FUEL MANUFACTURING

LICENCE RENEWAL BRIEFING GUIDE

Cameco

Land Acknowledgment

We respectfully acknowledge that CFM's facilities in Cobourg and Port Hope are in the traditional territory of the Michi Saagiig and Chippewa Nations, collectively known as the Williams Treaties First Nations, which include: Curve Lake, Hiawatha, Alderville, Scugog Island, Rama, Beausoleil, and Georgina Island First Nations.

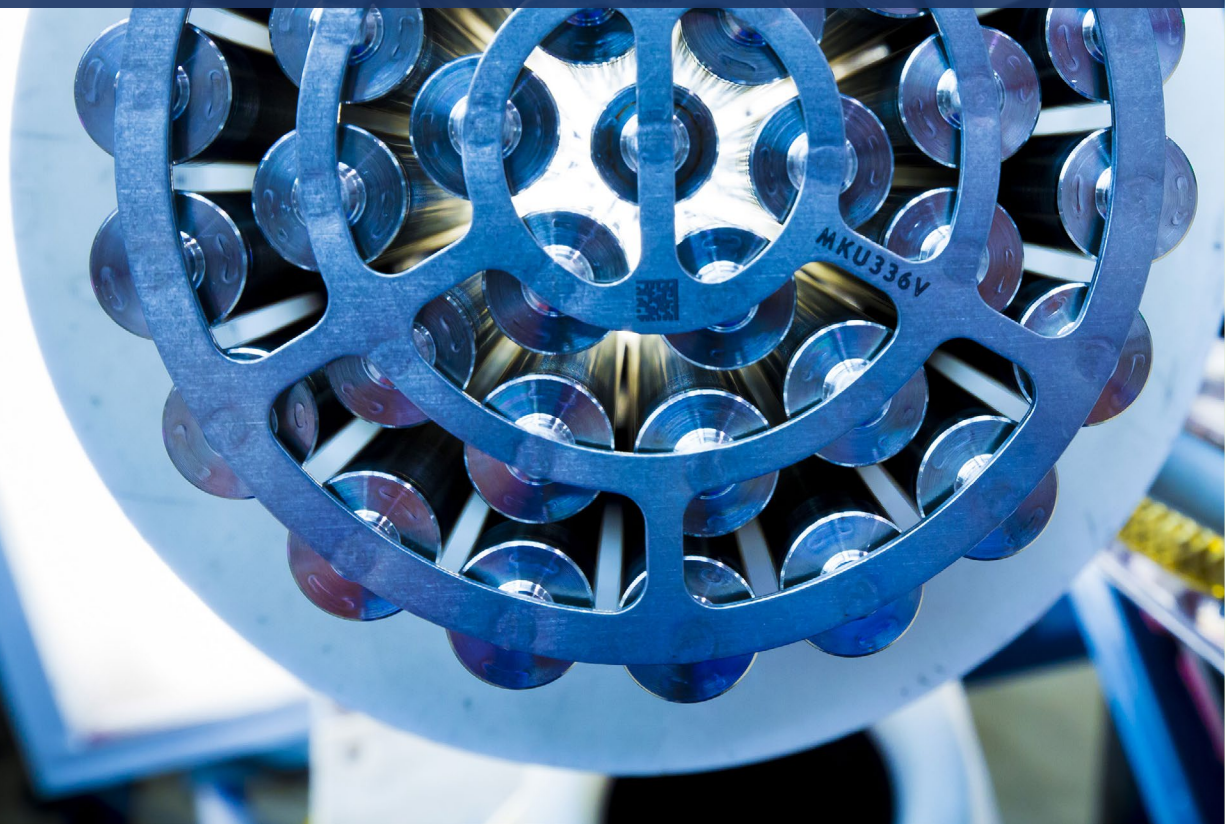
Cameco Corporation respectfully acknowledges that the Williams Treaties First Nations are the stewards and caretakers of these beautiful lands and waters in perpetuity, and we are grateful that they continue to maintain this responsibility to ensure the health and integrity for generations to come.

We offer this acknowledgement to reaffirm our commitment and responsibility in building meaningful relationships and to improving our own understanding of local Indigenous peoples and their cultures.

Cameco Fuel Manufacturing

Licence Renewal Briefing Guide

On October 4, 2021, Cameco Fuel Manufacturing submitted its application to the Canadian Nuclear Safety Commission to **renew its Class 1B Fuel Facility Operating Licence for a period of 20 years.**



Cameco Fuel Manufacturing (CFM) currently holds a Class 1B Fuel Facility Licence (FFL) issued by Canada's nuclear regulator, the Canadian Nuclear Safety Commission (CNSC).

The current licence FFL-3641.00/2023 is valid to February 28, 2023.

As an existing Class 1B Fuel Facility Licence holder, Cameco Fuel Manufacturing is rigorously regulated by the CNSC. The CNSC grants licences for a determined amount of time and licence holders must apply to the CNSC to request the licence be renewed.

This briefing guide has been developed to provide members of the public, stakeholders and Indigenous communities with an overview of Cameco Fuel Manufacturing and information about the licence renewal process.

If there's any information you need, please contact us at **905.800.2020** or **cameco_ontario@cameco.com** and we will be happy to help you.

