2024 Annual Compliance Monitoring
&
Operational Performance Report

Reporting Period January 1 – December 31, 2024

Port Hope Conversion Facility
Operating Licence
FFOL-3631.00/2027

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Submitted to:
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I EXECUTIVE SUMMARY

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. Cameco's Fuel Services Division (FSD) is comprised of the Blind River Refinery (BRR), the Port Hope Conversion Facility (PHCF), Cameco Fuel Manufacturing Inc. (CFM) and a divisional head office located in Port Hope, Ontario.

Cameco operates a Class IB nuclear facility in Port Hope, Ontario and employs approximately 400 workers. In 2024, the facility operated under fuel facility operating licence FFOL-3631.00/2027 which is valid until February 28, 2027.

The current licence allows for the production of uranium as uranium dioxide (UO_2) and uranium as uranium hexafluoride (UF_6). The facility currently processes and/or stores various natural, depleted, and enriched uranium compounds.

Cameco is committed to the safe, clean, and reliable operation of all its facilities and continually strives to improve safety performance and processes to ensure the safety of both its employees and local residents. PHCF maintains the required programs, plans and procedures in the areas of health and safety, radiation protection, environment, emergency response, fire protection, waste management, and training. As a result of these actions, PHCF's operations have maintained employee radiation exposures well below the regulatory dose limits. Environmental emissions and public radiation exposures are being controlled to levels that are a fraction of the regulatory limits.

The PHCF's Management Systems program identifies the controls required to ensure all processes are conducted in a safe manner and that processes applying to licensed activities are conducted in accordance with applicable CNSC Management Systems and other regulatory requirements.

Operators in both UF_6 and UO_2 plants participated in area specific qualification training or re-training, as per individual and plant requirements.

A wide range of mandatory legislative and other job specific training activities were also carried out in 2024. This training ensures that all personnel have the level of training related to radiation safety, fire safety, chemical safety, on site-emergency arrangements, environmental protection, and conventional health and safety, appropriate for their duties.

To operate in a safe, clean, and reliable manner PHCF has programs and procedures that comprise the safety analysis for the site including the safety report, a fire hazard analysis (FHA), an environmental aspects registry, a chemical hazard assessment and other assessments for safety and/or risk. The safety report is a licence requirement that

summarizes the systematic review of the site operations to identify and assess hazards and potential risks to the public and environment from PHCF.

PHCF has conducted specific assessments to ensure the safety of its operations. These studies have included, but are not limited to, an environmental risk assessment, a flood study, a harbour wall study, and screening level risk assessments for UF_6 and anhydrous hydrogen fluoride (AHF) service.

There were no modifications made in 2024 that negatively affected the safety case for the PHCF.

The safety-significant systems at the facility have been identified and a preventive maintenance program is in place to ensure that the equipment associated with these systems is properly maintained.

Changes to the physical design of equipment, processes, and the facility with the potential to impact safety are evaluated from project planning through to the completion of the project. A site design control procedure is in place which ensures that any equipment changes, or modifications will not have an adverse effect on the environment or on the health and safety of employees or members of the public. In 2024, there were no significant changes to the Process and Design Change Control process.

The Operational Reliability program, which was introduced in late 2010, consists of four focus areas deemed key to improving and maintaining reliable operations. They include materials management, work management, reliability engineering, and operations improvement.

The radiation protection program at the PHCF is well established, with detailed procedures outlining the processes under each element of the program. Review of the 2024 dose data indicates that the program is effective in the prevention of unreasonable risk to the health and safety of workers. Though the radiation protection and as low as reasonably achievable (ALARA) programs have been demonstrated to be effective, the PHCF has also made improvements as part of its continual improvement program.

The health and safety management program fosters and promotes a strong sustainable safety culture. Under the Operational Excellence initiative, PHCF strives for a safe, healthy, and rewarding workplace. The effectiveness of the conventional Occupational Health and Safety (OH&S) system can be evaluated by the responsiveness of the site to leading safety activities such as the Conversion Safety Steering Committee (CSSC), audits, inspections, evaluations, reviews, benchmarking, training and employee participation and engagement. The PHCF was successful in meeting the expectations of these various initiatives. Occupational health and safety efforts at PHCF are supported by

one joint committee, the CSSC. The CSSC, created in 2013, incorporates the previously existing Policy Health and Safety Committee (PHSC) and Workplace Health and Safety Committee (WHSC) into one committee.

There were no significant changes to the Environmental Management Program in 2024.

PHCF maintained its emergency preparedness and response program while looking for opportunities to further improve. Activities and associated records are subject to various audits and are incorporated into the PHCF annual management review.

PHCF has a waste management plan in place at the facility in compliance with applicable regulatory and licence requirements. The most recent revision of the preliminary decommissioning plan was submitted to the CNSC in September 2022.

PHCF maintains a comprehensive security program which meets the requirements of the General Nuclear Safety and Control Regulations, the Nuclear Security Regulations and other CNSC requirements.

A comprehensive uranium inventory system to demonstrate compliance with safeguards requirements is maintained. PHCF participated in nine safeguard inspections/activities in 2024.

The scope of transportation activities at the PHCF includes the transport of Class 7 radioactive materials outlined in the *Transportation of Dangerous Goods Act*. There were two reportable transportation events related to the PHCF in 2024:

- On April 4, 2024, there was a minor traffic/vehicular incident with a 48Y cylinder destined for Urenco USA. There was no damage to the 48Y cylinder and only minor damage to the truck.
- On October 17, 2024, there was a minor traffic incident with a 48Y cylinder destined for Urenco USA.

Cameco works to build and sustain the trust of local communities by acting as a good corporate citizen in the communities it operates. A key element of building and sustaining that trust is a commitment to provide those in the community with accurate and transparent reporting of environmental practices and performance. Cameco continued its comprehensive approach to community outreach in 2024 with the continuation of community outreach, newsletters, and other information initiatives.

The nuclear criticality safety program at the PHCF follows the criticality control principles as described in Radiation Protection Program Manual. The PHCF met all site-specific reporting requirements.

Vision in Motion (VIM) is Cameco's plan to clean up and renew the PHCF. The project builds on work now under way through the Port Hope Area Initiative (PHAI) to address historic low-level radioactive waste issues in the Municipality of Port Hope. A separate supplementary report specific to VIM will be submitted in conjunction with this report for 2024.

In conclusion, in 2024 the PHCF continued to operate within the framework of the *Nuclear Safety and Control Act* (NSCA) and met all requirements as per its operating licence.

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1.0 INTRODUCTION

1.1 General Introduction

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

Cameco's Fuel Services Division (FSD) is comprised of the Blind River Refinery (BRR), the Port Hope Conversion Facility (PHCF), Cameco Fuel Manufacturing Inc. (CFM) and a divisional head office located in Port Hope, Ontario.

Cameco operates a Class IB nuclear facility in Port Hope, Ontario and employs approximately 400 workers. In 2024, the facility operated under fuel facility operating licence FFOL-3631.00/2027 which is valid until February 28, 2027. There were no new licensed activities undertaken in 2024 requiring approval from the CNSC Commission.

PHCF is situated on the north shore of Lake Ontario in Ward 1 of the Municipality of Port Hope, Ontario. Site 1 is bounded by Hayward Street to the north, the Port Hope harbour to the east, Lake Ontario to the south, and Choate Street, Marsh Street and municipal land associated with the Port Hope Water Treatment Plant to the west. Eldorado Place bisects the southern portion of the site, with the employee parking lot located further to the west. Site 2 is a storage facility situated in the Nelson Street and Dorset Street East area.

Vision in Motion (VIM) is Cameco's plan to clean up and renew the PHCF. The project builds on work now under way through the Port Hope Area Initiative (PHAI) to address historic low-level waste issues in the Municipality of Port Hope. It provides Cameco with an opportunity to deliver an allowance of qualifying waste materials to the Long-Term Waste Management Facility (LTWMF) that was constructed by the PHAI on the site of the licensed Welcome Waste Management Facility.

Figure 1 – Site 1 - Port Hope Conversion Facility

Figure 2 – Site 2 - Storage Facility

Cameco is committed to the safe, clean, and reliable operation of all its facilities and continually strives to improve safety performance and processes to ensure the safety of both its employees and local residents.

PHCF maintains the required programs, plans and procedures in the areas of health and safety, radiation protection, environment, emergency response, fire protection, waste management, and training.

As a result of these actions, PHCF has continued to produce uranium products for the Canadian and international nuclear industry while at the same time maintaining radiation exposures to the workforce well below the dose limits. Environmental emissions and public radiation exposures are being controlled to levels that are a fraction of the regulatory limits.

The submission of this report fulfills the requirement of section 4.2 of the operating licence for PHCF (FFOL-3631.00/2027). The annual compliance report was prepared in accordance with the CNSC document *REGDOC 3.1.2 Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills*. This report describes the facility operations and provides a summary of the Safety and Control Areas for 2024 as listed in the Licence Conditions Handbook (LCH).

Laws, regulations, and international agreements applicable to the PHCF are referenced in site documentation including the LCH. Some of these are listed below:

- *Nuclear Safety and Control Act (NSCA) and its Regulations*
- *Canadian Environmental Protection Act*
- *Transportation of Dangerous Goods Act*
- *Access to Information Act*
- *Canada/IAEA Safeguards Agreement*
- *Canada Labour Code, Part II*

Cameco is committed to reducing the frequency and significance of all events at site, including loss of primary containment (LOPC) events. Therefore, events of significance are investigated and resulting actions are tracked through the Cameco Incident Reporting System (CIRS).

In addition to the CNSC, the PHCF is regulated by other federal and provincial regulators, such as the Ontario MECP, Environment and Climate Change Canada (ECCC), Employment and Social Development Canada (ESDC), and Transport Canada (TC).

The acronyms in the following table are used in this report.

Table 1
ACRONYMS USED WITHIN THIS REPORT

ACRONYM	DESCRIPTION
AAQC	Ambient Air Quality Criteria
AHF	Anhydrous Hydrogen
ALARA	As Low As Reasonably Achievable
BRR	Blind River Refinery
Bq/cm^2	Becquerel per Square Centimeter
Cameco	Cameco Corporation
CaO	Calcium Oxide
CBT	Computer Based Training
CCC	Criticality Control Committee
CCM	Contaminated Combustible Material
CCME	Canadian Council of Ministers of the Environment
CFM	Cameco Fuel Manufacturing
Charter	The Safety Charter
CIRS	Cameco Incident Reporting System
CNC	Contaminated Non-Combustible Material
CNL	Canadian Nuclear Laboratories
CNSC	Canadian Nuclear Safety Commission
CofA	Certificate of Approval
COC	Contaminants of Concern
CSSC	Conversion Safety Steering Committee
C-TPAT	Customs-Trade Partnership Against Terrorism
DRD	Direct Reading Dosimeter

ECCC	Environment and Climate Change Canada
ECA	Environmental Compliance Approval
EMP	Environmental Monitoring Program
ERP	Emergency Response Plan
ERT	Emergency Response Team
ESDC	Employment and Social Development Canada
FHA	Fire Hazard Analysis
FFI	Facility Fire Inspections
FPP	Fire Protection Program
FSD	Fuel Services Division
gU/h	Grams of Uranium per hour
HAZOP	Hazard and Operability Analysis
HIRAC	Hazard Identification, Risk Assessment and Control
I&E	Impingement and Entrainment
IAEA	International Atomic Energy Agency
JTA	Job Task Analysis
KPI	Key Performance Indicator
LCH	Licence Conditions Handbook
Licence	Licence FFOL-3631.00/2027
LIMS	Laboratory Information Management System
LOPC	Loss of Primary Containment
LTWMF	Long Term Waste Management Facility
MECP	Ontario Ministry of the Environment, Conservation and Parks
mSv	Millisievert
NEW	Nuclear Energy Worker

NO_x	Nitrogen Oxides
NO_2	Nitrogen Dioxide
NO_3	Nitrate
NSCA	Nuclear Safety Control Act
OH&S	Occupational Health and Safety
OJT	On the job training
PDP	Preliminary Decommissioning Plan
PHAI	Port Hope Area Initiative
PHCF	Port Hope Conversion Facility
PHFES	Port Hope Fire and Emergency Services
PM	Planned Maintenance
PTTW	Permit to Take Water
QA	Quality Assurance
SAP	SAP is a corporate wide enterprise application software for asset management, maintenance management, accounting and purchasing functions
SAT	Systematic Approach to Training
SCBA	Self-Contained Breathing Apparatus
SCR	Selective Catalytic Reduction
SHEQ	Safety Health Environment and Quality
SPOC	Single Point of Contact
SSC	Systems Structures and Components
TC	Transport Canada
UF_6	Uranium Hexafluoride
µgU/L	Micrograms of Uranium per Litre
UO_2	Uranium Dioxide

UO_3	Uranium Trioxide
µR/h	Microroentgen per Hour
µSv	Microsievert
WSIB	Workplace Safety and Insurance Board

1.2 Facility Operation

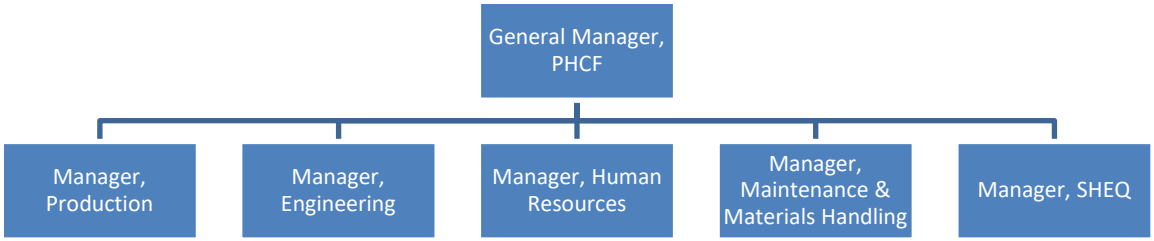
Cameco continues to strive for operational excellence at all its facilities through consistent application of management systems across its operations to ensure that they operate in a safe, clean, and reliable manner. Corporate policies and programs, including that for safety, health, environment, and quality (SHEQ) provide guidance and direction for all site-based programs and procedures that define the PHCF Quality Management System.

The general manager is accountable for the programs and procedures for operating and maintaining the facility. The responsibilities for these programs and procedures have been delegated amongst the management team at PHCF and their respective personnel. All members of the site's management team are held accountable for the roles and responsibilities that they hold.

There were no significant organizational changes in 2024.

An organizational chart for PHCF for 2024 is shown in Figure 3.

Figure 3 - PHCF Organizational Chart



The manager, SHEQ reports directly to the general manager and has delegated day-to-day communications with CNSC staff related to specific activities to the Superintendent, SHEQ. This position is responsible for coordinating and tracking compliance actions, maintenance of the facility's safety report and serves as the single point of contact (SPOC) with the CNSC for licensed activities at the site.

PHCF has a Licence Conditions Handbook (LCH), issued by the CNSC. The purpose of this handbook is to establish and consolidate into one document the compliance framework related to the Cameco PHCF licence. The LCH outlines CNSC expectations

by defining the licensing basis, explaining the regulatory context related to each licence condition, and identifying the verification criteria for each licence condition.

In addition to Cameco requirements regarding management systems, the facility's management systems program has been designed to meet *REGDOC-2.1.1, Management System* and *CSA N286-12 Management system requirements for nuclear facilities*. This program provides the controls to ensure all processes are conducted in a safe manner and that processes applying to licensed activities are conducted in accordance with applicable CNSC quality requirements and other regulatory requirements. The application of the quality requirements is scaled according to the safety significance (complexity and hazard potential) of a particular activity.

PHCF was the first site in Cameco registered to the ISO 14001 Environmental Management System Standard, which is an internationally recognized standard for environmental management. As part of the management system programs, corporate conducts audits as per a three-year schedule to assess the level of conformance to these management systems. In addition, the facility also conducts compliance audits in the areas of health safety and environmental legislation to ensure PHCF continues to meet all applicable regulatory requirements. Lastly, corporate technical experts perform periodic audits of the site management systems programs to ensure the site complies with corporate expectations.

Changes to the physical design of equipment, processes, and the facility with the potential to impact safety are evaluated from project planning through to the completion of the project. This review identifies impacts and potential impacts to the environment, radiation protection, health and safety and fire protection. A site design control procedure is in place which ensures that any equipment changes, or modifications will not have an adverse effect on the environment or on the health and safety of employees or members of the public.

In 2024, there were no significant changes to the Process and Design Change Control process.

Both the UO_2 plant and the UF_6 plant operated without interruption in the 1st and 2nd quarters of 2024 with the exception of a planned mini outage in April 2024 for the UF_6 plant.

The UO_2 plant completed their last day of production on June 28, and commenced a summer shut down and maintenance outage period. The plant was shut down for a vacation period and temporary transfer to other departments for July and most of August.

The last two weeks of August UO_2 completed their maintenance outage with a restart on September 2.

The UF_6 plant operated without interruption in the 3rd and 4th quarters of 2024 with the exception of a brief mini outage completed in October for electrical and scrubber preventative maintenance. The plant was restarted after the outage and ran continuously through the holiday period into 2025.

The UO_2 plant operated without incident from September 2 through to the end of the fourth quarter. The UO_2 plant completed the 2024 production campaign on December 20 at which time the plant was shut down until the new year. The plant was restarted January 6, 2025.

