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**Written submission from the  
Algonquins of Ontario**

**Mémoire des  
Algonquins de l'Ontario**

**Regulatory Oversight Report for  
Uranium and Nuclear Substance  
Processing Facilities and Research  
Reactors in Canada: 2020**

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**Rapport de surveillance  
réglementaire des installations  
de traitement de l'uranium et des  
substances nucléaires ainsi que  
des réacteurs de recherche au  
Canada : 2020**

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Commission Meeting

Réunion de la Commission

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Photo Source: Algonquins of Ontario

# TECHNICAL REVIEW OF THE CANADIAN NUCLEAR SAFETY COMMISSION REGULATORY OVERSIGHT REPORT FOR URANIUM AND NUCLEAR SUBSTANCE PROCESSING FACILITIES AND RESEARCH REACTORS IN CANADA: 2020



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# 1.0 INTRODUCTION

The Algonquins of Ontario (AOO) have completed a technical review of the Canadian Nuclear Safety Commission's (CNSC) Regulatory Oversight Report (ROR) for Uranium and Nuclear Substance Processing Facilities and Research Reactors in Canada: 2020. The ROR provides an overview of the CNSC staff's assessment of licensee performance at sites that are licensed uranium and nuclear substance processing facilities. Within the ROR, three of these facilities operate in the unceded AOO Settlement Area: SRB Technologies (Canada) Inc. (SRBT), Nordion (Canada) Inc. (Nordion) and Best Theratronics Ltd. (BTL).

The AOO seek to ensure that the operations at SRBT, Nordion and BTL occur in a responsible manner that safeguards the environment, manages risks, protects health and safety, and respects the AOO's Aboriginal Rights and Interests, including title. This written submission to the CNSC includes a summary of the ROR, provides background on SRBT, Nordion and BTL sites, and presents review findings, information requests, and comment and recommendations. In addition, we outline several Algonquin practices and teachings that are vital to understanding the core issues that we have put forward. We want to ensure that you understand who we are as it is essential to any meaningful engagement on this matter.

## 1.1 ALGONQUINS OF ONTARIO OVERVIEW

The Algonquins of Ontario (AOO) are on a journey of survival, rebuilding and self-sufficiency – a journey of reconciliation. This journey began nearly 250 years ago when the first Algonquin petition was submitted to the Crown in 1772.

The Algonquins lived in present-day Ontario for thousands of years before Europeans arrived. Their territory originally extended from the St. Lawrence River to the French River in the west, south to the Adirondack mountains in New York State, and north above Lake Abitibi. Over the past several hundred years, the description of the unceded AOO Settlement Area has changed to be the lands and waters on both sides of the Kichi-Sìbì<sup>1</sup> watershed from modern Hawkesbury to Lake Nipissing and north past the headwaters of the Kichi-Sìbì. Today, the following ten Algonquin communities comprise the Algonquins of Ontario:

- The Algonquins of Pikwakanagan
- Antoine
- Kijicho Manito Madaouskarini
- Bonnechere
- Greater Golden Lake
- Mattawa/North Bay
- Ottawa



- Shabot Obaadjiwan
- Snimikobi (Ardoch)
- Whitney and Area

Based on a protocol signed in 2004, these communities are working together to provide a unified approach to negotiate a modern-day treaty. The AOO land claim includes an area of nine million acres within the watersheds of the Kichi-Sìbì<sup>1</sup> (Ottawa River) and the Mattawa River in Ontario. The majority of Algonquin Provincial Park lies within the Ottawa River watershed and thus within the unceded AOO Settlement Area.

The Algonquins of Pikwakanagan First Nation (known at the time as the Algonquins of Golden Lake) commenced the land claim by formally submitting the most recent petition with supporting research to the Government of Canada in 1983 and the Government of Ontario in 1985. The Province of Ontario accepted the claim for negotiations in 1991 and the Government of Canada in 1992. Since then the negotiations, which are intended to culminate in an Algonquin Treaty, have grown to include ten communities that comprise the AOO.

The Algonquin Negotiation Team consists of the Chief and Council of the Algonquins of Pikwakanagan First Nation, who are elected under the Pikwakanagan Custom Election Code, and one representative from each of the nine other Algonquin communities, each of whom is elected by the enrolled Algonquin voters of each community for a three-year term.

The unceded AOO Settlement Area, shown in Figure 1 below, includes an area of more than nine million acres within the watersheds of the Kichi-Sìbì and the Mattawa River in Ontario, unceded territory that covers most of eastern Ontario, including Ottawa and most of Algonquin Provincial Park. More than 1.2 million people live and work within the unceded AOO Settlement Area. There are 84 municipal jurisdictions fully and partially located within the unceded AOO Settlement Area, including 75 lower- and single-tier municipalities and nine upper-tier counties.