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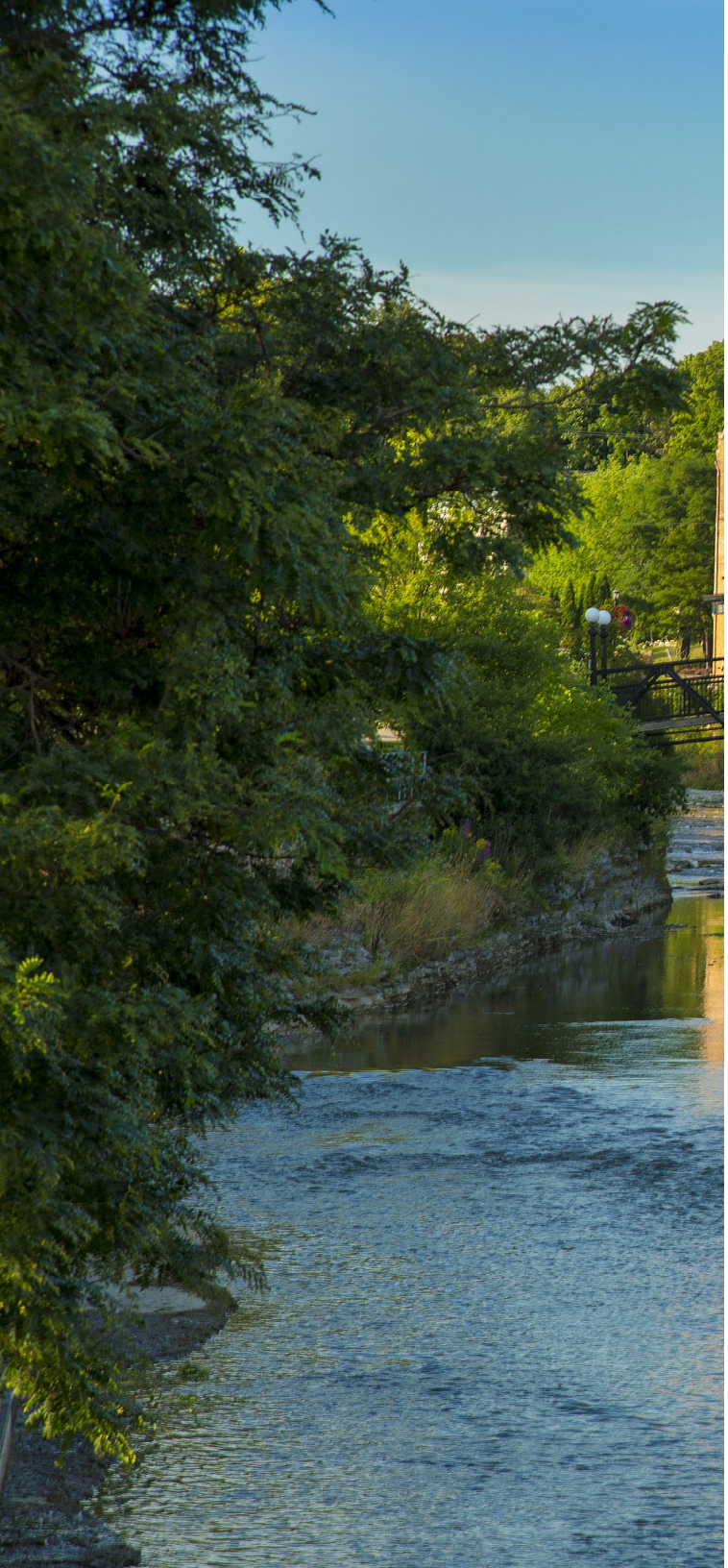

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Who We Are

Cameco Corporation (Cameco) is a major supplier of uranium processing services required to produce nuclear fuel for the generation of safe, clean, and reliable electricity around the world.

More than half of Ontario's electricity is generated using the nuclear fuel products produced by Cameco's Fuel Service Division, right here in Ontario. We operate a refinery in Blind River, a conversion facility in Port Hope, and a fuel manufacturing operation with facilities in Port Hope and Cobourg, Ontario.

Cameco Fuel Manufacturing

Cameco Fuel Manufacturing is one of two fuel fabrication suppliers serving Canada's reactor fleet and is the largest Canadian-based fabricator of zirconium reactor components for CANDU reactors around the world.

Our fuel manufacturing business consists of two facilities:

- a fuel manufacturing plant in Port Hope where natural uranium dioxide (UO_2) powder is pressed into pellets, fitted into zirconium tubes and then assembled into CANDU reactor fuel bundles
- a metal fabrication plant in Cobourg, Ontario that produces fuel bundle and reactor components

Our fuel manufacturing operation operates to the CSA N299.1 quality system standard, consistently meeting the precise quality requirements of our customers and applicable regulatory requirements. The reactor components manufactured in Cobourg and fuel bundles assembled in Port Hope are used in most of the CANDU reactors in Canada and abroad.

Quick Facts about CFM Port Hope

FUEL FABRICATION

Port Hope & Cobourg Fuel Manufacturing Facilities

Manufactures reactor components and fuel bundles for CANDU reactors

CANDU REACTORS

ENERGY GRID

Useable clean energy that powers homes, hospitals and businesses

100%
Cameco Ownership

1.5m CANDU
fuel bundles & components produced

ISO 14001
registered

Licensed Capacity
1500 Tonnes
per year of UO_2 as finished bundles

Licensed through February
2023

140
Employees

Message from the General Manager

Cameco Fuel Manufacturing (CFM) has been safely producing CANDU fuel bundles in Port Hope since 1965. Our employees call Port Hope and the surrounding area home, and we take great pride in our work – both in the facility and in the community.

Have you ever thought about where the electricity comes from when you turn on your light switch or charge your cell phone? In Ontario, about 60% of all electricity comes from CANDU nuclear reactors, and half of these reactors are powered by the fuel bundles manufactured right here in Port Hope.

As concerns about climate change continue to grow, demand for zero-emission sources of electricity, like nuclear, continue to increase. CFM is here to play a continued role in energizing a clean air world. When you plug in an electric car, you can count nuclear power for an abundant supply of reliable, safe, emissions free electricity.

The CANDU reactors at Bruce Power, powered exclusively by fuel made at CFM, do more than just produce clean electricity. They also produce medical isotopes like Cobalt-60. The Cobalt-60 produced at Bruce Power is used to sterilize more than 40% of the world's single-use medical devices. For us to continue our work in keeping the lights on and fueling nuclear medicine, we need to renew our operating licence with the Canadian Nuclear Safety Commission (CNSC).

This booklet has been developed to help you understand more about what we do at CFM and also how you can participate in this important licensing process. See page 12 in this guide for more information about how you can submit an intervention.

If you have any questions about our operations, feel free to contact us at **cameco_ontario@cameco.com**, or call **1.905.800.2020.**

