

CIRMS 2026 Annual Meeting

Cobalt-60 and Gamma Applications

April 13, 2026



Sotera Health Global Facilities Network

As a part of Sotera Health, we serve **5,000+** customers across **63** facilities in **13** countries



- ★ Headquarters
- ◆ Nelson Labs Facilities
- Nordion Facilities
- Sterigenics Gamma Facilities
- ▲ Sterigenics EO Facilities
- Sterigenics E-Beam Facilities
- ◆ Regulatory Compliance Associates Facility





Nordion – World Class Facilities and People

- Founded in 1946
- Privatized in 1991 – MDS
- Renamed Nordion following 2010 divestments
- Acquired by Sotera in 2014
- Divested Medical Isotopes 2018
- 200 employees
- 260,000 sq ft main facility in Ottawa
- Mfg & distribution facility in UK



Global Healthcare Pioneers

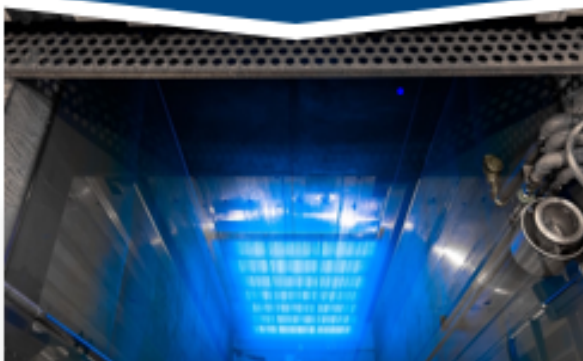
World's first cobalt cancer treatment machine 1951



World's first Gamma Processing Plant 1964

Safeguarding Global Health[®] with Cobalt-60

C-188 Cobalt-60 Sources



Cobalt-60 Irradiation Systems



Medical-grade Cobalt-60



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

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

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.