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<sup>1</sup> The Ottawa River, otherwise known as the Big River, has also been referred to in the Algonquin language as “Kichi-Sìbì,” “Kichissippi,” “Kitchissippi,” and “Kichisippi.”



# Algonquins of Ontario Settlement Area Boundary



Figure 1: Algonquins of Ontario unceded Settlement Area Boundary (Source: Algonquins of Ontario)

## 1.2 ALGONQUINS VALUES AND TEACHINGS

Today, Algonquins in Ontario share a history of common interests, traditions and needs arising from our common heritage. In the following section, we will outline several Algonquin practices and teachings that are fundamental to putting this consultation and accommodation protocol in context.

In developing these comments, we have been guided by the spirit and intent of the Teachings of the Seven Grandfathers. These teachings have been passed down from generation to generation and continue to be practiced today:

- Honesty (Kwayakoziwin): Honesty in facing a situation is to be brave;
- Humility (Tabasenindizowin): Humility is to know yourself as a sacred part of Creation;
- Respect (Manàdjiyàn): To honour all Creation is to have Respect;
- Bravery (Sòngideyewin): Bravery is to face the foe with integrity;
- Wisdom (Nibwàkàwin): To cherish knowledge is to know Wisdom;
- Love (Sàgìhidiwin): To know Love is to know peace; and



- Truth (Tebwewin): Truth is to know all of these things

Our survival on this land for thousands of years required us to apply our teachings to ensure the protection of the lands and waters upon which we rely. These teachings serve as the original instructions or “natural laws” that were built into our way of life. “Sustainability” is a modern term, but sustainability was long in practice by our people and our ancestors. There were consequences that occurred when we strayed from our natural teachings, instructions, and laws. We were constantly monitoring the environment and if changes occurred, we would adapt. It was (and is) a matter of survival. We had, and continue to have, deep connections to the land.

Some examples of teachings related to the protection of the environment of today and yesterday include the following:

- Harvest one area for one season then move on elsewhere so the area that has been recently harvested can replenish.
- Be conscious of where your feet touch the ground (even as an individual, we can have impacts on the land).
- We are stewards of the land and have a responsibility to protect the lands and waters.
- Show love for all aspects of the environment, down to the smallest part.
- We are all part of nature – we are all equal.

Protection and interaction with the lands and waters of our territory have been central to our existence for thousands of years. We maintained this connection to the land in spite of the arrival of Europeans to our territory. However, this arrival dramatically impacted our way of life.

Harvesting of flora and fauna for food and trade has been integral to the Algonquin way of life since time immemorial. These practices embody an inherent respect for the environment and a fundamental commitment to the sustainable management of resources which have been passed from generation to generation.

The rights of Aboriginal people in Canada to engage in traditional activities, including the harvesting of wildlife, fish, migratory birds and plants, is recognized by the Constitution Act, 1982 and upheld by the Supreme Court of Canada. As stewards of our ancestral lands, the AOO recognize the importance of exercising this right in a responsible manner.

In 1991, the Algonquins of Golden Lake (Pikwakanagan) took a ground-breaking step with the establishment of its first Hunting Agreement which led into the development of today’s AOO Harvest Management Plan (HMP) for Algonquin Park and the Wildlife Management Units (WMU) within the Algonquin Territory in Ontario. The Harvest Management Plan is a living document, which is reviewed annually and updated as new information becomes available. Its primary purpose is to clearly articulate the framework in which the Algonquin harvest is conducted by Algonquin harvesters. In particular, the Harvest Management Plan contains clear provisions which specify the season and the geographic locations in which harvesting can occur, what the Sustainable Harvest Target is to be and who is eligible to participate.





Each year, the AOO establishes its Sustainable Harvest Targets for moose and elk for both Algonquin Park and each WMU for the Algonquin Harvest. These Sustainable Harvest Targets are established with input from the Ontario Ministry of Natural Resources and Forestry (MNRF) and are based upon data that addresses wildlife conservation and the sustainability of wildlife populations. The AOO is the one of the first Indigenous groups in Canada that has voluntarily enacted these types of harvest management practices.

In order to harvest moose and elk under the auspices of the AOO, eligible Algonquins have agreed to participate in a draw-based tag system that is coordinated by the ten individual AOO communities.

Our tradition of collectively sharing food and resources has been practiced by the Algonquins for millennia. In preservation of this long-held tradition, the sharing of food and resources continues to be commonly practiced today providing meat to Elders and other community members that are unable to participate in the harvest.

