



Date: 2020-11-16  
File / dossier : 6.02.04  
Edocs pdf : 6404690

**Written submission from the  
Algonquins of Ontario**

**Mémoire des  
Algonquins de l'Ontario**

**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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# AOO Technical Review of the Canadian Nuclear Safety Commission Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities: 2019



**Algonquins of Ontario**

**November 16, 2020**

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## 1.0 Introduction

The Algonquins of Ontario (AOO) are conducting a technical review of the Canadian Nuclear Safety Commission's (CNSC) Regulatory Oversight Report (ROR) for Uranium and Nuclear Substance Processing Facilities in Canada: 2019 which documents CNSC staff's assessment of licensee performance at sites that are licensed uranium and nuclear substance processing facilities. Three of these facilities in the ROR operate in the AOO Settlement Area: SRB Technologies (Canada) Inc. (SRBT), Nordion (Canada) Inc. (Nordion) and Best Theratronics Ltd. (BTL).

The AOO have an interest in ensuring that the operations at SRBT, Nordion and BTL occur in a responsible manner that manages risks, safeguards the environment, protects health and safety, and respects the Aboriginal rights and interests of the AOO. This written submission to the CNSC provides a summary of the ROR, background on SRBT, Nordion and BTL sites, review findings, information requests, and comment and accommodations. We also outline several Algonquin practices and teachings that are fundamental to understanding the core issues that we have raised. We want to know that you understand who we are. This understanding is essential to any meaningful engagement on this matter. Finally, we provide recommendations for ongoing consultation between the AOO and the CNSC moving forward.

The AOO are using this opportunity to put forth our perspectives, and are speaking to how processes can be more inclusive of our perspectives, and our involvement, and we appreciate the opportunity being provided by the CNSC to engage in 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 AOO Settlement Area has changed to be the lands and waters on both sides of the Ottawa River watershed from modern Hawkesbury to Lake Nipissing and north past the headwaters of the Ottawa River. Today, the following ten Algonquin communities comprise the Algonquins of Ontario:

- The Algonquins of Pikwakanagan First Nation
- Antoine
- Kijicho Manito Madaouskarini (Bancroft)
- Bonnechere
- Greater Golden Lake



- Mattawa/North Bay
- Ottawa
- Shabot Obaadjiwan (Sharbot Lake)
- 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-Sibi<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 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-Sibi 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-Sibi,” “Kichissippi” “Kitchissippi” and “Kichisippi.”*



# Algonquins of Ontario Settlement Area Boundary

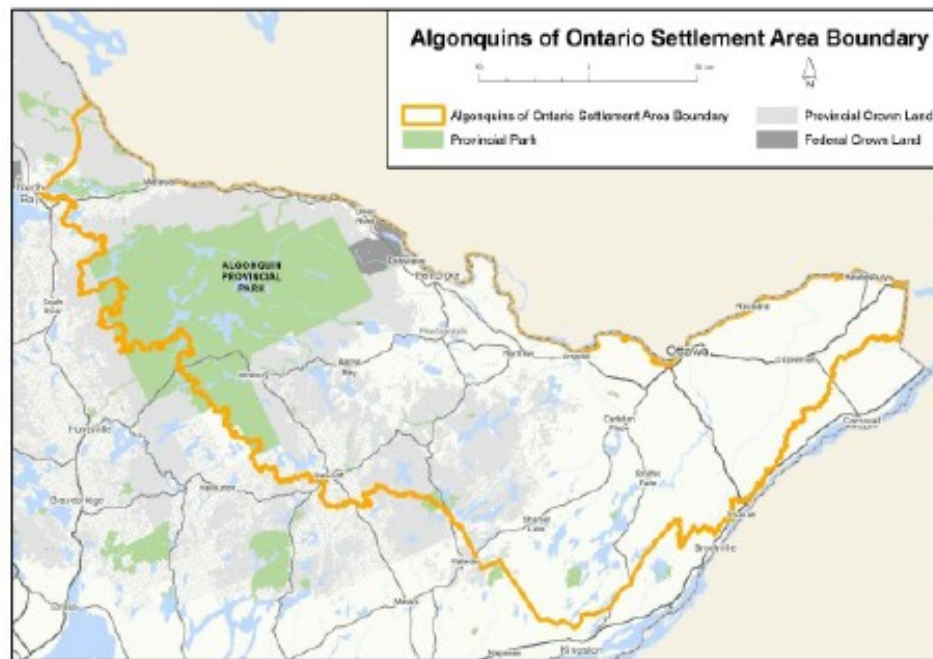


Figure 1: Algonquins of Ontario Settlement Area Boundary (Source: Algonquins of Ontario)