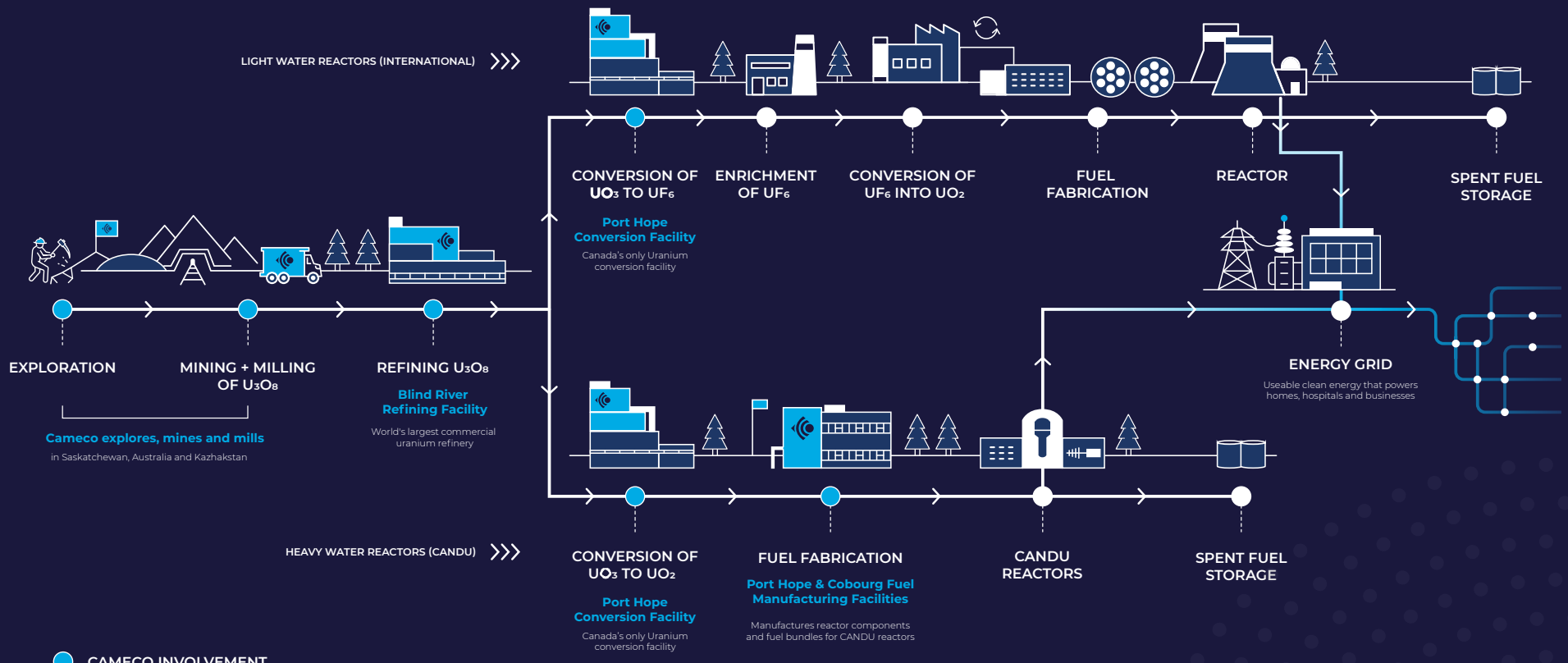
Cameco Fuel Manufacturing plays a critical role in energizing a clean-air world, and we are proud to be able to do that right here in Port Hope.

- Doug Jensen, general manager

The Nuclear Fuel Cycle

At Cameco, we're proud of our role in helping to energize a clean-air world.

In Ontario, nuclear energy accounts for approximately 60% of the clean-air electricity that is powering our homes and businesses. We play an important role in nuclear industries both here in Canada and around the world.



The Benefits of Nuclear

The nuclear industry in Canada is about more than just clean-air energy. Nuclear is part of a cleaner energy future and is essential to helping the world address the climate crisis, provides life saving medical isotopes, and helps build a strong Canadian economy.

Climate Change and Air Quality:

- Climate change is one of the biggest challenges we face today. Nuclear energy is the most reliable source of large scale, low-carbon energy available
- Removing coal power plants from Ontario was the equivalent of removing seven million vehicles from the road. Enabling nuclear energy made this possible.

Nuclear Medicine

- Nuclear medicine saves lives by diagnosing diseases, treating patients and sterilizing medical equipment
- More than 40% of all single-use medical devices produced globally are sterilized with Cobalt-60, which comes from the power reactors. Without power reactors, there would be no source of cobalt-60
- Nuclear imaging allows doctors to better see what is happening inside a patients body
- Radiation therapy is used to precisely target and destroy cancer cells while sparing nearby healthy tissue

Jobs and the Economy

- Canada's nuclear industry offers a variety of high-value jobs to skilled individuals. In 2019, the Canadian nuclear industry accounted for 76,000 direct and indirect jobs.
- Cameco facilities employ over 600 people in Cobourg and Port Hope
- Cameco's Northumberland operations also utilize a variety of local suppliers and contractors

Energy Reliability

- Nuclear energy is reliable, generating clean air energy day and night, no matter what the weather is like
- Once a CANDU reactor is started, it can run with few interruptions for decades as they are designed so they do not have to be shut down to refuel

Learn more about the benefits of nuclear from the Canadian Nuclear Association.

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

Advancing medical science: Luteitium-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.

The Power of Uranium

Uranium pellets are approximately 20 grams each, and fewer than 10 are needed to power the average Canadian household for a year.

FUEL REQUIRED TO PRODUCE THE SAME AMOUNT OF ELECTRICITY

Canada's Nuclear Regulator

Canada's nuclear industry is regulated by the Canadian Nuclear Safety Commission (CNSC). The CNSC's mandate is to regulate the use of nuclear energy and materials to protect health, safety, security and the environment; to implement Canada's international commitments on the peaceful us of nuclear energy; and to disseminate objective scientific, technical and regulatory information to the public[1].

The CNSC is comprised of the Commission and CNSC staff

The Commission is an independent administrative tribunal set up at arm's length form government, with no ties to the nuclear industry[2]. Up to seven permanent Commission members are appointed, and one is designated as President and CEO. The Commission reviews applications for nuclear licences through a Public Commission Hearings and considers relevant information from the public and the recommendations of expert CNSC staff.

CURRENT CNSC COMMISSION MEMBERS

Over **800 scientific, technical, specialized, and professional people make up the CNSC staff.** These personnel are responsible for monitoring compliance with the Nuclear Safety and Control Act, making recommendations to the Commission, enforcing regulations and any licence conditions imposed on the licencee by the Commission.

You can learn more about how Canada's nuclear industry is regulated at nuclearsafety.gc.ca.

[1] http://nuclearsafety.gc.ca/eng/the-commission/index.cfm
[2] http://nuclearsafety.gc.ca/eng/the-commission/index.cfm

Our Current Licence

CFM holds a one-year Class 1B Fuel Facility Operating Licence (FFOL) issued by Canada's nuclear regulator, the Canadian Nuclear Safety Commission (CNSC).