Despite such efforts as the Harvesting Agreement, we are now in great competition with many others on this land for the resources that are here.

## **1.3 AOO RIGHTS AND INTEREST AND THE CNSC ROR ON CNL SITES: 2020**

### **1.3.1 HISTORICAL CONTEXT**

As previously mentioned, three uranium and nuclear substance processing facilities are located fully within the unceded AOO Settlement Area where the AOO asserts unextinguished Aboriginal rights, interests, and title. The SRBT site is located on the outskirts of Pembroke, and the Nordion and BTL sites are located in Ottawa. These three sites are found within areas of historic and ongoing cultural and traditional ecological value for the AOO.

The unceded AOO Settlement Area has been significantly impacted by Crown decisions to locate and operate uranium and nuclear processing facilities since the Second World War. At the time of the Crown decisions to establish and operate these first nuclear facilities in the unceded AOO Settlement Area, the Crown did not consult with the AOO or provide accommodation for impacts to the AOO's Rights and interests. These Crown decisions resulted in an accumulation of nuclear reactors, research facilities, uranium containing materials, and nuclear processing facilities within the unceded AOO Settlement Area, contributing to the local cumulative impacts from industry and development. These activities continue today, with impacts that will continue for many thousands of years. In the AOO's view, these impacts are irreversible and underscore the importance of collaborative relationships to adequately avoid, mitigate and accommodate impacts on the AOO's Aboriginal rights and interests.

### **1.3.2 AOO RIGHTS AND INTERESTS, TREATY NEGOTIATIONS, AND ON-GOING ENGAGEMENT**

The AOO assert unextinguished and constitutionally protected Aboriginal Rights and Interests, including title to the unceded AOO Settlement Area. Our land claim was accepted by the Governments of Canada





and Ontario for negotiation in the early 1990s and is currently in the final stage of treaty negotiations. When ratified, the agreement will take the form of a modern treaty and will provide certainty about the ownership, use and management of land and natural resources for Algonquins across the unceded AOO Settlement Area.

In 2016, the signing of the Agreement-in-Principle (AIP), was a key step toward a Final Agreement, and a modern-day Treaty, of which negotiations remain ongoing and will eventually clarify the rights of all concerned. By signing the AIP, the AOO and the Crown expressed in a formal way their mutual intention and desire for a lasting partnership. This event signaled the beginning of a new relationship between the AOO and the Crown, one in which the mistakes of the past must be supplanted by a new type of mutual respect and cooperation.

Understanding the status and outcomes of regulatory oversight activities at SRBT, Nordion and BTL is critically important for the AOO given ongoing Treaty negotiations.

AOO is interested in developing deeper relationships and potential business partnerships with licensees in the unceded AOO Settlement Area such as SRB, Nordion (and BWXT in the future) and BTL. The AOO would be very interested in exploring business partnerships and investments, including jointly marketing medical isotopes that enhance health and well-being.

The AOO expects that proponents operating uranium and nuclear substance processing facilities in the unceded AOO Settlement Area will provide regular updates to the AOO and provide opportunities to meet in the interest of on-going engagement and relationship building. The AOO appreciates the on-going efforts of the CNSC to work collaboratively with the AOO on the consultation, engagement, and oversight activities for CNSC regulated projects and sites within the unceded AOO Settlement Area. However, the AOO notes that there is still work to be done for the CNSC to adequately respond to the unique needs and capacity considerations. Specifically, the AOO still receives a large volume of engagement and consultation requests from CNSC, funding opportunities are piecemeal and increase the administrative burden on AOO staff, and the CNSC Commission schedule does not provide adequate consideration of the AOO's internal governance processes for submission approval.

## **2.0 SUMMARY OF THE REGULATORY OVERSIGHT REPORT**

The following section provides a summary of the content presented in the ROR and does not reflect whether the AOO agree with the report findings and content. The ROR for Uranium and Nuclear Substance Processing Facilities and Research Reactors in Canada: 2020 provides an overview of the CNSC staff's regulatory efforts in the 2020 calendar year for uranium and nuclear substance processing facilities, and from 2018 to 2020 for research reactors, which require an update every three years. The report provides an update on CNSC's regulatory oversight activities consisting of public information, community engagement, and the aspects of the CNSC's Independent Environmental Monitoring Program (IEMP) that relate to uranium and nuclear substance processing facilities (CNSC, 2021).

