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Oral presentation

Written submission from the Canadian Nuclear Association

Exposé oral

Mémoire de l' Association nucléaire canadienne

In the Matter of the

À l'égard des

Canadian Nuclear Laboratories (CNL)

Laboratoires Nucléaires Canadiens (LNC)

Application from the CNL to amend its Chalk River Laboratories site licence to authorize the construction of a near surface disposal facility

Demande des LNC visant à modifier le permis du site des Laboratoires de Chalk River pour autoriser la construction d'une installation de gestion des déchets près de la surface

Commission Public Hearing
Part 2

Audience publique de la Commission
Partie 2

May and June 2022

Mai et juin 2022

Canada

canadian nuclear association cna anc association nucléaire canadienne

April 11, 2022

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

Subject: Canadian Nuclear Association Intervention in support of Canadian Nuclear Laboratories application to amend its Chalk River Laboratories site licence to authorize the construction of a near surface disposal facility.

The Canadian Nuclear Association (CNA) has approximately one hundred 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. The members of the CNA are proud of our industry's safety and environmental record and the protection of workers, the public and the environment is our number one priority.

Like all forms of energy, nuclear energy creates by-products which in our industry are often referred to as nuclear waste. The Canadian nuclear industry takes its responsibility to manage those by-products very seriously and as a result, our members have a strong interest in Canadian Nuclear Laboratories (CNL) proposed near surface disposal facility (NSDF).

The nuclear industry plays a significant role in protecting the environment through the production of emissions free electricity. In Canada, nuclear energy produces approximately 20% of our non-emitting electricity, including approximately 60% of Ontario's and 30% of New Brunswick's electricity. Looking to the future, nuclear energy will play an increasingly significant role in Canada's overall clean energy mix portfolio. If Canada and indeed the world are serious about achieving the Paris Accord climate targets, then the route is through greater electrification which will require more nuclear energy. It is our industries responsibility to ensure that the by-products created from nuclear generation be safely stored and well managed both now and into the future and the NSDF is an important element of that responsibility.

CNL is Canada's premier nuclear science organization and a world leader in developing technology for peaceful and innovative applications. The Chalk River Laboratories site (CRL) has been home to Canada's nuclear industry since the 1940's and as such has been responsibly managing the nuclear waste created over that period. CNL is currently in the midst of revitalizing the CRL site and that revitalization is also creating waste.

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The past practice of continuing to build additional temporary storage facilities is not consistent with modern waste management practices and the NSDF is the next logical step in developing a permanent disposal solution.

The proposed NSDF is designed to provide that permanent solution for both current and future low-level waste. The NSDF will hold only low-level radioactive waste and is located entirely in the licenced site boundary of the CRL site. The NSDF will have the appropriate life design to contain and isolate the low-level waste until it is sufficiently decayed. A robust set of policies, processes, and controls to manage nuclear waste have been developed and implemented at the CRL site over many years and the CNA believes that NSDF is the best option to provide permanent protection to workers, the public and the environment including the Ottawa River.

The CNA highlights that an Engineered Containment Mound is an internationally recognized best practice for low level radioactive waste disposal and that the barrier system that CNL plans to use has undergone rigorous materials testing. It is also important to note that the mound has been designed to withstand extreme weather events such as earthquakes, tornadoes, fires, and major storms.

The NSDF uses an Engineered Containment Mound built at ground surface to isolate and contain low-level waste. The facility will feature ten waste disposal cells and includes a multilayer base liner and cover system with the waste being placed between them. Each cell is closed and sealed after it is full. The facility will also include a wastewater treatment plant to treat water from the containment mound, contact water and operational wastewater.

In accordance with CEAA 2012 a detailed assessment of environmental, technical, and economic factors were considered and CNSC staff have concluded that the proposed NSDF project is not likely to cause significant adverse effects taking into account the implementation of all identified mitigation measures and follow-up program measures. The Ottawa River is an important source of drinking water and recreation to many people who live in the vicinity of the Chalk River site, and downstream. The CNA is aware that the proposed facility places a high priority on the protection of the Ottawa River, and we believe that the NSDF increases protection of the Ottawa River by using the best available modern technology to enable clean up and containment of existing radioactive materials.

The NSDF is especially designed to protect the Ottawa River. Furthermore, the design and location of the NSDF project also accounts for the physical site characteristics to further protect human health and the environment. The chosen site is on a bedrock ridge that is far above the flood plain and naturally forces water away from the river.

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In addition, the location is in a watershed that has well understood hydrogeological properties that have been studied for over 60 years.

CNL recognizes the importance of meaningful engagement and building strong working relationships with Indigenous communities and organizations as part of every project and ongoing operations. Engagement on the NSDF project began in October 2015 and formal notification was sent to all identified Indigenous communities and organizations in July 2016. Since that time CNL has regularly shared information with Indigenous communities on project developments including how to participate in the licencing process. CNL is committed to continuing to work in collaboration with Indigenous communities throughout the phases of the project.

CNL also operates a comprehensive Public Information Program which ensures that local communities and stakeholders are aware of CNL operations and projects and provides an opportunity for input. These engagement opportunities include face-to-face and virtual public meetings, comprehensive social and public media coverage and direct mails outs. These engagement opportunities have enabled the public to provide valuable feedback and allowed CNL to understand and proactively address areas of public concern.

In conclusion, the Canadian Nuclear Association believes that the proposed near surface disposal facility for solid, low-level radioactive waste is an appropriate solution for the permanent storage of these wastes. The NSDF is protective of people and the environment and by properly disposing of this waste through this internationally recognized best practice, CNL is taking responsibility for AECL legacy wastes as well as future wastes rather than leave them for future generations.

The CNA is pleased to support CNL's application and asks the Commission to approve this project so CNL can move forward with this important and responsible project.

Sincerely,

John Gorman
President and CEO
Canadian Nuclear Association

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