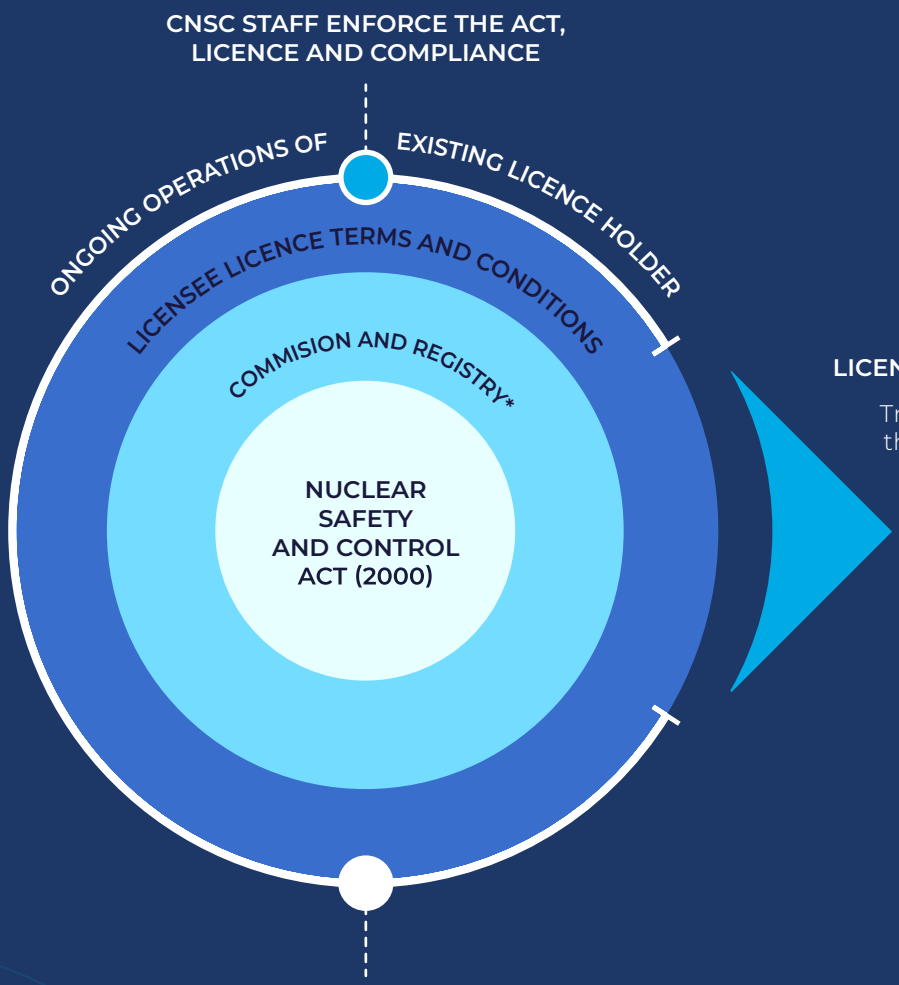
The current licence FFL-3641.00/2023 is in effect until February 28, 2023.

Our current licence authorizes CFM to operate its nuclear fuel facility to produce nuclear fuel bundles from depleted, natural, and enriched uranium compounds. The licence also allows the facility to transfer, use, process, import, package, transport, manage, store and dispose of the nuclear substances that are required, associated with, or arise from those activities.

The CANDU fuel bundles produced are shipped to CANDU nuclear generating stations in Ontario and New Brunswick.

Cameco's highest priorities are the health and safety of people and the protection of the environment.

Cameco or Other Existing Licence Holder



*The commision and registry is made up of seven impartial commision members with expertise in nuclear safety and supported by staff to organize hearings and liaise with the public.

Licence Renewal Process

1

LICENSEE APPLIES TO CNSC FOR RENEWAL THAT MAY INCLUDE CHANGES

- The CNSC issues a Notice of Public Hearing and sets dates for hearing
- CNSC staff conduct detailed technical review of licensee, make recommendations
- CNSC sets out details of its public intervention process and Participant Funding Program

2

COMMISSION HOLDS PUBLIC HEARINGS

- Commission considers written interventions and hears oral presentations
- Public submit written interventions and oral presentations
- Hearings are public and live webcast

3

COMMISSION ISSUES DECISION REGARDING LICENCE RENEWAL

- Any associated conditions

4

CNSC STAFF ENFORCE THE ACT, LICENCE AND COMPLIANCE

- Staff ensure licensees comply with over a dozen regulatory requirements: health & safety, environmental & radiation protection, waste, transport, security, fire & emergency, fitness for service, operating performance, etc.

CNSC Licence Renewal Process

As an existing Class IB Fuel Facility Operating Licence holder, CFM is subject to stringent regulations and oversight by the CNSC (Canadian Nuclear Safety Commission). Nuclear licences are granted for a set period and licencees must apply to the CNSC to request a licence renewal.

CFM's current licence (FFL-3641.00) is valid to February 28, 2023.

On October 4, 2021, CFM submitted its application to the CNSC to renew its Class 1B FFOL for a period of 20 years.

What happens next?

CNSC staff will review CFM's licence renewal application and conduct a technical assessment against the regulatory requirements, make recommendations to the Commission, and verify compliance with the *Nuclear Safety and Control Act,* regulations, and licence conditions.

Public Hearing Process

The CNSC considers licence applications for nuclear facilities via a public hearing process, which is set out in the Canadian Nuclear Safety Commission Rules of Procedure.

The one or two-part public hearing for a licence application usually takes place over a 90-day period and considers the views, concerns and opinions of interested parties and intervenors. The public hearings are broadcast live on the CNSC's website.

Following the hearings, the Commission deliberates and makes its decision on the matter. The Record of Decision is made public.

We will update our website with key dates as they become available.

PUBLIC COMMISSION HEARING

CFM LICENCE RENEWAL UPDATES

Participating in the Public Commission Hearing

The CNSC's 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 done through the CNSC's Intervenor's process.

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

KEY DATES

Public Intervention Submission Deadline: October 7, 2022

Cameco Fuel Manufacturing Refinery 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.

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 at **interventions@cnsc-ccsn.gc.ca** or by fax or mail to the details below.