Gamma Processing

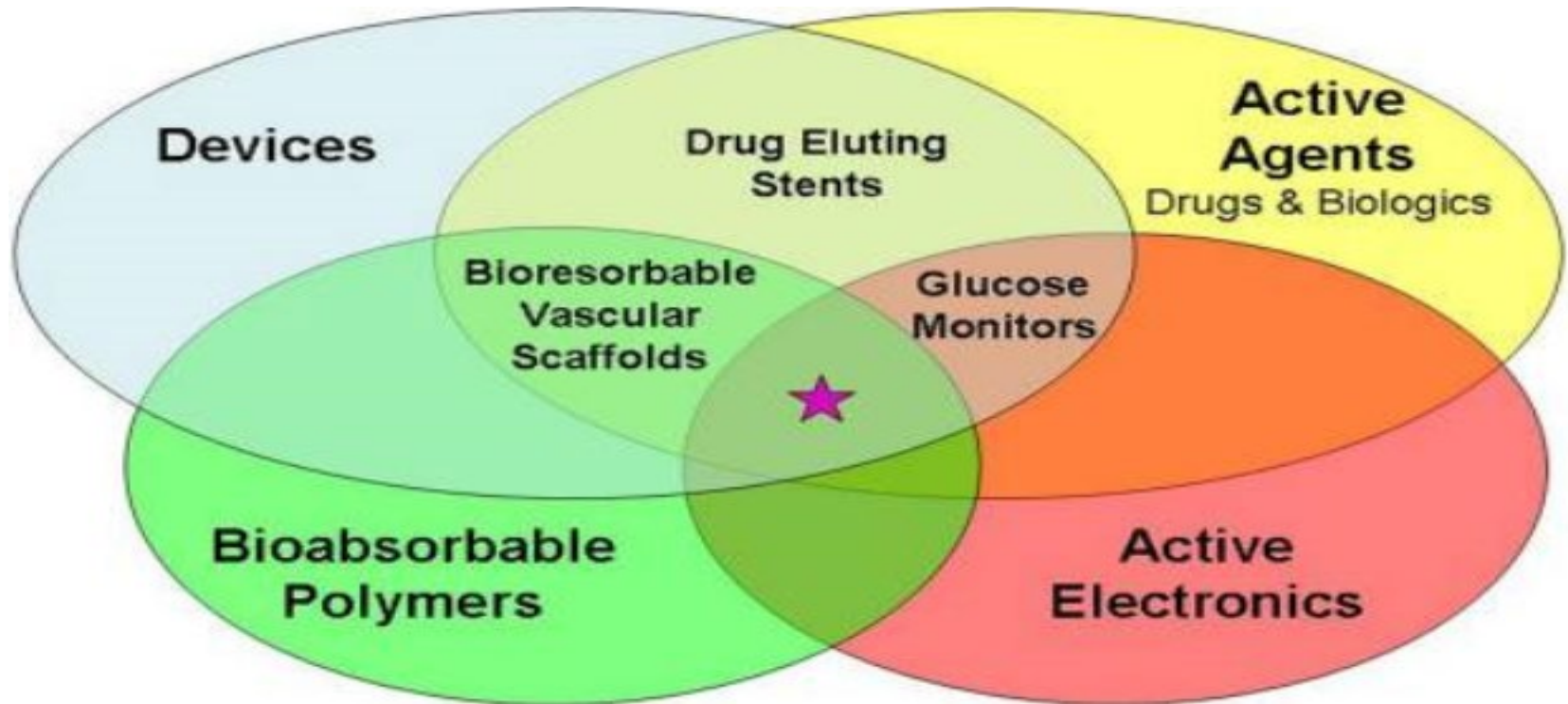


Exposing products to gamma rays from cobalt-60 in an irradiator to kill harmful pathogens in;

- Single use medical products
- Food & Spices
- Pharmaceuticals
- Human Tissue
- Labware
- Consumer Goods
- Cannabis

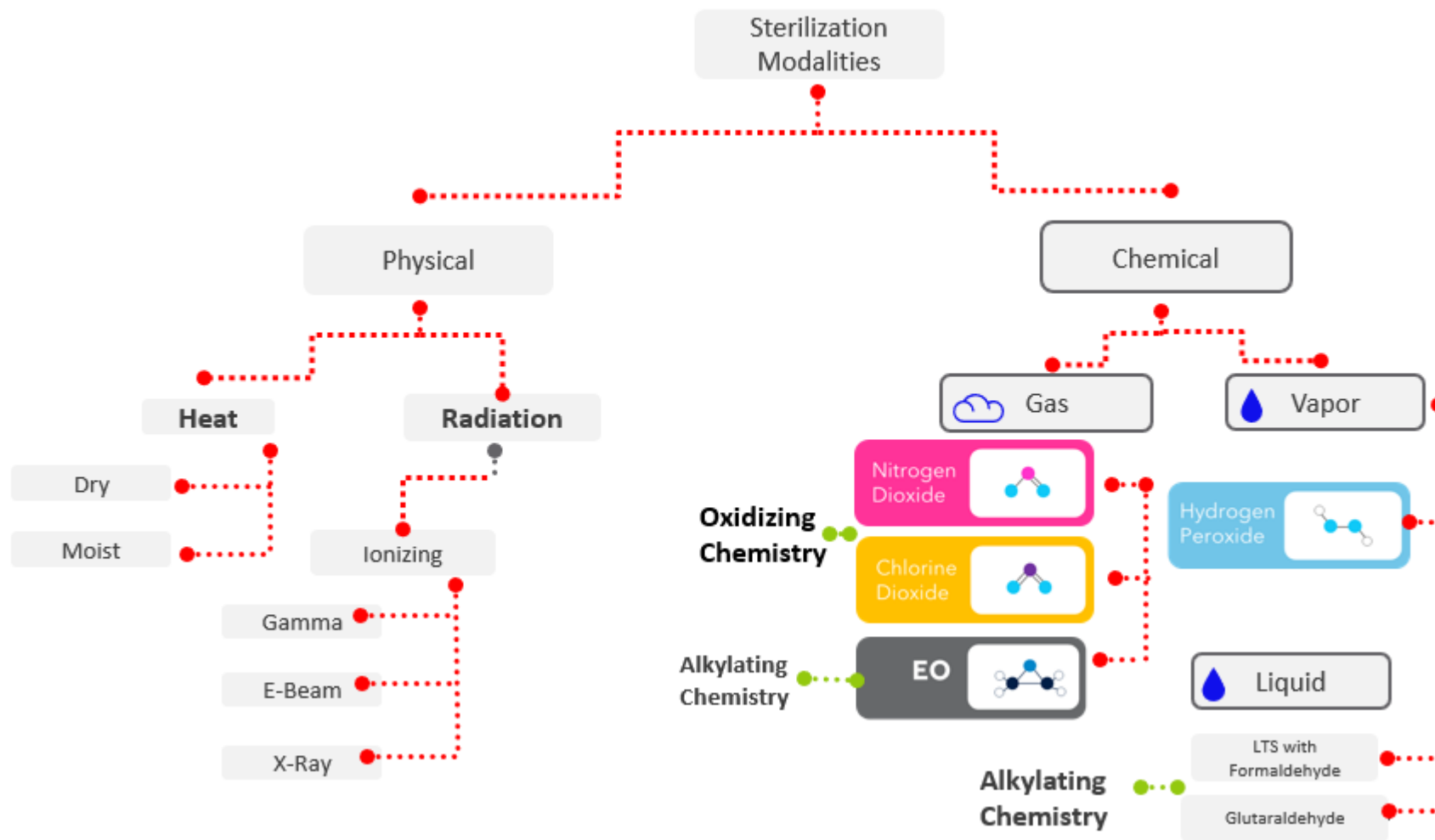
and to change properties of engineered materials

