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**Written submission from the
Kebaowek First Nation**

**Mémoire de la
Première nation de Kebaowek**

**Regulatory Oversight Report for
Canadian Nuclear Laboratories
(CNL) sites: 2018**

**Rapport de surveillance
réglementaire des sites des
Laboratoires Nucléaires Canadiens
(LNC) : 2018**

Commission Meeting

Réunion de la Commission

November 7, 2019

Le 7 novembre 2019

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Kebaowek First Nation Comments on the CNSC's Regulatory Oversight Report for Canadian Nuclear Laboratories Sites: 2018

Submitted by:

Kebaowek First Nation Lands and Resources Office
October 09, 2019.

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Part 1 – Overview

This submission is filed by the Algonquin Nation of Kebaowek in response to the Canadian Nuclear Safety Commission's ("CNSC") Regulatory Oversight Report for Canadian Nuclear Laboratories Sites.

2018 (herein "ROR"). Kebaowek First Nation appreciates this opportunity to provide comments to the CNSC for the first time in support of your effort towards improving Indigenous participation in the ROR process. We hope this exercise is a step forward to move beyond Indigenous silence in step with the introduction of new federal impact assessment regulatory policy and legislation in the spirit of reconciliation and Indigenous engagement. We view this as a first step towards mending historical injustices surrounding consultation on nuclear development on our territory – and building a future waterway protection and site development framework as it pertains to Chalk River Laboratories (CRL) that is safer, stronger and fairer in that it supports Algonquin communities like our own to work with your commission or specific project review panels from a nation-to-nation perspective.

On this note, and for the record KFN would like to address some procedural concerns about the conduct of this consultation and the perfunctory timelines suggested to present our views. Unfortunately, this process has been marred by short notice periods and timing for Aboriginal communities like our own to prepare comments. As mentioned, KFN has not previously participated in the annual ROR meeting for nuclear power plants. Our participation in this year's ROR draws directly upon the future decisions made by the Commission in the context of the Chalk River Nuclear Laboratories (CNL) license holder NRTEOL-01.00/2028, and how these decisions specifically relate to our Indigenous rights and title, and future cultural and environmental protection.

In the following pages, Kebaowek First Nation ("KFN"), in brief, sets out our issues and recommendations towards modernizing and improving Indigenous consultation between the CNSC and our community. We look forward to further discussion with respect to this matter before the Commission in Ottawa scheduled for November 7, 2019.

Introduction to Kebaowek First Nation and the Algonquin Nation

Kebaowek First Nation ("KFN"), is one of eleven communities representing the Algonquin Nation in Canada. Nine of the communities are located in Québec and two are located in Ontario. These communities are subject to the Canadian Indian Act. Algonquin peoples continue to occupy both sides of the Ottawa River and have never relinquished title to our territory or our rights as Anishinaabe people. KFN is located on Lake Kipawa in Québec and is governed by an elected Chief and Council. Our on reserve population is about 300, while another 700 members live off reserve, mainly in Ontario. Off reserve members are dispersed between Témiscamingue Québec and Mattawa and North Bay

Ontario. Together, all of our members remain connected to the territory and continue to occupy, manage, safeguard and intensively use OUR LANDS AND WATERWAYS as
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we carry out traditional and contemporary activities. All such initiatives are based on a model of self-determination and a history of Algonquin traditional knowledge, ecological sustainability and land governance. As such, KFN does not accept, or acknowledge any claims to any Aboriginal or Treaty Rights made by the Algonquins of Ontario (“AOO”) or recognize AOO as an entity entitled to consultation or accommodation on Algonquin territory.

The term *Anishnaabe*, literally translates as “the real people.” The Algonquin Nation emerges from a rich historical legacy deep within the Ottawa River watershed. The *Kitchi sibi* as we know it, or Ottawa River as settlers have since renamed it, has been our home and highway since time immemorial. Anthropologist Frank Speck recorded that families living along the Ottawa in 1913 were still known as the *Kichi sibi anishnabeg* or *Kichississippirinis*, “big river people”.¹ For centuries Anishinaabe peoples have relied on their lands and waterways for our ability to exercise our inherent rights under our own system of customary law and governance, known as *Ona'ken'age'win*. This law is based on mobility on the landscape, the freedom to hunt, gather and control the sustainable use of our lands and waterways for future generations.