The PHCF experienced the following reportable events in 2024:

- Elevated hi-vol dust results
- Radiation protection action level exceedances (urinalysis)
- Radiation protection action level exceedance (whole body dose)
- Injury (Fall from height)
- Spill from vacuum truck
- UF_6 plant – Small release on 3rd floor

PHCF maintains the required programs, plans and procedures in the areas of health and safety, radiation protection, environment, emergency response, fire protection, waste management, and training. As a result of these actions, PHCF's operations have maintained radiation exposures well below the regulatory dose limits. Environmental emissions are being controlled to levels that are a fraction of the regulatory limits, and public radiation exposures are well below the established limits.

The performance of the facility in 2024 demonstrates that Cameco is qualified to carry out the activities permitted under the Licence. All activities on the defined site in the licence are subject to the Nuclear Safety and Control Act (NSCA). Cameco is committed to take all reasonable precautions to protect the environment and the health and safety of employees and the public, to maintain the security of the facility and the nuclear substances associated with the facility, and the necessary measures to facilitate Canada's compliance with international safeguards obligations.

1.3 Facility Modification

There were no modifications affecting the safety analysis of the licensed facility made in 2024 that required written approval of the Commission, or a person authorized by the Commission.

The following PHCF documents referenced in the LCH were revised in 2024:

- Fire Safety Plan
- Fire Protection Program
- Radiation Protection Program Manual
- Emergency Response Plan
- Process and Design Change Control
- Port Hope Conversion Facility Main Site Layout Drawing
- Management Systems Program Manual
- Facility Security Plan
- Asset Management and Reliability Program
- Emergency Response Team Minimum Staffing
- Environmental Protection Program
- Environmental Risk Assessment
- Radioisotope Source Control
- In Service Inspection of Safety Significant Systems/Structures/Components
- Supplemental VIM Submission and VIM Description
- UF_6 Plant Supervisor Training Procedure
- Port Hope Training Plan
- Supplementary Environmental Monitoring Plan for Vision in Motion and other Clean-Up Program Projects

2.0 SAFETY AND CONTROL AREAS

2.1 Management

2.1.1 Management System

This safety and control area covers the framework which establishes the processes and programs required to ensure that the organization achieves its safety objectives and continuously monitors its performance against these objectives, as well as fostering a healthy safety culture.

The PHCF's management systems program identifies the controls required to ensure all processes are conducted in a safe manner and that processes applying to licensed activities are conducted in accordance with applicable CNSC management systems requirements and other regulatory requirements. The application of management systems requirements is scaled according to the complexity and hazard potential of a particular activity.

The annual site management review meeting was held March 5, 2025, to review the suitability, adequacy, and effectiveness of the SHEQ policy during 2024. The site management systems, which cover all site programs, were reviewed and sufficient information was provided to demonstrate effectiveness. All safety and control areas were assessed as part of the 2024 Annual Management Review.

As part of its management system the PHCF has a site audit program that routinely looks at various aspects of site operations related to the licensed activities. In addition to internal SHEQ and compliance audits, PHCF also had a number of audits completed in 2024 as shown below. It should be noted that the list does not include inspections completed by CNSC staff as part of their oversight of licence activities.

- A second party audit of the FSD Internal Dosimetry Program was completed. This audit is a requirement under the quality assurance program developed for the Internal Dosimetry Services Licence issued to BRR, CFM and PHCF.
- An annual facility condition inspection was conducted in 2024.
- 3 internal corporate SHEQ audits were completed in 2024.
- An ISO14001 audit was completed in 2024.

There were no significant issues identified during the internal or external audits completed in 2024. Audits will not be discussed elsewhere in this report. Details and findings related to the audit program will be submitted under separate cover due to the confidential nature of the information.

All procedures that support licensed activity are subject to the site document control process as described in the various site document control procedures. Procedures that support the licensed activity are maintained in electronic format on a database available to all site personnel. This includes, but is not limited to, procedures for operating and maintaining the facility, all environmental health and safety procedures, radiation protection and management systems.

In 2024, the PHCF maintained its Management Systems Program Manual in compliance with *CSA N286-12 Management System requirements for nuclear facilities*. There were no significant changes to the Management Systems Program in 2024.

PHCF follows a systematic evaluation method for its safety culture self-assessments which are generally completed every five years. Cameco uses these assessments to shape the safety program improvements at each site. The last safety culture self-assessment completed for the PHCF was done in 2021.

2.1.2 Human Performance Management

This safety and control area covers activities that enable effective human performance through the development and implementation of processes that ensure that licensee staff members are sufficient in numbers in all relevant job areas, and have the necessary knowledge, skills, and tools in place, in order to safely carry out their duties.

PHCF operations continued to ensure that all training requirements were met for all personnel. In 2024, the site completed the year with 96.6% compliance. The site target for training compliance was 95% in 2024. Training activity included mandatory, legislative and job specific training. The goal at the PHCF is to ensure employees are competent and qualified to perform the duties of their position safely. A well-trained employee is also a safe employee. A systematic approach to training (the process in use at the PHCF) ensures that all required knowledge, skill, and safety-related attributes have been attained, through a process of performance-based assessment and evaluation.

Training ensures that all personnel have the level of training related to radiation safety, fire safety, chemical safety, on site-emergency arrangements, environmental protection, and conventional health and safety, appropriate for their duties. Systems are in place to ensure employees only perform functions for which they are qualified.

Mandatory No Go courses remained a focus for training in 2024. A No Go course is one deemed critical to the PHCF where only employees who possess a current qualification shall perform the work associated with that qualification. No Go compliance by the end of the year was 97.7%, well ahead of the 95% target.

Training developed using a Systematic Approach to Training resulted in updates to job-specific packages for UF_6, Powerhouse, $U0_2$, Maintenance, CUP, Yard Crew, and SHEQ. In addition, Systematic Approach to Training packages for SHEQ courses included topics like Fall Protection, Non-Standard Lift, Lift Director, Overhead Crane, and Lightening Safety.

Cameco has a range of programs in place to ensure that employees are fit for duty. These programs and procedures cover human resource matters such as a program for alcohol and substance abuse, violence in the workplace, respectful workplace as well as addressing more general health matters such as routine medical surveillance and radiation protection monitoring.

During 2024, the PHCF maintained a sufficient number of production personnel to ensure that operating production areas and the site were adequately staffed to run safely. In cases where staffing became an issue, production areas were safely shut down until sufficient personnel were available.

In 2024, the following changes occurred with respect to certified or licensed employees:

- 2 External Millwrights hired - 1 due to budgeted headcount increase for maintenance restructure, 1 hired due to an internal millwright moving to a Planner position.
- 3 External Chemical Operators UF_6 hired – Internal transfers out of UF_6 to other internal positions.
- 1 External Chemical Operator UO_2 hired due to a retirement.
- 1 External NDT Tech hired for a newly created shift schedule (afternoons).
- 3 External Steamfitters hired – 1 due to budgeted headcount increase, 1 to replace an internal S/F who transferred to Planner role, 1 to replace a resignation.
- 4 External 2nd Class Operating Engineers – 4 due to resignations.
- 4 External Cell Maintenance Operators hired - 3 due to internal transfers out of CM to other internal positions, 1 due to newly created shift (afternoons).
- 2 External Production Engineers hired – 1 due to internal transfer out to different department, 1 due to termination.
- 2 External Welders – 1 due to budgeted headcount increase for maintenance restructure, 1 hired due to termination.
- 1 External Electrician – hired due to retirement.

2.1.3 Operating Performance

This safety and control area includes an overall review of the conduct of the licensed activities and the activities that enable effective facility performance.

In 2024, the PHCF continued to operate in a manner that supports safe, clean, and reliable production and in compliance with applicable acts and regulations.

Both the UO_2 plant and the UF_6 plant operated without interruption in the 1st and 2nd quarters of 2024 with the exception of a planned mini outage in April 2024 for the UF_6 plant.

The UO_2 plant completed their last day of production on June 28, and commenced a summer shut down and maintenance outage period. The plant was shut down for a vacation period and temporary transfer to other departments for July and most of August. The last two weeks of August UO_2 completed their maintenance outage with a restart on September 2.

The UF_6 plant operated without interruption in the 3rd and 4th quarters of 2024 with the exception of a brief mini outage completed in October for electrical and scrubber preventative maintenance. The plant was restarted after the outage and ran continuously through the holiday period into 2025.

The UO_2 plant operated without incident from September 2 through to the end of the fourth quarter. The UO_2 plant completed the 2024 production campaign on December 20 at which time the plant was shut down until the new year. The plant was restarted January 6, 2025.

The maximum daily production rate for the UF_6 plant did not exceed the licensed limit of 45 tonnes uranium as UF_6. The annual production of uranium in the UF_6 plant did not exceed the limit of 12,500 tonnes uranium as UF_6.

The annual production of uranium as UO_2 did not exceed the licensed limit of 2,800 tonnes uranium.

Detailed plant production information is considered “Protected Proprietary” and is submitted to the CNSC on an annual basis under a separate cover.

PHCF’s operating performance is tracked using a comprehensive set of key performance indicators (KPIs) and objectives. In addition, the CNSC and other regulatory agencies have conducted facility inspections to verify compliance with applicable acts and regulations.

As part of its management system, the PHCF has a site audit program that routinely looks at various aspects of site operations related to the licensed activities. This is discussed in detail in the Management System section.

During 2024, PHCF experienced the following reportable incidents. All these events were thoroughly investigated with corrective action plans developed. There was no risk to the public related to any of these incidents. Cameco is confident that through the corrective actions implemented, the review of the incidents that occurred and robust management systems the PHCF will continue to operate in a safe, clean, and reliable manner.

On January 22, 2024, Cameco reported to the Ontario Ministry of Environment, Conservation and Parks (MECP) an ambient station high volume air sampler (hi-vol) exceedance of 171 µg TSP/m^3 total suspended particulate (TSP) for the period of January 19-20, 2024 at the Marsh Street Hi-Vol station. The measurement was above the ECCC and MECP 120 µg/m^3 TSP dust criteria for visibility. It is likely that a combination of street traffic levels along Marsh Street and certain weather conditions are contributing to higher dust levels at the Marsh Street Hi-Vol sampler.

An employee pre-shift uranium in urine sample result was 120 µgU/L which is above the action level of 65 µgU/L. An investigation was completed, and the elevated result was found to have been due to a contaminated sample.

On April 9, 2024, a contractor sustained an injury due a fall from height at the site 2 Dorset Street location.

On April 18, 2024, a vacuum truck transferring contaminated water from a storage tank leaked, releasing water to the ground and to the harbour via a catch basin. It was estimated approximately 10 L entered the catch basin. The leak was stopped and residual water at surface and within the catch basin was recovered. An investigation was completed.

On May 21, 2024, Cameco reported to the Ontario Ministry of Environment, Conservation and Parks (MECP) ambient station high volume air sampler (hi-vol) exceedances of 148 µg TSP/m3, 121 µg TSP/m3 and 217 µg TSP/m3 total suspended particulate (TSP) for the period of May 14 - 16, 2024, at the Marsh Street Hi-Vol station. The measurements are above the ECCC and MECP 120 µg/m3 TSP dust criteria for visibility. These elevated dust results were localized and caused by sections of roadway along Marsh Street being prepped for paving (May 14), asphalt paving (May 15) and street sweeping (May 16).

A contractor had fluoride in urine sample results above the action level of 7 mgF/L. An investigation was completed. The contractor had not been onsite for 4 days prior. The sample results are most likely non-occupational.

An employee had a whole-body dose for the month of June at 2.6 mSv which is above the action level of 2.0 mSv. Dosimeter results for the month of June were available at the end of July. An investigation was completed.

On October 23, 2024, there was a small release of UF_6 from a line in the 3rd floor cold trap area. The plant was not in operation at the time. Operations personnel managed the situation; however, ERT was activated for standby support and to perform HF air monitoring outside the release area.

A post-shift fluoride in urine result for an employee on December 18, 2024 was above the action level at 8.8 mgF/L. The action level for fluoride in urine is 7.0 mgF/L.

2.2 Facility and Equipment

2.2.1 Safety Analysis

This safety and control area covers the maintenance of the safety analysis which supports the overall safety case for the facility. This safety analysis is a systematic evaluation of the potential hazards associated with the conduct of a proposed activity or facility and considers the effectiveness of preventative measures and strategies in reducing the effects of such hazards.

PHCF has a safety report that documents the detailed safety analysis carried out for the facility. The safety report summarizes the systematic review of the site operations to identify and assess hazards and potential risks to the public and environment from PHCF operations. Cameco uses a hazards and operability (HAZOP) approach to assess new processes or equipment. This focuses on equipment, instrumentation, human actions, and other factors that impact on the process. HAZOPs are conducted prior to making any plant modifications that may affect the safety case for the facility, with the site safety report updated at least every five years to include the findings from any HAZOP's completed since the last revision to the report.

There were no modifications made in 2024 that negatively affected the safety case for the PHCF.

The safety-significant systems at the facility have been identified and a preventive maintenance program is in place to ensure that the equipment associated with these systems is properly maintained.

2.2.2 Physical Design

This safety and control area relates to activities that impact on the ability of systems, structures, and components (SSCs) to meet and maintain their design basis, given new information arising over time and considering changes in the external environment.

As part of Cameco's budgeting process for capital expenditures, plant improvements related to physical design are identified and prioritized. A Stage Gate process is used at PHCF to review capital projects at up to four points in the design process. This process includes sign-off by site management (or designate), to ensure that these requirements are addressed in every capital project.

PHCF contains numerous types of conventional industrial equipment including storage tanks, conveyors, and associated piping, as well as specialized equipment for the uranium conversion processes. The plant equipment is designed, installed, operated, and modified with materials suitable for the service and hazards of each area.

Changes to the physical design of equipment, processes, and the facility with the potential to impact safety are evaluated from initial planning through to the completion of the project. This review identifies impacts and potential impacts to the environment, radiation protection, health and safety and fire protection. A site design control procedure is in place which ensures that any equipment changes, or modifications will not have an adverse effect on the environment, on the health and safety of employees or on members of the public.

PHCF has a contractual arrangement with the provincial Technical Standards and Safety Authority (TSSA) to ensure that oversight of pressure retaining components and systems continues to be carried out by a third-party expert. As part of this process, PHCF utilizes non-destructive examination techniques to assess the integrity of pressure vessels and related systems. These examinations are primarily done in-house by qualified staff, though qualified third-party experts are used when necessary.

There were no significant changes to systems, structures and components that occurred at the PHCF in 2024.

There were no significant changes to the Process and Design Change Control process.

2.2.3 Fitness for Service

This safety and control area covers activities that impact on the physical condition of SSCs, to ensure that they remain effective over time. This includes programs that ensure all equipment is available to perform its intended design function when called upon to do so.

Critical requirements for maintaining a safe facility are effective maintenance and QA programs. This is to ensure any changes to plant equipment are adequately controlled and authorized, and do not adversely affect the safety of the facility.

Work continued in 2024 to progress in all areas of the Operational Reliability program. The site Operational Excellence scorecard established a variety of objectives and targets for 2024 as part of our 5-year Operational Excellence Master Plan. There were 23 targets / objectives captured in the annual 2024 Operational Excellence Scorecard as indicated below.

The effectiveness of the program, as it pertains to reliability of equipment and systems, continues to be measured through several leading and lagging metrics (KPI's). Program effectiveness is defined by improving trends of these indicators to reach world class standards for industry.

Highlights of selected KPI's by focus area, include:

- Work Management
    - Schedule load, which represents the planned work each week versus the available resource hours, was 74% versus a target of 90%. Work continued on this KPI to improve our weekly schedule load to maximize the work completed.
    - Schedule compliance went down to 62% of work being executed in the week it was scheduled. The team is challenged by attendance issues and effectively moving uncompleted work to the following week's schedule with work being managed for the first time on a 24x7 basis.
- Materials Management
    - Inventory management of our spare parts was well executed in 2024 with minimal impacts to safe reliable production. Work continues to assess and improve appropriate stock levels of Maintenance, Repair and Operating materials with a focus on our ~300 critical MRO materials inventory levels to ensure they reflect current usage and delivery timing.
- Reliability Engineering

  - Condition based monitoring of equipment continues to be a focus with additional improvements being made on all inspection types: thermography, ultrasonic bearing inspections, ultrasonic steam trap inspections, ultrasonic compressed air leak inspections, vibration, and oil analysis.
  - Live Ultrasound bearing condition monitoring and auto greasing was implemented in December of 2024 which will reduce the likelihood of bearing failure on all high priority assets in the UF6 plant and the Powerhouse. The improvement project for live condition monitoring of high priority assets in the UF6 Plant and Powerhouse using vibration monitoring was approved in December with a 2025 implementation. A third type of condition monitoring, for steam traps, continues in the pilot phase and has been expanded to additional 30 traps at site to ensure we effectively evaluate this technology.
  - 'Bad Actor' assets continue to be identified in the Production Loss Elimination Process (PLEP), for both downtime and high maintenance costs. Reliability engineers facilitated Reliability Centered maintenance workshops to review failures/costs with key stakeholders and assessed existing asset maintenance strategies for opportunities to improve. Additionally, the team implemented a new process for short cycle problem solving in Q3 focused on asset uptime opportunities using simple problem solving and updates to asset maintenance strategies (i.e. PM's).
- Operations Improvement
  - Overall Equipment Effectiveness (OEE) for the UF_6 was under target but the change of operating strategy with the elimination of the summer shutdown and the resulting additional days of production resulted in our 2nd highest production volume in the plants history. The UO_2 plant was above target.