Sterilization Challenges for Emerging Medical Products



Source: Abbott Vascular

Traditional and Emerging Sterilization Technologies



Comparison of Radiation and EO Technologies



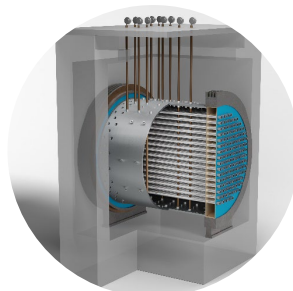
- iia members employ all technologies
- Descriptions of each technology, and their advantages/disadvantages
- Modality Comparison
 - Suitability
 - Equipment
 - Economics
 - Environment
- WP is available at www.iiaglobal.com

Cobalt-60 Production Process

High-purity
Cobalt-59
sintered into
nickel-plated
slugs



Adjusters
inserted into
reactor for 18-
60 months for
conversion to
Co-60



Bundles
measured,
disassemble
and place in
hot cell to
recover slugs



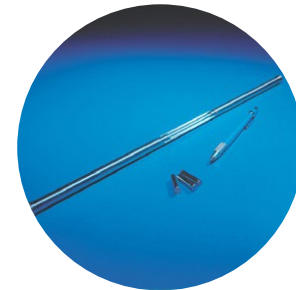
Finished product
shipped to
customers in
specialized
container fleet