Migizi Kiishkaabikaan (in Anishnaabemowin), also called “Oiseau Rock” or “Bird Rock” is a rock face that rises 150 meters above the *Kitchi sibi* across from Chalk River Laboratories on the north side of the river. It is recognized as a sacred site by our peoples. European historical records dating as far back as 1626 document the Anishinaabe story of this site as “the man who turned to stone” and the guarantee of safe travels by placing tobacco directly in the cracks of the rock’s surface or attaching tobacco offerings to an arrow fired at its summit. Anishinaabe peoples left a legacy of ancient pictographs painted in red ochre several hundred and possibly several thousand years ago on the rock that have been since defaced by modern graffiti. In 1686, en route to Hudson Bay, Pierre de Troyes wrote in his diary:

" One sees on the north side, following the road, a high mountain whose rock is straight and very steep, the middle in black paroist. It may come from the fact that the savages make their sacrifices, throwing arrows over them, at the end of which they attach a little piece of tobacco. Our Frenchmen are in the habit of baptizing in this place those who have not yet passed. This rock is called the bird by the savages, and some of our people, unwilling to lose the old custom, throw water at us; we were camped at the bottom of the portage. . "

These baptisms were performed at *Pointe au Baptême*, a prominent sand spit on the south side of the river between Bird Rock and the current site of the Chalk River Laboratories.

¹ Ottawa River Heritage Designation Committee, *A Background Study for Nomination of the Ottawa*



Chalk River Laboratories as seen from just offshore of Oiseau Point. Pointe au Baptême can be seen — the sand point-- on the south (left) shore. The high hills of the north shore of the river are very evident.

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At “KFN” we continue to be active ‘keepers of the land’, with ‘seven generations’ worth of responsibilities for livelihood security, cultural identity, territoriality, and biodiversity—a sentiment expressed by many other First Nations in Canada.

Today both traditional and contemporary ecological interests e.g., traditional hunting, fishing, gathering, trapping, cultural occupancy and access that support these activities as well as, contemporary interests in resource management and territorial stewardship form the basis for Crown- Indigenous consultation engagements on our territory. Along with Wolf Lake First Nation and Timiskaming First Nation, KFN jointly released a Statement of Asserted Rights (“SAR”), which summarizes our Aboriginal rights, including title. Copies of the SAR, maps and background documentation were transmitted to the governments of Canada, Québec and Ontario in January 2013.

² <https://mcelroy.ca/bushlog/20050921.html>

Chalk River Laboratories (CRL)

As per the photograph and description provided in the ROR review document KFN acknowledges that, “Chalk River Laboratories (CRL) is located in the province of Ontario, 115 kilometers (km) east of Mattawa Ontario and occupies a total area of 37 km² and a built-up area of approximately 0.4 km². The site is immediately adjacent to the Ottawa River. CRL operates under a single license, which includes 12 Class I nuclear facilities in an operational state, such as the Zero Energy Deuterium (ZED-2) research reactor, processing facilities, fuel manufacturing facilities, and hot cells. The site also includes 13 different waste management areas (five in operation and eight in long-term monitoring), four Class II nuclear facilities that contain prescribed equipment such as accelerators and irradiators, and more than 50 radioisotope laboratories, support facilities and offices.”³



Before the Government of Canada completed construction of the Chalk River Laboratories (CRL) in 1944, no assessment was undertaken to determine how the nuclear complex might affect upstream or downstream areas of the *Kitchi sibi*. No thought was given to how that complex might affect the members of the Algonquin Nation, their dependence on the then plentiful watershed resources of the *Kitchi sibi*, or their multi-

³ A detailed description of this site is included in CMD 18-H2, which was presented to the Commission on January 23-25, 2018

generational socio-cultural connection to the places and customs associated with the *Kitchi sibi*. No thought was given to whether the promises of the Royal Proclamation could be upheld if the complex was built. No thought was given to Algonquin jurisdiction around the *Kitchi sibi* at all.

CRL was first opened in 1944, during the Second World War as Canada's primary facility for nuclear research. Key factors for choosing Chalk River as the location for this facility included the site's proximity to Ottawa and Montreal, being located close to an important rail center (Chalk River), adjacency to the Kitchissippi and the site's proximity to the Petawawa Military Reserve (AECL Research, 1992). While CRL was originally planned to be used for warfare purposes during the Second World War, the war ended shortly after the site was selected, and the reactor built on-site was used as a test reactor to assist in the design and start-up of a much larger reactor (AECL Research, 1992).

The National Research Universal (NRU) reactor originally came online on November 3, 1957, marking a significant achievement in Canada. As directed by the Government of Canada, the NRU was permanently shut down in March 31, 2018, which coincided with the expiration of the CRL license.

