

August 4, 2017

From: City of Ottawa

To: Nicole Frigault, Environmental Assessment Specialist
Canadian Nuclear Safety Commission

By email: cpsc.ea-ee.ccsn@canada.ca

Canadian Nuclear Laboratories Proposed Near Surface Disposal Facility - Public Commenting Process

CEAA Reference number: 80122

Good Morning Nicole Frigault,

Please find attached comments from the City of Ottawa related to the proposed Near Surface Disposal Facility at the Canadian Nuclear Laboratories Site in Deep River, Ontario (CEAR Reference # 80122). A hard copy of the letter has been sent by mail.

We appreciate the opportunity to raise our concerns as part of the public commenting process.

Feel free to contact me directly if you have any questions or would like clarification on our comments.

Kindest Regards,
Tessa

Tessa Di Iorio, M.Sc., P.Geo.

City of Ottawa / Ville d'Ottawa

Risk Management Official/Inspector, Hydrogeologist

Infrastructure Services - Asset Management Branch

Planning, Infrastructure and Economic Development Department | Services de planification,
d'infrastructure et de développement économique



August 2nd, 2017

Nicole Frigault
Environmental Assessment Specialist
Canadian Nuclear Safety Commission
P.O. Box 1046 Station B
280 Slater Street
Ottawa (ON) K1P 5S9

RE: City of Ottawa comments on proposed Near Surface Disposal Facility at Canadian Nuclear Laboratories site at Chalk River

To Ms. Nicole Frigault,

The Ottawa River is the source of drinking water for 875,000 residents in the City of Ottawa. For more than 100 years, the Ottawa River has provided an abundant and natural source of water for our citizens. As such, the City maintains a strong interest in any project or operation that might impact the Ottawa River in the future.

Drinking Water Source Protection in Ontario is legislated under the *Clean Water Act, 2006*. The *Assessment Report for the Rideau Valley Source Protection Area (December 19, 2011)* was prepared in accordance with the Act and provides the scientific foundation for source protection planning for the City's municipal intakes in the Ottawa River. One of the objectives of the Assessment Report is to identify activities that would be significant drinking water threats, as well as issues and concerns related to drinking water source protection. The Chalk River Laboratories (CRL) are located outside the designated vulnerable area (Intake Protection Zone) for the City's intakes, however the Assessment Report explicitly identifies the CRL (specifically tritium) as a concern for the City's drinking water supply due to its upstream location and the lack of capacity to remove tritium from source water. The City mirrors the concerns for the protection of its drinking water source related to the CRL.

To identify potential issues related to the presence of the CRL site upstream, the City currently conducts routine radiological monitoring of the Ottawa River at the intake locations for both of its Water Purification Plants.

As a matter of due diligence in terms of protecting our source water, City staff have reviewed the *Environmental Impact Statement Report (Golder Associates - March, 2017)*

for the proposed Near Surface Disposal Facility (NSDF) and would like to provide the following comments/concerns:

- 1) **Engineered storage facility** – in principle, we are supportive of an engineered storage facility for the identified low and intermediate level radioactive wastes currently stored onsite. We feel that a carefully designed and operated storage solution is more safe and secure than leaving the waste materials in-situ. We understand that CNL is operating a legacy site with waste materials accumulated over decades of research and site operations. Furthermore, we expect and urge that the proposed NSDF will utilize best engineering practices for the design, management and environmental monitoring of the facility throughout its 50-year expected operation and beyond.
- 2) **Leachate or liquid wastes** – we understand that the NSDF will store primarily solid waste materials, however we are concerned about the storage, management and handling of liquid effluents or leachate from the site. Liquid waste effluents would have the greatest potential for contamination of the Ottawa River, and eventually our drinking water supply. How will these waste streams be transported to the on-site wastewater treatment facility located near the river shoreline? What measures will be put in place to minimize the risk of a spill during transport and treatment?
- 3) **Storm water collection** – during the operational phase of the “open” storage facility, we are concerned about the handling of storm water. Given the increased frequency of extreme weather events in recent years, we would request that the facility be designed to handle 1-in-100 year storm events as a minimum in order to safely contain, transport, and process the liquid effluents that accumulate.
- 4) **Notification of spill or emergency events** – we request that a formal notification protocol be put in place to notify downstream users such as the City of Ottawa of any potential spill or impact on the Ottawa River. This gives us time to inform our residents and activate our own emergency response plans. In the past, the City of Ottawa has received notification of environmental discharges or spill events, but not consistently. We would strongly urge CNL to maintain and update the notification protocol annually for transparent and timely notification to the City of Ottawa as a major stakeholder. Specifically, we would like to know how will this be accomplished.

Any response or clarification to the concerns noted above would be very much appreciated and can be sent directly to the contact listed below. Additionally, if you have any questions or would like clarification of our comments, please contact:

Tessa Di Iorio, M.Sc., P.Geo.
Risk Management Official/Inspector, Hydrogeologist
City of Ottawa, 110 Laurier Avenue West
Ottawa (ON) K1P 1J1 (Mail Code 01-14)
613-580-2424 x17658

Email Redacted

As part of the public commenting process, we appreciate the opportunity to raise our concerns related to the proposed storage facility.

Yours sincerely,

Signature Redacted

Stephen Willis, General Manager
Planning, Infrastructure and Economic Development
Signature Redacted

Luc Gagne 1011
Kevin Wylie, General Manager
Public Works and Environmental Service

CC: Chair Chernushenko