

## Cameco Charity Golf Tournament returns in September

All funds raised support the Cameco Fund for Mental Health

After a two-year hiatus due to the COVID-19 pandemic, the Cameco Charity Golf Tournament is returning as an in-person golf tournament at Dalewood Golf Club on September 9, 2022.

All funds raised from the event will support the Cameco Fund for Mental Health, which provides funding for mental health initiatives in Northumberland County and area.

“We are very excited to be back with a full golf tournament experience this year,” said Dale Clark, vice-president of Cameco’s Fuel Services Division. “We are looking forward to coming together with members of the community to raise money for an important cause.”

Registration is \$130 per player and includes golf, a cart and dinner. A variety of sponsorship opportunities are also available, some of which include spots for golfers. To register, sponsor or make a donation, please visit [www.camecofuel.com/golf](http://www.camecofuel.com/golf).

Raffle tickets can be purchased to win some great prizes, and there is also a hole-in-one for a car contest courtesy of Lauria Auto Group.



The Cameco Fund for Mental Health was launched in 2019 and has raised over \$150,000 for mental health projects. The fund has supported 24 projects that promote or protect mental health in Northumberland County and area.

The application process will be open in the fall of 2022 and funding will be adjudicated by a panel that includes local mental health professionals and representatives from Cameco.

### DID YOU KNOW?

Since 2019, the Cameco Fund for Mental Health has distributed over

**\$150,000**

to organizations working on local mental health projects.

## How to participate in the licence renewal process for Cameco Fuel Manufacturing

The Canadian Nuclear Safety Commission (CNSC) Public Commission Hearings provide an important opportunity for members of the public, Indigenous communities and stakeholders to share relevant information and expertise that may be useful to the Commission in reaching its decision on Cameco’s CFM licence renewal application. This is done through the CNSC’s Intervenor process.

Interventions can be made via a written submission or a written submission accompanied by an oral presentation at the hearing.

The intervention process is for everyone – this includes those who are supportive of the licence renewal and those who have

concerns. You don’t have to be a scientist or have a technical background. If you have relevant information to share then this is your opportunity to share it.

Requests to intervene must be filed by October 7, 2022 with the Commission Registry either online, by email, by fax or mail to the details below.

#### Canadian Nuclear Safety Commission

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Cameco Fuel Manufacturing in Port Hope has applied for a 20-year operating licence from the Canadian Nuclear Safety Commission (CNSC).

#### Key dates for the licence renewal process:

**Public Intervention Submission Deadline:** October 7, 2022

**Cameco Fuel Manufacturing Public Hearing**

**Dates:** November 23 and 24, 2022

**Location:** TBD by the CNSC

Time and further details will be available in the hearing agenda when made available by the CNSC. We will keep our website up to date with that information at [www.camecofuel.com/cfmlicence](http://www.camecofuel.com/cfmlicence).



# The benefits of nuclear: Medical Isotopes

Medical isotopes are the cornerstone of nuclear medicine, using radioactive sources to diagnose, characterize and treat disease. Each year, more than 40 million medical procedures are performed using medical isotopes worldwide. Canada is a world leader in producing isotopes for medical use.

## Cameco's role in medical isotopes

- The energy produced in nuclear power reactors like Bruce Power's is created using the fuel bundles from CFM. This energy is harnessed to produce life-saving medical isotopes that are used around the world in both diagnostic and therapeutic procedures.
- CFM manufactures specialized adjuster sets containing Cobalt-59 which are irradiated in reactors to produce Cobalt-60.

## Cobalt-60

- Cobalt-60 is used for specialized cancer treatment and to sterilize the world's single-use medical devices, including sutures, syringes, surgical gowns and masks.
- More than 70% of the world's supply of Cobalt-60 is produced at Canadian nuclear power plants.
- The COVID-19 pandemic has increased the demand for sterilized masks and syringes.
- Cobalt-60, like that produced at Bruce Power, sterilizes medical supplies faster and in larger volumes than other sterilization methods, ensuring frontline health care workers have the supplies they need.



An adjuster set manufactured at Cameco Fuel Manufacturing in Cobourg, which is used to produce Cobalt-60 in CANDU nuclear reactors.

## Advancing medical science: Lutetium-177

- Lu-177 is used in targeted radionuclide therapy to treat cancers like neuroendocrine tumours and prostate cancer. Lu-177 offers doctors an alternative to traditional chemotherapy, using a "seek-and-destroy" dose to target cancer cells while limiting damage to surrounding healthy tissues and organs.
- In 2021, Cameco Fuel Manufacturing fabricated and delivered the first-of-a-kind Target Finger Tube assembly which both houses and conveys the Lutetium targets in the reactor for the safe and efficient production of Lutetium-177 (Lu-177) at Bruce Power.

Learn more about how isotopes help keep hospitals safe, as well as how they diagnose and treat cancer at [www.brucepower.com/isotopes](http://www.brucepower.com/isotopes)

## New Isotope Production System at Bruce Power successfully produces first medical isotope

A new Isotope Production System has successfully produced a new medical isotope at Bruce Power, with some of the hardware used in the process manufactured at Cameco Fuel Manufacturing (CFM) in Cobourg. This is the first instance that lutetium-177, a short-lived medical isotope, has been produced in a commercial nuclear power reactor.

*"Cameco is proud to have played a role in this important milestone for cancer treatment."*

**Doug Jensen,**  
General Manager,  
Cameco Fuel Manufacturing

"Cameco is proud to have played a role in this important milestone for cancer treatment," said Doug Jensen, general manager of CFM. "At our manufacturing facility in Cobourg, we manufacture the

specialized adjuster set which contains the material that is irradiated in the reactor to make lutetium-177."

The new Isotope Production System (IPS) was installed in Bruce Power's Unit 7 during a recent planned maintenance outage. The IPS successfully irradiated targets to produce lutetium-177, a medical isotope used in precision oncology for targeted therapy of a growing number of cancers. Lutetium-177 based treatments are designed to precisely target malignant cells while sparing surrounding healthy tissues.

As part of commissioning activities, ytterbium-176 was successfully irradiated using the IPS, designed and installed by Isogen, to produce lutetium-177. These isotopes were then sent to ITM in Germany for processing, using its proprietary manufacturing methodology



and industrial scale production capacities yielding high-quality, pharmaceutical-grade no-carrier-added lutetium-177 (n.c.a. lutetium-177), which ITM provides to health care facilities around the world. n.c.a. lutetium-177 has been successfully used in various clinical and commercial radiopharmaceutical cancer treatments. ITM holds a U.S. Drug Master File with the Food and

Drug Administration for n.c.a. lutetium-177 and has marketing authorization in the EU (brand name EndolucinBeta®).

With this milestone now achieved, commissioning activities will be completed this summer and will be followed by commercial operations, pending final regulatory review and approval by the Canadian Nuclear Safety Commission.

### Fuel Services Division Headquarters

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summer 2022