## 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 harvest 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 protecting the lands and waters.
- Show love for all aspects of the environment, down to the smallest part.
- We are all a 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, their 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 lead 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 Aboriginal 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.

## 2.0 AOO Rights and Interests and the CNSC ROR on Uranium and Nuclear Substance Processing Facilities: 2019

### 2.1 Historical Context

As previously mentioned, the SRBT, Nordion and BTL sites are located fully within the AOO Settlement Area where the AOO asserts unextinguished Aboriginal rights, interests, and title. These three sites are found within area of important cultural and traditional ecological value for the AOO.

The unceded AOO Settlement Area has been impacted by Crown decisions to locate and operate uranium and nuclear processing facilities since the Second World War. The Chalk River, Ontario site was established by the Crown in 1944 to move nuclear research facilities from urban Montreal to a remote area with abundant access to water. A new community was built at Deep River, Ontario, to provide residences and facilities for the Chalk River team members. The site was chosen for its proximity to the industrial manufacturing area of Ontario and Quebec, and proximity to a rail head adjacent to a large military base, Camp Petawawa. A pilot reactor known as ZEEP (zero-energy experimental pile) became the first Canadian reactor, and the first to be completed outside the United States, when it went critical in September 1945, ZEEP remained in use by researchers until 1970. A larger 10 MW National Research Experimental (NRX) reactor, which was designed during the Second World War, was completed and went critical in July 1947 (Canadian Science and Technology Museum, 2014).

At the time of the Crown decisions to establish and operate these first nuclear facilities in the AOO Settlement Area, the Crown did not consult with the AOO, or provide accommodate for impacts to the AOO's rights and interests. These Crown decisions resulted in an accumulation of additional uranium and nuclear processing facilities within the unceded AOO Settlement Area, with activities that continue today, and with impacts that will continue for many thousands of years. The AOO Settlement Area has



been impacted by at least four reported nuclear incidents. Additional nuclear activities in the unceded AOO Settlement Area may also yield impacts on the AOO's rights and interests.

## 2.2 Treaty Negotiations

Understanding the status and outcomes of regulatory oversight activities at SRBT, Nordion and BTL sites is important to understanding how Algonquin exercise of Aboriginal rights and interests may be impacted by ongoing operations.

Given the volume of nuclear activity across the AOO Settlement Area, the AOO are seeking a long-term relationship and partnership with CNSC. A long-term relationship agreement (LTRA) would clearly establish how the parties will work together to ensure impacts on AOO's constitutionally protected rights and interests are adequately avoided, mitigated, and accommodated. From the AOO's perspective, long-term relationship agreements are a valuable mechanism to honour the intent of the Government of Canada's principles respecting its relationship with Indigenous Peoples<sup>2</sup>, specifically principle 6: *The Government of Canada recognizes that meaningful engagement with Indigenous peoples aims to secure their free, prior, and informed consent when Canada proposes to take actions which impact them and their rights, including their lands, territories and resources.*

We appreciate the efforts by CNSC staff to be flexible and open to developing a consultation process that balances AOO's interests in being deeply consulted and engaged on ongoing and proposed projects in the AOO Settlement Area with current operational realities. However, given the mounting volume of projects in the AOO Settlement Area that require consultation with other government agencies, the AOO are having to engage in multiple and varying processes. We highly recommend and encourage various government agencies to work together with AOO to develop a one-window approach to consultation and engagement.

## 3.0 Summary of the Regulatory Oversight Report

The ROR for *Uranium and Nuclear Substance Processing Facilities in Canada: 2019* presents the CNSC staff's regulatory efforts in relation to such facilities for the 2019 calendar year. 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, 2020).

