest level of the emission found in air, water, soil or gamma radiation tests.

As noted at the 2018 ROR meeting, the inclusion of maximum values (in addition to averages) received general support from the Commission who noted to CNSC Staff, "I understand that ... you have accepted that in the future or in the next year ROR you are going to report the two values, the maximum and the average." CELA is pleased to note that the 2019 ROR contains such maximum and average values in a number of instances, although such values still appear to be omitted in several places, such as air emissions (table I-6, I-13), soil monitoring (table I-9), fluoride monitoring (table I-10), gamma monitoring (table I-11 and I-12) which speak of annual averages and monthly maximum/averages, etc. CELA thus **recommends** expanding the use of maximum values.

To remedy the lack of the analysis accompanying the conclusions of the ROR, CELA additionally reiterates its **recommendation** that the CNSC use the ROR as an opportunity to synthesize data relevant to an SCA for the year in review. In the context of Environmental Protection, this could be comprised of the licensee's Environmental Risk Assessment, monitoring results and emissions data, inspection reports, and their Annual Compliance Report. Hyperlinks to each of these licence compliance and verification documents could be provided for ease of reference and as additional resources. Indeed, CELA **recommends** including hyperlinks wherever possible. If a document is publicly available, either on CNSC's website or on a licensee's own website, a link should be provided to this document to increase the transparency of the ROR and its potential use as a tool for public education.

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<sup>8</sup> Canadian Nuclear Safety Commission "Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities in Canada: 2017" (October 5, 2017) [2017 ROR].

## Recommendations

5. Whenever conclusions are made on the basis of data, key examples of the underlying data (and associated limits) should be included in the ROR.
6. The use of maximum values should be expanded to cover the remaining areas of the ROR.
7. The CNSC should use the ROR as an opportunity to synthesize data relevant to an SCA for the year in review, and wherever possible, hyperlinks should be provided to supporting documents.

### D. Action Levels

The ROR's description of action levels provides that action levels are licensee-specific and may change over time, depending on operational and radiological conditions.<sup>9</sup> Other than this general description, which highlights the contextual and variable nature of action levels, the ROR does not clearly describe the mechanisms or methods used to establish these levels.

CELA **recommends** the ROR include a description of the mechanisms used when action levels are set. This would help make it clearer exactly how significant an action level exceedance is and would also serve as a check on the efficacy of action levels to provide early warning to ensure licence limits are not exceeded.

Furthermore, the ROR states:

Action levels for radiological exposures are established as part of the licensees' radiation protection programs. Each licensee is responsible for identifying the parameters of its own program(s) to represent timely indicators of potential losses of control of the program(s).<sup>10</sup>

It is not clear from this statement by whom these action levels are established. CELA therefore **recommends** including information detailing who is responsible for setting these action levels.

Additionally, the ROR states, "It is possible that action levels which are never exceeded have not been established low enough to detect the emergence of a potential loss of control", while also noting that only two radiation protection action level exceedances occurred in 2019.<sup>11</sup>

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<sup>9</sup> 2019 ROR, p. 14.

<sup>10</sup> 2019 ROR, p. 14.

<sup>11</sup> 2019 ROR, p. 14.

CELA notes that statements similar to these were found in the 2017 ROR, and that our comments submitted in 2018 have not resulted in any significant changes to the information provided on action levels.<sup>12</sup>

To CELA, the similarities to the 2017 ROR also suggest that there is an ongoing issue with action levels that have been set too high to achieve the stated goal of detecting all program deficiencies. CELA **recommends** including an explanation of this seemingly going conflict between the stated philosophy behind the setting of action levels and the lack of action level exceedances.

### **Recommendations**

8. Information should be included, which explains the process of setting action levels.
9. Information should also be provided on how the goal of detecting program deficiencies is considered when action levels are set.
10. The CNSC should explain why action level exceedances appear to remain nearly non-existent for several years, despite the stated goal of setting these levels sufficiently low to trigger more frequent exceedances.

### **E. Independent Environmental Monitoring Program**

According to the 2019 ROR, the purpose of the CNSC's Independent Environmental Monitoring Program (IEMP) is to verify the protection of the public and the environment around licensed nuclear facilities. The IEMP thus complements – but is separate from - the CNSC's other ongoing compliance verification work.<sup>13</sup> The IEMP programs thus provide important insight into the compliance of licensees. A good example of the role played by the IEMP is the data collected in Peterborough in the vicinity of the BWXT facility, which showed elevated Beryllium levels in the soil at the nearby public school, and ended up triggering a request from the Commission for additional sampling.