Testing and verification activities are integrated into the preventive maintenance strategy for any SSCs. Compliance to the activities is measured on a weekly basis.

The asset management program accounts for ageing through several processes designed to detect early warning signs and to prescribe rehabilitation programs or pro-active replacement strategies. The effectiveness of the program is measured by the same means as the overall maintenance program and is considered to be effective.

PHCF has an established Planned Maintenance (PM) program whereby all tasks are initiated and documented through the computerized maintenance management system in SAP (SAP is a corporate wide enterprise application software for asset management, maintenance management, accounting and purchasing functions). PM plans are issued, reviewed, and updated periodically to ensure the PM routines continue to be effective and adequate. KPIs are in place to monitor the effectiveness of the program.

Fire protection systems are tested according to an established schedule as outlined in the Fire Protection Program. Third-party reviews are conducted to confirm required tests and inspections with respect to fire protection are completed and these review reports are submitted to the CNSC.

Based on the maintenance related KPI's, the maintenance program, which includes the aging management component, is considered to be effective.

There were no significant changes to the Asset Management and Reliability program in 2024.

2.3 Core Control Processes

2.3.1 Radiation Protection

This safety and control area covers the implementation of a radiation protection program, in accordance with the *Radiation Protection Regulations*. This program must ensure that contamination and radiation doses are monitored and controlled.

PHCF has an extensive Radiation Safety Program in place to meet the requirements of the *Nuclear and Safety Control Act* and the *Radiation Protection Regulations* and ensure exposures are kept to levels as low as reasonably achievable (ALARA). The program includes the following aspects:

- External dosimetry – personal monitoring
- Internal dosimetry – urine analysis & lung counting programs
- Workplace air sampling program
- Respirator program
- Radiation & contamination surveys

The CNSC regulatory limits for effective dose for Nuclear Energy Workers (NEWs) are 50 millisievert (mSv) per year and no more than 100 mSv over a specified five-year period.

For various radiological parameters, Cameco has established action levels, which are well below regulatory limits that may be indicative of a potential loss of control for that specific parameter. These action levels serve as an early warning of a condition that warrants further investigation. In addition, as a continual improvement tool, Cameco has established lower-tier internal administrative levels, which are set below the action levels and provide very early warning of a potential concern. A result above an internal administrative level is also investigated and remedial actions taken if necessary.

Radiation protection objectives and targets are established jointly by the site management team, site specialists and FSD specialists, including the health physicist, to ensure there is agreement, commitment and awareness of these objectives and targets. These objectives and targets can address, among other things, worker dose reduction initiatives and other projects which examine ways to reduce in-plant uranium-in-air concentrations. The status of these objectives and targets is reviewed by the site management team and resources are allocated as required to achieve the targets.

Audits and inspections were performed in accordance with licence conditions. Refer to the Management Systems section of this report for further details.

The performance of the Radiation Protection Program is tracked using KPIs. The KPIs for this program include but are not limited to risk control, training, objectives and targets, operational controls, and monitoring.

The radiation protection program at PHCF is well established, with detailed procedures outlining the processes under each element of the program. Review of the 2024 dose data indicates that the program is effective in the prevention of unreasonable risk to the health and safety of workers.

The following events were reported to CNSC in 2024 related to radiation protection:

- An employee pre-shift uranium in urine sample result was 120 µgU/L which is above the action level of 65 µgU/L. An investigation was completed, and the elevated result was found to have been due to a contaminated sample.
- A contractor had fluoride in urine sample results above the action level of 7 mgF/L. An investigation was completed. The contractor had not been onsite for 4 days prior. The sample results are most likely non-occupational.
- An employee had a whole-body dose for the month of June at 2.6 mSv which is above the action level of 2.0 mSv. Dosimeter results for the month of June were available at the end of July. An investigation was completed, and it was found that the employee was not wearing a DRD during higher dose tasks.
- A post-shift fluoride in urine result for an employee on December 18, 2024 was above the action level at 8.8 mgF/L. The action level for fluoride in urine is 7.0 mgF/L. The elevated result was most likely due to loose contamination present on coveralls when respirator was removed.

Though the radiation protection and ALARA programs have been demonstrated to be effective, PHCF has also made significant improvements as part of its continual improvement program, including:

Program Improvements:

- The site safety meeting for the month of June 2024 was focused on the process for abnormal intakes.
- In June 2024, the annual lung count and chest wall thickness measurement intercomparison testing with Health Canada was successfully completed.
- Successfully obtained a dosimetry license renewal in November 2024.

Procedural Improvements

- CAP:RAD:29 Monitoring Procedure for Free Release

- CAP:RAD:47 Surface Contamination Monitoring on Shipments of Drummed Materials
- CAP:RAD:2 Radiological Monitoring of UF_6 Cylinders
- CAP:RAD:11 In-Plant Air Sampling for Uranium
- CAP:RAD:14 Contamination Monitoring of Plant Clothing and Boots
- CAP:RAD:6 Calibration of Contamination Survey Meters
- CAP:RAD:16 Performing Check for Loose Contamination using the Swipe Check Method
- PHF-TSRP-Z062 Radiation Survey for TDG Radioactive Material Shipments
- CAP:RAD:27 Operating Plant Gamma Surveys
- CAP:RAD:20 External Dosimetry: Direct Reading Dosimeter Program
- CAP:RAD:17 Monitoring Procedure for Scrap Metals Disposal
- CAP:RAD:30 Monitoring Procedure for Vehicles Leaving the Property
- CAP:RAD:18 OSLD Program
- CAP:RAD:59 Compliance to Dosimetry Programs
- CAP:RAD:33 Procedures for Control of Radioactive Spills
- CAP:RAD:60 Quality Review of Radiation Protection Date for Regulatory Compliance Reporting
- CAP:RAD:40 Routine Lung Count Data Acquisition
- CAP:RAD:13 Radioisotope Source Control
- CAP:RAD:53 Relocating Lung Count Trailer to the Blind River Refinery

PHCF's performance in 2024 regarding the ALARA targets is summarized below:

- Maintain employee maximum radiation exposures to ALARA levels or below:
    - The 5 mSv for external whole-body dose was met. The maximum dose of 4.39 mSv in 2024 was received by a UF_6 operator.
    - The 36 mSv for external skin dose was met. The maximum dose of 18.3 mSv was received by a UF_6 operator.
    - The 1 mSv for internal dose – urine analysis was met. The maximum dose of 0.94 mSv was received by a UF_6 operator.
    - The 4 mSv for internal dose – lung counting was met. The maximum dose of 3.2 mSv was received by a Materials Handling Operator.
- Utilized the 'top five' approach in order to follow up on the five workers with the highest year-to-date doses in each dose component. Results were tracked monthly, and the approach was found to be effective in meeting the ALARA targets for internal urine analysis and external whole-body dose.

- Achieved >99.2% compliance to scheduled urine sample submissions.

The 2025 ALARA targets are as follows:

- Dose targets: Whole body dose < 5 mSv
- Skin dose < 36 mSv
- Urine analysis dose < 1 mSv
- Eye dose < 36 mSv
- Lung dose < 4 mSv

Radiation protection initiatives planned for 2025 include:

- Continue to utilize the 'top five' approach in order to follow up on the five workers with the highest year-to-date (YTD) doses in each dose component.
- Achieve 98% or greater compliance to scheduled urine sample submissions.

PHCF uses a licensed dosimetry service provider that is accredited by the CNSC. The dosimetry service provides optically stimulated luminescence (OSL) dosimeters to PHCF for use by employees, contractors, and visitors. An OSL badge is used to monitor whole body, skin, and eye dose. Dosimeters are changed monthly for production, maintenance, and support services and quarterly for all other employees. The provider reports the OSL results to the National Dose Registry (NDR) as well as provides a copy to PHCF.

In 2024, PHCF did not exceed any CNSC licensed limits with respect to radiation protection. There were no estimated doses in 2024 that required a formal change request.

NEW training is conducted for each employee or contractor, who is likely to receive dose above 1 mSv or requires unlimited access to Zone 3 areas. All employees and contractors receive annual refresher training in the form of a monthly safety meeting presentation. In 2024, PHCF recorded 100% compliance to Radiation Protection training requirements.

The radiation monitoring instrumentation was maintained as per regular calibration and maintenance schedules.

Inventory of sealed and unsealed sources that are used or possessed on site are listed in the radioisotope source control procedure. Regular inspection and leak tests of the sealed sources were carried out in 2024 according to this procedure. Results showed that sources are in a state of safe operation and pose no undue risk to workers. Control of sealed sources was maintained throughout the year.

Internal doses are assigned through urine analysis and lung counting programs which are part of Cameco's licensed internal dosimetry service.

The following tables and graphs summarize employee dose results, including contractors that are designated as NEWs. All data from previous years is also presented with these groups of individuals, which may result in slight differences from previously reported summary data. Note that in figures with ranges on the horizontal axis, a range of 1 – 2, for example, means all results are greater than 1 and less than or equal to 2.

Whole Body Dose

Distributions of 2024 external whole-body dose are shown in Table 2 and Figure 4. More than 95% of the whole-body exposures were below 1 mSv with a total of 11 workers receiving a whole-body dose greater than 2 mSv.

Table 2

2024 Whole Body Dose Distribution	
Dose Range (mSv)	**Percentage of Individuals (%)**
0 – 1	95.9
1 – 2	3.1
2 – 3	0.7
3 – 4	0.1
4 – 5	0.2
> 5	0.0

Figure 4

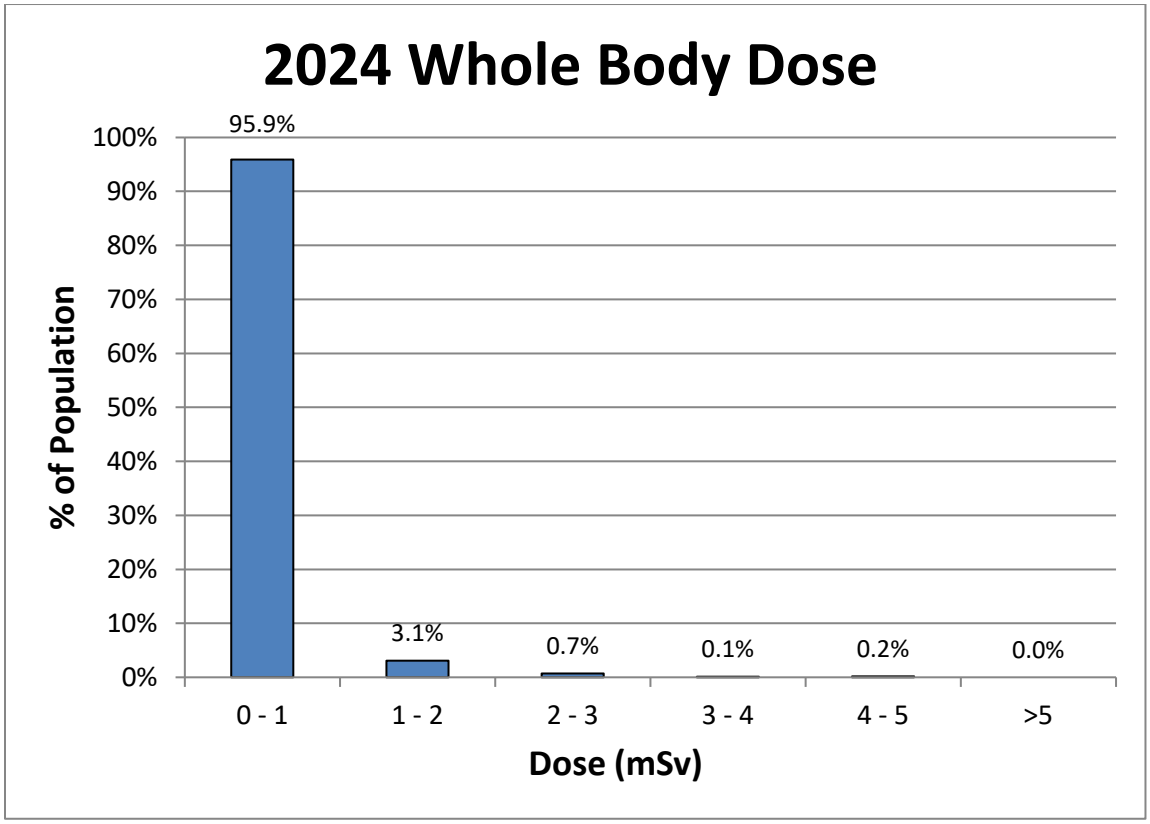
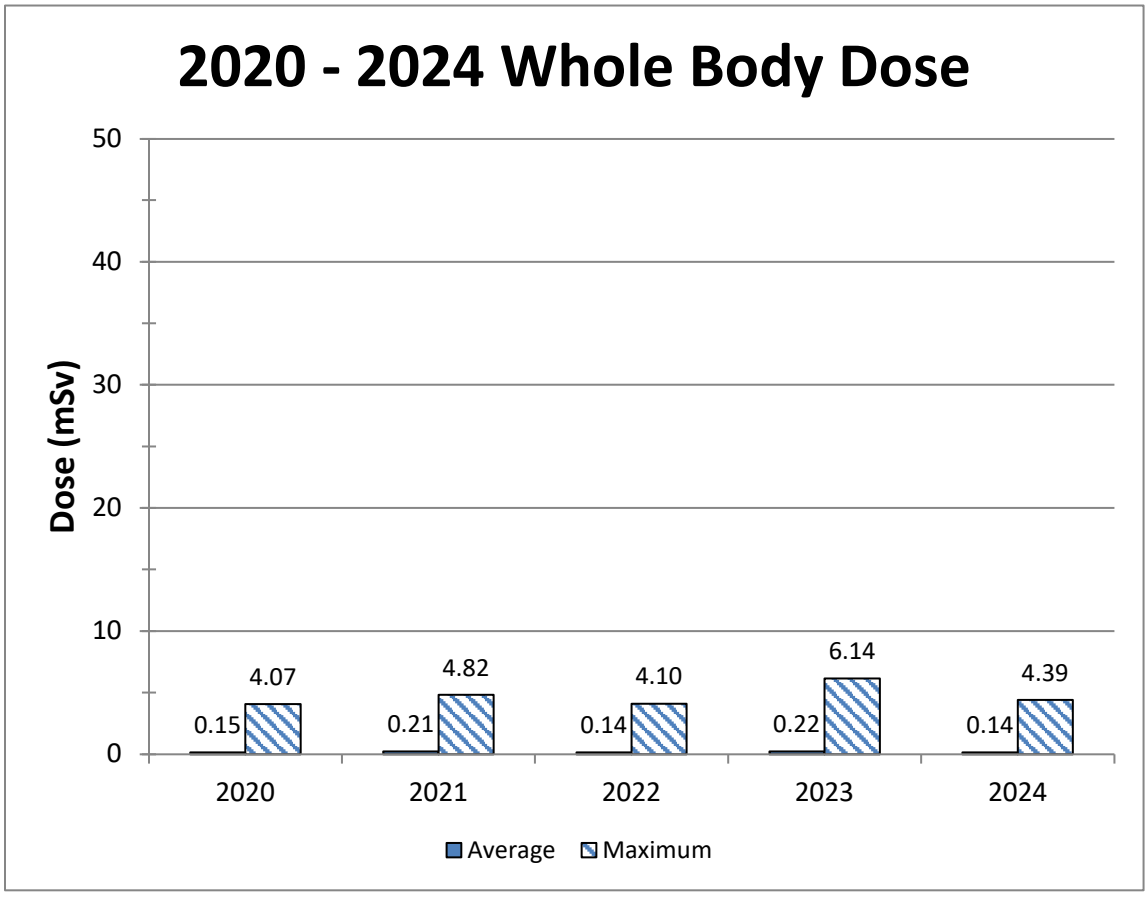


Table 3 and Figure 5 show the employee average and maximum individual external whole-body dose for the five-year period from 2020 – 2024. This data includes contractors with NEW status. The average dose in 2024 was relatively the same compared to the average dose from 2019 through 2022. The 2023 dose was slightly higher due to increasing production and maintenance activities. The maximum individual external whole-body dose was 4.4 mSv received by a UF_6 operator.

Table 3

2020 – 2024 Whole Body Dose				
Year	**Number of Individuals**	**Average (mSv)**	**Minimum (mSv)**	**Maximum (mSv)**
2020	946	0.2	0.0	4.1
2021	874	0.2	0.0	4.8
2022	1,110	0.1	0.0	4.1
2023	1,132	0.2	0.0	6.1
2024	1,098	0.1	0.0	4.4

Figure 5



Skin Dose

Distributions of 2024 external skin doses are shown in Table 4 and Figure 6. Over 99% of the external skin doses were below 10 mSv.