Zircalloy targets
containing slugs
assembled into
bundles and
then adjusters

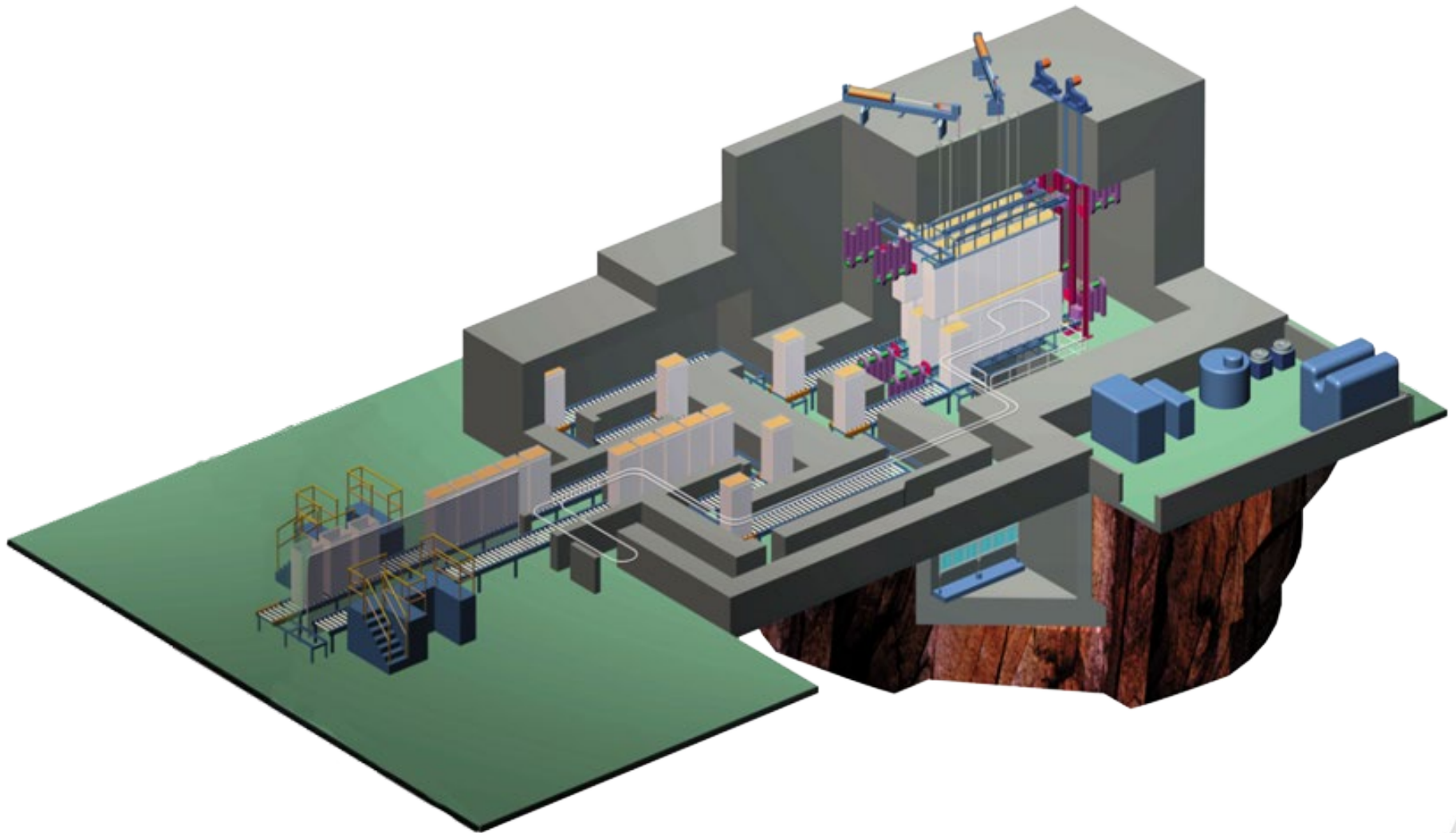


Irradiated
adjusters removed
from reactors
during outage,
disassembled and
shipped to
Nordion



