



CMD 25-H6.1A

Date: 2025-05-21

Supplementary Information

Renseignements supplémentaires

**Presentation from
Nordion (Canada) Inc.**

**Présentation de
Nordion (Canada) Inc.**

In the matter of

À l'égard de

Nordion (Canada) Inc.

Nordion (Canada) Inc.

Application to Renew Licence for the
Nordion Facility

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

Class 1B Nuclear Facility Licence Renewal Public Hearing

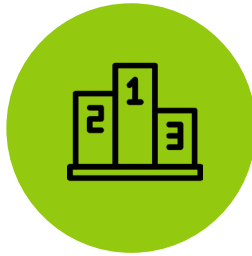
June 4, 2025



Safeguarding Global Health with the Cobalt-60 We Supply



**Trusted, Long Term
Customer & Supplier
Relationships**



**World's Largest Provider of
Cobalt-60 sealed sources**



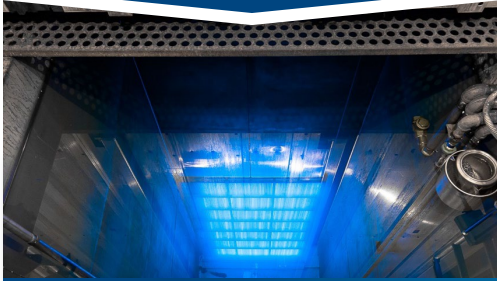
**End-to-End Solutions in a
Highly Regulated Market**



**Best In Class Operational &
Global Regulatory Expertise**

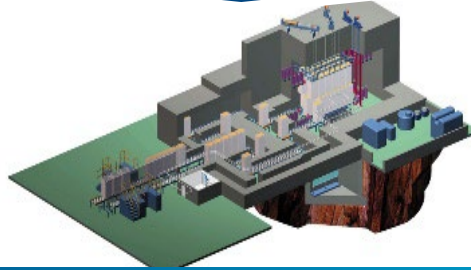
Safeguarding Global Health[®] with Cobalt-60 Sources and Technologies

C-188 Cobalt-60 Sources



30% of Single-use medical devices⁽¹⁾
sterilized globally using Cobalt-60

Cobalt-60 Irradiation Systems



30% of the Cobalt-60 Irradiators⁽²⁾
around the world have been
designed & built by Nordion

Medical-grade Cobalt-60



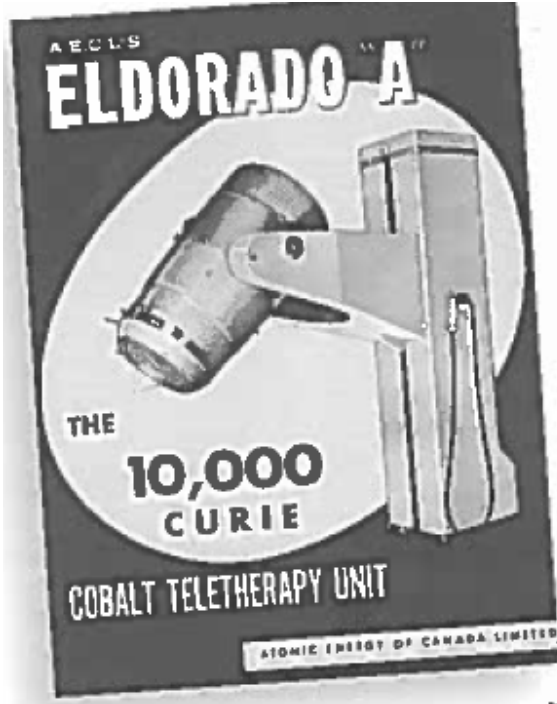
80K+ cancer patients globally⁽¹⁾
are treated annually with Cobalt-60
stereotactic radiosurgery (brain
cancer & breast cancer)

(1) Various industry reports and internal analysis.

(2) International Atomic Energy Agency data and internal analysis.