Table 4

2024 Skin Dose Distribution	
Dose Range (mSv)	**Percentage of Individuals (%)**
0 – 10	99.6
10 – 20	0.4
20 – 30	0.0
30 – 40	0.0
40 – 50	0.0
> 50	0.0

Figure 6

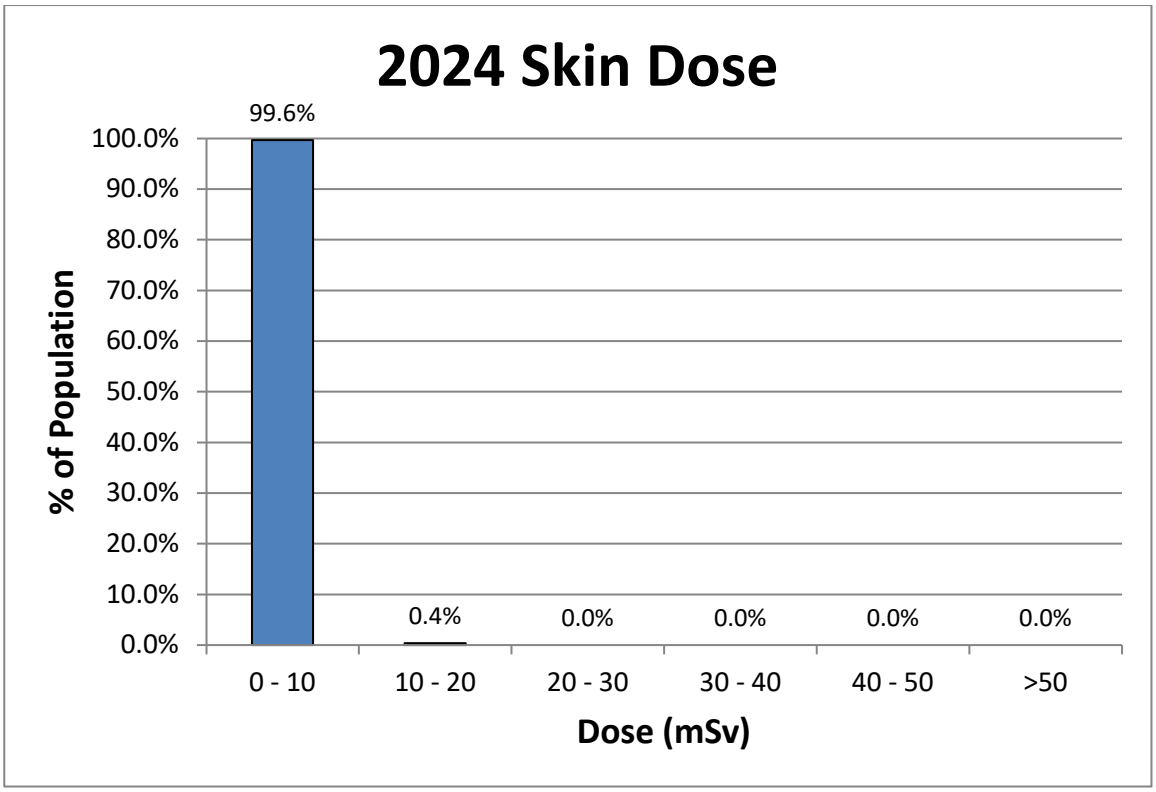


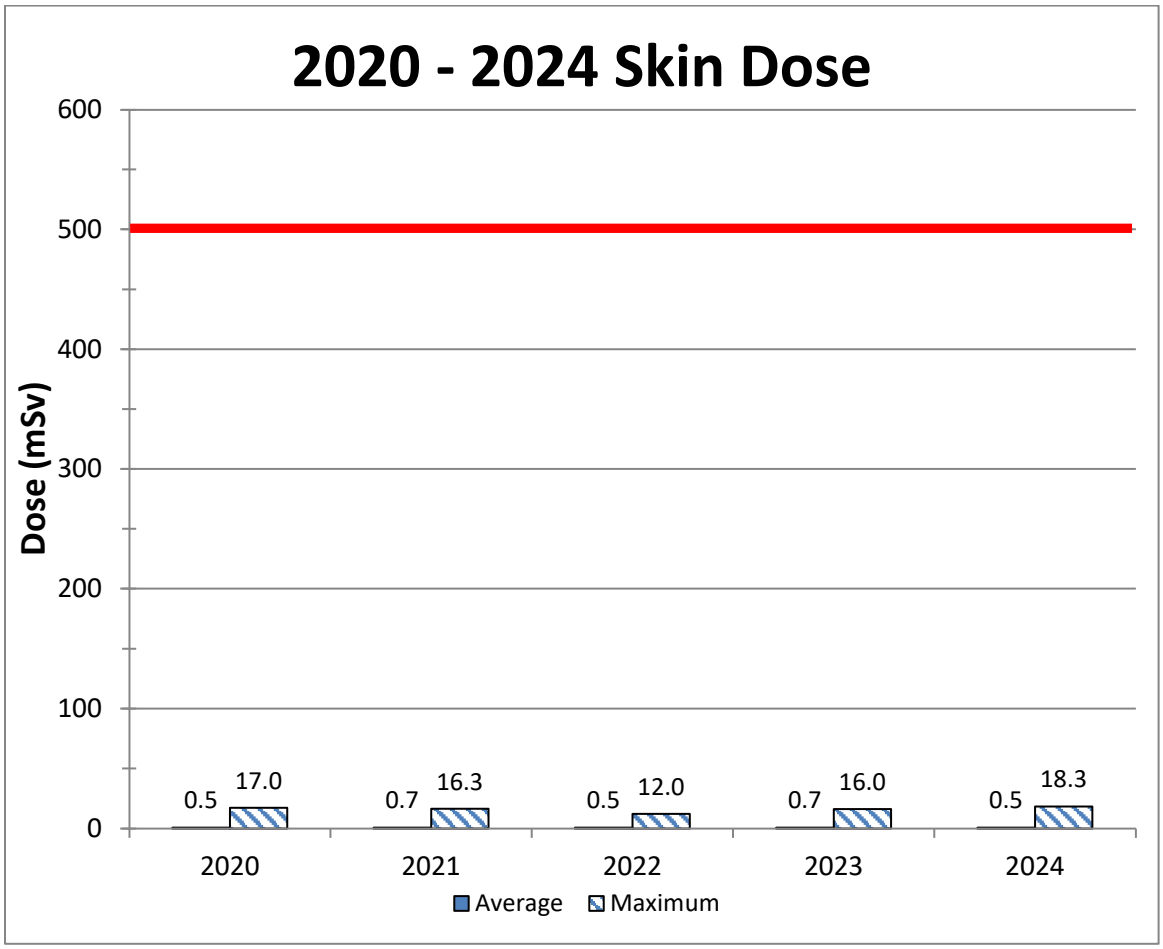
Table 5 and Figure 7 show the employee average and maximum individual skin dose for the five-year period from 2020 – 2024 including contractors (NEW). Average dose

remained constant over the period. The maximum individual dose in 2024 was 18.3 mSv, which is below 5% of the CNSC annual limit of 500 mSv for skin dose. The individual with the highest exposure was a UF_6 operator.

Table 5

2020 – 2024 Skin Dose				
Year	**Number of Individuals**	**Average**	**Minimum**	**Maximum**
2020	946	0.5	0.0	17.0
2021	874	0.7	0.0	16.3
2022	1,110	0.5	0.0	12.0
2023	1,132	0.7	0.0	16.0
2024	1,098	0.5	0.0	18.3

Figure 7



Site visitors and non-NEW contractors are also issued dosimeter badges. The average and maximum whole-body results for these individuals were 0.00 mSv and 0.00 mSv, respectively. The average and maximum non-NEW contractor/visitor skin dose results were 0.00 mSv and 0.00 mSv, respectively.

Eye Dose

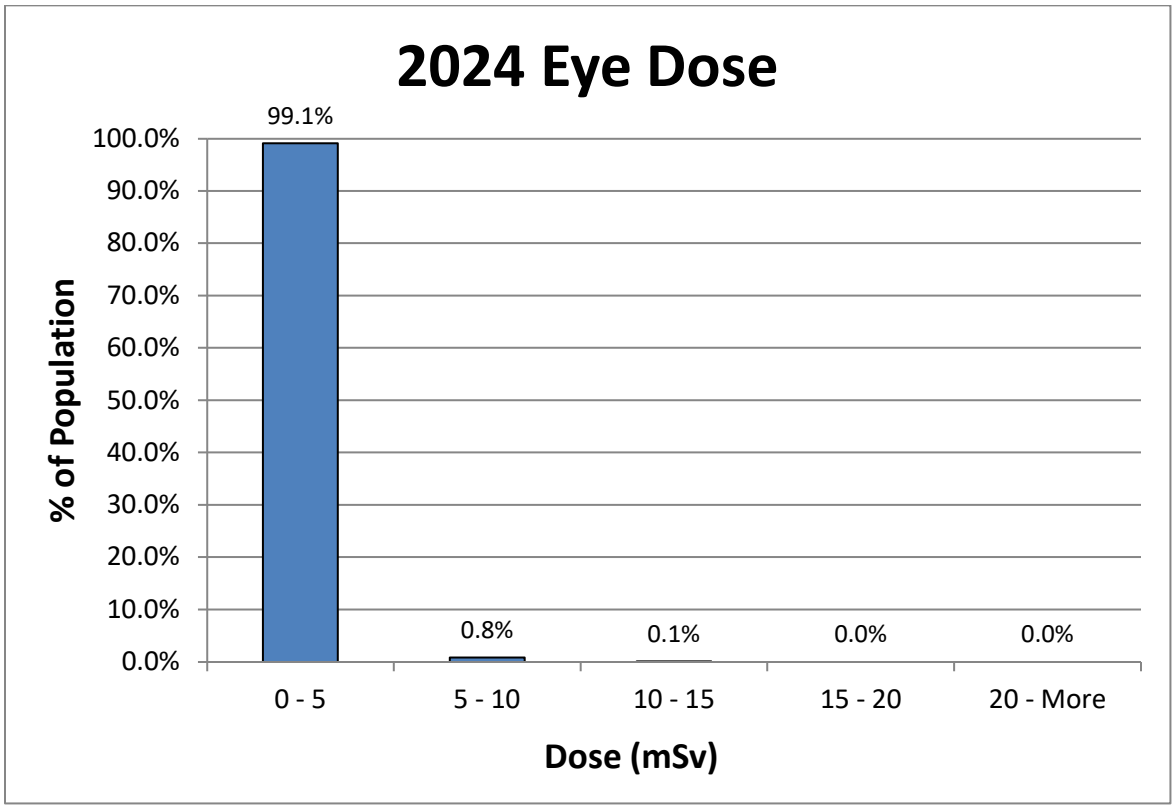
The CNSC regulatory dose limit to the lens of the eye for NEW's is 50 mSv per year. The current interim action level for eye dose is 6 mSv/month and 12 mSv/Quarter.

Table 6 and Figure 8 display the distribution, in 5 mSv increments, of the calculated dose to the eye for all NEWs in 2024. The calculated eye dose for the majority of NEWs was below 5 mSv (99.1%) with no employees above 20 mSv.

Table 6

2024 Eye Dose Distribution	
Dose Range (mSv)	**Percentage of Individuals (%)**
0 – 5	99.1
5 – 10	0.8
10 – 15	0.1
15 – 20	0.0
> 20	0.0

Figure 8



The highest eye doses are from the operations work group, consisting of production and maintenance personnel. In 2024, the average eye dose for all NEWs was 0.3 mSv and the maximum annual eye dose was 10.8 mSv.

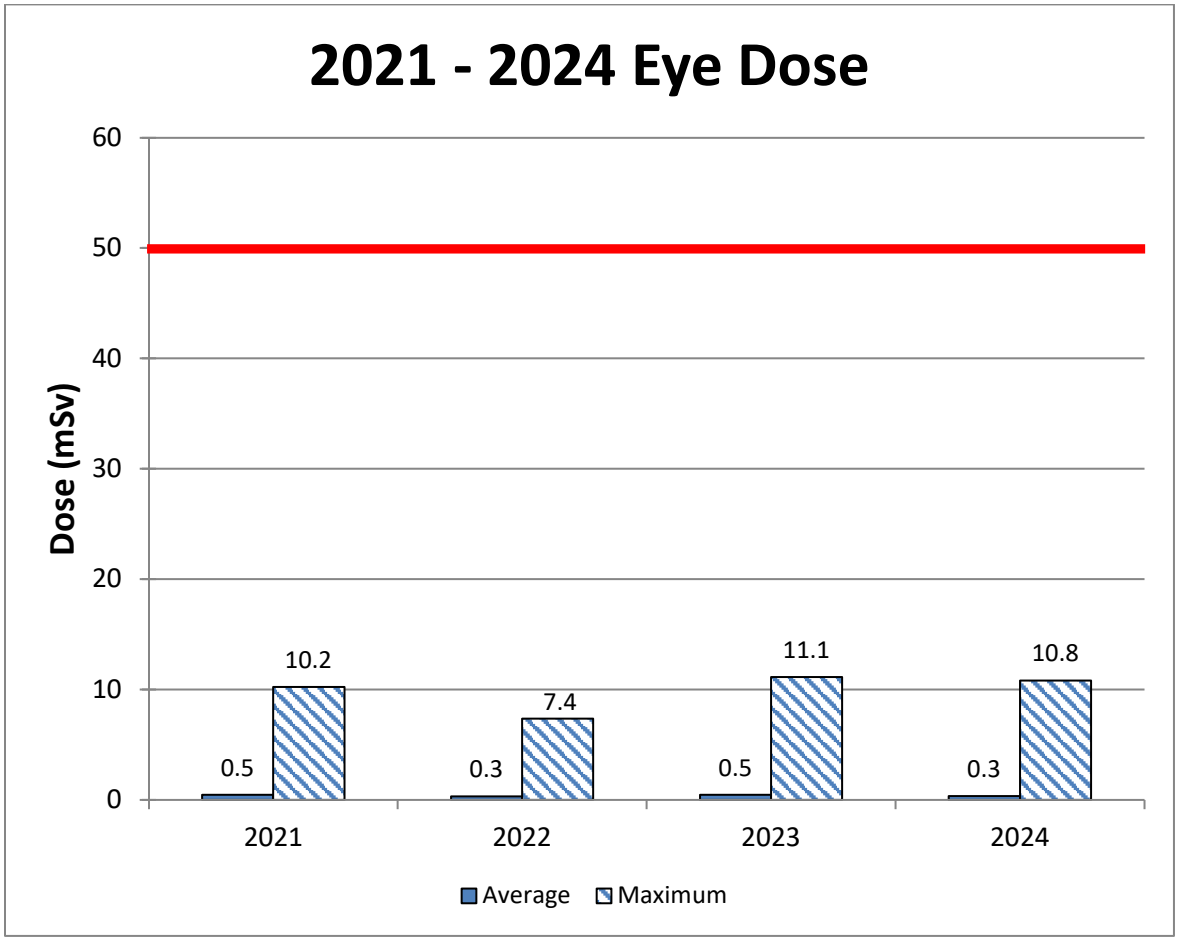
Changes to the radiation protection regulations prompted the PHCF to initiate tracking and analysis of eye dose to employees and contractors in 2021. Table 7 and Figure 9 presents the employee average, minimum and maximum eye dose for the 2024 period. This table and figure will include year by year comparison in future reports as data is collected.

The chart illustrates that the maximum annual dose received by an individual is below the regulatory limit. In 2024, the individual with the highest dose was a UF_6 operator.

Table 7

2021 - 2024 Eye Dose				
Year	**Number of Individuals**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
2021	873	0.5	0.0	10.2
2022	1,110	0.3	0.0	7.4
2023	1,132	0.5	0.0	11.1
2024	1,098	0.3	0.0	10.8

Figure 9



Urine Analysis

Table 8 shows the distribution of urine results for 2024. A total of 46,738 urine samples were collected and analyzed for uranium and/or fluorides during 2024. The majority of uranium in urine results (95.7%) were less than 5 µg U/L in 2024.

Table 8

2024 Urine Analysis Results	
Distribution of Results	**2024**
Number of Samples ≤ 5 µg U/l	46,247
Number of Samples >5 to ≤ 25 µg U/l	436
Number of Samples >25 to ≤ 50 µg U/l	32
Number of Samples > 50 µg U/l	23
Number of Uranium in Urine Samples Analyzed	46,738
Number of Samples above the Action Level	1
Maximum Routine Sample Result (µg U/L)	120*
Maximum Non-Routine Sample Result (µg U/L)	420

*As a result of a contaminated sample

The distribution of 2024 internal urine dose for employees is shown in Table 9 and Figure 9. Approximately 95.7% of the individual assigned doses were below 0.2 mSv.