CNSC staff used a total of 14 safety and control areas (SCAs) to evaluate the performance of each licensed facility, with particular 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, including onsite inspections, technical assessments, reviews of reports submitted by licensees, reviews of events and incidents, and ongoing exchanges of information with licensees (CNSC, 2020).

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<sup>2</sup> <https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html>



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 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 2019 CNSC inspected each facility and found that there was no impact on safety at the facilities and the outcomes were considered low risk. All fourteen SCA performance ratings for each of the above listed facilities were found to be satisfactory in 2019, where the SCAs were applicable (CNSC, 2020).

CNSC has reported in this ROR that in 2019 all licensees have acceptable environmental protection programs in place to ensure the protection of both the environment and the public. Airborne and waterborne releases of radioactive and hazardous substances at all facilities were below regulatory limits in 2019. In addition, licensees use effluent and environmental monitoring programs to verify that 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 (CNSC, 2020).

In March of 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. At that point in time, the CNSC management suspended all regular compliance activities for the nuclear fuel cycle facilities and identified which activities would be considered critical to support the continued safe operation of the facilities. The majority of nuclear fuel cycle program licensees also shut down their operations at the start of the pandemic, with non-essential staff working remotely. At these locations, the number of staff on site was reduced to the minimum required to maintain safety of the site while shut down. However, for licensees with operations deemed as essential services, such as medical isotope production, operations were not interrupted, and additional safety precautions related to the pandemic were implemented. In April 2020, the CNSC adjusted planned activities as appropriate by identifying planned compliance activities that could take place via other means, such as through remote verification methods or desktop reviews of documents. In many cases, licensees required no regulatory oversight due to the licensees cancelling activities as a result of their reduced operations. On-site oversight activities have since resumed on a risk-informed basis (CNSC, 2020).

Overall, CNSC concluded that the environmental protection programs at all licensed facilities were effective in 2019 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, 2020).



## 3.1 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.

### 3.1.1 Highlights from the Regulatory Oversight Report

- “The monitoring data for 2015 through 2019, provided in table I-23, demonstrate that atmospheric emissions from the facility remained below their regulatory limits.”
- “The monitoring data for 2015 through 2019, provided in table I-24 below, demonstrate that liquid effluent from the facility remained below their regulatory limits.”
- “SRBT has 40 passive air samplers located within a 2-kilometer radius of the facility [...] The 2019 air monitoring results from these samplers demonstrated that tritium levels in ambient air near SRBT remain low.”
- “In 2019, groundwater was sampled from 29 SRBT-installed monitoring wells at their facility plus an additional eight wells at surrounding residential and business properties. From the 2019 sampling results, the highest average tritium concentration was reported from monitoring well MW06-10 (34,592 Bq/L, with a minimum of 23,900 Bq/L and maximum of 52,321 Bq/L). This well is located directly beneath the area where the active ventilation stacks are located. [...] Throughout the year of 2019, no other wells exceeded the *Ontario Drinking Water Standard* for tritium of 7,000 Bq/L.”
- “Tritium concentrations in Muskrat River (the receiving surface water environment about 420 meters from the SRB property) in 2020 fell below the minimum detectable activity (MDA) (between 5-6 Bq/L), as they were in 2018.”
- “Overall, CNSC staff concluded that the tritium inventory in the groundwater system around the facility has been trending downward since 2006.”
- “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 2019 monitoring data for these items are low and consistent with previous years.” (CNSC, 2020)

## 3.2 Nordion Inc.

Nordion (Canada) Inc. is located in Ottawa, Ontario, adjacent to industrial and residential properties, where 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 is composed of two production operations, one for medical isotopes and the other for gamma technologies used in cancer therapy and irradiation technologies. In August 2018, BWX Technologies



Ltd. acquired Nordion’s medical isotope business, however no licence amendment of Commission approval was required as Nordion will continue to operate the facility until BWXT obtains a separate Class IB nuclear substance processing facility operating licence.