Slugs mixed to
produce
finished sealed
source to
customer
specifications

Gamma Irradiators



Stereotactic Radiosurgery Devices for Cancer Treatment

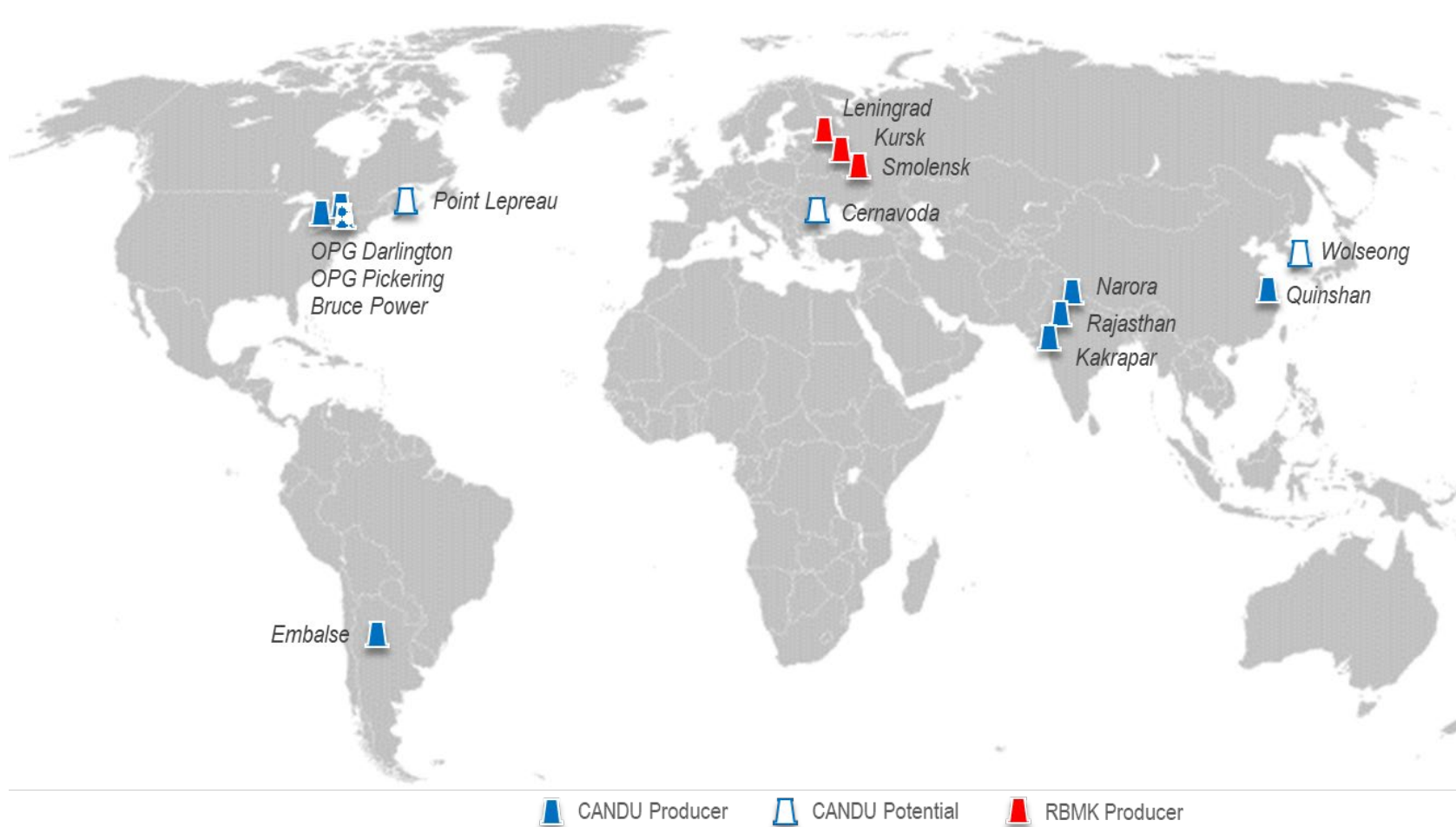


Elekta GammaKnife® for treatment of brain cancer and other diseases

Xcision
GammaPod™ for treatment of early stage breast cancer

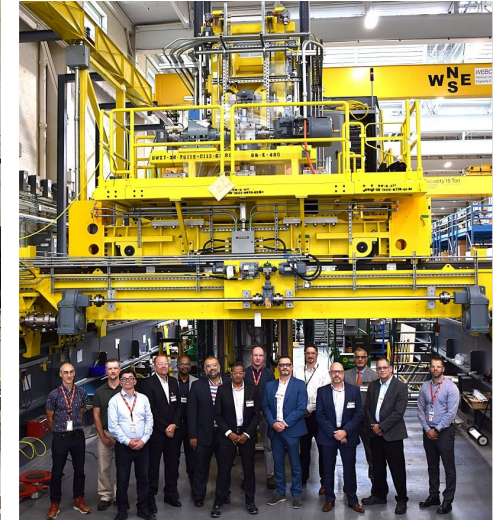


Global Cobalt-60 Supply Chain



Cobalt Capacity Expansion Initiatives

- **Darlington**
 - Largest CapEx project at SHC/Nordion
 - Conversion of 4 units to produce Co-60
 - 2 units converted; first Cobalt ~2028
- **Bruce Heavy Adjusters**
 - Add more Cobalt-59 to adjusters
 - Received 1st Cobalt in March 2026
- **Pickering extension/refurb**
 - Units originally schedule for shutdown 2024
 - Operating extension to end of 2026
 - Intention to resume Cobalt-60 post-refurb
- **U.S. PWRs**
 - Developing technology with Westinghouse
 - First Cobalt-60 by ~2030



Gamma Sustainability Advantages¹



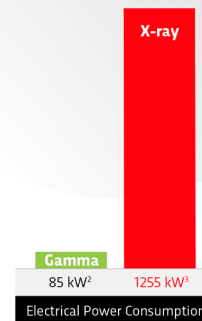
Gamma irradiation has **significant environmental advantages** over other industrial sterilization modalities.



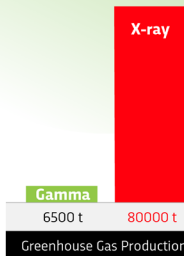
Gamma irradiation has a proven track-record of **safety, reliability and dependability** for the sterilization of medical devices.



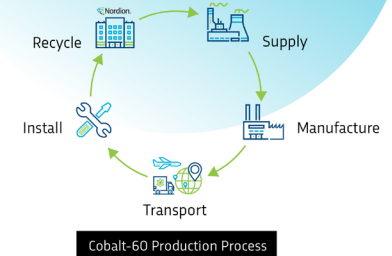
15X
Less Electrical Power Consumption



12X
Less Greenhouse Gas Production



99%
of Cobalt Returned from the Field Gets Recycled⁶



Gamma vs. X-ray: Comparison of Environmental Impact⁵



The Safe, Secure and Sustainable Sterilization Solution.

¹ Analysis builds on the analytical framework examined by the Gamma Industry Processing Alliance (GIPA) and the International Irradiation Association (IIA) and published as A Comparison of Gamma, E-beam, X-ray and Ethylene Oxide Technologies for the Industrial Sterilization of Medical Devices and Healthcare Products on August 31, 2007.
² Includes estimates for the operation of irradiator and related handling equipment plus warehouse and office.
³ Includes estimates for operation of accelerator including cooling and related handling equipment plus warehouse and office.
⁴ Estimates over 20-year operating life using average current California electricity emissions intensity. For Cobalt-60, reflects transportation of initial load plus annual replenishment shipments to California; production in Ottawa from Canadian and overseas sources of Cobalt-60.
⁵ Large scale industrial X-ray vs. 5 MCI Gamma facility.
⁶ From 2019 to 2021, Nordion has recycled more than 99% of the Co-60 in its end-of-life program.