Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

CMD 26-H110.2

Date: 2026-06-01

Written Submission from the Organization of Canadian Nuclear Industries

Mémoire de l'Organisation des industries nucléaires canadiennes

In the matter of

À l'égard du

Bruce Power

Bruce Power

Application to change the lutetium-177 production process at Bruce A and B Nuclear Generating Stations

Demande visant à modifier le processus de production de lutécium 177 aux centrales nucléaires de Bruce A et B

Hearing in Writing

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Canada

ORGANIZATION OF CANADIAN NUCLEAR INDUSTRIES
Clean Energy for a Low Carbon Economy

1550 Kingston Road, Suite 219
Pickering, ON, L1V 1C3
Telephone: (905) 839-0073
Fax: (905) 839-7085
www.OCNI.ca

June 01, 2026

Commission Registrar
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046, Station B
Ottawa, ON K1P 5S9

To the Commission,

Re: Written intervention in support of Bruce Power – Application to change the lutetium-177 production process at Bruce A and B (CMD 26-H110) – Hot cell operations at the Central Maintenance Facility

On behalf of the Organization of Canadian Nuclear Industries (OCNI), I am writing in support of Bruce Power's application to amend the licensing basis to authorize additional steps in the production of lutetium-177 (Lu-177) at the Bruce A and B nuclear generating stations, including on-site removal of quartz ampoules from the aluminum target carrier and the repackaging of targets for off-site transport.

OCNI's support is grounded in Bruce Power's demonstrated safety track record in nuclear operations, medical isotope production, radiation and environmental protection, and the safe management of nuclear substances. As such, we believe Bruce Power has prepared a robust plan to manage this additional process, which includes defined safety and control measures, radiation protection and ALARA planning, operating procedures, worker training and qualification, environmental monitoring, waste-management controls, and continued CNSC oversight through the applicable licensing basis.

Support for the Proposed Hot Cell-Enabled Steps in Lu-177 Production

Bruce Power has indicated that bringing the relevant work on-site—supported by operation of a hot cell at the Central Maintenance Facility (CMF)—is intended to more effectively manage logistics and reduce dose to workers and the public. The application also states that the hot cell will support safer, on-site repackaging of Lu-177 targets and will be used for handling, packaging, and storing radioactive materials under appropriate safety and control measures. In OCNI's view, this is a practical and responsible evolution of Canada's medical isotope supply chain. Lu-177 is a medically important isotope used in precision oncology, including treatment of neuroendocrine tumours and prostate cancer. Strengthening the reliability, safety, and efficiency of this supply chain is in the public interest,

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provided that all activities continue to be conducted under rigorous regulatory oversight and in accordance with applicable license conditions and safety and control measures.

The proposed approach also aligns with the nuclear industry's established safety-first operating model. Bruce Power's materials indicate that hot cell operation will be integrated into the existing licensing framework, with necessary safety and control measures to be included in the License Conditions Handbook. OCNI views this as an appropriate mechanism to ensure that implementation is disciplined, auditable, and aligned with the CNSC's regulatory expectations.

Safety, Environmental Protection, Waste Management and ALARA Considerations

OCNI recognizes that safety and environmental protection are central to the Commission's decision, and we believe the application provides specific information supporting the safety case. Bruce Power states that analytical assessments confirm a significant safety margin for the hot cell, and that worker exposure from hot cell operations is expected to be very low, estimated at only 0.1 mrem per five targets. The application further states that negligible radiation dose is anticipated for workers in surrounding areas, supported by radiation-protection tools such as signage, proactive communication, public address announcements, and routine radiological surveys.

OCNI also notes that Bruce Power has identified procedural and operational controls for the proposed work. The application states that a dedicated operating manual is being developed to support the hot cell and target carrier removal process, including procedures for scenarios such as a broken quartz ampule, and that these procedures will be validated according to established protocols. It also states that Bruce Power's Lu-177 production management procedure will be updated to reflect changes in the production process at the Bruce site.

We further note Bruce Power's supplementary materials addressing waste strategy associated with target carrier removal activities being performed on-site, including its intention to manage resulting carrier waste through existing low-level waste (LLW) pathways, following decay storage and verification steps.

These details give OCNI confidence that Bruce Power is not proposing a stand-alone operational change, but a managed and integrated process change supported by engineered controls, governance, procedural discipline, radiation protection planning, and regulatory oversight.

Based on our long-standing engagement in the nuclear sector, we are confident that Bruce Power demonstrates a strong commitment to safety, operational excellence, and environmental stewardship. Its management system is designed to protect health, safety, security, and the environment, and its operations are driven by a robust safety culture, continuous improvement, and transparent engagement with stakeholders.

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Public Interest, Indigenous Engagement, and Community Context

OCNI recognizes the importance of respectful and sustained engagement with Indigenous communities. Bruce Power's materials note that the Bruce site is located within the traditional territory of the Saugeen Ojibway Nation (SON), and that Bruce Power is committed to strong and respectful relationships with SON, the Métis Nation of Ontario Region 7, and the Historic Saugeen Métis.

OCNI further notes Bruce Power's Gamzook'aamin aakozwin partnership with the Saugeen Ojibway Nation, which supports the production and marketing of medical isotopes, including Lu-177. Bruce Power's application states that it meets quarterly with SON and the Métis Nation of Ontario and provided updates on the hot cell installation and operation during 2025 engagement activities, including community open houses. OCNI supports the continuation of this engagement as the project proceeds through regulatory review, commissioning, and implementation.

Bruce Power has demonstrated a strong commitment to stakeholder engagement through active participation in conferences and meetings, as well as the use of news media to inform the public about the installation and future operation of the hot cell at the Bruce site. These efforts underscore its commitment to transparency, collaboration, and open communication with stakeholders.

Conclusion

For nearly a century, Canada has played a leading role in the development, production, and clinical application of medical isotopes. Enabled by a robust nuclear sector, advanced research infrastructure, and integrated healthcare systems, Canada has established globally recognized expertise in isotope science and oncology-related applications. Building on this foundation, the country is well positioned to expand its leadership and advance next-generation solutions for cancer diagnosis and treatment.

OCNI respectfully encourages the Commission to approve Bruce Power's request to amend the licensing basis to authorize these additional Lu-177 production steps at the Bruce site, supported by the CMF hot cell.

In OCNI's view, Bruce Power has demonstrated a strong safety track record and has prepared a robust plan to manage the proposed process change. The application is supported by engineered barriers, ALARA-based radiation protection, defined procedures, worker training and qualification,

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environmental monitoring, low-level waste-management controls, Indigenous and stakeholder engagement, and continued CNSC oversight.

OCNI believes the proposed change aligns with Canada's commitment to rigorous nuclear regulation while enabling a more resilient, safe, efficient, and reliable medical isotope supply chain. It is a prudent step that supports both public health outcomes and Canada's leadership in nuclear innovation.

Thank you for the opportunity to participate in this hearing in writing. OCNI would be pleased to provide additional context, as helpful, within the scope of the Commission process.

Sincerely,

Ivette Vera-Perez

Ivette Vera-Perez

President and CEO
Organization of Canadian Nuclear Industries (OCNI)

About the Organization of Canadian Nuclear Industries (OCNI)

OCNI is the leading advocate for Canada's nuclear supply chain, representing over 250 member companies that provide engineering, manufacturing, and technical services to the Canadian and international nuclear marketplace. Our members share a strong interest in maintaining Canada's high standards for safety, environmental protection, and public confidence, while enabling responsible innovation that delivers tangible benefits for Canadians and global partners.