### 3.2.1 Highlights from the Regulatory Oversight Report

- “Table I-25 below shows Nordion’s radioactive air emissions monitoring results from 2015 to 2019. The monitoring data demonstrate that the radioactive air emissions from the facility in 2019 remained below the regulatory limits.”
- “Nordion continues to collect, sample, and analyze all liquid effluent releases before discharge into the municipal sewer system. [...] The monitoring data demonstrate that the authorized radioactive liquid effluent releases from the facility in 2019 remained below the regulatory limits.”
- “In 2019, Nordion reported two environmental reportable limit exceedances involving non-radiological releases to the sanitary sewer and one halocarbon release. CNSC staff acknowledge that these few reportable short term exceedances do not pose undue risk to the environment or human health due to conservatism built in to the reportable limits used, but do expect Nordion to continue to investigate non-radiological sanitary sewer and halocarbon releases and identify ways to minimize or remove the source of such releases.”
- “There are currently nine groundwater monitoring wells on the Nordion site. Since 2005, Nordion has been monitoring groundwater at least once a year for non-radioactive contaminants in four monitoring wells. The monitoring results from 2014 to 2019 demonstrate that there were no significant changes in the groundwater in 2019 compared to previous years.”
- “Since 2014, Nordion has been monitoring groundwater at least once a year for radioactive contaminants in five 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.”
- “Nordion performed soil sampling in 2019, and no radionuclides attributable to licensed activities were detected in the soil samples.”
- “The annual monitoring results for 2019 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.” (CNSC, 2020)



### 3.3 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 of cyclotrons. In May 2019, the Commission conducted an oral public hearing for the renewal of BTL’s licence, and in June 2019 the Commission renewed BTL’s Class IB licence for a ten-year period.

#### 3.3.1 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.”
- “BTL safely manages hazardous liquid effluents from routine operations. They are collected, temporarily stored on-site, and then regularly 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.”
- “BTL does not conduct environmental monitoring around its facility as there are no radiological releases that require controls or monitoring.” (CNSC, 2020)

## 4.0 Review Findings

As part of the AOO’s review of the ROR for *Uranium and Nuclear Substance Processing Facilities in Canada: 2019*, the AOO has put forward a series of information requests to CNSC to clarify and provide additional information where necessary. The AOO has also provided a set of comments and accommodations for the CNSC to consider following the review of the ROR.

### 4.1 Information Requests

The AOO submits the following information requests to the CNSC in order to clarify or seek additional information on various topics included in the ROR.

#	ROR Reference	Information Request
1	“Nordion reported three events related to packaging and transport in 2019. In all three cases, the events were low-risk, involving damage to Type A packages sustained during handling by shippers or carriers,	Please confirm what corrective actions will be taken by the licensee to ensure that similar events resulting from mishandling by shippers and carriers does not occur in the future.



	with no impact to the radioactive contents of the packages”	
2	“In 2019, groundwater was sampled from 29 SRBT-installed monitoring wells at their facility plus an additional eight wells at surrounding residential and business properties. From the 2019 sampling results, the highest average tritium concentration was reported from monitoring well MW06-10 (34,592 Bq/L, with a minimum of 23,900 Bq/L and maximum of 52,321 Bq/L). This well is located directly beneath the area where the active ventilation stacks are located.”	Please confirm what the historical concentrations of tritium have been for monitoring well MW06-10 in comparison to the above-standard concentrations observed in 2019. Additionally, please outline what measures CNSC and SRBT will be taking to ensure that the high concentration is reduced, and negative impacts mitigated, as the average concentration was nearly five times greater than the <i>Ontario Drinking Water Standard</i> in 2019.
3	“In 2019, Nordion reported two environmental reportable limit exceedances involving non-radiological releases to the sanitary sewer and one halocarbon release.”	Please provide additional details regarding the reportable limit exceedances in 2019 related to the Nordion site, including the parameters released and their respective concentrations. Once Nordion has provided information to CNSC regarding their investigation of the releases and identification of ways to minimize or remove the source of such releases, the AOO requests that CNSC share that information.
4	“SRBT continues to control and monitor tritium released as liquid effluent from the facility.” and “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.”	Please provide details of all the parameters that are assessed during monitoring activities for liquid effluent, runoff water, precipitation and surface water.

## 4.2 Comments and Accommodations

The AOO submits the following comments and recommendations to the CNSC following the review of the ROR.