Despite the importance of this data, the CNSC does not appear to have included this data in the 2019 ROR, or provided any detailed discussions of the data. Instead, the CNSC simply describes the purpose of the IEMP, and concludes the following:

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<sup>12</sup> 2017 ROR, pp. 17 and 85.

<sup>13</sup> 2019 ROR, p. 21.

The 2019 IEMP results, which are posted on the CNSC's IEMP web page, demonstrate that the public and the environment around these facilities are protected, and that no adverse environmental or health effects are expected as a result of these facility operations. In addition, these results are consistent with the results submitted by the licensees and demonstrate that the licensees' environmental protection programs continue to protect the health and safety of people and the environment.<sup>14</sup>

While the 2019 ROR does provide a link to the IEMP data, CELA finds that merely including a link instead of the actual data, and failing to provide a specific discussion of the results of the data, such as a discussion of trends over several years or a discussion of variations between sampling locations, is a disappointing approach and a missed opportunity given the purpose of the ROR and given the requirement of section 9(b) of the NSCA, according to which one of the Commission's two stated goals is "to disseminate objective scientific, technical and regulatory information to the public concerning the activities of the Commission and the effects, on the environment and on the health and safety of persons, of the development, production, possession and use referred to in paragraph (a)." CELA **requests** an explanation as to why it was deemed unnecessary to provide said data and a discussion hereof.

It is furthermore not conducive to public engagement to require the public to seek out the data themselves and carry out its own assessment of said data. As such, CELA as well as members of the public should not be required to commit the required time and resources to do this work individually – on top of reviewing the ROR itself – in order to verify if the conclusions made by the CNSC regarding the results of the data are correct. CELA therefore **recommends** including in the 2019 ROR key data from the IEMP and an accompanying analysis of this data.

## **Recommendations**

11. CELA requests that the CNSC explain why it has chosen to not include IEMP data and an appropriate discussion of this data in the 2019 ROR.
12. The 2019 ROR should be updated with relevant IEMP data from the most recent sampling activities, including a discussion of said data and a comparison to data collected in previous years.

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<sup>14</sup> 2019 ROR, p. 22.

## E. Specific Comments

In this section, CELA will provide comments regarding specific sections of the ROR.

### i. Section 4.1 Regulatory Activities

CNSC states that all findings in the inspections of the uranium and nuclear substance processing facility were considered low-risk, with no impact on safety at the facilities. CELA **suggests** including examples of what findings were considered to be low risk.<sup>15</sup>

### ii. Section 4.2 Performance Ratings 2019

As a result of the COVID pandemic, CSNC notes that the ratings system has been simplified and relies on a binary approach for the 2019 ROR, meaning that licensees were rated as “Satisfactory (SA)” or “Below Expectation (BE)”, while the “Fully Satisfactory (FS)” rating was not used. CELA **recommends** including further information on why this approach was considered necessary, and **asks** whether any licensees were given a rating of BE, where they might have been given a rating of UA under normal circumstances?

As the oversight in general – and inspections in particular – were all carried out in 2019, CELA also **requests** a clearer explanation of why COVID means that it is necessary to simplify the ratings in order to reach a consensus on a final rating.

### iii. 5.1 Environmental Protection

In 2019 the daily action level for uranium discharges to the sanitary sewer at Cameco PHCF was exceeded 18 times, due to unusually high Lake Ontario water levels and groundwater infiltration to the sanitary sewer system from significant precipitation events. Cameco has since carried out corrective actions resulting in fewer exceedances in 2020.<sup>16</sup> CELA notes that the observed water levels are expected to become less unusual in the future as a result of climate change, and **recommends** including information on what these corrective actions consist of, as well as an assessment of the facility’s readiness for more severe weather events due to climate change. CELA also **requests** information regarding the duration of the discharges that led to the action level exceedances. CELA is particularly interested in understanding whether the exceedances occurred gradually over the course of many hours, or whether they consisted of more sudden

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<sup>15</sup> 2019 ROR, p. 8, under the heading ‘Compliance verification’.

<sup>16</sup> 2019 ROR, p. 11 under the heading ‘Action levels’, and at p. 54 under the heading ‘Liquid effluent’.

spikes in the discharge rate. A sudden spike could potentially pose a greater risk than a more gradual release over the course of the day.

The compliance in 2019 with the Environmental Management System is addressed in one short sentence, which simply states that “CNSC staff determined that, in 2019, the uranium and nuclear substance processing facility licensees established and implemented their EMS in compliance with the CNSC regulatory requirements.”<sup>17</sup> CELA finds this inadequate, as little information is provided as to how this was determined, and therefore **recommends** providing a more detailed basis for this determination, including the extent to which it was based on inspections or desktop reviews.

