

CMD 25-H6.3

Date: 2025-03-21

Written Submission from Canadian Nuclear Isotope Council

Mémoire du Conseil canadien des isotopes nucléaires

In the matter of

À l'égard de

Nordion (Canada) Inc.

Application to Renew Licence for the Nordion Facility

Nordion (Canada) Inc.

Demande pour le renouvellement de son permis pour l'installation de Nordion

Commission Public Hearing

Audience publique de la Commission

June 4, 2025

Le 4 juin 2025





March 21, 2025

Senior Tribunal Officer, Secretariat Canadian Nuclear Safety Commission 280 Slater Street, P.O. Box 1046, Station B Ottawa, Ontario K1P 5S9 <u>interventions@cnsc-ccsn.gc.ca</u>

Re: Nordion (Canada) Inc.'s application to renew its Class 1B Nuclear Substance Processing Facility for a period of 25 years.

Dear President and Commission Members,

On behalf of the Canadian Nuclear Isotope Council (CNIC), I am pleased to support Nordion (Canada) Inc.'s application to support the continued safe operation of Nordion's Class 1B Nuclear Substance Processing Facility.

The Canadian Nuclear Isotope Council (CNIC) is an independent, not-for-profit advocacy organization that supports over 100 members from across science, academia, healthcare, and nuclear-sector organizations dedicated to maintaining Canada's position as a global leader in the production of life-saving isotopes. The CNIC raises awareness and advocates for long-term policies that support health-care innovation and will save countless lives for decades to come. As a founding member of the CNIC since 2018, Nordion is committed to ensuring that Canada remains a world leader in the production and supply of isotopes.

Nordion has been a global leading provider of Cobalt-60 (Co-60) to the international healthcare community for over seven decades. Low-specific-activity (LSA) Co-60 is used to sterilize single use medical equipment like syringes, tubing, and implantable devices, as well as essential Personal Protective Equipment (PPE) like masks, gloves and gowns. About 40% of the world's single-use medical equipment and PPE is sterilized using Co-60.

Beyond medical applications, LSA Co-60 is used to sterilize food to eliminate harmful bacteria and pathogens, while extending food shelf-life and reducing food waste. LSA Co-60 is also used to prevent the spread of insect-borne illnesses through environmentally-friendly insect pest control.

High-specific activity (HSA) Co-60 is used to treat breast and brain cancer, in addition to other diseases of the head and neck. This procedure focuses multiple high-energy radiation beams to the area being treated, which allows for precisely localized tissue ablation. These procedures are extremely precise and can destroy multiple metastases, which allows it to treat malignancies that typically would not respond well to conventional therapeutic methods. Over the last 60 years, more than 35 million cancer patients globally have been treated with HSA Co-60.

As a result, the continued operation of Nordion's Class 1B Nuclear Substance Processing Facility is critical to the everyday lives and health of Canadians and the global community.

The Co-60 processed at Nordion's Class 1B facility is irradiated mostly at the Bruce Power and Ontario Power Generation (OPG) Darlington and Pickering nuclear facilities. With Nordion located nearby in Kanata, the irradiated Co-60 can be safely processed domestically and



shipped around the world. The OPG and Bruce Power reactors produce around 60% of the global supply of Co-60, all of which is processed at Nordion.

Worldwide, only five countries in the world currently produce Co-60, with Canada in a leadership position, demonstrating the critical importance of the continued operation of Nordion's Processing facility. In addition to processing domestically produced Co-60, Nordion also imports foreign irradiated targets from abroad. Domestic production in addition to foreign imports, Nordion is responsible for over 80% of the Co-60 on the marketplace today. Without Nordion, global healthcare will face a massive shortfall in gamma sterilized devices and protective equipment.

For nearly 80 years, Canada has been a global leader in the research, development, and production of medical isotopes and radiopharmaceuticals. The world continues to rely on Canada for its supply of critical isotopes, and the CNIC was established to ensure this leadership can continue. As a key piece of the isotope supply chain, Nordion's importance to the isotope community is clear.

Canada is a tier-1 nuclear nation, and it can only maintain this position with facilities like Nordion that can support the growing demands of the nuclear field. This Licence Renewal will allow Nordion to continue its important work as a leader in Canada's isotope industry. A 25-year licence term will add workforce stability for Nordion's employees in addition to certainty for its global customers, which will benefit the Canadian nuclear supply chain and the local economy. For these reasons, the CNIC supports Nordion's application for its 25-year Licence Renewal.

The CNIC is thankful for the invitation to intervene in this process and wishes to provide its insight through this written submission in addition to an oral presentation.

Sincerely,

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