**Comment 1:** Section 5.1 – The CNSC requires each licensee to develop and maintain an environmental management system for activities related to environmental protection, where licensees conduct internal



audits of their programs at least once a year. Although CNSC reviews and assesses the licensee's objectives, goals, and targets, the AOO believe that the environmental management systems would benefit from a third-party audit for truly unbiased outcomes.

**Accommodation 1:** The AOO requests 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. This additional oversight and audit process would ensure that the licensee's objectives for environmental activities and targets are robust and supportive of holistic Algonquin worldviews.

**Comment 2:** Section 5.1 – The CNSC staff verify that each licensee has appropriate environmental monitoring programs to monitor releases of radioactive and hazardous substances and characterize environmental quality associated with the licensed facility.

**Accommodation 2:** The AOO have played a role as guardians of the lands and waters since time immemorial. The AOO request that the CNSC provide appropriate resources for training and staffing to expand the Kichi-Sibi Guardians program so that they can partake in the environmental monitoring programs for the licensed facilities, and where appropriate provide third-party monitoring to supplement the CNSC's verification of adequacy.

**Comment 3:** Section 6.3.2 – The CNSC have indicated that the licensees actively 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.

**Accommodation 3:** The AOO recommends that CNSC adjust their evaluation for this criterion and seek feedback from the AOO as to whether the engagement and communication from licensees is adequate and appropriate and how the AOO's perspectives are considered and integrated in their operations.

**Comment 4:** Section 6.4 – 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 [NPD] Waste Facility). The AOO notes that SRBT, Nordion and BTL were not sampled in 2019.

**Accommodation 4:** The AOO recommends that the IEMP continue to include the AOO in sampling events (like 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 AOO Settlement Area.

In order to facilitate this, the AOO recommends 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 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 the list of Valued Components of the environment that can be sampled as part of the IEMP.





**Comment 5:** Appendix I – The ROR indicates that “SRBT 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.”

**Accommodation 5:** Although it is commendable that SRBT is sampling and analyzing matrices beyond air and water, the AOO request that they add a matrix to their sampling program that would reflect impacts to natural materials traditionally harvested for consumption in the area.

## 5.0 Traditional Knowledge and Cultural Heritage Considerations

To inform accommodations related to Algonquin Knowledge and cultural heritage considerations, an interview with AOO’s archaeological specialist Ken Swayze (Nipissing University and Kinickinick Consulting) was conducted on October 19, 2020. As a result of this interview the following accommodation is provided:

**Accommodation 6:** To further assist the AOO in developing its internal capacity to actively engage in the monitoring and oversight activities associated with CNSC-regulated facilities within the AOO Settlement Area, the CNSC should provide resources for the development of an AOO-specific Sustainable Archeological Research Program (SARP). The SARP would build capacity within the AOO’s liaison program and provide technical training opportunities for the Kichi-Sibi Guardians to be able to undertake Stage 1 site assessments and conduct reviews of archeological assessment reports associated with CNSC-regulated facilities. This program could be launched in collaboration with the Nipissing University (NU) Anthropology Department, which currently offers a Certificate Program in Archeology that is aimed at engaging Algonquin students. The NU program offers “portable courses” which can be delivered off-campus, raising the possibility that a more local site could be utilized as a learning site. Further accredited courses on “special topics” could be included as needed and the chosen site could host a museum exhibit which would showcase the human, environmental and geological history of the property.

## 6.0 Recommendations for the AOO’s Participation in Regulatory Activities in the Settlement Area

As mentioned in previous reviews of the CNSC’s RORs, the AOO acknowledges and commends the CNSC for their commitment to improve the level of consultation and engagement with the AOO. The AOO strongly supports continued efforts to strengthen and formalize these relationships which we hope will enable the AOO to play a meaningful role in the CNSC’s oversight of uranium and nuclear processing facilities within the AOO Settlement Area.

As in previous reviews of RORs, the AOO recommends that the CNSC integrate the following measures into their regulatory oversight regime:

- Further opportunities for significant participation by the AOO



- 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 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 that affect AOO 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 the jurisdiction that the AOO has with respect to the environment and culture
- Rules and criteria to encourage transparency, accountability, and credibility and to encourage good science and Indigenous Knowledge-based decisions.