Canadian Nuclear Safety Commission

280 Slater St., P.O. Box 1046, Station B

Ottawa, ON

Canada K1P 5S9

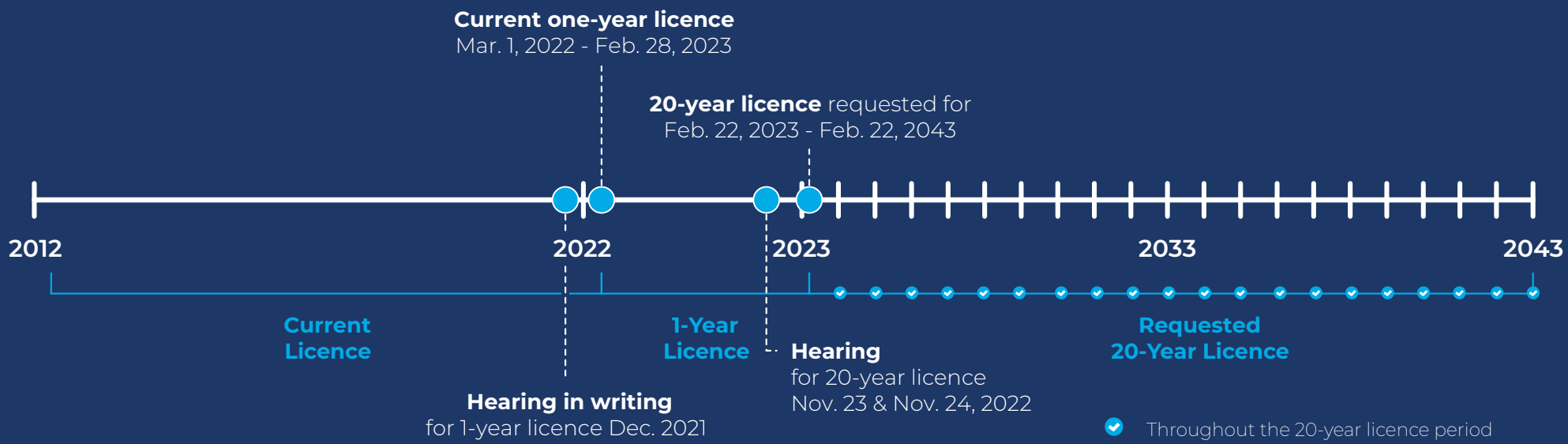
Phone: 613-996-9063

Toll Free: 1-800-668-5284

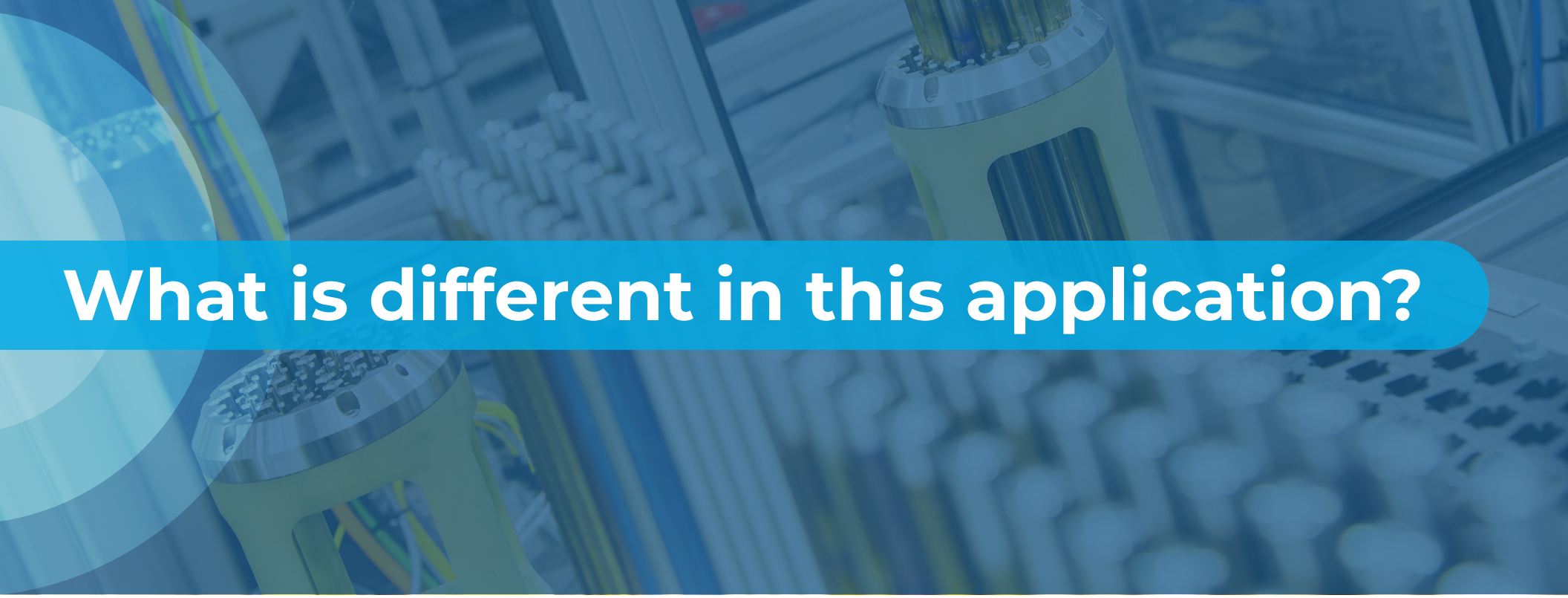
Fax: 613-995-5086

Cameco Fuel Manufacturing

Licence Timeline



- Throughout the 20-year licence period there will be annual regulatory oversight reports as well as public involvement in addition to the ongoing engagement by CFM in accordance with our Public Information Program.



What is different in this application?

1. **We are looking to increase the length of the licence term to 20 years instead of 10**

2. **We also seek to increase the amount of UO_2 which may be processed in a single year**

What is the same in this application?

- CFM will produce uranium pellets and fuel bundles from UO_2
- There are no new activities being requested
- There are no changes to existing production lines/equipment
- There are no changes to management systems, training, radiation protection, safety, environmental, emergency and fire protection, waste management, security, safeguards, or packaging and transport program
- Reporting requirements remain the same
- Release limits and action levels remain the same

Why a 20-year Licence Renewal?

A 20-year licence is a commitment to the clean-air energy we need to help combat climate change – which benefits everyone. It also provides added workforce stability for our employees and certainty for our customers.

Our customers have made long-term commitments to provide clean-air nuclear energy. A 20-year licence term allows those customers to rely on Cameco Fuel Manufacturing as a stable and secure supplier of fuel. This commitment also means continued local jobs for our highly skilled workforce, and the many benefits that provides to the local economy and community.

A 20-year licence has many benefits for the nuclear supply chain, our customers, the local economy and our community.

What does a 20-year term look like?

- A 20-year term is as equally regulated as a 10-year term
- Ongoing reporting to CNSC and other regulators
- Ongoing inspections by CNSC and other regulators
- **New regulatory requirements added to the Licence Conditions Handbook between Licence renewals**
- All supporting studies are reviewed against changes in requirements, new scientific information, and recent operational data every five years (fire, environment, public dose, safety analysis, preliminary decommi-ssioning) and submitted to CNSC
- Programs are updated to meet new requirements and are submitted to CNSC
- Incidents are investigated and reported to the CNSC as required
- Significant incidents or safety concerns can be referred to the Commission and the Licence may be suspended
- Annual updates to the Commission by CNSC staff

Continued Involvement in a 20-year Licence

- **Indigenous communities, stakeholders and the public can participate in the annual update to the Commission**
- **Concerns may be raised to CNSC staff by a member of the public at any time**
- **Cameco has a public information program and additional information may be requested from Cameco at any time**
- **Cameco is committed to meaningful engagement with Indigenous communities, members of the public and stakeholders**
- **Cameco welcomes ongoing dialogue about our operations, how safety is assessed and potential impacts of our operations**

Why We Are Requesting a Production Limit Increase?

CFM is requesting a production limit increase from 1,500 tonnes per year to 1,650 tonnes per year

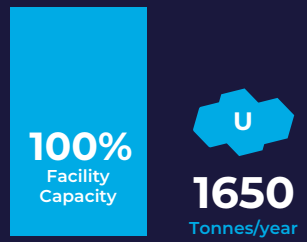
CFM is currently licenced to produce 125 tonnes of uranium dioxide (UO_2) as pellets during any calendar month, which is 1,500 tonnes per year. CFM is requesting a change to the annual limit, increasing it to 1650 tonnes of uranium which will reflect the actual production capacity of the current facility.

Port Hope & Cobourg Fuel Manufacturing Facilities

Manufactures reactor components and fuel bundles for CANDU reactors

Current Licence Limitation

Currently CFM is allowed to operate at only 67% of the facility's production capacity in a given month.