Global Healthcare Pioneers

World's first cobalt cancer treatment machine
1951



World's first Gamma Processing Plant
1964

Nordion – 447 March Rd (Kanata)



Nordion and BWXT Medical

	Nordion	BWXT Medical
Parent Company	<ul style="list-style-type: none"> Sotera Health Company 	<ul style="list-style-type: none"> BWX Technologies Inc.
Site	<ul style="list-style-type: none"> Owns the site and buildings at 447 March Rd. 	<ul style="list-style-type: none"> Leases part of the facility at 447 March Rd.
Products and Market	<ul style="list-style-type: none"> Cobalt-60 Sealed Source manufacturing Sterilization and external beam therapy markets 	<ul style="list-style-type: none"> Medical Isotopes: In111, Y90, Mo99, etc.* Diagnostic and therapeutic pharmaceuticals <p style="text-align: right;"><small>*https://www.bwxtmedical.com/products/</small></p>
CNSC Licence	<ul style="list-style-type: none"> NSPFOL-11A.01/2025 	<ul style="list-style-type: none"> NSPFL-15.00/2031
Shared Services	<ul style="list-style-type: none"> Emergency response, Security, environmental monitoring 	

BWXT Medical is responsible for activities under its own licence

Cobalt-60 Supply Chain: Nordion's End-to-End Solution



Manufacturer

Cobalt-59 slugs manufactured, and adjuster rods delivered to reactors



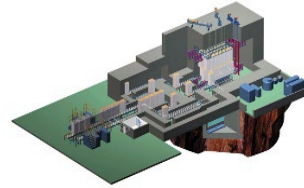
Nuclear Reactors

Cobalt-59 becomes activated to Cobalt-60 over 18 months to 5 years



Isotope Processors

Cobalt-60 processing into finished Sealed Sources



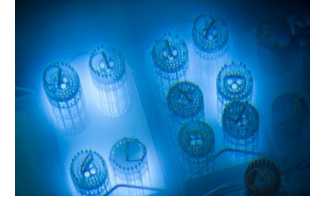
Irradiation System

Installing new/upgrading Cobalt-60 irradiation systems



Source Installation

Cobalt-60 shipped globally in specialized transport packages and installed at customer sites



Source Return & Recycling

Recycling of Cobalt-60 source returned from customer



Every step is critical, and Nordion manages the entire supply chain with its critical know-how



What Makes Nordion Unique

1

Global Production Network

2

World Class Facilities & Experts

3

Logistical & Regulatory Expertise

4

Trusted Customer Relationships

Nordion Licence Renewal

- Nordion is requesting a 25-year renewal of NSPFOL-11A.01/2025 to continue to perform the activities covered under the current licence
- Nordion is not seeking any changes to the current licence as part of this renewal application
- 25-year renewal would:
 - Assure the supply stability of Cobalt 60 to the healthcare sector around the world
 - Allow for continued long-term facility & supply investments with confidence
 - Ensure the sealed source recycling program remains a viable option to the healthcare industry

Key Safety and Control Areas (SCAs)

- Safety Analysis
- Radiation Protection
- Conventional Health and Safety
- Environmental Protection
- Waste Management
- Packaging and Transport

Safety Analysis

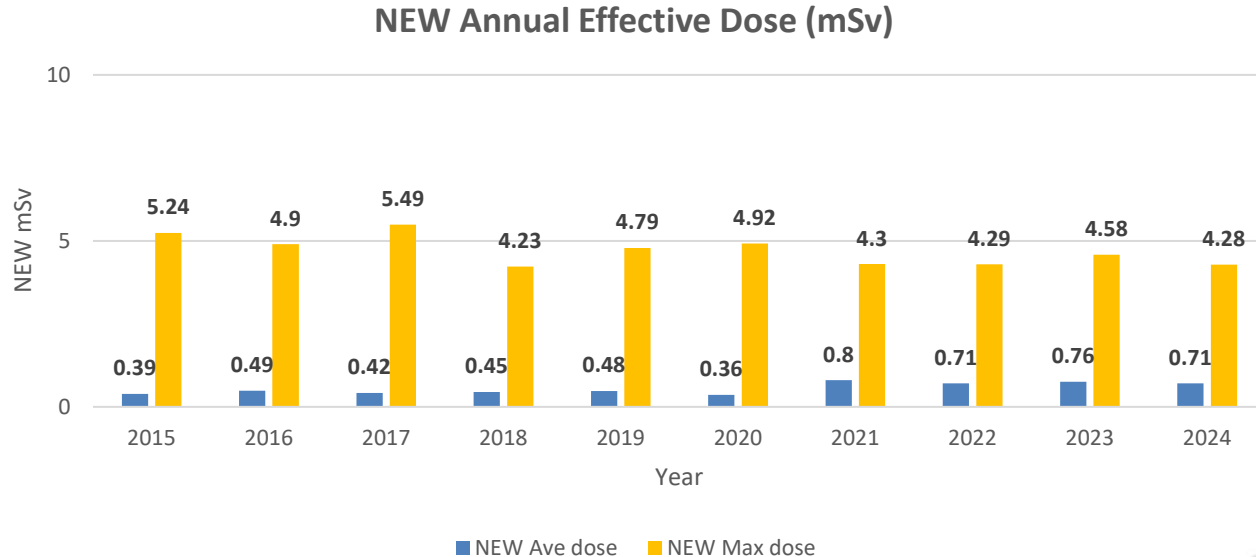
- 2 primary final safety analysis reports (FSARs):
 - Cobalt Operations Facility
 - Cobalt Pools
- Compliant to REGDOC-2.4.4, "Safety Analysis"
- Reviewed and updated at least every 5 years
- FSARs were last submitted and approved by CNSC staff in 2024