CNSC staff used a total of 14 safety and control areas (SCAs) to evaluate the performance of each licensed facility, with a focus on radiation protection, environmental protection, and conventional health and safety. The ratings for each SCA were determined by the results of compliance activities



conducted by CNSC staff. This work included on-site inspections, technical assessments, reviews of reports submitted by licensees, reviews of events and incidents, and ongoing exchanges of information with licensees (CNSC, 2021).

Nuclear substance processing facilities process nuclear substances for industrial or medical applications, such as self-luminous emergency and exit signs, sterilizing items for sanitary purposes, and providing cancer diagnosis and treatments.

The three nuclear substance processing facilities covered under this report that are located within the unceded AOO Settlement Area include:

- SRB Technologies (Canada) Inc. (SRBT) in Pembroke (NSPFOL-13.00/2022)
- Nordion (Canada) Inc. (Nordion) in Ottawa (NSPFOL-11A.01/2025)
- Best Theratronics Ltd. (BTL) in Ottawa (NSPFOL-14.00/2029)

In 2020 CNSC inspected each facility and found that there was no impact on safety at the facilities and the outcomes were considered low risk. The SCA performance ratings for each of the above listed facilities were found to be satisfactory in 2020, where the SCAs were applicable (CNSC, 2021).

CNSC has reported in this ROR that in 2020 all licensees have acceptable environmental protection programs in place to ensure the protection of both the environment and the public (CNSC, 2021).

Airborne and waterborne releases of radioactive and hazardous substances at all facilities were, in 2020, below regulatory limits. In addition, facilities use effluent and environmental monitoring programs to make sure that radioactive and hazardous substance releases do not result in concentrations in the environment that could affect public health.

Based on CNSC's assessment of these programs at the above listed facilities, CNSC concluded that the public is protected from emissions of hazardous substances from these facilities. The CNSC, in addition to the facility inspections mentioned above, also does monitoring as part of their Independent Environmental Monitoring Program (IEMP), to verify that the environment and public surrounding facilities are adequately protected. However, in 2020, no IEMP activities were scheduled at the SRBT, Nordion or BTL facilities (CNSC, 2021).

In March 2020, CNSC activated the Business Continuity Plan in response to the COVID-19 pandemic and directed all staff in Ottawa and at regional and site offices to work from home (CNSC, 2021). The CNSC's on-site inspections were suspended until COVID-19 protocols were developed. As a result some on-site inspections were rescheduled or postponed. However, the CNSC was able to conduct the majority of inspections either remotely or as a hybrid between remote and in-person inspections to reduce risks and minimize in-person contact. On-site inspections and oversight have resumed on a risk-informed basis and in line with COVID-19 protocols (CNSC, 2021).

Overall, CNSC concluded that the environmental protection programs at all licensed facilities were effective in 2020 for protecting people and the environment, that radiation protection programs at all facilities adequately control radiation exposures to be as low as reasonably achievable, and conventional health and safety programs at all facilities protect workers (CNSC, 2021).



## 2.1 SRB TECHNOLOGIES INC.

SRBT is located on the outskirts of Pembroke, Ontario, and processes tritium gas (HT) to manufacture gaseous tritium light sources, such as signs, markers, and tactical devices that are distributed both within Canada and internationally (CNSC, 2021).

In 2020, the CNSC conducted two inspections at SRBT that covered two SCAs. These inspections resulted in three notices of non-compliance) being issued to SRBT. The CNSC considered the notices of non-compliance to be low risk and assessed that they did not have an impact on the safety of the facility . The CNSC are satisfied that SRBT operated safely and in accordance with their licensing in 2020. As well, the CNSC received SRBT’s application for a nuclear substance processing facility license in 2021, as their current license requires renewal in 2022.

### 2.1.1 HIGHLIGHTS FROM THE REGULATORY OVERSIGHT REPORT

- “The monitoring data for 2016 through 2020, provided in table iodine-25, demonstrates that atmospheric emissions from the facility remained below their regulatory limits.” (p. 107; CNSC, 2021)
- “The monitoring data for 2016 through 2020, provided in table iodine-26, demonstrates that liquid effluent from the facility remained below their regulatory limits.” (p. 107; CNSC, 2021)
- “SRBT has 40 passive air samplers located within a 2-kilometre radius of the facility [...] The 2020 air monitoring results from these samplers demonstrated that tritium levels in ambient air near SRBT remain low.” (p. 107; CNSC, 2021)
- “Sampling wells are used to establish tritium concentrations in the groundwater each month at various depths and in differing geologic strata. From the 2020 sampling results, the highest average tritium concentration was reported for monitoring well MW06-10 (29,513 Bq/L, with a minimum monthly total of 17,231 Bq/L in June, and a maximum of 43,247 Bq/L in February) which is approximately 15% lower than the average measured in 2019 (34,592 Bq/L). This well is located directly beneath the area where the active ventilation stacks are located. This well is a dedicated, engineered groundwater monitoring well very near to the facility within a secured area, and is not available to be used as a source of water consumption. Throughout 2020, no other wells exceeded the Ontario Drinking Water Standard for tritium of 7,000 Bq/L.” (pp. 107-108; CNSC, 2021)
- “In 2020, SRBT converted to analyzing Muskrat River samples in-house with approved procedures. This change was implemented due to the former third party service provider becoming unavailable during the COVID-19 pandemic. Tritium concentrations in Muskrat River (the receiving surface water environment about 420 meters from the SRBT property) in 2020 fell below the minimum detectable activity (MDA), as they were in 2019.” (p. 108; CNSC, 2021)
- “Overall, CNSC staff concluded that the tritium inventory in the groundwater system around the facility has been trending downward since 2006.” (p. 109; CNSC, 2021)