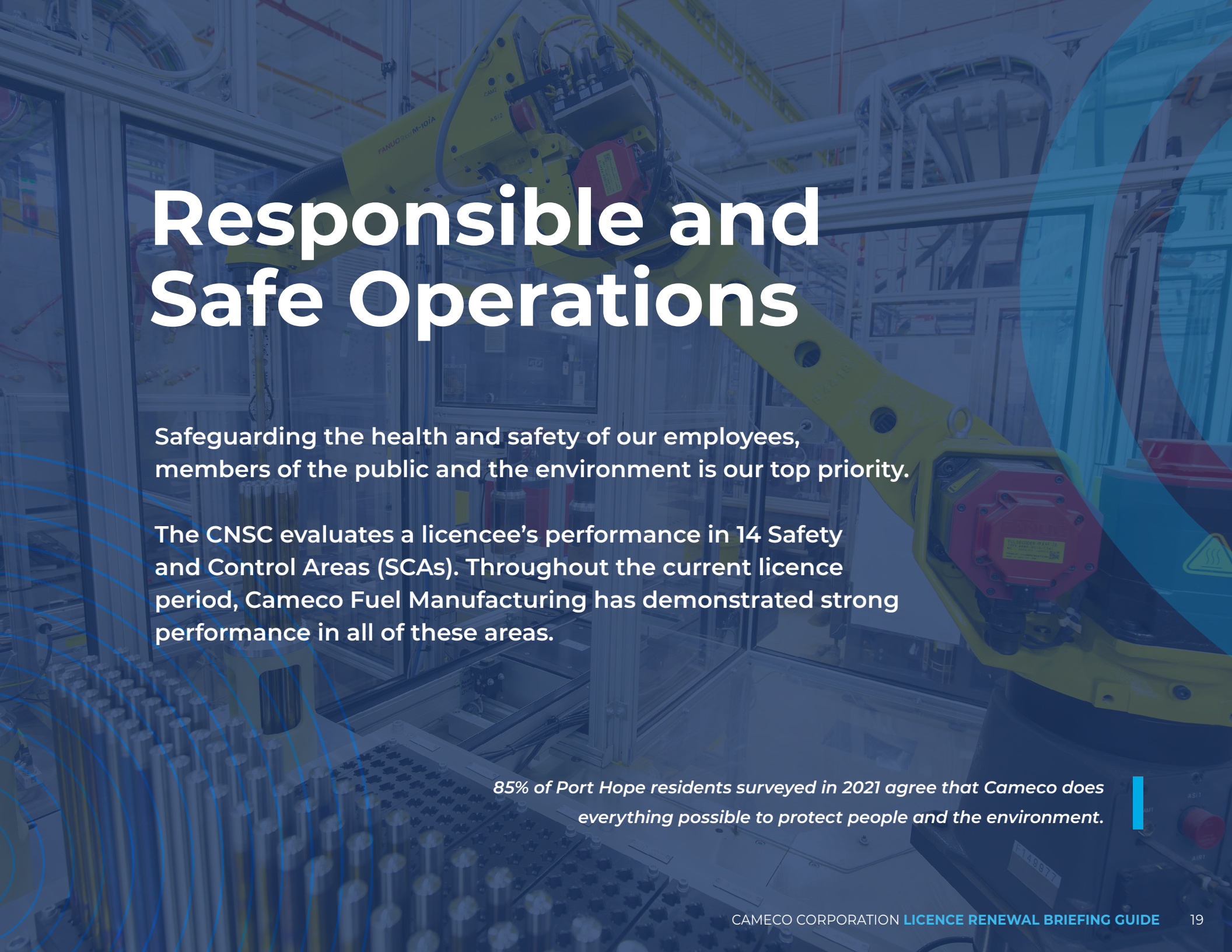


New Licence Request

To make the best use of our facilities, we seek a new licence that will allow us to operate at 100% of our production capacity.

What are the Benefits of being licenced to use 100% of our facility's production capacity?

- Meets changes in supply and demand
- More effective use of the current facilities
- Greater security of supply for global electricity
- Improve capabilities for other stages of the supply chain



Responsible and Safe Operations

Safeguarding the health and safety of our employees, members of the public and the environment is our top priority.

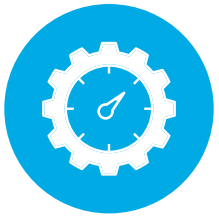
The CNSC evaluates a licencee's performance in 14 Safety and Control Areas (SCAs). Throughout the current licence period, Cameco Fuel Manufacturing has demonstrated strong performance in all of these areas.

85% of Port Hope residents surveyed in 2021 agree that Cameco does everything possible to protect people and the environment.

Safety and Control Areas

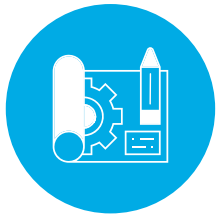
Management System

Human Performance Management



Operating Performance

Safety Analysis



Physical Design

Fitness for Service

Radiation Protection

Emergency Management & Fire Protection

Waste Management

Security

Safeguards and Non-Proliferation

Packaging and Transport

Conventional Health & Safety

Environmental Protection

Our Record of Strong Safety Performance

Safety is the paramount consideration guiding decisions and actions

Our five safety culture principles:

1. Safety is our first priority
2. We are all accountable for safety
3. Safety is part of everything that we do
4. Safety leadership is critical to Cameco Corporation
5. We are a learning organization

Cameco's highest priorities are the health and safety of people and the protection of the environment. We pursue excellence in all that we do through promotion of a strong safety culture and our commitment to the following:

- Preventing injury, ill health and pollution.
- Fulfilling regulatory, contractual and corporate requirements as well as commitments to local communities (defined as compliance obligations).
- Keeping risks at levels as low as reasonably achievable, taking into account economic and societal factors (ALARA).
- Ensuring quality of processes, products and services.
- Continually improving our overall performance.

Our fuel manufacturing facilities have systematic programs to identify, document and address risks and engage all workers and managers in development of a strong safety culture. These programs meet the specifications of the OHSAS 18001, an international occupational health and safety system, and have delivered excellent safety performance.