Table 9

2024 Internal Dose Distribution (Urine Analysis)	
Dose Range (mSv)	**Percentage of Individuals (%)**
0.0 – 0.2	95.7
0.2 – 0.4	3.7
0.4 – 0.6	0.6
0.6 – 0.8	0.0
0.8 – 1.0	0.1
> 1.0	0.0

Figure 9

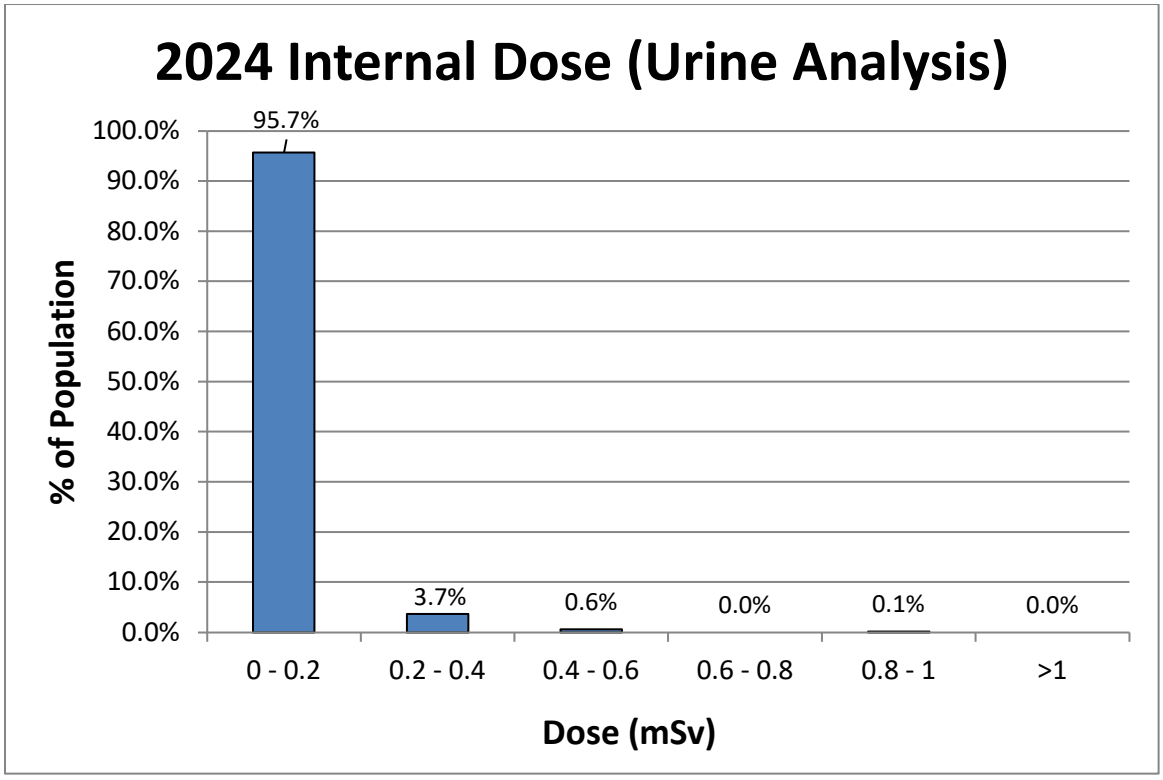


Table 10 and Figure 10 present the average and maximum internal urine analysis doses for the 2020 through 2024 period. A total of 903 employees, contractors and visitors were monitored by the urine analysis program during 2024. The average and maximum internal urine analysis doses in 2024 (including contractors) were 0.03 mSv and 0.94 mSv respectively which was consistent with previous years. The maximum dose of 0.94 mSv was received by a UF_6 Operator.

The annual ALARA target for internal urine analysis exposure of 1 mSv was not exceeded in 2024.

Table 10

2020 – 2024 Internal Dose (Urine Analysis)				
Year	**Number of Individuals (Includes Contractors)**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
2020	755	0.04	0.00	0.63
2021	674	0.03	0.00	0.70
2022	860	0.03	0.00	0.53
2023	895	0.03	0.00	0.53
2024	903	0.03	0.00	0.94

Figure 10

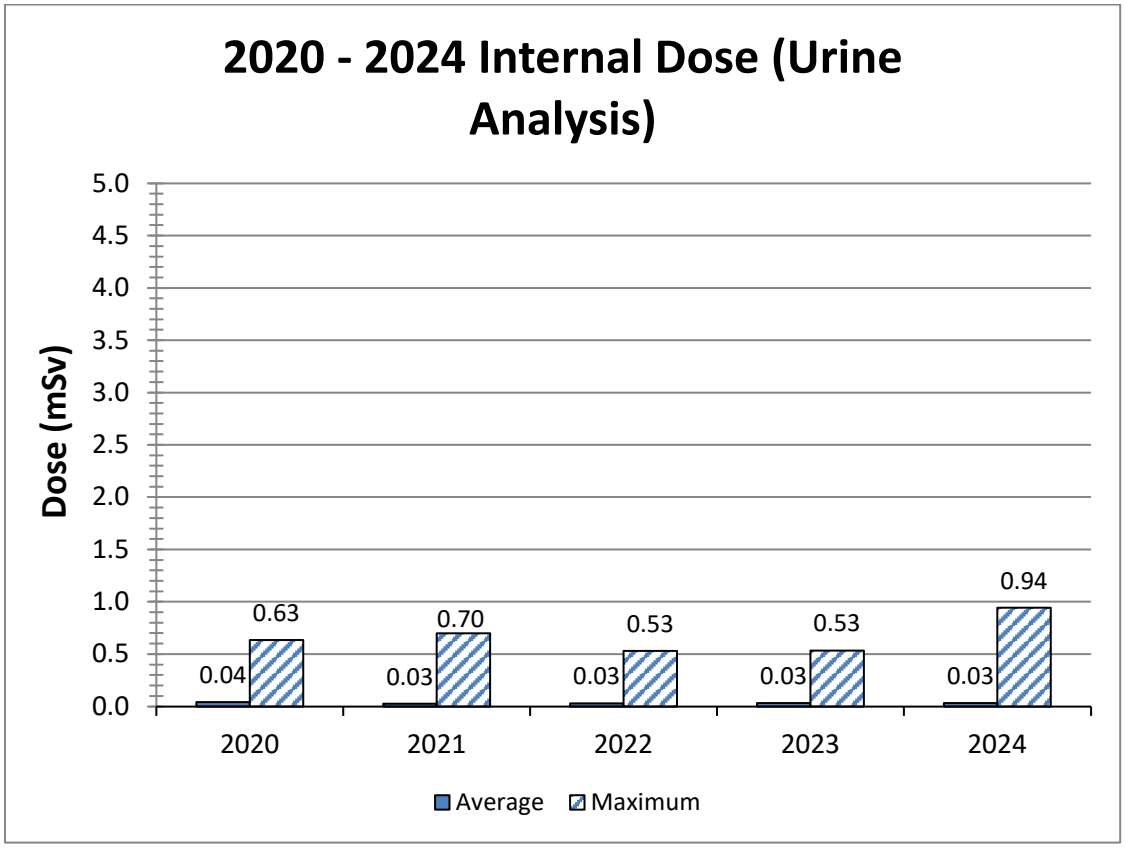


Table 11 shows a comparison of the annual exposure results for whole body dose, skin dose, eye dose and urine analysis broken down by work group. The highest doses are

from the operations work group, consisting of production, materials handling, waste management and maintenance personnel.

Table 11

2024 Annual Exposure Results by Work Group												
Work Group	**Whole Body (mSv)**			**Skin Exposure (mSv)**			**Eye Dose (mSv)**			**Urine Analysis (mSv)**		
	Avg	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**	**Min**	**Max**
UF_6 Plant	0.56	0.00	4.39	2.10	0.00	18.3	1.33	0.00	10.8	0.10	0.00	0.94
UO_2 Plant	0.38	0.00	0.85	1.24	0.00	3.47	0.84	0.00	2.23	0.05	0.00	0.21
Maintenance	0.34	0.00	3.30	1.94	0.00	16.0	1.12	0.00	7.43	0.10	0.00	0.60
Technical Support [1]	0.06	0.00	1.97	0.18	0.00	5.69	0.12	0.00	3.32	0.01	0.00	0.29
Administration	0.00	0.00	0.04	0.00	0.00	0.02	0.00	0.00	0.03	0.00	0.00	0.04
Total	**0.14**	**0.00**	**4.39**	**0.54**	**0.00**	**18.3**	**0.34**	**0.00**	**10.8**	**0.03**	**0.00**	**0.94**
[1] Includes contractors (NEWs)												

Fluoride in Urine

A total of 26,988 urine samples were analyzed for fluoride in 2024, with summary results provided in Table 12. There were 5 samples above the internal administrative investigation level of 4 mg F/L during the year. All samples above the administrative level were investigated. The highest result of 17.0 was found to be a contaminated sample.

Table 12

2024 Fluoride in Urine Analysis Results			
Type of Fluoride Samples	**Number of Samples**	**Minimum Concentration (mg F/L)**	**Maximum Concentration (mg F/L)**
All fluoride samples	26,988	0	17.0
Routine post-shift fluoride samples >= 7 mg F/L	0	-	-
Routine pre-shift fluoride samples >= 4 mg F/L	5	-	-
Non-routine fluoride samples	2,027	0	17.0
Samples analyzed for U, insufficient volume (< 30mL) for F analysis	66	-	-

Lung Counting

As part of the licensed internal dosimetry program Cameco employs the use of a lung counter to monitor and assess exposure of uranium in the lungs of its employees and contractors (NEW) at PHCF. This equipment is capable of measuring extremely low levels of contamination to the point where an employee's exposure could be stopped well before it could become an issue.

A total of 1,122 internal lung count doses were assigned at the PHCF in 2024. There were no investigations triggered by the lung counting program during the year and no regulatory action level was exceeded for lung count measurements. Intercomparisons (independent tests) were conducted by Health Canada in 2024 to validate, test, and certify the lung counting system. This testing was completed June 17-19.

The estimates of 2024 internal exposures, based on the lung counting program, were assigned for 293 employees and the prorated actuals of 2024 internal exposures were calculated for 829 contractors (NEW) and administrative employees. The 2024 average internal lung counting dose assigned was 0.3 mSv. The maximum calculated dose was 3.2 mSv which is below the action level.

Taking into consideration counting statistics and the minimum detectable activity (MDA) of the lung counter, six basic dosimetry groups are in place with a greater number of workers in each to increase the accuracy of group-based dose assessment. These dosimetry groups are:

- UF_6 plant
- UO_2 plant
- Maintenance
- Technical support
- Administration
- NEW Contractors.

The technical support dosimetry group includes materials handling, environmental and radiation safety personnel, and engineering work groups.

Table 13 and Figure 11 show the distribution of assigned lung counting doses.

Table 13

2024 Internal Dose Distribution (Lung)	
Dose Range (mSv)	**Percentage of Individuals (%)**
0 – 1	85.3
1 – 2	14.1
2 – 3	0.1
3 – 4	0.5
4 – 5	0.0
> 5	0.0

Figure 11

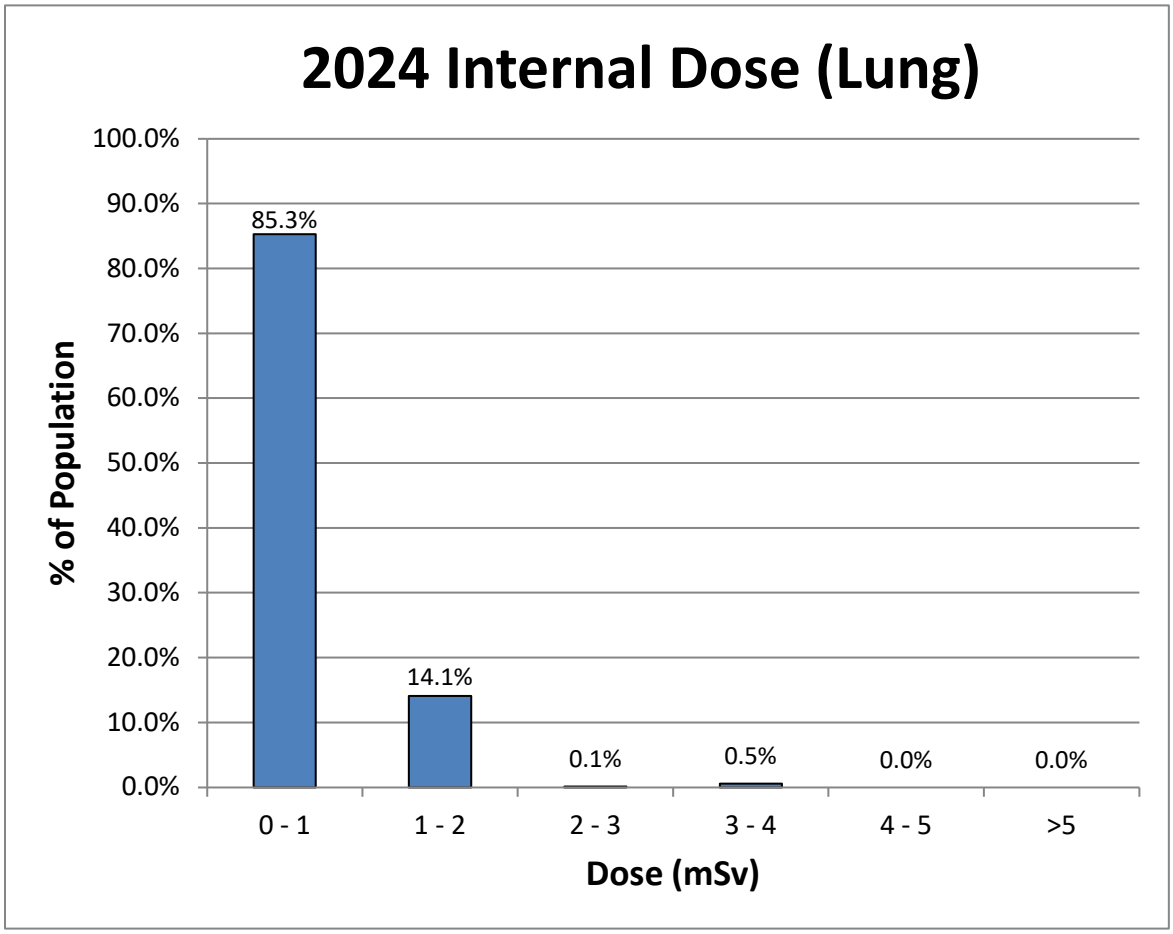


Table 14 presents the internal lung counting dose indicators for 2020-2024 period.

Table 14

Internal Lung Count Exposures 2020 – 2024				
Year	**Number of Individuals**	**Average (mSv)**	**Minimum (mSv)**	**Maximum[1] (mSv)**
2020	979	0.3	0.0	1.7
2021	898	0.5	0.0	3.4
2022	1,130	0.3	0.0	3.3
2023	1,153	0.3	0.0	8.8
2024	1,122	0.3	0.0	3.2
[1]Maximum annual dose to an individual				

Table 15 shows the assigned internal lung count doses for 2024.

Table 15

Assigned Internal Lung Count Doses 2024				
Dosimetry Group	**Number of Individuals**	**Average (mSv)**	**Minimum (mSv)**	**Maximum[1] (mSv)**
UF_6 Plant	114	0.4	0.0	2.1
UO_2 Plant	25	1.1	0.0	1.4
Maintenance	98	1.0	0.0	3.1
Technical Support[2 3]	773	0.2	0.0	3.2
Administration[2]	112	0.0	0.0	1.1
Regulatory Limit - annual (5 years)		50 (100)		
[1]Maximum annual dose to an individual				
[2]Includes prorated doses				
[3]Includes Contractors (NEW)				

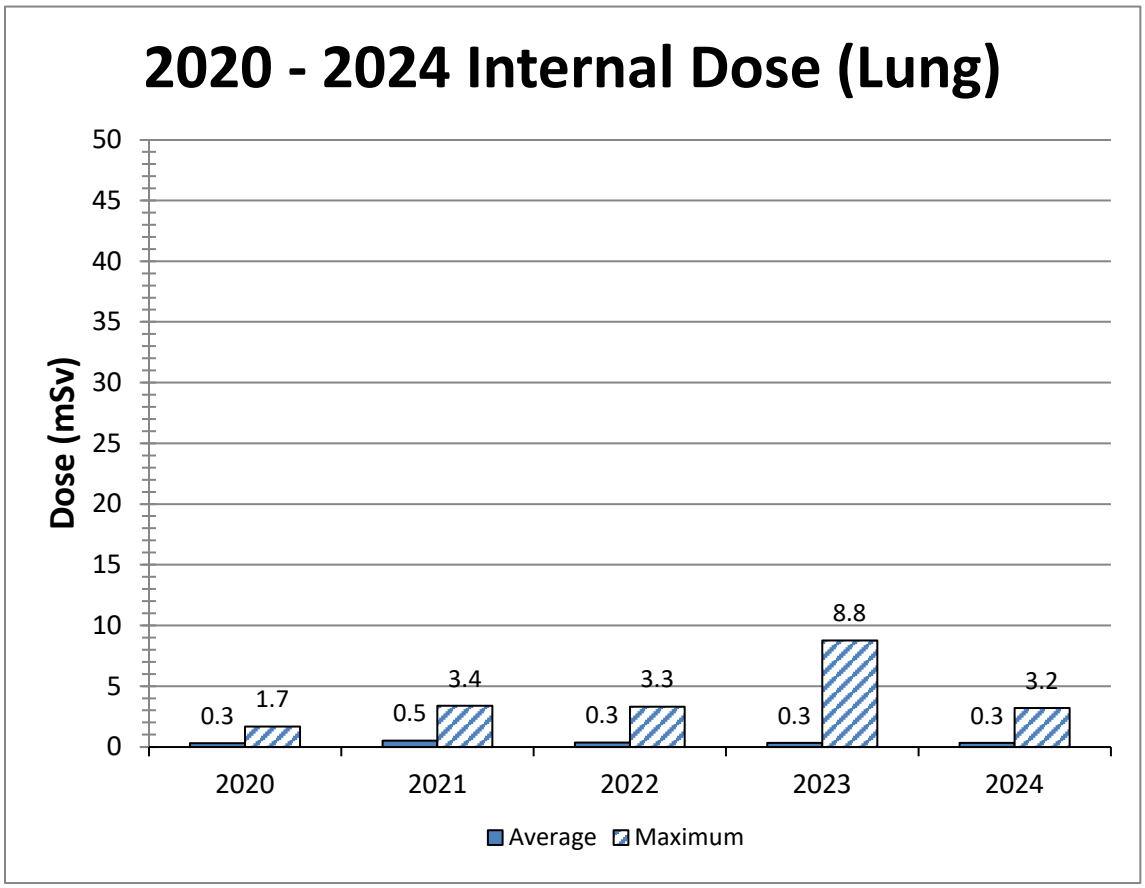
In 2024, there were no lung count measurements that exceeded the Decision Level (DL) of the lung counter; therefore, all lung dose for individuals was based and assigned on group averages. Differences in individual lung doses within the same group are due to different fractions of the group average being applied to the individual's annual dose, based on the dates the individual's lung counts occurred.