- “SRBT also samples and analyzes runoff water from its facility, and engages a qualified third party to perform monitoring and analysis of precipitation, surface water, produce, milk and wine. The 2020 monitoring data for these items remain low.” (p. 109; CNSC, 2021)

## 2.2 NORDION INC.

Nordion (Canada) Inc. is located in Ottawa, Ontario, close to industrial and residential properties. There, they process unsealed radioisotopes such as Y-90 for health and life science applications, and manufacture sealed radiation sources (Co-60) for industrial and medical applications. The Nordion facility has two production operations, one for medical isotopes and the other for gamma technologies used in cancer therapy and for irradiation.

In August 2018, BWX Technologies Ltd. acquired Nordion’s medical isotope business; Nordion will continue to operate the facility until BWX Technologies obtains a separate Class IB nuclear substance processing facility operating licence. A licensing hearing took place in June 2021.

In 2020, the CNSC conducted two inspections at Nordion. These inspections covered seven SCAs which resulted in three notices of non-compliance being issued. The notices were considered low risk and did not have an impact on safety of the facility. The CNSC are satisfied that, in 2020, Nordion operated safely and in accordance with their licensing (CNSC, 2021).

### 2.2.1 HIGHLIGHTS FROM THE REGULATORY OVERSIGHT REPORT

- “Table I-27 below shows Nordion’s radioactive air emissions monitoring results from 2016 to 2020. The monitoring data demonstrates that the radioactive air emissions from the facility in 2020 remained below the regulatory limits.” (p. 109; CNSC, 2021)
- “Nordion continues to collect, sample and analyze all liquid effluent releases before discharge into the municipal sewer system.... ..The monitoring data demonstrates that the authorized radioactive liquid effluent releases from the facility in 2020 remained below the regulatory limits.” (p. 110; CNSC, 2021)
- “In 2020, Nordion reported 1 environmental reportable limit exceedance involving non-radiological releases to the sanitary sewer which resulted in by-law limit exceedance of suspended solids. This was identified by Nordion during routine sampling and self-reported to the City of Ottawa. CNSC staff conclude that this singular reportable exceedance did not pose undue risk to the environment or human health.” (p. 110; CNSC, 2021)
- “There are currently 9 groundwater monitoring wells on the Nordion site. Since 2005, Nordion has been monitoring groundwater at least once a year for non-radioactive contaminants in 4 monitoring wells. The monitoring results from 2014 to 2020 demonstrate that there were no significant changes in the groundwater in 2020 compared to previous years.” (p. 110; CNSC, 2021)



- “Since 2014, Nordion has been monitoring groundwater at least once a year for radioactive contaminants in 5 monitoring wells. The results since then have detected only naturally occurring radionuclides that are not processed at the Nordion facility. These results, which are either below detection limits or at natural background levels, indicate that releases of radioactive and hazardous substances from Nordion’s facility have had no measurable impact on groundwater quality.” (p. 111; CNSC, 2021)
- “Nordion performed soil sampling in 2020, and no radionuclides attributable to licensed activities were detected in the soil samples.” (p. 111; CNSC, 2021).
- “The annual monitoring results for 2020 showed that the levels of gamma radiation at offsite monitoring locations are in the range of natural background levels. These results indicate that Nordion’s operations is not contributing to the public’s exposure to gamma radiation at, and beyond, the perimeter of the facility.” (p. 111; CNSC, 2021).

## 2.3 BEST THERATRONICS LTD.

Best Theratronics Ltd. (BTL) operates a manufacturing facility in Ottawa, Ontario, that manufactures cyclotrons and medical equipment, including Co-60 radiation therapy units and Cs-137 blood irradiators. BTL’s licence with CNSC is for the development and testing of Co-60 teletherapy devices, the manufacturing of self-shielded irradiators, the storage of nuclear substances, and the construction and testing of cyclotrons (CNSC, 2021).

