



Oral presentation

Exposé oral

Submission from the Canadian Nuclear Association

Mémoire de l'Association nucléaire canadienne

In the Matter of the

À l'égard des

Canadian Nuclear Laboratories

Les Laboratoires Nucléaires Canadiens

Application for the renewal of the Nuclear
Research and Test Establishment Operating
Licence for the Chalk River Laboratories

Demande de renouvellement du permis
d'exploitation d'établissement de recherche
et d'essais nucléaires pour les Laboratoires
de Chalk River

Commission Public Hearing

Audience publique de la Commission

January 23-25, 2018

23-25 janvier 2018

December 11, 2017

Canadian Nuclear Safety Commission
c/o Louise Levert, Secretariat
280 Slater St. PO Box 1046
Ottawa, Ontario K1P 5S9

Re: Canadian Nuclear Association Intervention Regarding Canadian Nuclear Laboratories application to renew the Chalk River Laboratories Site Licence.

The Canadian Nuclear Association (CNA) has approximately 100 members, representing over 70,000 Canadians employed directly or indirectly in exploring and mining uranium, generating electricity, advancing nuclear medicine and promoting Canada's worldwide leadership in science and technology innovation. Our members are committed to safety throughout the entire life-cycle of the nuclear industry and as such are supportive of Canadian Nuclear Laboratories (CNL) application to renew the Chalk River Laboratories (CRL) Site Licence for a ten year term.

For more than 60 years, CRL has operated as Canada's premier nuclear science and technology laboratory in a safe and responsible manner while facilitating world leading discoveries. The work done at CRL has supported Canada's development as a "tier-one" nuclear nation, a select group of nations possessing the full spectrum of capabilities and resources in nuclear technology including uranium extraction, reactor design and construction, waste management, research labs, education, regulations and governance.

As the Commission well knows, the CRL site has undergone a significant change since the 2011 operating licence renewal was granted to AECL. Chiefly in November 2014, CNL assumed full responsibility for day to day operations of the nuclear laboratories with coincident transfer to CNL of all CNSC licenses formerly issued to AECL. In June 2015, Canadian National Energy Alliance was chosen to manage and operate the CRL site and took formal control in September 2015. The site license was extended in March 2016 until March 31, 2018 to coincide with the permanent shutdown of the NRU. It is a credit to the professional approach taken by both the incoming CNL leadership and the AECL team that this transition happened in such a seamless manner.

Under the new model, CNL has adopted a new vision and core values designed to ensure the continued safe operation of the site through the 10 year licence and ensure the full realization of the corporate mission. CNL has adopted the following core values which drive their site operations and are a vital element in fulfilling CNL's mission. These core values are safety, respect, teamwork, accountability, integrity and excellence. Looking at CNL's performance since taking over the site, one can see the ongoing application of these core values.

The application for a 10 year licence is consistent with the company's mission which is to advance nuclear science and technology for a clean and secure world.

CNL's mission is reflected in the following points:

- Restoring and protecting Canada's environment by reducing and effectively managing nuclear liabilities
- Providing the world with sustainable energy solutions including the extension of reactor operating lifetimes, hydrogen energy technologies and fuel development for the reactor designs of tomorrow. Together with partners, demonstrating the commercial viability of advanced reactor designs including SMRs.
- Collaborating with medical/educational institutions and pharmaceutical companies to pioneer new alpha therapies for cancer treatments
- Leveraging all capabilities for commercial success in Canadian and international markets

CNA is a strong supporter of both CNL's mission and their core values. As with all our members, safety is front and centre in everything CNL does and we believe this is reflected in their 2017 Satisfactory Rating in all 14 Safety and Control Areas in CNSC annual ratings. In addition, CNL has a highly developed safety culture program designed to ensure continuous improvement and full engagement by employees. CNL undertakes periodic reviews of its safety culture in a continual attempt to recognize positive attributes and to identify areas for improvement.

CNL has a highly developed Occupational Safety and Health program (OSH) that focuses on the management of hazards to protect the health and safety of employees and other persons at CNL sites and workplaces. Over the course of the last license period, there has been an improving trend in the recordable lost-time accident frequency and the severity of lost-time accidents on site. CNL has a number of plans to improve the OSH program which should ensure this positive trend continues.

Like all nuclear facilities CNL has a very detailed radiation protection program designed to not only protect workers but also the public and the environment. The program ensures radiation doses and levels are monitored and controlled based on the ALARA principle. CNL's RP program has undergone continuous monitoring and improvement over the course of the license including a WANO peer review in 2013 as well as other internal and external audits. During the course of the requested licence period, CNL will continue to update documentation and manuals in response to changing work, reduce the number of high contamination zones on site, increase the use of physical barriers and signage and add additional whole-body monitoring and small article monitoring machines. Improvement to monitoring at facilities and the storage of radioactive material will enable CNL to provide greater control of radioactive material at source.

CNL's Environmental Protection program is applicable to all operations and activities at CNL sites including CRL. As a means of achieving performance, CRL is registered under ISO 14001(2004) Emergency Management System and will be moving to ISO14001 (2015) over the course of the licence. Environmental performance at CRL is coordinated through the Integrated Environmental Monitoring program which monitors effluent, environmental and groundwater. During the current licence period the levels of radiation and radioactive

contaminants in the environment outside the CRL site were well below the annual dose limit of 1mSv per year and in fact did not exceed 0.3mSv in any 12 consecutive months. These releases will be even lower after the shutdown of the NRU.

A significant element of CNL's mandate is to accelerate decommissioning and environmental remediation and establish long-term waste management solutions. The Decommissioning and Waste Management organization is dedicated to managing radiological and hazardous waste in accordance with CRL's comprehensive decommissioning plan which is maintained and revised as required every 10 years. Over the period of the licence application the following priorities will be undertaken: improved integration of D&WM activities through an integrated site master plan, establishment of an integrated waste strategy and the alignment of decommissioning and environmental remediation to international best practice.

CNL has an ongoing program of engagement with local indigenous communities on activities related to the general operation of the laboratories as well and environmental and employment matters. In addition as of February 2016, engagement on specific programs has been augmented through the implementation of CNSC REGDOC 3.2.2 (Aboriginal Engagement).

As with all members of the Canadian nuclear industry, CNL has a very active and comprehensive public engagement, public information and public disclosure program. CNL is committed to regular, ongoing, open and transparent public communication. CNL undertakes a variety of public and stakeholder consultations designed increase public and stakeholder understanding. As part of these programs CNL uses a wide range of communication tactics including targeted promotional material, a public website, newsletters and an increasing presence in social media. In addition, CNL is proud member of the local community, has an active community sponsorship program and encourages and supports it employees in community undertakings

In conclusion, the CNA believes that throughout the time it has operated the CRL site, CNL has demonstrated a proven track record of being a safe, reliable operator of the site. Its high standards and focus on continuous improvement are a clear indication of CNL's commitment to operational excellence. The CNA is pleased to strongly recommend that the CNSC renew the CRL site licence for the next ten years.

Please feel free to contact me directly should you have questions or require additional information.

Sincerely



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Director, Regulatory and Environmental Affairs
Canadian Nuclear Association