While the AOO continues to advocate that the CNSC implement the above considerations, the regulator needs to take into account the capacity constraints within the AOO's administration which precludes actual, significant participation in the CNSC's oversight of the many facilities within the AOO Settlement Area. The AOO has a limited budget and small staffing contingent that are put under tremendous stress by continuous piecemeal requests for consultation and engagement by a myriad of project proponents and governments. As a result, many of the opportunities being made available to the AOO via improved relations with the CNSC cannot be actualized in a way that honours the nation-to-nation principles articulated by the government of Canada.

The unique circumstances which bring together the AOO and CNSC is without precedent in Canada. In addition to uranium and nuclear substance processing facilities in the Ottawa and Pembroke regions, the AOO's Settlement Area is home to CNL's Chalk River Laboratories, arguably Canada's most important nuclear research and development site. The site is undergoing a revitalization of essential site infrastructure, the decommissioning of aging infrastructure and a significant investment in new science facilities. Nuclear technology is increasingly being positioned as a leading source of energy as economies shift away from their reliance on fossil fuels. As a result, the importance of the Chalk River Laboratories to Canada's energy transition will undoubtedly continue to grow. The AOO believes that this unique context should be reflected in the evolving relationship with the CNSC and as such, proposes the following additional considerations:

**Accommodation 7:** To reduce the burden that multiple and repeated interactions with proponents of CNSC-regulated facilities 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. 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 the formalization of the recommendations the AOO has provided to the CNSC in previous reviews of RORs.



**Accommodation 8:** In considering the unique relationship described above and the associated recommendations, the CNSC and AOO can move forward to 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 AOO Settlement Area. Advisory and monitoring committees have been deployed on major projects in western Canada (e.g., Trans Mountain Expansion, Enbridge Line 3 Replacement Program) in order to:

- Support the effective and active participation of the AOO in the monitoring of traditional, environmental, safety and socio-economic aspects of major projects
- Enable a reciprocal exchange of information relating to traditional, environmental, safety and socio-economic aspects of major projects
- Provide a collaborative forum, supported with resources for the AOO, regulators, and governments to enhance the environmental protection and safety of major projects
- 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.

The above recommendations provide workable examples of how the emerging partnership with the CNSC can be a catalyst for much needed capacity building within the AOO, formalize previous recommendations within a framework of accountability, and set a new standard for nation-to-nation relationships between Indigenous peoples and federal regulators. The AOO looks forward to advancing discussions related to the above recommendations in its ongoing engagement with the CNSC.

## 7.0 Conclusion

In a technical review of the CNSC's ROR for Uranium and Nuclear Substance Processing Facilities: 2019, the AOO has included a series of information requests, comments, and accommodations for the consideration of the CNSC. The AOO has also included recommendations that it would like the CNSC to consider as it contemplates its evolving relationship with the Algonquin people and the development of best practices in the regulation of facilities in the Settlement Area.

As a next step, the AOO and our elected Algonquin Negotiation Representatives respectfully request that the CNSC provide a response to the accommodations and recommendations noted above. We also request that the CNSC and the Crown provide an opportunity for the AOO to review and comment on any new policy, legislation, or guidance that seeks to implement the accommodations and recommendations we provided above.

As mentioned, the AOO appreciates and values the relationship it has with the CNSC and uranium and nuclear processing facilities licensees in the Settlement Area as well as the on-going opportunities provided to us to share our perspectives about the CNSC's regulation of these facilities in a way that promotes the health, well-being, and livelihood of Algonquin citizens.



## 8.0 Bibliography

Canadian Nuclear Safety Commission (CNSC). 2020. "Regulatory Oversight Report for Uranium and Nuclear Substance Processing Facilities in Canada: 2019." Commission Member Document.

Canadian Science and Technology Museum. 2014. *ZEEP - Canada's First Nuclear Reactor*. Accessed November 4, 2020. <https://web.archive.org/web/20140306233719/http://www.sciencetech.technomuses.ca/english/whatson/zeep.cfm>.

