Ms. Rumina Velshi President and CEO Canadian Nuclear Safety Commission (by e-mail:Rumina.Velshi@canada.ca)

March 14, 2022

Dear Ms. Velshi,

We are writing to request adjournment of the licensing hearing for the proposed "Near Surface Disposal Facility" at the Chalk River Laboratories. Our reasons are explained below.

The radioactive waste at Chalk River Laboratories (CRL), Canada's main nuclear research facility, is well described in *Annex III*, *Origin and Types of Radioactive Waste*, in the International Atomic Energy Agency (IAEA) General Safety Guide GSG-1, Classification of Radioactive Waste:

Waste from research reactors III-16.

The waste generated by research reactors and from some disused radioactive sources is particularly significant because, owing to its level of activity concentration and to the half-lives of the radionuclides, it does not meet the waste acceptance criteria of near surface disposal facilities.

Waste from research facilities III–17.

Research facilities (e.g. hot cell chains, glovebox chains) or pilot plants for checking fuel fabrication processes (particularly the fabrication of mixed uranium plutonium oxides, known as MOX), for fuel reprocessing (particularly advanced schemes), and for post-irradiation examinations, as well as their analytical laboratories, generate types of waste that, often, are different from the typical waste generated by industrial plants. Owing to the presence of non-negligible amounts of long lived alpha emitters, waste from research facilities generally belongs to the ILW class and even, in some circumstances, to the HLW class.

These two paragraphs indicate that the radioactive waste at CRL would not be appropriate for near surface disposal. Much is likely to belong to the ILW class, requiring disposal tens of meters or more below the ground surface. The NSDF proponent is misusing the name "Near Surface Disposal Facility" for an above -ground landfill. It beggars belief that CNSC staff would support the construction of an above-ground facility for wastes from a Government of Canada research facility, nearly all of which (by volume) will remain hazardous and radioactive for more than 100,000 years.

Commission Member Document CMD 22-H7 for CNSC's proceeding on the "Near Surface Disposal Facility" (NSDF) at CRL states:

"The majority of waste proposed for disposal would be generated from... activities mainly at the CRL site" (p. 16) and

"CNSC staff verified that... the waste types identified for disposal in the NSDF met the definition of low-level radioactive waste in... IAEA GSG-1" (p. 42).

These two statements appear contradictory in light of Annex III of IAEA GSG-1.

IAEA safety standard SSR-5, *Disposal of Radioactive Waste*, says the task of developing a safe disposal facility "has to be undertaken in consideration of the characteristics and quantities of the radioactive waste to be disposed of" (emphasis added). SSR-5 requires "confirmation at a national level of the need for disposal facilities of different types." SSR-5 adds "This requirement derives from a principle established in the Fundamental Safety Principles... It is also stipulated under the terms of the Joint Convention."

It is evident that the NSDF Project was conceived in the absence of consideration of the characteristics and quantities of the radioactive waste at CRL and other federal nuclear research facilities. Neither the license application nor CMD 22-H7 contains information required under Section 3(1)(j) of the General Nuclear Safety and Control Regulations to wit: "the name, quantity, form, origin and volume of any radioactive waste or hazardous waste" to be disposed of."

Approval of the NSDF could result in a major waste of public funds, adverse health and environmental impacts, and embarrassment for Canada at the international level.

Accordingly, as participants in the NSDF proceeding (our group is funded through CNSC's Participant Funding Program) we request that the proceeding be adjourned as provided for in section 14 of the CNSC *Rules of Procedure*.

Thank you for your attention to this matter.

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## CC:

Rafael Mariano Grossi, Director General, International Atomic Energy Agency The Honourable Jonathan Wilkinson, Minister of Natural Resources The Honourable Steven Guilbeault, Minister of Environment and Climate Change Karen Hogan, Auditor General of Canada

Francis Scarpaleggia, Chair, Standing Committee on Environment and Sustainable Development Senator Paul J. Massicotte, Chair, Senate Standing Committee on Energy, the Environment and Natural Resources

Jerry DeMarco, Commissioner of the Environment and Sustainable Development Terence Hubbard, President, Impact Assessment Agency of Canada Denis Saumure, Commission Registrar