Canadian Nuclear Safety Commission | Commission canadienne de sûreté nucléaire

CMD 26-H110.9

Date: 2026-06-24

Written Submission from Cameco Corporation

Mémoire de Cameco Corporation

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

Audience par écrit

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June 6, 2026

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

Re: Bruce Power's application to change the lutetium-177 production process at Bruce A and B Nuclear Generating Stations

Dear President and Commission Members,

On behalf of Cameco Corporation, I am writing in support of Bruce Power's application to change the lutetium-177 production process at Bruce A and B Nuclear Generating Stations.

Cameco has a long-standing relationship with Bruce Power and has worked closely with the company for decades. We are also involved in the tooling development that supports lutetium-177 production, giving us direct insight into the care, technical rigor and coordination required to advance this important medical isotope work.

Bruce Power has a strong record of safely operating nuclear power plants while supporting important medical and nuclear medicine applications. Since 1986, the Bruce site has produced cobalt-60, used to sterilize about 30 per cent of the world's single-use medical devices, implants and equipment. Since 2021, it has also produced medical-grade cobalt-60 for radiation therapy, including treatment for brain and breast cancer.

In 2022, Bruce Power's Isotope Production System in Unit 7 became the first commercial nuclear power reactor in the world to produce lutetium-177, which is used to treat prostate cancer. This work shows how safe nuclear operations can support essential health-care applications and meaningful patient benefits in Canada and around the world.

Medical isotopes such as lutetium-177 are central to theranostics and the growing field of precision medicine. Bruce Power also has room to scale production, with plans to expand the Isotope Production System to Unit 6 in 2027. Approving this application would strengthen Ontario's medical isotope supply chain and Canada's leadership role in this growing field.

Bruce Power's new hot cell will enable onsite removal of quartz ampoules from irradiated ytterbium-176 targets before further processing. Bringing this work onsite will streamline logistics, improve operator safety, reduce transport-related emissions, and strengthen Ontario's medical isotope infrastructure.

This work also demonstrates how innovation in Canada's nuclear sector can create lasting benefits for Indigenous communities. Through the Gamzook'aamin aakoziwin partnership, Saugeen Ojibway Nation has invested in Bruce Power's isotope program, generating stable revenues since 2022 that have supported community initiatives such as the Saugeen Amphitheatre restoration, the Nawash Arena and local food banks.

In closing, we support Bruce Power's application and encourage the Commission to support this important work. The proposed change builds on Bruce Power's strong record of safe operations and will improve the efficiency of isotope production while supporting cancer care, precision medicine, and Canada's leadership in life-saving medical isotopes.

Sincerely,

Tim Gitzel
Chief Executive Officer
Cameco Corporation