In 2020, the CNSC conducted two inspections at BTL that covered two SCAs. The inspections resulted in six notices of non-compliance being issued. They were considered low risk and did not have an impact on the safety of the facility. The CNSC are satisfied that BTL operated safely and in accordance with their licensing in 2020 (CNSC, 2021).

### 2.3.1 HIGHLIGHTS FROM THE REGULATORY OVERSIGHT REPORT

- “BTL has determined that there are no radiological releases (liquid or airborne) at the BTL facility that require controls or monitoring. BTL’s operation uses radioactive sealed sources that do not produce any radioactive releases.” (p. 111; CNSC, 2021)
- “BTL safely manages hazardous liquid effluents from routine operations. They are collected, temporarily stored on-site, and then removed for disposal by a certified third-party contractor. Lubricating oil for on-site boring and milling machines are recovered and recirculated. Therefore, there would be no hazardous waterborne releases into the environment requiring controls or effluent monitoring.” (p. 111; CNSC, 2021)
- “BTL does not conduct environmental monitoring around its facility as there are no radiological releases that require controls or monitoring.” (p. 112; CNSC, 2021)



### 3.0 REVIEW FINDINGS

As part of the AOO review of the ROR for Uranium and Nuclear Substance Processing Facilities and Research Reactors in Canada: 2020, the AOO have put forward a series of information requests to CNSC to clarify and provide additional information where necessary. The AOO have also provided a set of comments and recommendations for the CNSC to consider following the review of the ROR.

### 3.1 INFORMATION REQUESTS

The AOO submit the following information requests to the CNSC to clarify or seek additional information on subjects included in the ROR.

#	ROR Reference	Information Request
1	Appendix I. Environmental Data	The section of Appendix I that pertains to SRB Technologies (Canada) Inc. describes environmental monitoring data qualitatively. In several subsections, tritium levels in ambient air are described as “low,” and other monitoring data (e.g., precipitation, surface water, produce, milk and wine) “remain low.” The use of vague qualitative terms does not provide enough detail for the AOO to independently and adequately assess potential impacts to the environment and on the AOO’s Aboriginal rights. The AOO request to receive quantitative data tables that summarize the 2020 monitoring results for each matrix sampled, alongside a comparison to relevant standards and historical monitoring results.
2	Appendix I. Environmental Data	The ROR indicates that Nordion has completed a gap analysis against the requirements outlined in CSA N288.7-15, <i>Groundwater protection programs at Class I nuclear facilities and uranium mines and mills</i> , and are continuing to update internal procedures and programs to meet these requirements. There is not enough detail in the ROR for the AOO to independently and adequately assess whether there are any negative implications to groundwater or the environment as a result of the gaps in Nordion’s internal procedures and programs and their inability to meet the requirements of CSA N288.7-15. Please provide the AOO with the results of Nordion’s completed gap analysis against CSA N288.7-15, along with the anticipated timelines for meeting requirements and filling identified gaps.



<p><b>3</b></p>	<p>Appendix C. Significant Changes to Licence and Licence Conditions Handbook</p>	<p>SRBT updated the radiation protection and environmental protection action levels of their License Conditions Handbook in 2020, but the CNSC did not provide specific details of what these new action levels were. This is concerning to the AOO as these action levels play an important part in ensuring that the environment and Algonquin community members are adequately protected. Without these specific details it's not possible to determine if these protections are effective.</p> <p>As such, the AOO requests that the CNSC provide the specific details of the updated radiation protection and environmental protection action levels that were implemented in 2020.</p>
<p><b>4</b></p>	<p>Appendix I. Environmental Data</p> <p>“Sampling wells are used to establish tritium concentrations in the groundwater each month at various depths and in differing geologic strata. From the 2020 sampling results, the highest average tritium concentration was reported for monitoring well MW06-10 (29,513 Bq/L, with a minimum monthly total of 17,231 Bq/L in June, and a maximum of 43,247 Bq/L in February) which is approximately 15% lower than the average measured in 2019 (34,592 Bq/L). This well is located directly beneath the area where the active ventilation stacks are located.” (pg. 107-108; CNSC, 2021)</p>	<p>The AOO are concerned by the elevated tritium concentrations identified in well MW06-10, and the potential impacts of this on the surrounding environment. Please confirm what the historical concentrations of tritium have been for monitoring well MW06-10 in comparison to the above-standard concentrations observed in 2020 and 2019.</p>

### 3.2 COMMENTS AND RECOMMENDATIONS

The AOO submit the following comments and recommendations to the CNSC following the review of the ROR. The AOO may have additional comments and recommendations after receiving adequate responses to the information requests outlined in Section 3.1 of this report.