It is important to note that over time the facility has created significant environmental and human health risks to Algonquin and non-Algonquin people alike who live in the vicinity of CRL. There have been at least four significant reported nuclear incidents at CRL, namely:

- **The 1952 NRX Incident-**“A power excursion and partial loss of coolant in the NRX reactor resulted in significant damage to the NRX reactor core. The control rods could not be lowered into the core because of mechanical problems and human errors. Three rods did not reach their destination and were taken out again by accident. The fuel rods were overheated, resulting in a meltdown. The reactor and the reactor building were seriously damaged by hydrogen explosions. The seal of the reactor vessel was blown up four feet. In the cellar of the building, some 4,500 tons of radioactive water was found. To avoid having the water reach the Ottawa River, a pipeline was built to a sandy area about 1,600 m away. The contaminated water, containing about 10,000 curies of long-lived fission products, was pumped to this area and allowed to seep away. No radioactivity was detected in the creek which drained this area to a small lake. During this accident, some 10,000 curies or 370 TBq of radioactive material was released.”(Jedicke, 1989).
- **The 1958 NRU Incident-** « In 1958, there was a fuel rupture and fire in the National Research Universal reactor (NRU) reactor building. Some fuel rods were overheated. During a facility shutdown, a robotic crane pulled one of the rods with metallic uranium out of the reactor vessel. When the arm of the crane moved

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away from the vessel, the uranium caught fire and the rod broke. The largest part of the rod fell down into the containment vessel, still burning. The whole building was contaminated. The valves of the ventilation system were opened, and a large area outside the building was contaminated. The fire was extinguished by scientists and maintenance personnel in protective clothing running along the hole in the containment vessel with buckets of wet sand, throwing the sand down at the moment they passed the smoking entrance. The clean-up involved a large number of personnel, including AECL staff, soldiers from CFB Petawawa, and workers from the Civil Defense Unit based in Arnprior, Ontario, and a commercial cleaning company in Ottawa, Ontario. » (Whitlock, n.d.).

- **2008 Radioactive Leakage at the NRU Reactor** – « On December 5, 2008, heavy water containing tritium leaked from the NRU. The leaked water was contained within the facility, and the CNSC was notified. In its report to the CNSC, AECL noted that 47 litres of heavy water were released from the reactor, about 10% of which evaporated, and the rest was contained. AECL further noted that the spill was not serious and did not present a threat to public health. The public was informed of the shutdown at the reactor, but not the details of the leakage, since it was not deemed to pose a risk to the public or the environment. The leak stopped before the source could be identified, and the reactor was restarted on December 11, 2008 with the approval of the CNSC, after a strategy for dealing with the leak (should it reappear) was put in place (Spears, 2009).
- **Heavy Water Leaks from the NRU Reactor** – « In late 2008, the NRU reactor experienced a leak from a 2.4 inch crack in a weld in its reflector system. The leaking light water was allowed to flow into the *Kitchi sibi* after collection and processing at an on-site water treatment facility in accordance with CNSC, Health Canada, and Ministry of the Environment regulations. The CNSC determined that the leakage is not a concern from a health, safety or environmental perspective (Spears, 2009). The NRU experienced another heavy-water leak in 2009 that led to a 15-month, \$70-million shutdown and a global shortage of medical isotopes. That followed emergency safety shutdowns in 2007 and 2008. » (Macleod, 2016).

KFN or the Algonquin Nation has never been consulted on the development or maintenance of the CRL site and the site has been restricted to our access since 1944. Furthermore, Algonquin archaeological resources have been impacted significantly by the original construction of CRL. Many archaeological sites, both large and small, have been recorded in CRL due to cultural resource management (CRM) assessments carried out by the Environmental Protection Branch of AECL/CNL. These sites can be listed chronologically according to the development or proposed construction that triggered the archaeological assessment (Swayze, 2017). The CRL site continues to hold significant archaeological and cultural heritage value to the Algonquin Nation.

Canadian Nuclear Laboratories (CNL)

Canadian Nuclear Laboratories (CNL) promotes itself as a global leader in developing applications for nuclear technology through research, engineering and waste management services.

It is our understanding, on November 3, 2014, all licenses for the operation of Chalk River Laboratories (CRL) were transferred from Atomic Energy of Canada Limited (AECL) to Canadian Nuclear Laboratories Ltd. (CNL). CNL now manages operations and performs all functions previously done by AECL at CRL. CRL is now referred to as a "GoCo," or Government-Owned/Contractor-Operated facility, owned by AECL and operated by the Canadian National Energy Alliance, the private consortium. The term "Chalk River Laboratories" continues to refer to the land under and around the nuclear facility. KFN was never consulted on the transfer of CRL site operations to the private sector via the recent license renewal NRTEOL-01.00/2028 to CNL for a period of ten (10) years expiring March 31, 2028 (CNSC Staff, 2017).