Regarding protection of the public, the CNSC concludes that, based on assessments of the programs at the uranium and nuclear substance processing facilities, the public continues to be protected from facility emissions of hazardous substances.<sup>18</sup> CELA **recommends** providing some information regarding how these assessments are carried out.

iv. **Section 5.2 Radiation Protection**

The CNSC points out that direct comparison of doses received by NEW’s at different facilities does not necessarily provide an appropriate measure of a licensee’s implementation of its radiation protection program, as radiological hazards differ across facilities due to complex and varying work environments.<sup>19</sup> CELA **recommends** including information making it clear, which facilities should be expected to see higher doses and why this is the case.

v. **Section 6.1 Reportable Events**

At BTL a fire alarm was activated due to an electrical short in the fire safety system. The electrical short was apparently caused by water entering the building in an area that was to undergo roof repair at a later date.<sup>20</sup> CELA **asks** if the repair has been carried out, and if not, when the repair will take place?

vi. **Section 6.4 CNSC Independent Environmental Monitoring Program**

CELA appreciates the comments regarding the beryllium levels in soil near the BWXT’s facility in Peterborough, but at the same time notes that the CNSC’s concludes that the 2019 results demonstrate that the public and the environment around the facilities are protected, and that no adverse environmental or health effects are expected as a result of these facility operations. This

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<sup>17</sup> 2019 ROR, p. 11.

<sup>18</sup> 2019 ROR, p. 12.

<sup>19</sup> 2019 ROR, p. 13.

<sup>20</sup> 2019 ROR, p. 19.

is contrasted by comments regarding the concerns expressed during the March 2020 licence renewal hearing, where interveners expressed concerns regarding the beryllium levels, and by the Commission's order to carry out additional testing.

CELA **recommends** altering the CNSC's conclusion to better reflect the fact that, until the testing ordered by the Commission has been completed, there is an outstanding question as to the potential impact of the beryllium levels in soil near BWXT, including at the nearby Prince of Wales Public School.

vii. Appendix D. Regulatory Document Implementation

From Appendix D it is clear that REGDOC-2.9.1 implementation plans are not expected until 2020 for all the facilities covered by the ROR. CELA **asks** for an update on the status of these implementation plans, and for a clarification as to whether these plans mean that REGDOC-2.9.1 will actually be implemented in 2020, and if not, CELA **asks** when the CNSC expects the plans to be implemented.

CELA further notes, that the 2017 version has since been superseded by a newer version 1.2 issued in October 2020. In light of the revised REGDOC, CELA **requests** the CNSC provide more specific information reviewing the changes between the versions.

CELA also notes that some newer REGDOC's appear to be implemented already. CELA **requests** an explanation for why some newer REGDOC's have been implemented before REGDOC-2.9.1.

viii. Appendix F. Safety and control area ratings

CELA **requests** information on the very limited number of FS ratings in the ROR for any of the past several years. Are most of the activities covered by the ROR inherently unable to live up to this higher standard? If they cannot, then this should be explained and discussed in the ROR. If this is not already the case, CELA furthermore **recommends** that the licensees be required to work towards improving their performance with the aim of changing as many ratings as possible from SA to FS.

ix. Appendix I. Environmental Data

The annual groundwater monitoring results for the Blind River Refinery in Table I-3 show maximum uranium concentrations, which are close to – or sometimes exceed – the Guidelines for Canadian Drinking Water Quality. CELA **asks** if any efforts have been made to reduce these concentrations, and if it has been determined (through testing or otherwise) if these results may suggest a long-term accumulation/concentration of uranium? CELA also **asks** if the

environmental impact from these elevated levels has been determined? If not, CELA **recommends** assessing this impact, including on sensitive species (particularly aquatic ones), as such species are typically affected at concentrations far below the drinking water standards

At the Port Hope Conversion Facility, the CNSC notes that “in 2019 there were increasing trends of nitrite concentrations in South Plume groundwater monitoring wells, Radium-226 concentrations in East Plume monitoring wells, and ammonia concentrations in the original UF6 plant area.” The CNSC also notes that “CNSC staff are in communications with Cameco to ensure that the legacy onsite groundwater contamination is under control and Cameco's current operation is not causing an adverse impact to the groundwater environment.”<sup>21</sup> CELA **requests** information on the contents of these communications, and in particular the extent to which these communications have so far resulted in any plans to remediate the existing contamination and to avoid further impact on the groundwater environment.