Differences in individual lung doses from year to year are due to correction factors. The current methodology assigns the dose from a lung count to the next lung count, hence the lung doses for 2024 are estimates only, projecting the exposure from the last lung count

in 2024 until the end of the year to be the same as the one between the last two lung counts. Once the lung counts are completed in 2025, the actual lung doses for 2024 can be calculated. The difference between the actual and estimated lung doses is applied to the next year estimates (becoming corrected estimates).

Figure 12 shows the average and maximum internal lung dose for PHCF employees for the 2020 through 2024 period, including the outside contractors work group (NEWs).

Figure 12



Total Effective Dose

The total effective dose (TED) was assessed for 1,140 employees and contractors. It should be noted that the internal lung dose component was assessed using the estimating function of the lung counting program management. The site average and maximum total effective dose for 2024 were 0.47 mSv and 5.22 mSv, respectively.

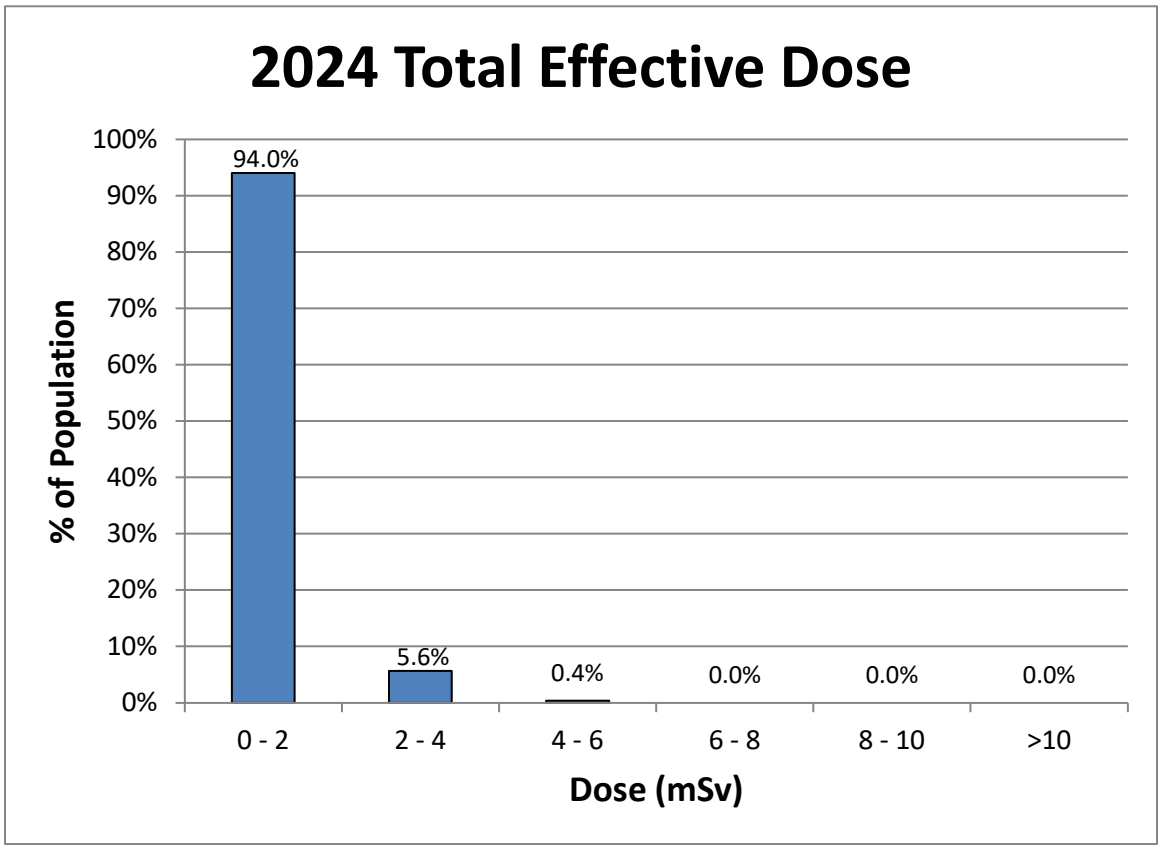
In 2024, there were 591 contractor NEWs. The maximum TED for a contractor NEW was 2.26 mSv.

Table 16 and Figure 13 show the breakdown of the total effective dose for employees in 2024. 99.6% of employees or contractors (NEWs) had an effective dose of 4 mSv or less.

Table 16

2024 Total Effective Dose Distribution	
Dose Range (mSv)	**Percentage of Individuals (%)**
0 – 2	94.0
2 – 4	5.6
4 – 6	0.4
6 – 8	0.0
8 – 10	0.0
> 10	0.0

Figure 13



The average employee effective dose in 2024 is consistent with the average effective dose recorded over the past five-year period.

Table 17 and Figure 14 present the total effective dose for employees during the 2020 - 2024 period.

The five-year regulatory limits established in the *Radiation Protection Regulations* apply to unique five-year periods of time. The current period extends from January 1, 2021, to December 31, 2025. The maximum individual effective dose for the current five-year dosimetry period is 19.9 mSv which is well below the regulatory limits of 50 mSv/year and 100 mSv/5 years.

Table 17

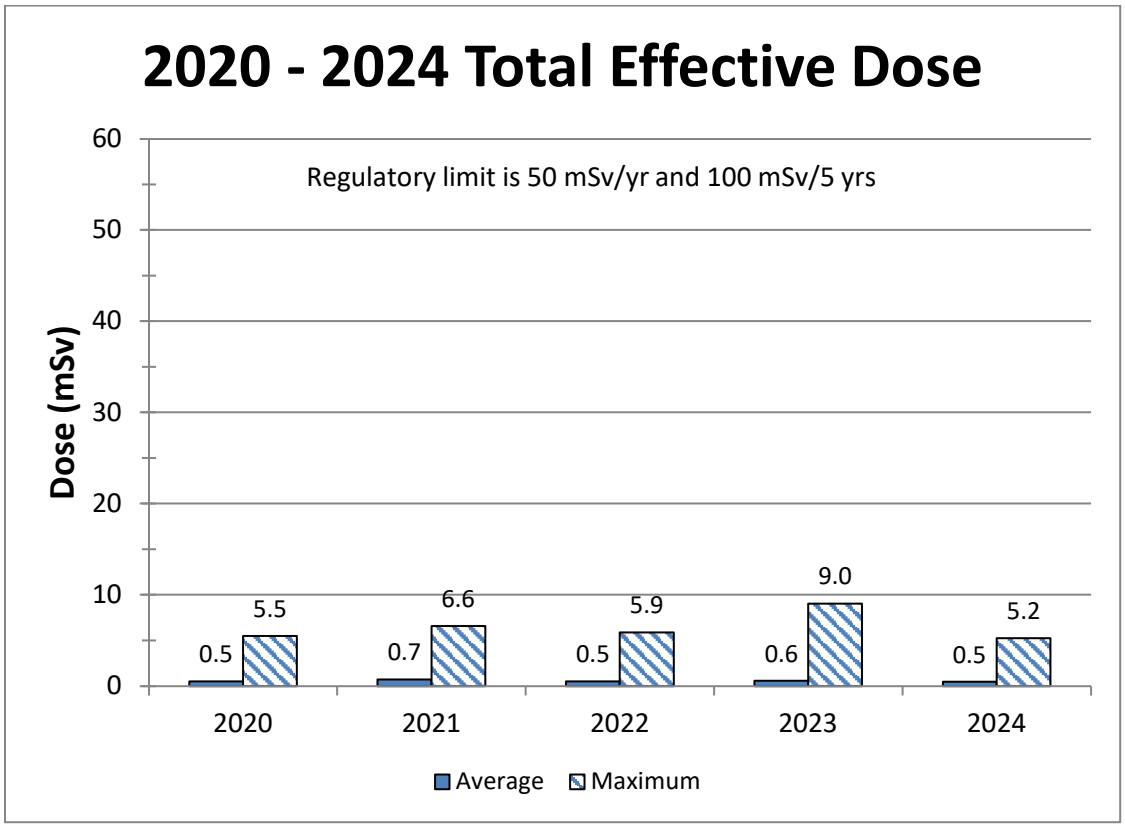
Total Effective Dose 2020 - 2024				
Year	**Number of Individuals**	**Average (mSv)**	**Minimum (mSv)**	**Maximum[1] (mSv)**
2020	994	0.5	0.0	5.5
2021	908	0.7	0.0	6.6
2022	1,150	0.5	0.0	5.9
2023	1,173	0.6	0.0	9.0
2024	1,140	0.5	0.0	5.2
[1]Maximum annual dose to an individual				

Cameco measures and assigns dose to all workers with a potential to receive dose and designates workers as NEWs on this potential. Average results are reported using an assignment of a zero dose when the dose was too small to be measured. A measured dose of zero is a legitimate dose and reflects the radiation exposure controls in place at the facility. Table 18 shows the annual NEW total effective dose results for measurable doses (removal of zero doses). The average total effective dose for all measurable doses (zero doses removed) for a NEW in 2024 was 0.9 mSv.

Table 18

Total Effective Dose (All Measurable Doses – Zero Dose Removed)				
Year	**Number of Individuals**	**Average (mSv)**	**Minimum (mSv)**	**Maximum[1] (mSv)**
2020	556	0.8	0.1	5.5
2021	473	1.4	0.1	6.6
2022	579	0.7	0.1	5.9
2023	620	1.0	0.1	9.0
2024	568	0.9	0.1	5.2
[1]Maximum annual dose to an individual				

Figure 14



The average total effective dose five-year trend from 2020 through to the end of 2024, remains stable, with a maximum average of 0.7 mSv in 2021 and a minimum average of 0.5 mSv in 2020, 2022 and 2024.

Table 19 shows the total effective dose broken down into urine analysis dose, lung count dose and external whole-body dose for 2024.

Table 19

Dose Components & Total Effective Dose 2024												
Dosimetry Group	**Urine Analysis Dose (mSv)**			**Lung Counting Dose[1] (mSv)**			**External Whole-Body Dose (mSv)**			**Total Effective Dose (mSv)**		
	Avg	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**	**Min**	**Max**
UF_6 Plant	0.10	0.00	0.94	0.4	0.0	2.1	0.56	0.00	4.39	1.09	0.00	5.22
UO_2 Plant	0.05	0.00	0.21	1.1	0.0	1.4	0.38	0.00	0.85	1.48	0.01	2.20
Maintenance	0.10	0.00	0.60	1.0	0.0	3.1	0.34	0.00	3.30	1.39	0.00	4.60
Technical Support	0.01	0.00	0.29	0.2	0.0	3.2	0.06	0.00	1.97	0.30	0.00	3.50
Administration	0.00	0.00	0.04	0.0	0.0	1.1	0.00	0.00	0.04	0.02	0.00	1.11
PHCF Average	**0.03**	**0.00**	**0.94**	**0.3**	**0.0**	**3.2**	**0.14**	**0.00**	**4.39**	**0.47**	**0.00**	**5.22**
[1]Based on estimated individual lung doses												

Doses assigned by the urine analysis program continue to be minimal. All calculated lung dose was assigned using a group average method. As with the previous year's data, the group averages for external whole-body dose are low compared to maximally exposed individuals. This indicates that workplace controls are adequately controlling exposure for the group as a whole but the actions of specific employees are causing those individuals to receive unnecessary dose.

As indicated in Table 20, the individuals with the highest effective doses at the PHCF include operators in the UF_6 plant and maintenance employees.

Table 20

2024 Five Highest Effective Dose Individuals				
Occupation	**Urine Dose (mSv)**	**Lung Dose (mSv)**	**External Whole-Body Dose (mSv)**	**Effective Dose (mSv)**
UF_6 Operator	0.36	0.49	4.37	5.2
UF_6 Operator	0.13	0.42	4.39	4.9
Maintenance	0.10	1.20	3.30	4.6
Maintenance	0.17	3.10	1.15	4.4
Maintenance	0.30	1.39	1.99	3.7

Collective dose for each dose component with all assigned doses is provided in Table 21 for 2020 through 2024.

Table 21

Collective Dose (2020 – 2024)				
Year	**Whole Body (mSv)**	**Skin (mSv)**	**Internal Dose (mSv)**	**Effective Dose (mSv)**
2020	140.4	502.6	331.0	471.4
2021	183.7	613.0	465.0	648.7
2022	150.1	543.7	407.1	557.2
2023	254.5	794.3	392.3	646.8
2024	151.8	595.8	379.6	531.4

Contamination Control

PHCF is divided into three zones for contamination control purposes. Zone 1 areas (clean areas - no radioactive sources other than monitoring equipment) are clearly delineated. Whole body monitors are located at the Zone 1 boundary in the main lobby and at the Gate 12 vehicle port. In Zone 2 areas (transition areas – may contain limited amounts of uranium compounds), no visible contamination should exist and, when detected, loose contamination is promptly isolated, monitored, cleaned, and monitored again to ensure the contamination has been removed. Zone 3 areas are production areas where uranium products are expected. Zone 1 and 2 areas are monitored on a weekly schedule (lunchrooms and change houses) and rotating monthly schedule (offices) so that each office area is monitored at least once annually. Additional monitoring is done on an as-needed basis (i.e., during an investigation, when requested or where contamination is suspected). The contamination readings above the internal administration level posed no significant risk to people or to the environment.

Table 22

Summary of PHCF Internal Administration Levels and Events in 2024				
Area	**Levels (Bq/cm^2)**		**Contamination Events**	
	Alpha	**Beta/Gamma**	**Number of Samples above Levels**	**Number of Samples Taken**
Zone 1	0.4	0.4	0	4,655
Zone 2	0.4	3.7	158	60,075

Contamination in Zone 2 was primarily detected in close proximity to production areas. Identified contamination is flagged and promptly cleaned up. Contaminated items that were unable to be cleaned were disposed of.

Vehicle contamination check verification forms are used to record contamination checks on vehicles leaving the site. Tires, seats, floors, and pedals are checked for contamination. If necessary, vehicles are directed to the site truck wash booth to be decontaminated prior to leaving the site.

In-plant Air

The in-plant air monitoring program covers 99 permanent monitoring stations across PHCF. Portable stations are also used on an as required basis.

Monthly averages of the airborne uranium activity concentration for each plant/area are reported as a fraction of the administrative level (AL) or derived air concentration (DAC). The DAC is based on the solubility class and particle size of uranium compounds found in the various plants.

Table 23 shows the average annual derived air concentration per work area for the 2020 through 2024 period.

It is important to note that in addition to the two plants having very different processes, there are several reasons for the differences in the total number of 1 DAC exceedances in the UF_6 and the UO_2 plants. The UF_6 plant is a larger building (10 floors versus 4 floors) which requires more fixed air monitoring locations (55 versus 25) than the UO_2 plant, and the UF_6 plant operates continually, while the UO_2 plant operates 5 days a week, with samples collected daily during production. This results in a total number of data points for DAC in the UF_6 plant being approximately three times the number of data points in the UO_2 plant.

The DAC is based on the solubility class and particle size of uranium compounds found in the operating plants. The latest studies summarized in the “Internal Dosimetry Program – Technical Basis Document”, show the average DAC values of 340 $\mu gU/m^3$ and 100 $\mu gU/m^3$ for the UF_6 and UO_2 plants, respectively. PHCF is taking a conservative approach by using the 100 $\mu gU/m^3$ as the DAC value across the site which means that for the UF_6 plant, PHCF is being more conservative than is required by the Technical Basis Document.

Table 23

Airborne Activity Concentration								
Year	Annual Average (DAC) and Number of Samples >DAC							
	UF_6		UO_2		Waste Recovery		CUP	
	Average	>DAC[1]	Average	>DAC[1]	Average	>DAC[1]	Average	>DAC[1]
2020	0.09	253	0.03	2	0.02	0	0.02	2
2021	0.09	231	0.03	3	0.01	0	0.01	0
2022	0.08	120	0.02	1	0.02	0	0.01	0
2023	0.12	361	0.03	0	0.02	0	0.02	0
2024	0.16	546	0.03	3	0.01	0	0.01	0
[1]Number of air samples greater than 1 DAC								

Gamma Surveys

Plant gamma surveys using hand-held meters are done on a routine basis throughout the site. The frequency of the readings and the number of readings taken in each area varies based on the area and the historical results from that area. Table 24 summarizes the results taken in each area in 2024.

The general processes and operations at the PHCF are well defined and stable, and the external gamma radiation levels were fairly constant in 2024. Gamma readings in the flame reactor areas and the drop line filter areas are highly variable and strongly dependent on the operational conditions of the UF_6 plant.

Areas with elevated gamma dose rates (i.e., flame reactors) require additional controls such as wearing direct reading dosimeters (DRDs) for routine work or radiation work permits for non-routine and project work to ensure worker's exposures are kept as low as reasonably achievable (ALARA).