CFM SAFETY REPORT

ANNUAL COMPLIANCE REPORT

Regulations

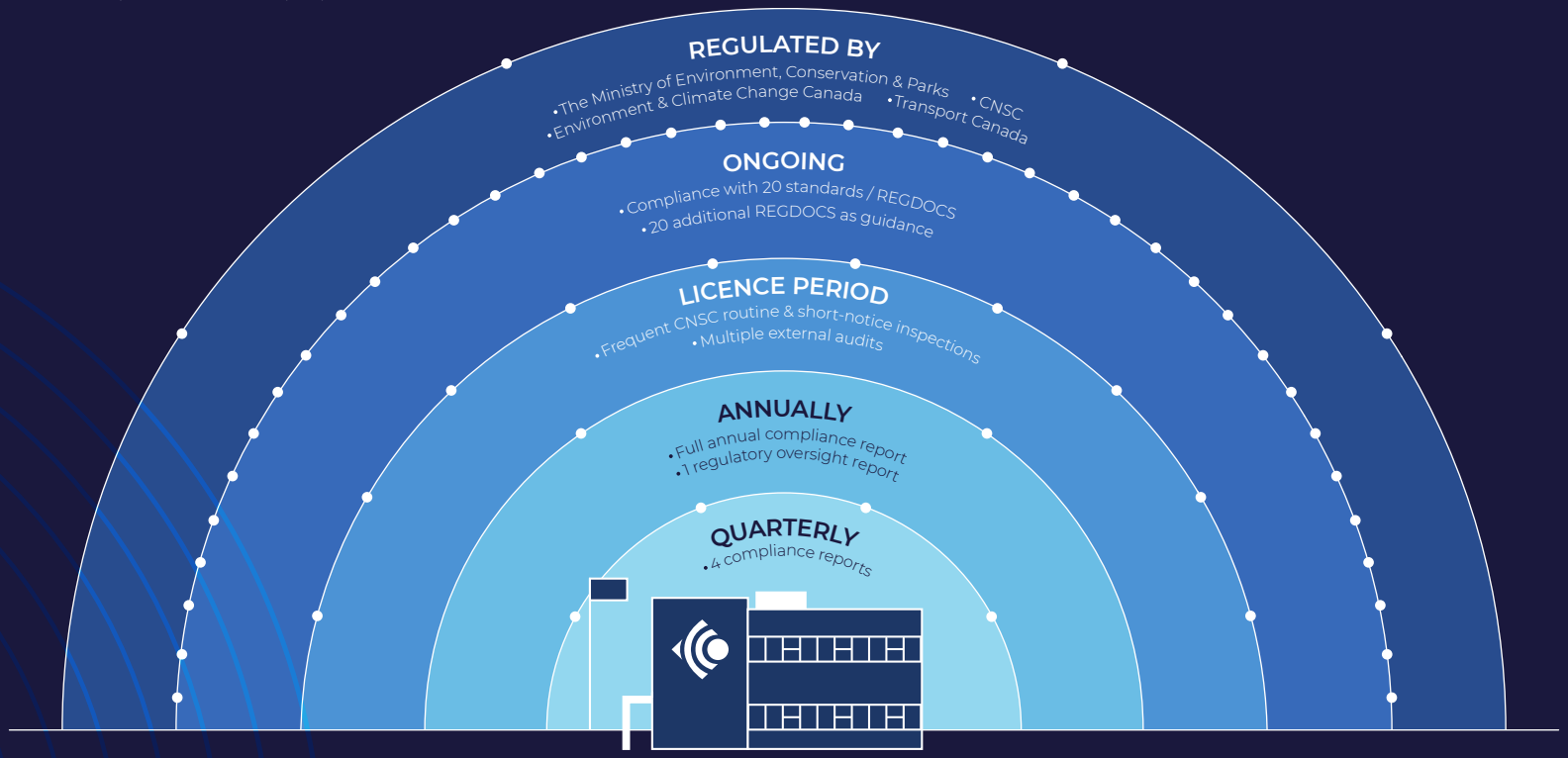
In addition to the CNSC, CFM is regulated by other federal and provincial regulators such as:

- Ontario Ministry of the Environment, Conservation and Parks (MECP)
- Environment and Climate Change Canada (ECCC)
- Employment and Social Development Canada (ESDC)
- Transport Canada (TC).

We are compliant with all federal, provincial, and municipal regulations.

More details on our performance can be found in our quarterly and annual compliance reports:

ANNUAL COMPLIANCE REPORT



Environmental Protection

We understand the value of our surroundings and how important the environment is to all of us. We take great care and pride in our environmental performance.

CFM's Environmental Management program complies with the ISO 14001 environmental management system standard, an internationally recognized standard for environmental management systems. Cameco has corporate certification to the ISO 14001 standard and all of Cameco's operations, including CFM, are in scope of this corporate certification.

This framework assists us in reaching our environmental protection goals and allows us to demonstrate our commitment to sound environmental performance. The standard calls for annual independent audits and re-certification every three years.

The facility's Environmental Protection Program (EPP) includes the following components:

- sampling of water and air emissions;
- high-volume sampling of ambient air at the perimeter of the facility; and
- additional sampling, including soil, surface water and groundwater monitoring

CFM COMPLIANCE REPORT

CFM 2021 ENVIRONMENTAL RISK ASSESMENT

Water Emissions

Water is used in some of our production operations at CFM. Wastewater is collected and treated to remove the majority of UO_2 using an evaporator process. The liquid is sampled and analyzed prior to a controlled release to the municipal sewer system.

CFM releases an exceptionally small amount of uranium to the sanitary sewer. The annual regulatory limit for uranium in water is 1.7 mg/L. In 2020, the amount of uranium in water released by CFM was 0.34kg.

Groundwater Monitoring Program

CFM has an extensive groundwater monitoring program in place. Groundwater monitoring locations are sampled twice per year and surface water features like drainage ditches are sampled three times per year. The samples are analyzed and results are published

Results of the groundwater monitoring program, among other items, are summarized and discussed in the third-party annual uranium in groundwater and surface water review reports.

Uranium in Groundwater Results							
Parameter	Units	Value	2015	2016	2017	2018	2019
Uranium	µg/l	Average	1.7	1.3	1.2	2.3	2.0
		Maximum	18.5	14.0	11.0	27.0	14.0

Air Emissions

CFM has a comprehensive air monitoring program. High volume air samplers (hi-vols), positioned at the perimeter of the CFM site, are used to measure the amount of particulate in ambient air. Air is drawn into a covered housing and through a filter paper by means of a high flow rate blower.

Annual results from all four stations are well below the Ministry of the Environment, Conservation and Parks (MECP) annual average criteria of 0.03 ug/m3.

The hi-vols are located at ground level within the CFM fence line at the east, north, north-west and south west of the fence.

Annual Uranium-in-Air Contentration at Hi-Vol Stations (µg/m³)						
Year	Result	ICP-MS	ICP-MS	ICP-MS	ICP-MS	ICP-MS
		2017	2018	2019	2020	2021
East	Average	0.0002	0.0002	0.0002	0.0003	0.0003
	Maximum	0.0009	0.0005	0.0008	0.0014	0.0039
North	Average	0.0003	0.0002	0.0003	0.0004	0.0004
	Maximum	0.0008	0.0005	0.0014	0.0024	0.0050
North West	Average	0.0002	0.0002	0.0003	0.0003	0.0003
	Maximum	0.0006	0.0006	0.0016	0.0012	0.0042
South West	Average	0.0002	0.0002	0.0003	0.0004	0.0004
	Maximum	0.0010	0.0005	0.0015	0.0014	0.0056

Radiation

Radiation is energy in the form of energy waves or energized particles. Radiation is all around us and is part of our daily lives. It is both naturally occurring and man-made and it exists in different forms. Radiation can be found in everything from rocks and soil, to your granite countertop, to the banana that you eat.