Also at the PHFC, the CNSC notes that “The maximum uranium concentration was elevated compared to previous years due to CNL’s inner harbour remedial work and associated sediment disturbances in 2019”, with maximum uranium concentrations of 46 µg/L, or more than 3 times the CCME guidelines of 15µg/L.<sup>22</sup> CELA **recommends** sampling the sediment in the harbour to determine to what degree an accumulation of uranium is taking place. Depending on the outcome, CELA also **recommends** planning the requisite response, including remediation if the results show elevated levels.

At Cameco Fuel Manufacturing Inc., the CCME guidelines for short-term uranium exposure (33 µg/L) were exceeded in surface water at the intermittent surface drainage locations SW-4 (93 µg/L in 2019-04 and 78 µg/L in 2019-06) and SW-9 (51 µg/L in 2019-06), which were attributed to groundwater infiltration within the upstream storm sewer works.<sup>23</sup> CELA **requests** information on any steps taken to avoid such exceedances in the future, and a consideration of the impact of the existing exceedances on people and species in the environment.

The CNSC notes that, “In 2019, Nordion reported two environmental reportable limit exceedances involving non-radiological releases to the sanitary sewer and one halocarbon release”, and that Nordion is expected to “continue to investigate non-radiological sanitary sewer and halocarbon releases and identify ways to minimize or remove the source of such releases.”<sup>24</sup> CELA intends to review next year’s ROR to confirm that this is taking place.

## Recommendations

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<sup>21</sup> 2019 ROR, p. 55.

<sup>22</sup> 2019 ROR, p. 56.

<sup>23</sup> 2019 ROR, p. 61.

<sup>24</sup> 2019 ROR, p. 70.

13. Examples should be included in the ROR of what is meant by low risk in terms of inspection findings.
14. Further information should be included as to why it is necessary to simplify the ratings to only include “Satisfactory (SA)” or “Below Expectation (BE)”, and whether any licensees might have been given a rating of UA under normal circumstances.
15. As the inspections were carried out in 2019, it should also be explained why COVID makes it necessary to simplify the ratings in order to reach a consensus on a final rating.
16. The corrective actions resulting from the 18 exceedances of daily action levels at Cameco PHCF should be described, and information should be included as to the duration of the discharges that led to the action level exceedances – i.e. if they were sudden or gradual.
17. The compliance in 2019 with the Environmental Management System is addressed in one short sentence, which simply states that “CNSC staff determined that, in 2019, the uranium and nuclear substance processing facility licensees established and implemented their EMS in compliance with the CNSC regulatory requirements.” CELA finds this inadequate, as little information is provided as to how this was determined,
18. A better basis should be provided for the determination that licensees established and implemented their EMS in compliance with regulatory requirements, including whether it was based on inspections or desktop reviews.
19. Information should be provided on how it is determined that programs at facilities covered by the ROR protect the public from facility emissions of hazardous substances.
20. As radiological hazards differ across facilities due to complex and varying work environments, information should be included on why facilities may see higher doses.
21. Following the fire alarm at BTL caused by water ingress, it should be noted if repairs have been carried out, and if not, when the repair will take place?
22. Until confirmed by new testing, the CNSC should alter its conclusion that, among other things, the beryllium levels in soil near BWXT in Peterborough are of no concern.
23. The CNSC should provide an update on the status of the 2017 version of REGDOC-2.9.1 implementation plans, and clarify if it will be implemented in 2020, and if not then when.

24. The very limited number of FS ratings for the past several years should be addressed, including if the activities covered by the ROR are inherently unable to meet this standard.
25. CELA asks if efforts have been made to reduce groundwater uranium concentrations at Blinder River Refinery, and if there may be a long-term accumulation of uranium. CELA further recommends assessing the potential environmental impacts.
26. CELA requests information on the CNSC's communications with Cameco regarding the increasing nitrite, Radium-226, and ammonia concentrations in groundwater at PHCF, including whether the communications have resulted in plans to remediate the existing contamination and to avoid further contamination.
27. At PHFC, CELA recommends sampling the sediment in the harbour to determine to what degree an accumulation of uranium is taking place, as well as planning a response, including remediation, if the sampling results show elevated levels.
28. CELA requests information on any steps taken to avoid future exceedances of CCME guidelines for short-term uranium exposure at CFM drainage locations, and a consideration of the impact of existing exceedances on people and species in the environment.

### **III. CONCLUSIONS**

We respectfully provide these comments to assist the CNSC in its review of Canadian Nuclear Laboratories.

Sincerely,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION



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Kerrie Blaise, Legal Counsel



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Morten Siersbaek, Legal Counsel