Table 24

Summary of Plant Gamma Readings by Area (µSv/h)				
Building Number	**Location**	**Average**	**Minimum**	**Maximum**
2	1st Floor	0.62	0.20	1.07
	2nd Floor	0.27	0.16	0.37
	3rd Floor	0.17	0.16	0.17
5B	1st Floor	0.11	0.05	0.27
5C	1st Floor	0.68	0.14	1.98
7	1st Floor	0.58	0.12	1.08
12	1st Floor	6.75	0.42	12.8
24	1st Floor	2.66	1.44	5.96
	2nd Floor	1.51	0.11	4.56
	3rd Floor	0.97	0.21	2.93
	4th Floor	2.10	0.40	3.42
50	1st Floor Flame Reactor Area	143	64.2	264
	1st Floor Tote Bin Area	10.7	4.60	16.7
	1st Floor Cylinder Filling Area	0.88	0.46	1.29
	1st Floor Effluent Area	0.79	0.69	0.89
	2nd Floor Tower	4.02	0.13	8.18
	2nd Floor Flame Reactor Area	60.7	19.8	80.3
	3rd Floor Tower	4.27	2.67	5.47
	3rd Floor Flame Reactor Area	37.2	25.6	44.6
	3rd Floor Cold Trap Area	1.11	1.11	1.11
	4th Floor Tower	3.86	2.29	4.96
	4th Floor Flame Reactor Area	6.96	4.94	10.3
	5th Floor Tower	3.18	1.67	4.63
	5th Floor Flame Reactor Area	4.17	2.52	5.75
	6th Floor Tower	3.52	0.17	7.28
	7th Floor Tower	3.84	0.21	10.8
	8th Floor Tower	2.14	0.31	4.11
	9th Floor Tower	0.99	0.21	1.84

2.3.2 Conventional Health and Safety

This safety and control area covers the implementation of a program to manage conventional workplace health and safety hazards and to protect personnel and equipment.

The health and safety management program fosters and promotes a strong sustainable safety culture. Under the Operational Excellence initiative, we strive for a safe, healthy, and rewarding workplace. Cameco has five key principles in safety that form the framework of how safety is managed. These are:

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

Occupational health and safety (OH&S) efforts at PHCF are supported by one joint committee, the Conversion Safety Steering Committee (CSSC). The CSSC, created in 2013, incorporates the previously existing Policy Health and Safety Committee (PHSC) and Workplace Health and Safety Committee (WHSC) into one committee. Time is allotted, actions are reviewed, issues discussed, and minutes are maintained separately to address interests of both the WHSC and PHSC.

The CSSC reviews and discusses matters involving OH&S policies, procedures and programs, safety performance, safety program performance, internal responsibility system, safety related projects, and joint union/management OH&S issues that may arise from time to time. The CSSC meets 2 days per month to improve safety performance on site and creating a sustainable safety culture. Each employee representative of the CSSC dedicates an additional day a month for safety dedicated duties.

The Canada Labour Code requirement is nine meetings per year. The CSSC is active in promoting continuous safety improvement and is effectively meeting the expectations of its mandate. In 2024, the CSSC met for 10 regulatory meetings and 8 regular meetings. There was a total of 10 inspections completed which covered all areas of the site.

The health and safety of workers at PHCF is assured through site-specific safety and health management programs. These programs set out the requirements for management of health and safety aspects of the operation consistent with Cameco's corporate SHEQ policy. Key components of the program include:

- compliance with all safety and health-related legal and regulatory requirements

- the setting of site safety and health objectives
- the implementation of corporate safety standards
- the development and maintenance of a formal hazard recognition, risk assessment and change control processes
- the documentation of health and safety significant incidents from the start through to the verification of completion of corrective actions via the CIRS database.

The PHCF site program undergoes several review processes, including scheduled procedure reviews, program audits, and annual management review. Conformance to the program is also tested through various inspection programs, incident investigations, and ongoing analysis by the CSSC. (Refer to the Management Systems section of this report for further details).

The effectiveness of the conventional OH&S system can be evaluated by the responsiveness of the site to leading safety activities such as audits, inspections, evaluations, reviews, benchmarking, training and employee participation and engagement. The PHCF was successful in meeting the expectations of these various initiatives.

Audits and inspections are conducted at PHCF to ensure regulatory compliance and compliance to Cameco's policies and procedures. Audit and inspection results are discussed with the managers responsible for the areas inspected and entered CIRS for resolution or management.

The PHCF has tracked leading and lagging safety indicators for many years. These consist of, but are not limited to, tracking safety meeting attendance, tracking the percentage of safety inspections completed and safety performance. This data is reviewed by site and divisional management in effort to improve the overall safety performance at the facility.

The PHCF follows a systematic evaluation method for its safety culture self-assessments which are generally completed every five years. The most recent self-assessment was completed in 2021. Cameco uses these assessments to shape the safety program improvements at each site.

Table 25 compares the safety statistics for the PHCF over the past five years. The number of first aid injuries, medical diagnostic procedures, medical treatment injuries, lost time injuries, lost time frequency and lost time injury severity were consistent with previous years and exhibited variation year over year. Reviews of the safety incidents have been evaluated several different ways and preceding annual objectives are designed to combat and reduce risk and injury in these areas.

There were three lost time injuries recorded in 2024. Site Total Recordable Injury Rate (TRIR) decreased from 3.31 in 2023 to 2.17 in 2024.

Table 25

2020 – 2024 Safety Statistics					
Year / Parameter	**2020**	**2021**	**2022**	**2023**	**2024**
First Aid Injuries	41	34	46	49	54
Medical Diagnostic Procedures	3	2	7	18	16
Medical Treatment Injuries	8	2	4	13	5
Other – Recordable	1	0	0	1	0
Lost Time Injuries	0	0	0	0	3
Lost Time Injury Frequency	0.00	0.00	0.00	0.00	0.65
Lost Time Injury Severity	0.00	0.00	0.00	0.00	21.26
Site TRIR	2.21	0.52	1.32	3.31	2.17

All reported Occupational Health and Safety incidents are registered in CIRS for tracking and management. Incidents captured by the Canada Labour Code (Part II) definition of hazardous occurrences fall under categories III-V of the CIRS system.

The medical diagnostic procedures were:

- Standard threshold shift (hearing) (14 events)
- Bruise to right knee
- Irritation to left eye

The medical treatment/other injuries were:

- Discomfort to right wrist
- Pain to back
- Pain to left thigh
- Injured left shoulder
- Strain to right hand/forearm
- LTI – Break to elbow
- LTI – Strained lower back
- LTI – Strained lower back

A critical component of injury prevention continues to be the tracking of near miss reporting. In 2024, there were 208 near misses reported and tracked through CIRS.

The site OH&S program continued to be effective in 2024 with new initiatives being introduced when possible.

- CSSC meetings were performed to meet the required regulatory requirements of a minimum of 9 per year.
- Safety announcements continued to be utilized on internal TV monitors. This included regulatory changes and highlighting safety procedure edits.
- A "Take Time to Work Safely" activity was executed. Employees were able to recognize safe working activities and enter to win a variety of prizes.
- The CSSC continued the partnership with site management resulting in sponsorship of safety awareness activities and the CSSC actively leading or participating in at least one event in each fiscal quarter.
- A vendor show was held in the fourth quarter. Employees were able to meet with a variety of vendors related to PPE, tools/equipment, and health related services.
- The site Total Recordable Incident Rate was finalized at 2.17.
- Continued deployment of the site industrial hygiene program including PAPR training program, area and personal noise dosimetry sampling, respirator program training revisions, fluorine study, welding safety plan developed and asbestos remediation activities.
- Continued management of personal fluorine monitors and relevant troubleshooting.
- Completed internal Safety, Health, Environment and Quality self-assessments.

In 2024, goals and targets were set by both CSSC and the site safety department. Targets were set in relation to communication, risk assessments, education/training and safety awareness activities. (16 out of 17 targets were met in 2024) 2025 goals and targets for CSSC were set in December 2024 and for the site safety department in February 2025. 2025 targets include a focus on effectiveness review assessments for ergonomic and HIRAC assessments.

2.3.3 Environmental Protection

This safety and control area covers the programs that monitor and control all releases of nuclear and hazardous substances into the environment, as well as their effects on the environment, as the result of licensed activities.

There are both federal and provincial regulatory authorities that have legislative jurisdiction over environmental protection at the facility. The PHCF's environmental monitoring program is comprised of the following components:

- water and air emissions
- gamma levels
- groundwater
- soil and vegetation

The program ensures that applicable provincial and federal requirements are met.

The key characteristics of the operation and activities that can have a significant environmental impact are monitored and measured and are described in the EMP and associated procedures. These documents identify all the emissions to the air, water and land, the programs that are in place to monitor them, what is measured, the legal requirements and the reporting requirements.

The performance of the Environmental Protection Program is tracked using KPIs. The KPIs for this program include but are not limited to risk control, training and awareness, objectives and targets, operational controls, certification, and monitoring.

Audits and inspections were performed in accordance with licence conditions. Refer to the Management Systems section of this report for further details.

Cameco has established action levels, which have been accepted by the CNSC, for key environmental parameters. An exceedance of an action level does not pose a risk to people or the environment.

Though the environmental programs have been demonstrated to be effective, the PHCF advanced several improvements to the environmental protection program in 2024.

Program Improvements included:

- Waste management projects implemented portions of the long-term waste management plan to dispose of contaminated materials at appropriately licensed hazardous waste facilities.

Procedural updates included:

- CAP ENV 4 Collection and Measurement of Dustfall
- CAP ENV 29 Stormwater Monitoring Program
- CAP ENV 17 Groundwater Monitoring Program for the PHCF
- CAP ENV 10 Sampling Train Operating Procedure – UO_2 Main Stack

The following environmental targets were in place for 2024:

- Advance the decommissioning of the open loop cooling water system.
- Advance identified greenhouse gas reduction projects meeting identified timelines (Complete).
- Maintain the effectiveness of the groundwater pumping system to ensure that required pumping rates meet environmental performance objectives (Complete).

The environmental initiatives planned for 2025 include the following:

- Continue to implement portions of the FSD waste management plan.
- Continue implementation of Vision in Motion to remove legacy wastes and contamination from the site.

Dose to Public

The Operating Release Level (ORL) is based on the releases of uranium and external gamma radiation to the environment that ensures the dose to the public from the PHCF is below 0.3 mSv/year with the air and water components each being less than 0.05 mSv/year and gamma component being less than 0.3 mSv/year to ensure the dose to the public remains well below the annual regulatory dose limit for a member of the public of 1.0 mSv.

An ORL equation has been developed to account for all public dose exposure pathways – gamma, air, and water. In accordance with the requirements of the CNSC, the ORL for the PHCF was updated in 2016 and subsequently accepted by the CNSC. The 2016 report resulted in changes to dose calculations related to releases to water and the fenceline gamma locations used for reporting the dose to the public. These changes included calculating dose to the public from facility discharges to the sanitary sewer, as well as including a fenceline monitoring location closer to the operating facility than previously used in the dose to the public calculations and calculating two doses to a member of the public, one for a resident near Site 1 and the other for a resident near Site 2. Changes to the ORL are incorporated into PHCF reporting effective the first quarter of 2017 and represent a more conservative estimate of dose to the public that can be used throughout the Vision in Motion project.

ORL equations for Site 1 and Site 2 have been derived and are expressed in the form shown below.

Public Dose = Dose $_{Air}$ + Dose $_{Water}$ + Dose $_{Gamma}$ < 0.3 mSv/y

The annual dose from Site 1 and Site 2 are based on monitoring results for each dose component as shown in Table 26. This table illustrates the individual contributions from air, water, and gamma as well as the total public dose from each site.

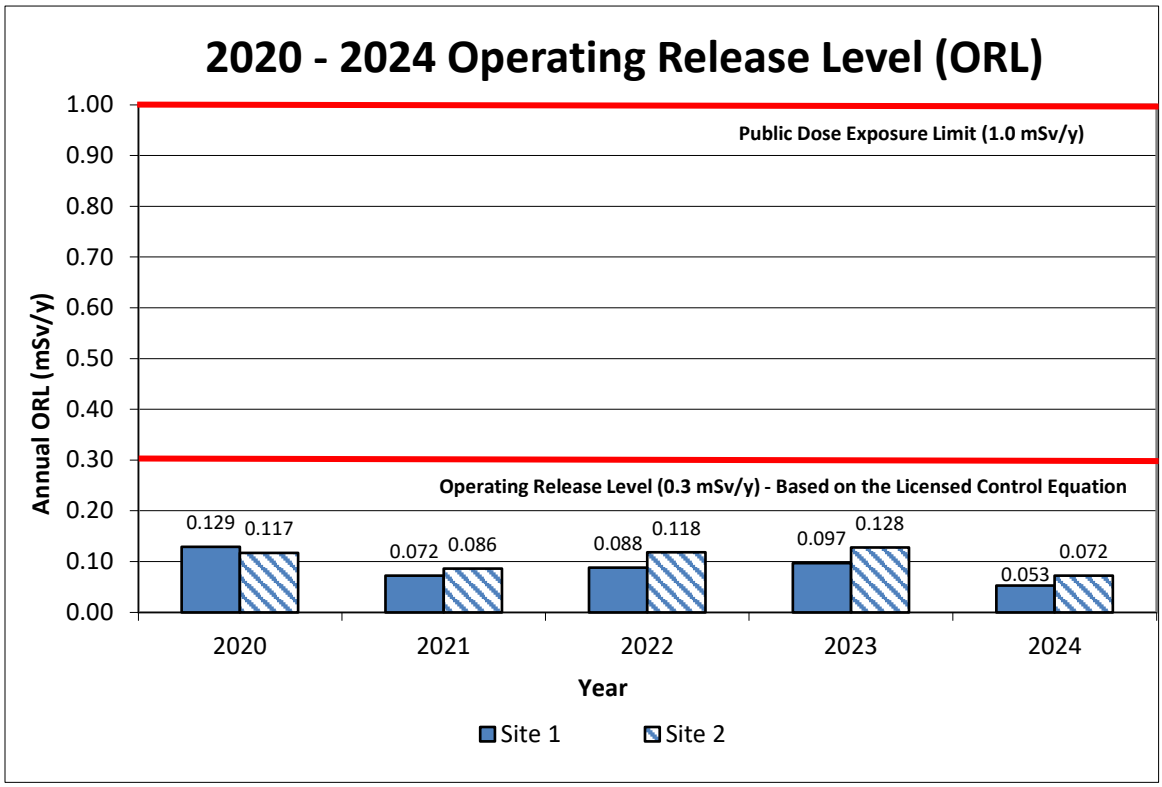
Note that as of July 1, 2019, TLD 13 has been replaced by TLD 10 in the gamma dose calculation for Site 1 due to the removal of the Centre Pier from the licensed property.

The ORL contributions are also shown graphically in Figure 15.

Table 26

Annual Dose (mSv/year)					
ORL Component	**2020**	**2021**	**2022**	**2023**	**2024**
Air	0.001	0.001	0.001	0.001	0.001
Water	0.001	0.001	0.001	0.001	0.001
Gamma – Site 1	0.128	0.071	0.087	0.095	0.051
Gamma – Site 2	0.115	0.085	0.116	0.126	0.071
Annual Dose – Site 1	0.129	0.072	0.088	0.097	0.053
Annual Dose – Site 2	0.117	0.086	0.118	0.128	0.072

Figure 15



Gamma Monitoring

To ensure that doses to local residents/critical receptors are ALARA and do not exceed the annual public dose limit of 1 mSv as defined in the *Radiation Protection Regulations*, environmental OSL dosimeters are strategically placed (at chest height) around the exterior perimeter of the licensed facility. The OSL dosimeters are deployed on a monthly basis. Gamma dose is measured in mSv which is then converted into a dose rate in µSv/h. Fourteen locations at Site 1 and six locations at Site 2 have been selected around the fenced perimeter to cover all potential receptors in the public. Note that the number of locations at Site 1 decreased at the end of the second quarter 2019 from 18 to 14, with the removal of Centre Pier from the Site 1 property.

As per the 2016 ORL, dose to the public critical receptor is calculated for both sites 1 and 2 using specific gamma fenceline monitoring locations. The results at stations 2 and 10 are used for Site 1 public dose calculations after July 1, 2019. The results at stations 2 and 21 are used for Site 2 public dose calculations. The results at these locations for this year are summarized and compared with regulatory action levels in Tables 27 and 28.

Table 27

2024 Monthly Public Dose Gamma Monitoring Results (µSv/h)			
Month	**Station**		
	2	**10**	**21**
January	0.15	0.00	0.04
February	0.16	0.00	0.00
March	0.17	0.03	0.05
April	0.16	0.03	0.01
May	0.16	0.02	0.05
June	0.13	0.00	0.00
July	0.09	0.00	0.00
August	0.13	0.00	0.02
September	0.03	0.00	0.00
October	0.05	0.00	0.02
November	0.03	0.00	0.00
December	0.14	0.00	0.03
Action Level (µSv/h)	**0.40**	**0.40**	**0.25**
Licence Limit (µSv/h)	**0.57**	**0.61**	**0.26**

Table 28

2024 Maximum Monthly Public Dose Gamma Monitoring Results		
Station Number	**Maximum Result (µSv/h)**	**Action Level (µSv/h)**
1	0.00	0.18
2	0.17	0.40
3	0.03	0.18
4	0.14	0.40
5	0.00	0.40
6	0.02	0.40
7	0.00	0.40
8	0.06	0.40
9	0.07	0.40
10	0.03	0.40
18	0.20	0.25
19	0.03	0.10
20	0.04	0.25
21	0.05	0.25
22	0.03	0.25
23	0.05	0.25

Some fluctuations in the gamma results are expected for stations 13 and 21 given that the values are near background levels of 0.08 µSv/h. Historical waste material stored at Centre Pier buildings was removed in 2018 (station 13). Some of the material was used as shielding inside building 40. Temporary shielding in the form of sea containers was installed to minimize the impact on fence line gamma while activities were carried out in building 40. Buildings 40, 41 and 42 were demolished and Center Pier was handed over to CNL in July 2019. Waste inspection/characterization and removal activities were carried out at Site 2, Dorset Street property, with no significant impact to public dose.