**Comment 1:** (Section 7.3.2 Licensee Engagement Activities) The CNSC stated that licensees engage and communicate with Indigenous groups who have interest in their facilities. The extent of CNSC’s





evaluation is whether or not the licensees have Indigenous engagement and outreach programs, and does not assess the adequacy of the engagement from the perspective of the Indigenous groups.

**Recommendation 1:** The AOO recommend that CNSC update their assessment for the engagement and communication activities by seeking feedback from the AOO. The AOO are best situated to assess whether engagement and communication from licensees is appropriate and adequate and how the AOO's perspectives are considered and integrated in the licensees' operations.

**Comment 2:** (Section 7.4 Independent Environmental Monitoring Program) The report indicates that as part of the IEMP, CNSC staff conducted monitoring around the licensed facilities. The CNSC have included AOO staff and have incorporated Algonquin Knowledge in the IEMP sampling program at other sites regulated by the CNSC (i.e., Canadian Nuclear Laboratories' Nuclear Power Demonstration Waste Facility). The AOO note that SRBT, Nordion and BTL were not sampled in 2020.

**Recommendation 2:** The AOO recommend that the IEMP continue to include the AOO in sampling events (as is done at the NPD site) and engage the AOO for future sampling events at the SRBT, Nordion and BTL sites. The AOO must have input and involvement in all IEMP sampling efforts within the unceded AOO Settlement Area.

To facilitate this, the AOO recommend the following:

1. Where possible, CNSC's IEMP should coordinate with the AOO to integrate the Kichi-Sibi Guardians Program into IEMP sampling in the unceded AOO Settlement Area
2. A formal protocol be developed between the AOO and CNSC around involvement in the IEMP
3. Capacity funding be provided for the AOO to define a list of Valued Components of the environment that can be sampled as part of the IEMP

**Comment 3:** (Appendix I. Environmental Data) In the report, the CNSC states that for groundwater monitoring at the SRTB site, "sampling wells are used to establish tritium concentrations in the groundwater each month at various depths and in differing geologic strata." (p. 107) and that the average tritium concentration was 29,513 Bq/L at well MW06-10. The CNSC does not provide details of measures to reduce these concentrations or mitigate the impacts of this, even though the average concentration of tritium in the wells sampled was more than four times greater than the *Ontario Drinking Water Standard* in 2020.

**Recommendation 3:** The AOO request that the CNSC outline the measures that were undertaken by SRBT to ensure that the high concentration is reduced, and what mitigation measures were employed to reduce adverse impacts.

**Comment 4:** The historic and current nuclear activities and developments that have occurred within the unceded AOO Settlement Area have caused significant impacts to the AOO's Aboriginal Rights and interests, including title. As a result of these historical and ongoing impacts, the AOO seek to have a greater level of involvement but are constrained by limited budgets and limited number of staff that are put under tremendous stress by numerous piecemeal requests for consultation and engagement by many different project proponents and governments. Because of this, it is not always possible for the AOO to meaningfully participate in the opportunities being made available with the CNSC.



**Recommendation 4a:** To reduce the burden that multiple and repeated interactions with proponents and CNSC representatives place on the capacity of the AOO, the CNSC should adopt a “one-window approach” through which all CNSC-regulated site-specific engagement, consultation, and oversight activities are convened. The AOO acknowledge that the CNSC has taken steps to adopt this “one-window approach,” but that this approach still needs further development and consistent application on the part of CNSC staff. This approach should include stable funding to ensure the AOO’s effective participation in consultation processes and oversight reviews, as opposed to the current piecemeal approach. Additionally, a “one-window approach” would lead to more effective implementation of the recommendations the AOO have provided to the CNSC in previous reviews of RORs.