The uranium that we process on site has naturally occurring radiation. We have over 60 years of experience with safely handling and processing this type of material.

Radiation exposure for our workers and the public is stringently regulated by the CNSC. The acceptable levels of exposure are set by the CNSC and are based on decades of scientific studies by the International Commission on Radiological Protection. We have an extensive radiation protection program that is guided by the ALARA (as low as reasonably achievable) principle. This means that we do everything possible to minimize radiation exposures of our workers and the public.

For nuclear energy workers like those who work at CFM, the acceptable dose of radiation exposure is 50 milliseverts (mSv) per year, or no more than 100 mSv over a five-year period. The CNSC has set the acceptable dose of radiation exposure for a member of the public at 1 mSv.

In 2020, public dose from CFM's air and direct gamma radiation emissions was 0.02 mSv, which is 2% of the regulatory dose limit for a member of the public (1 mSv/year). This is just a fraction of the acceptable limit and is so small that it's considered negligible.

0.02 mSv
CFM's annual air & direct gamma radiation emissions

0.005 mSv
Dental x-ray (intraoral)

0.02 mSv
Typical cross-Canada flight

0.1 mSv
Typical chest x-ray

Environmental Risk Assessment

CFM maintains an Environmental Risk Assessment (ERA) which is updated every five years, or if there is a significant change.

This document is a licence requirement and is conducted in accordance with the Canadian Standard Association (CSA) N288.6, environmental risk assessments at Class I nuclear facilities and Uranium mines and mills.

The purpose of an ERA is to assess the effects of the activity to the environment and identify measures that will effectively address potential adverse effects before they occur. There are two parts to an ERA – an assessment of the impact of the facility's operations on human health and an assessment of it's impact on the environment.

The CFM ERA has been updated as part of the regular five-year cycle and a summary is available on our website.

CFM ERA PUBLIC SUMMARY

CFM ERA REDACTED 2017

REVIEW OF THE ENVIRONMENTAL RISK ASSESSMENT FOR CAMECO FUEL MANUFACTURING 2021

As part of the licence renewal process, CNSC staff will review the ERA as part of its assessment of the renewal request and seek additional information if required.

ERA Conclusions

Cameco Fuel Manufacturing has a sophisticated and thorough environmental monitoring program that will continue to cause no undue effects.

- Overall estimated emissions from CFM are and will continue to be low
- Radioactive and non-radioactive environmental releases are not expected to significantly impact the aquatic or terrestrial environment
- For human health, there is no undue impacts expected to members of the public
- The ERA is updated every five years whether a licence is 10 years or 20

Commitment to Open Communications

Tours

We love being able to show off what we do and provide tours of CFM, but unfortunately, due to the COVID-19 pandemic, we have been unable to participate in in-person events or offer facility tours, but we look forward to offering those again in the future.

Government

We engage with elected officials at all levels. We are in regular communication with the Municipality of Port Hope which includes providing delegations to council which are public.

We also work hard to keep our local MP and MPP informed of our operations and activities through meetings and provide facility tours when able.

GET IN TOUCH

If you have questions or you would like a presentation for a group or organization, you can always reach out to us through social media or call us at 905.800.2020 or email us at cameco_ontario@cameco.com.

We are also active on social media.
Find us on Facebook, Twitter or Instagram.

2021 Public Polling

Residents of Port Hope continue to show strong support for local Cameco operations. According to the 2021 public opinion survey, 91% of residents support Cameco's continued operations in Port Hope and there continues to be 100% awareness of Cameco in the community.

Additional 2021 survey highlights include:

All survey respondents (100%) are aware of Cameco's Port Hope operations

9 out of 10 residents support the continuation of Cameco's operations in Port Hope

93% agree that Port Hope is a safe and healthy place to live

85% agree that Cameco does everything possible to protect people and the environment

Cameco has maintained high levels of community support since surveying first began.

VIEW THE SUMMARY REPORT

The public opinion survey of 325 residents was conducted in June 2021 by a third-party consultant. Cameco conducts public opinion surveys to measure levels of awareness, support and trust in the community and to gauge the effectiveness of its communication and public engagement efforts.

Public Disclosure Protocol

PUBLIC DISCLOSURE PROTOCOL FOR ONTARIO OPERATIONS

Blind River Refinery, Cameco Fuel Manufacturing Port Hope & Port Hope Conversion Facility

To keep target audiences in communities with an interest in Cameco operations informed, Cameco commits to:

- Maintaining two-way communication channels to address the questions and concerns of people within our target audience in a timely and clear manner.
- Providing information, through regular community engagement, regarding significant operational changes or expansions that require an environmental assessment or require amendments to our facility licences.
- Providing information postings on our website, with timely efforts to posts within 24 hours about unusual operational events at our facilities that may have off-site consequences or that would be of interest to our target audience.
- Making timely efforts to provide postings to our website within 24 hours, regarding information related to an environmental event that triggers a notification to the Canadian Nuclear Safety
- Commission under Section 29 of the General Nuclear Safety and Control Regulations.
- Providing postings to our website, with timely efforts to post within 24 hours, summaries of non-routine environmental incidents that are required to be reported to the Ontario Spills Action Centre.
- Quarterly posting to our website of compliance monitoring and operational performance reports.
- Building capacity among residents of Port Hope and Blind River to understand the environmental, health and safety aspects of uranium conversion and encouraging youth in communities to understand the opportunities for a safe, healthy, and rewarding career.
- Communicating technical aspects of uranium conversion in plain language.
- Regularly reviewing with community leaders and others how and what we communicate to ensure relevant information is reaching each site's target audience.
- Regularly conducting public opinion polling to help assess the effectiveness of the public information programs in Port Hope and Blind River.
- Posting this public disclosure protocol on our website.

PUBLIC DISCLOSURE PROTOCOL

DISCLOSURES

Resources

- CAMECO FUEL MANUFACTURING LICENCE RENEWAL APPLICATION
- CURRENT CNSC COMMISSION MEMBERS
- PUBLIC COMMISSION HEARINGS
- CFM LICENCE RENEWAL UPDATES
- SAFETY REPORT
- COMPLIANCE REPORTS
- PUBLIC DISCLOSURE PROTOCOL
- DISCLOSURES
- 2021 CAMECO PORT HOPE POLLING RESULTS

Cameco

QUESTIONS?

We understand that the work we do here is complex. We're happy to help answer any questions you may have. Please reach out to us at **905.800.2020** or **cameco_ontario@cameco.com.**