FSARs show that Nordion's programs protect the community and environment in accident scenarios



Radiation Protection

- Nordion has implemented a robust radiation protection program compliant to REGDOC-2.7.1, “Radiation Protection”
- Employee doses are well managed and below the regulatory limits



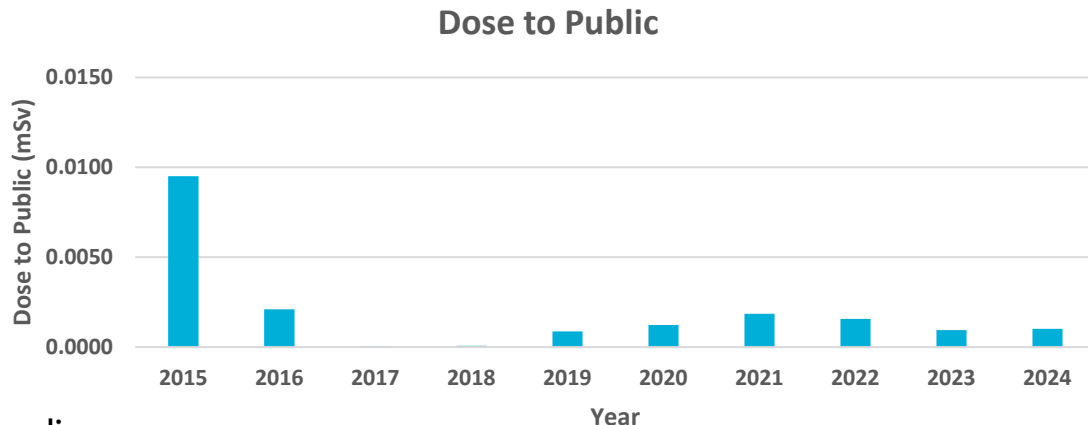
Conventional Health and Safety

- Mature health and safety program:
 - Focus on safety culture through pre-job briefings, safety talks, work permits, manager walkthroughs.
 - Appropriate PPE and training
- In 2024, implemented an Athletic therapist/Early Injury intervention program to address ergonomic risk and concerns