**Recommendation 4b:** In considering the unique relationship described above and the associated recommendations, the CNSC and the AOO should co-develop a Terms of Reference (TOR) with the intention of initiating a joint advisory and monitoring committee as it relates to CNSC-regulated facilities in the unceded AOO Settlement Area. The nuclear processing facilities located in the unceded AOO Settlement Area contribute to the greater cumulative impacts of nuclear activities across the Settlement Area. As such, the AOO wish to have more involvement in the CNSC-regulated facilities across the unceded AOO Settlement Area through an advisory and monitoring committee to:

- Provide a platform for the AOO to better understand the cumulative impacts of all nuclear activities in the unceded AOO Settlement Area, from both a strategic and holistic level
- Support the effective and active participation of the AOO in the monitoring of traditional, environmental, safety, and socio-economic aspects of licenced facilities
- Enable a reciprocal exchange of information relating to traditional, environmental, safety, and socio-economic aspects of licensed facilities
- Provide a collaborative forum, supported with resources for the AOO, regulators, and governments to enhance the environmental protection and safety of licensed facilities
- In collaboration with the AOO, the CNSC should assess existing examples of co-developed TORs for advisory and monitoring committees and develop a distinct model that reflects the unique relationship between the AOO and CNSC, the ongoing treaty negotiation process, and a Nation-to-Nation relationship based on recognition of rights, respect, co-operation, and partnership

**Recommendation 4c:** The AOO note that the CNSC Commission schedule has been developed for this project and others without consideration of the AOO’s internal governance process. The AOO request that for future projects, including ROR technical reviews, the CNSC ensure that the project schedule take full consideration of the AOO’s internal governance structure and ensure that the time between release of PFP funding and deadlines/hearings allows for comprehensive reviews and approvals of Project-related documents by the AOO’s Planning and Environment Working Group and Algonquin Negotiation Representatives.

**Comment 5:** The AOO provided a number of recommendations to the CNSC in previous ROR technical review submissions and many of these recommendations have been left unanswered.

**Recommendation 5:** The AOO continue to request that the CNSC integrate the following recommendation measures into their regulatory oversight regime:



- Further opportunities for significant participation by the AOO
- That the CNSC create opportunities for the AOO perspective to be integrated in the oversight of environmental management systems established by licensees located within the AOO Settlement Area
- Involvement of the AOO in the ongoing environmental, cultural heritage, and human health monitoring in and around CNSC-licensed facilities and transportation routes
- Accessible information for Indigenous Peoples, including Algonquin citizens, including communications protocols for informing communities about regulatory oversight participation opportunities, incidents such as spills, accidents, or malfunctions, and involvement in emergency planning and response
- A framework for addressing the cumulative effects of CNSC-regulated projects and other activities in a region that affect the AOO's Rights and Interests across the unceded AOO Settlement Area
- Collaborative decision-making with the AOO, based on Nation-to-Nation relationships and the obligation to secure free, prior, and informed consent. This decision-making must recognize and strengthen the jurisdiction that the AOO have with respect to the environment and culture
- Rules and criteria to encourage transparency, accountability, and credibility and to encourage good science and Algonquin Knowledge-based decisions

**Comment 6:** Recognizing that the licence holders SRBT, BTL, and Nordion all operate within the unceded AOO Settlement Area, the AOO wish to maintain open lines of communication with the license holders, to be informed of any changes to processes and products at their facilities, and to have the option to meet when further discussion is required. The AOO are interested in developing relationships directly with the license holders, to help facilitate regular two-way communication.

**Recommendation 6:** The AOO recommend that SRBT, BTL, and Nordion provide regular updates through bi-annual reports to the AOO on their general site operations and any concerns relating to non-compliance issues and updates on contaminant releases exceeding regulatory limits, with the option to meet when further discussion is required. Additionally, the AOO would be pleased to have discussions with SRBT, BTL, and Nordion about exploring business partnerships and investments, and avenues for economic reconciliation.

The AOO request that the CNSC provide responses to information requests and recommendations within this technical review. If the CNSC is unable to adopt a recommendation, the AOO request that they provide rationale as to why they are unable to do so.

## 4.0 CONCLUSION

To conclude this technical review of the CNSC's RORs for Uranium and Nuclear Substance Processing Facilities and Research Reactors in Canada: 2020, the AOO have included a series of information requests, comments, and recommendations for the consideration of the CNSC and the nuclear processing facility licensees.



The AOO respectfully ask that the CNSC provide responses to the information requests and to the recommendations noted in this technical review. As well, the AOO request that the CNSC and the Crown offer an opportunity for the AOO to review and comment on any new policy, legislation, or guidance that aims to fulfill these recommendations.

The AOO appreciate and value the relationship it has with the CNSC and the licensees. The AOO acknowledge the collaborative work with the CNSC that has been completed to improve consultation with the AOO over the past several years. We appreciate the opportunity afforded to us by the CNSC to provide perspectives on uranium and nuclear substance processing facilities that impact the well-being, health and livelihoods of Algonquin community members.

## **5.0 BIBLIOGRAPHY**

Canadian Nuclear Safety Commission (2021). "Regulatory Oversight Report on Uranium and Nuclear Processing Facilities and Research Reactors: 2020." Commission Member Document.