In the CNSC assessment report of CNL's license application, CNSC staff unilaterally pre-determined that the license application would not cause adverse impacts to any asserted or established Aboriginal rights and title. This assessment was based on the CRL being an existing site with restricted access and CNL not proposing any changes to the facility's footprint or current licensing basis. As a result, CNSC staff were of the opinion that the decision on the license renewal for CRL before the Commission did not raise the Duty to Consult. (CNSC Staff, 2017). KFN does not agree with and take issue with this determination.

Over the proposed ten-year license, CNL proposes to continue the following initiatives:

- Science & technology program
- Infrastructure improvements
- Management System evolution
- NRU reactor -execution of shutdown plans
- Decommissioning and waste management
- Near Surface Disposal Facility
- Small Modular Reactors (SMRs) (CNL, 2017)

Part 2 – Issues

Specific Issues and Recommendations for the Commission

In response to the 2018 ROR, KFN presents the following specific questions at issue along with recommendations for the Commission:

Indigenous Consultation and Engagement

Issue: Like many other First Nations across Canada we rely on federal assessments to enable KFN to participate in decision-making regarding industrial activities that impact our rights and to provide protections for our lands and waters from industrial and energy projects that have potential to impact our rights and territory. How does the CNSC improve Indigenous consultation and accommodations with Algonquin SAR communities throughout the ROR process? How does the CNSC plan on integrating existing incomplete and a now obsolete CEAA2012 environmental assessment processes of the NSDF and NPD closure projects with the improved legislative criteria for Indigenous engagement under the 2019 Impact Assessment Act and supporting regulations?

Recommendations: At this time, KFN submits that consultation with our community to date has been inadequate and in no way should the NSDF, or NPD closure projects be approved on the basis of consultations with the AOO and MNO organizations.

We are requesting CNSC enters into a consultation framework agreement with our SAR communities and the Algonquin Nation. We are requesting CNSC regroup on the environmental assessment processes of the NSDF and NPD closure projects with the improved legislative criteria for Indigenous engagement under the 2019 Impact Assessment Act and supporting regulations.

Past and Future Human and Environmental Risks

Issue: Chalk River Laboratories has for decades faced questions over the way it deals with its radioactive waste. Environmentalists have decried the facility for discharging radioactive waste into the *Kitchi sibi* and for radioactive leaks. It was positive news to see in the ROR that, “Releases to the environment from the CRL site have decreased due to the permanent shutdown of the NRU reactor, in addition to the decrease in 2016 from the shutdown of the Molybdenum-99 Production Facility.” However, KFN recognizes from the ROR that “Releases to the environment from the CRL site have decreased due to the permanent shutdown of the NRU reactor, in addition to the decrease in 2016 from the shutdown of the Molybdenum-99 Production Facility.” KFN is concerned over the potential for future releases around the NSDF and NPD closure projects. KFN is disappointed CNSC staff supports and engages with the Algonquins of Ontario (AOO) in site assessment studies related to CEAA as well as Independent Environmental Monitoring Program (IEMP) interactions at the CRL

site but not other Algonquin communities. KFN supports the Algonquin Anishinabe Nation Tribal Council of which we are a member in the following recommendations regarding the NSDF.

Recommendations:

Before the current decision-making process for the NSDF continues, the following issues must be addressed through a consultation framework agreement with our community and Nation:

Concerning aquatic biota

- More information needs to be provided in the EIS concerning the waste that will actually be held at the NSDF. A discussion of the ecological hazards of individual radionuclides that may be held in the NSDF should also be included.
- Assessments need to be included in the EIS of potential impacts of the NSDF on aquatic biota in the Ottawa River, and the river should be included as a Valued Component in the EIS.
- Information should be provided concerning the aquatic food chain and food web dynamics of ecosystems that may be impacted by the NSDF.
- There are discrepancies between CNL's aquatic species at risk monitoring results and information in the EIS that need to be addressed, as well as gaps in currently available species at risk information in the EIS.
- Existing data should be provided in the EIS concerning radiological contamination in moose and beaver that may interact with the NSDF and local environment.
- Potential impacts of the NSDF on wetlands immediately adjacent to the proposed waste-holding site must be addressed in the EIS.
- Cumulative impacts of decommissioning and remediating activities at the site must be considered along with NSDF construction and operation activities.
- Any potential genetic impacts of exposure to radionuclides should be assessed for aquatic organisms in the EIS.
- Impacts on aquatic biota of potential tritium releases from the NSDF should be assessed. These assessments should include potential effects on species during their developmental life stages. A discussion of the impacts of organically-bound tritium on these species should also be included in the EIS as it has the potential to accumulate in aquatic food chains.
- Potential impacts of large precipitation events (including resulting erosion) on water quality and aquatic biota should be assessed in the EIS.
- Impacts of tree clearing (including hydrology and sediment transfer) on aquatic biota should be considered, as no mitigation measures seem to have been proposed to address potential risks.
- Potential impacts on the environment of the surface water management ponds should be better assessed in the EIS. This would include environmental impacts of the construction of these ponds.