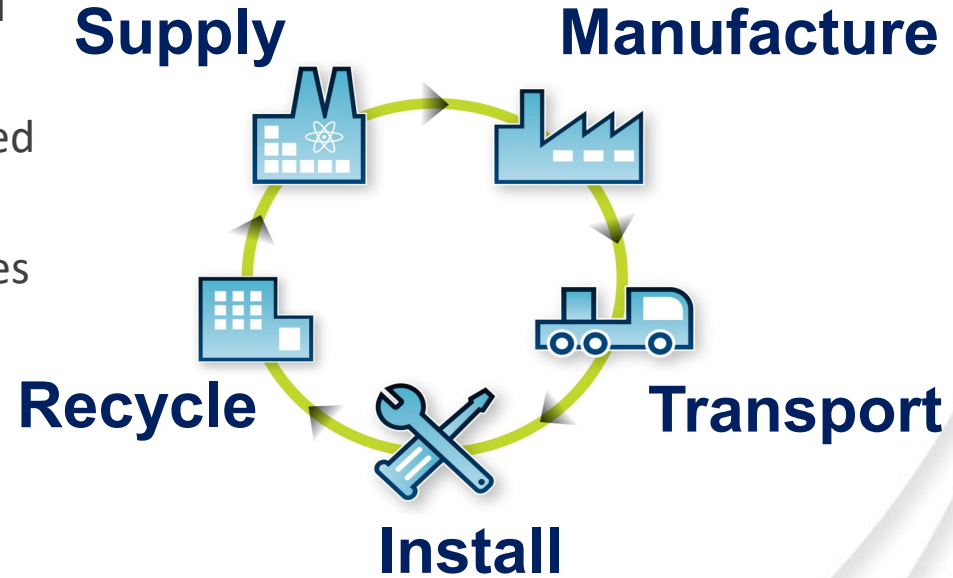
Environmental Protection

- Nordion's program is ISO 14001 certified and meets the CSA N288 environmental standards:
 - Liquid and air effluent are sampled at point of release
 - Soil and groundwater monitored annually
- Nordion's results have been validated and confirmed by the CNSC IEMP sampling



End to End Stewardship

- Nordion takes a holistic view around waste
- Waste minimized and sent to licensed waste facilities
- Not expecting any significant changes to waste streams
- A strong focus and investment in recycling efforts



Decommissioning

- Nordion's decommissioning plan was approved by the Commission in February 2023 and is based on:
 - Removal of all contaminated material/equipment, sealed sources, and hazardous waste
 - No environmental remediation of the land is required (no contamination present)
 - Release of the facility and land to an unrestricted usage
 - Assume work undertaken by a third-party
 - Updated every 5 years
- Total cost is estimated to be \$35 M. Nordion has appropriate financial guarantees in place to ensure that these obligations are fulfilled

Nordion plans to continue operating at this site for the long-term and has always been focused on meeting its commitments to safety and compliance

Packaging and Transport

World Class Shipping & Logistics



40 countries have received shipments of Cobalt-60 from Nordion⁽¹⁾

Specialized Transport Packages



20x larger fleet of transport packages than any competitor⁽¹⁾

Global Regulatory Compliance Capability



**Health and Safety
Executive**



Government
of Canada

Gouvernement
du Canada

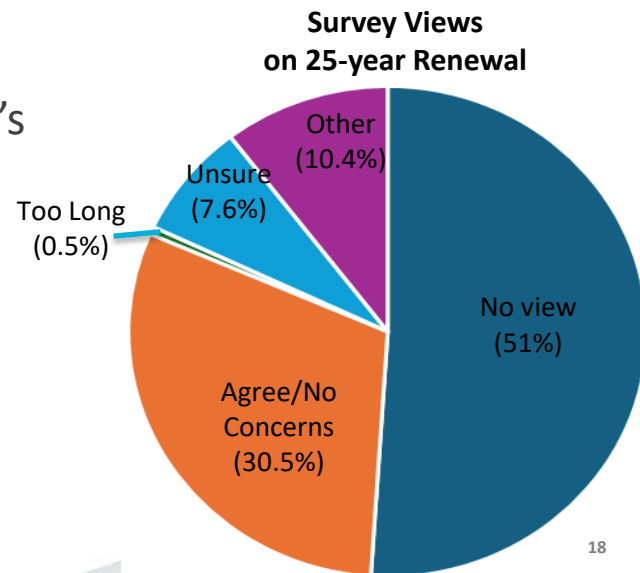
⁽¹⁾ Internal analysis.

Indigenous Engagement

- Nordion is committed to long-term engagement with Indigenous Nations and Communities
- Engagement is optimized when it is a dual commitment with aligned objectives
- Key Engagements to date:
 - Nordion senior leaders attended cultural awareness training with the AOPFN
 - Provided facilities tours to AOPFN
 - Provided formal notifications of licence renewal to AOPFN, Kebaowek First Nation (KFN), AOO, Kitigan Zibi, Metis Nation of Ontario
 - Several calls with AOO in 2024 and 2025
 - In-person presentation to AOPFN in their community in April 2025
 - Meeting with KFN in May 2025
 - Supporting Bruce Power's engagement efforts with SON

Community Engagement

- Nordion is committed to transparency and good corporate citizenship with the community:
 - Community surveys and awareness events
 - Posting of events and data to website
 - Interactions with Municipal, Provincial, Federal & International Officials
 - Supporting Community Events & Local Charities
- Public outreach event and survey regarding Nordion's licence renewal was conducted in late 2024



Conclusion

- Nordion has played a vital role in Safeguarding Global Health® ~ 8 Decades
- Robust and mature programs with proven effectiveness and a strong focus on compliance with regulatory requirements
- Operational Safety is our Priority to ensure that our staff, the public and the environment are protected
- A 25-year renewal will provide assurance and stability to global healthcare supply chains