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- Consideration should be given in the EIS to the management of water flows associated with a major storm event after the bottom liner is installed.
- Additional information should be provided in the EIS concerning the base of the mound, including precautions to avoid wrinkling or puncturing the geomembrane that could impact the facility's integrity.
- An assessment of potential environment risks of overflows from berms and surface water management ponds should be included in the EIS. These assessments should take into account varying precipitation scenarios.
- Potential risks of NSDF water management ponds to organisms, including migratory waterfowl, should be assessed in the EIS.

Concerning surface water and groundwater

- The EIS requires more accurate measurements of current radioactive groundwater and surface water contamination around the Chalk River site. These measurements must in turn inform any determination of allowable contaminant releases from the NSDF. These measurements are required for the East Swamp as well as all downstream surface waters that will receive effluent from the NSDF's waste water treatment plant (WWTP).
- The EIS should include a discussion of alternatives to holding 10,000 m³ of intermediate waste at the NSDF.
- More information should be provided in the EIS concerning surface and groundwater monitoring after the WWTP is decommissioned. Regular monitoring will be required for as long as the waste remains potentially hazardous, in order to ensure the NSDF's continued integrity. However, this does not seem to be acknowledged in the EIS or the NSDF's project plans which provide an arbitrary date at which all monitoring will cease.
- WWTP effluent criteria, including treatment targets, must be included in the EIS, especially in light of the alarming plan to potentially release an average of 140,000 Bq/L of tritium to surrounding waters from the WWTP.
- More information must be provided concerning the monitoring regimes for the WWTP while it is in operation.
- More information must be provided in the EIS concerning contingency responses to adverse monitoring results from the WWTP.
- Mechanisms for independent review and public dissemination of WWTP monitoring results should be discussed in the EIS.

It is also important to note that shortcomings in the NSDF Draft EIS are consistent with shortcomings in the NSDF initial project description and for this reason KFN requests that the CNSC ends the process under CEAA 2012 and a revised project description and EIS guidelines are developed with our community and the Algonquin Nation under the 2019 Impact Assessment Act requiring a special review panel for any future CNL project(s)

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Due to ongoing land use restrictions and environmental risks imposed on KFN and Algonquin Nation members by the operation of CNL, KFN believes a formal consultation and accommodation process should be negotiated between CNSC/CNL/AECL and the Algonquin Nation communities. KFN is disappointed CNSC staff supports and engages with both the Algonquins of Ontario (AOO) and the Metis Nation of Ontario (MNO) in site assessment studies related to CEAA as well as Independent Environmental Monitoring Program (IEMP) interactions at the CRL.

KFN is disappointed that CNSC has established Independent Environmental Monitoring Program (IEMP) with the AOO.

Questions to the Commission Regarding the Licensed Operator

- What evidence was used in the recent relicensing hearings for the Commission to decide the CNL « goco » also referred to as the Canadian National Energy Alliance, to which SNC Lavalin is part would be the best future stewards of the CNL site and our Algonquin lands and waterways?;
- Is the CNL licence decision being reviewed yearly by the Commission in the context of the SNC Lavalin political interference scandal in seeking a special deferred prosecution agreement (DPA) through the PMO ?
- Is CNSC staff monitoring key performance indicators for conventional health and safety for the number of recordable lost-time injuries (RLTI) and Fitness for Service events that occur at CNL per year in the context of the private contractors operating for profit at the site?;

In conclusion, KFN's comments to the CNSC for this year's ROR highlight that without adequate Algonquin community consultation and a framework agreement for consultation there can be no clear scoping of Algonquin issues around future projects at the CRL site, the ROR - standing-in for less frequent relicensing hearings - does not provide an opportunity for Aboriginal participation on par with Section 35 Canadian Constitutional jurisprudence.

We respectfully provide these comments to assist the CNSC in its review of environmental protection and human health matters concerning the 2018 ROR. The issues highlighted by KFN concerning the Chalk River laboratory site herein are urgent and we look forward to our further discussion of these issues at the upcoming Commission hearing.