Discharge to Air

The air quality monitoring program at PHCF is divided into source air monitoring and ambient air monitoring. The source air monitoring program collects and analyzes daily samples from the main stacks on the UF_6 and UO_2 operating plants. Both stacks are continuously sampled for uranium.

The total uranium emissions to air from PHCF in 2024 were approximately 45.4 kg U. These uranium loadings include both the UF_6 and UO_2 main stacks, plant building ventilation and facility point sources. Table 29 illustrates PHCF uranium loading to air for the period of 2020 to 2024. The PHCF uranium loading to air was slightly decreased compared to previous years based on production days and volumes.

Table 29

Total Uranium Emissions (kg U)					
Emission	**2020**	**2021**	**2022**	**2023**	**2024**
Air	44.4	39.0	42.7	46.6	45.4

A stack monitoring program is used to determine the airborne uranium emission rates on a daily basis from the main stacks of the UF_6 and UO_2 plants. The licensed action level for the UF_6 plant main stack is 40 g U/h. The licensed action level for the UO_2 plant main stack is 10 g U/h.

No licensed action levels were exceeded for uranium emissions from the UF_6 plant main stack in 2024. The annual daily average uranium emissions in 2024 remained comparable to the previous year based on production days and volumes.

No licensed action levels were exceeded for uranium emissions from the UO_2 plant main stack in 2024. The annual daily average uranium emissions in 2024 remained comparable to the previous year based on production days and volumes.

Fluoride emissions from the UF_6 main stack are sampled and analyzed on a continuous basis using an on-line analyzer and the data is collected on the plant computer system. No licensed action levels were exceeded for fluoride emissions from the UF_6 plant in 2024. The annual daily average HF emissions in 2024 remained comparable to the previous year based on production days and volumes. The total fluoride emissions to air (as HF) from the PHCF in 2024 were approximately 511kg HF. These fluoride loadings include the UF_6 main stack, UF_6 plant building ventilation and facility point sources.

The UO_2 main stack is also continuously sampled for ammonia to determine the ammonia emission rate from the UO_2 plant main stack. No regulatory action levels were exceeded for ammonia for the UO_2 plant main stack in 2024. The average annual ammonia emissions from the UO_2 plant main stack in 2024 are comparable to levels observed in previous years. The total ammonia emissions to air from PHCF in 2024 were approximately 36.8t NH_3. These ammonia loadings include the UO_2 plant main stack, the UO_2 plant point sources and facility point sources.

All other stacks are sampled on an occasional or as requested basis.

The 2024 annual average and maximum stack emissions from the UF_6 plant main stack and the UO_2 main stack are presented in Table 30 and Figure 17 through to Figure 20. Source emission action levels and maximum limits are indicated in the appropriate tables and figures throughout this report.

Table 30

2020 - 2024 Main Stack Emissions									
Plant	**Parameter**	**Licence Limit**	**Action Level**	**Value**	**2020**	**2021**	**2022**	**2023**	**2024**
UF_6	Uranium g U/h	280	40	Annual Daily Average	2.5	2.2	2.5	2.4	2.2
				Annual Daily Maximum	8.2	6.7	44.7	10.7	9.3
	Hydrogen Fluoride g HF/h	650	230	Annual Daily Average	28	29	20	12	15
				Annual Daily Maximum	273	191	236	197	226
UO_2	Uranium g U/h	240	10	Annual Daily Average	0.6	0.5	0.5	0.8	0.6
				Annual Daily Maximum	2.5	2.3	1.4	2.9	1.7
	Ammonia kg NH_3/h	58	10	Annual Daily Average	2.0	2.0	2.4	2.0	1.9
				Annual Daily Maximum	4.9	5.1	7.7	4.6	3.7

* Note that the daily emission data is available to CNSC during site inspections.

Figure 17

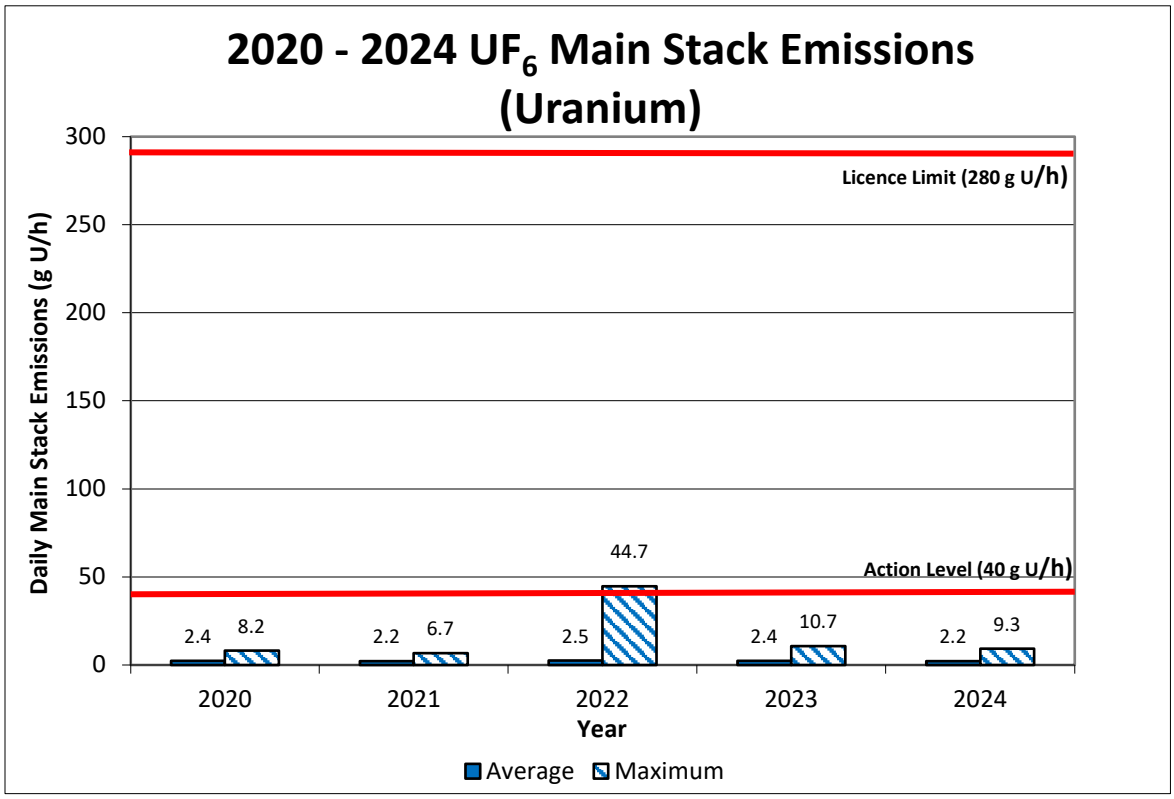

2020 - 2024 UF6 Main Stack Emissions (Uranium)
Daily Main Stack Emissions (g U/h)
300
250
200
150
100
50
0
Licence Limit (280 g U/h)
Action Level (40 g U/h)
2.4
8.2
2.2
6.7
2.5
44.7
2.4
10.7
2.2
9.3
2020
2021
2022
2023
2024
Year
Average
Maximum

Figure 18

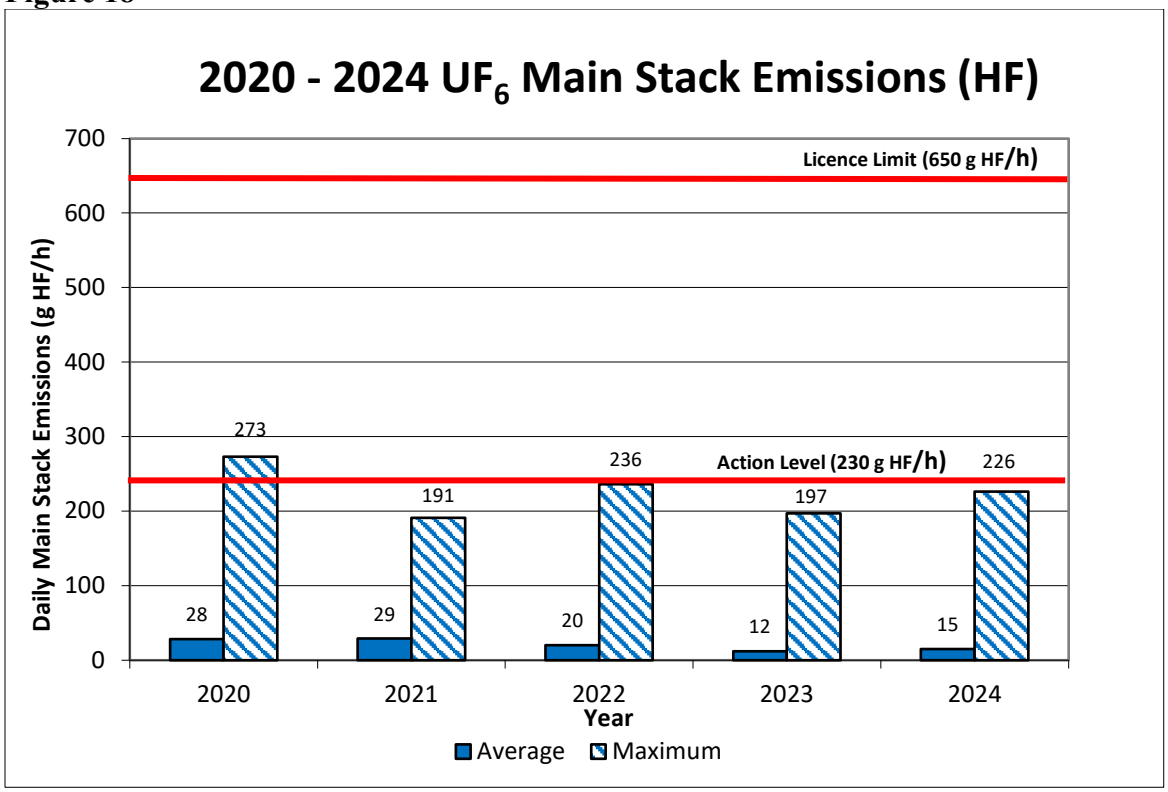

2020 - 2024 UF6 Main Stack Emissions (HF)
Daily Main Stack Emissions (g HF/h)
700
600
500
400
300
200
100
0
Licence Limit (650 g HF/h)
Action Level (230 g HF/h)
273
191
236
197
226
28
29
20
12
15
2020
2021
2022
2023
2024
Year
Average
Maximum

Figure 19

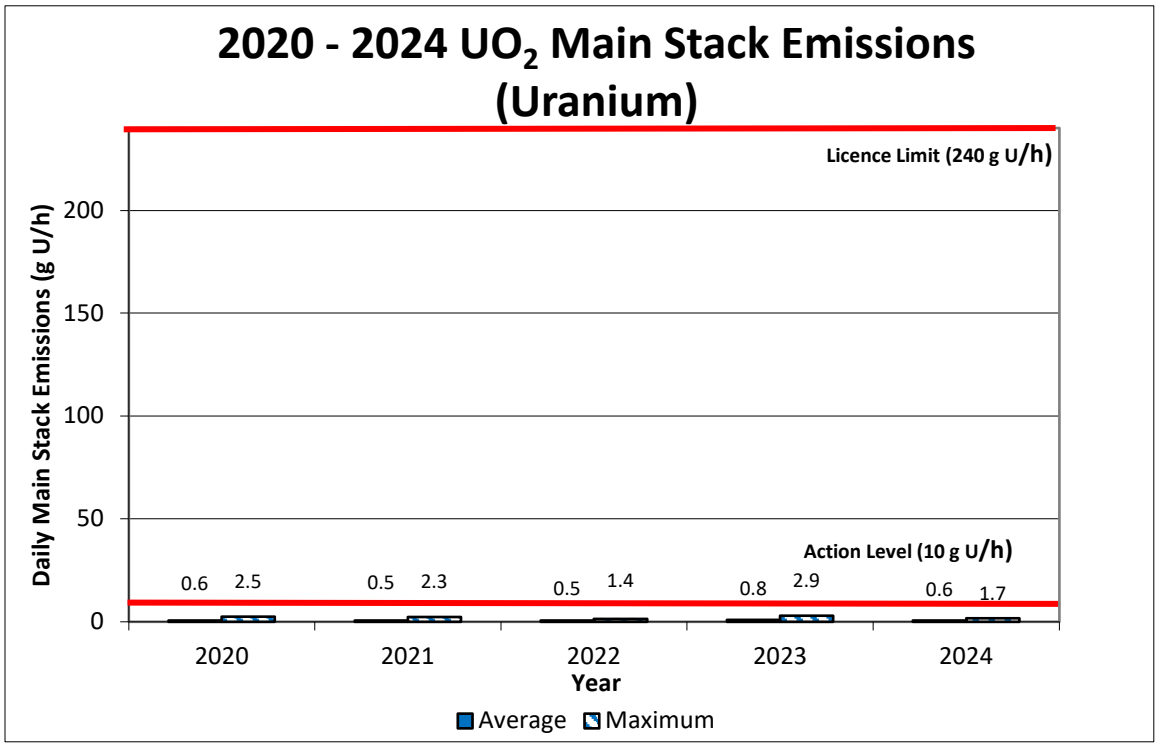
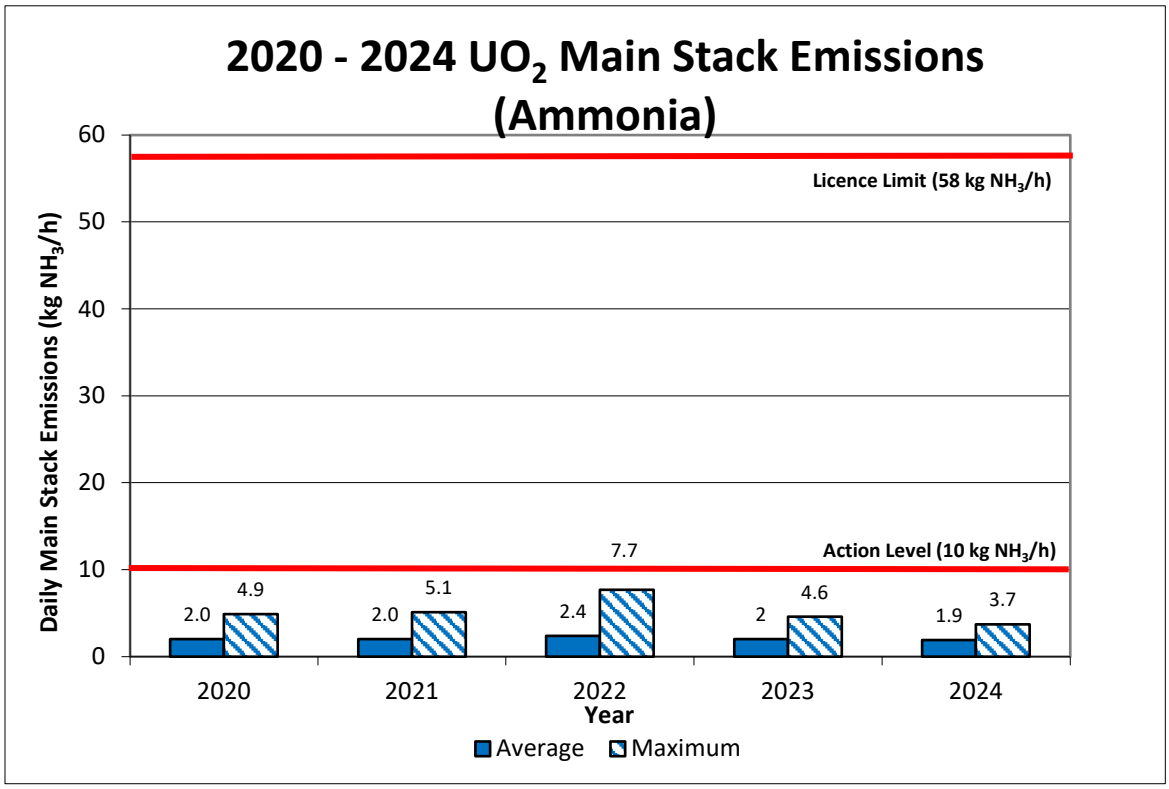

2020 - 2024 UO2 Main Stack Emissions (Uranium)
Licence Limit (240 g U/h)
Action Level (10 g U/h)
Daily Main Stack Emissions (g U/h)
200
150
100
50
0
0.6
2.5
0.5
2.3
0.5
1.4
0.8
2.9
0.6
1.7
2020
2021
2022
2023
2024
Year
Average
Maximum

Figure 20

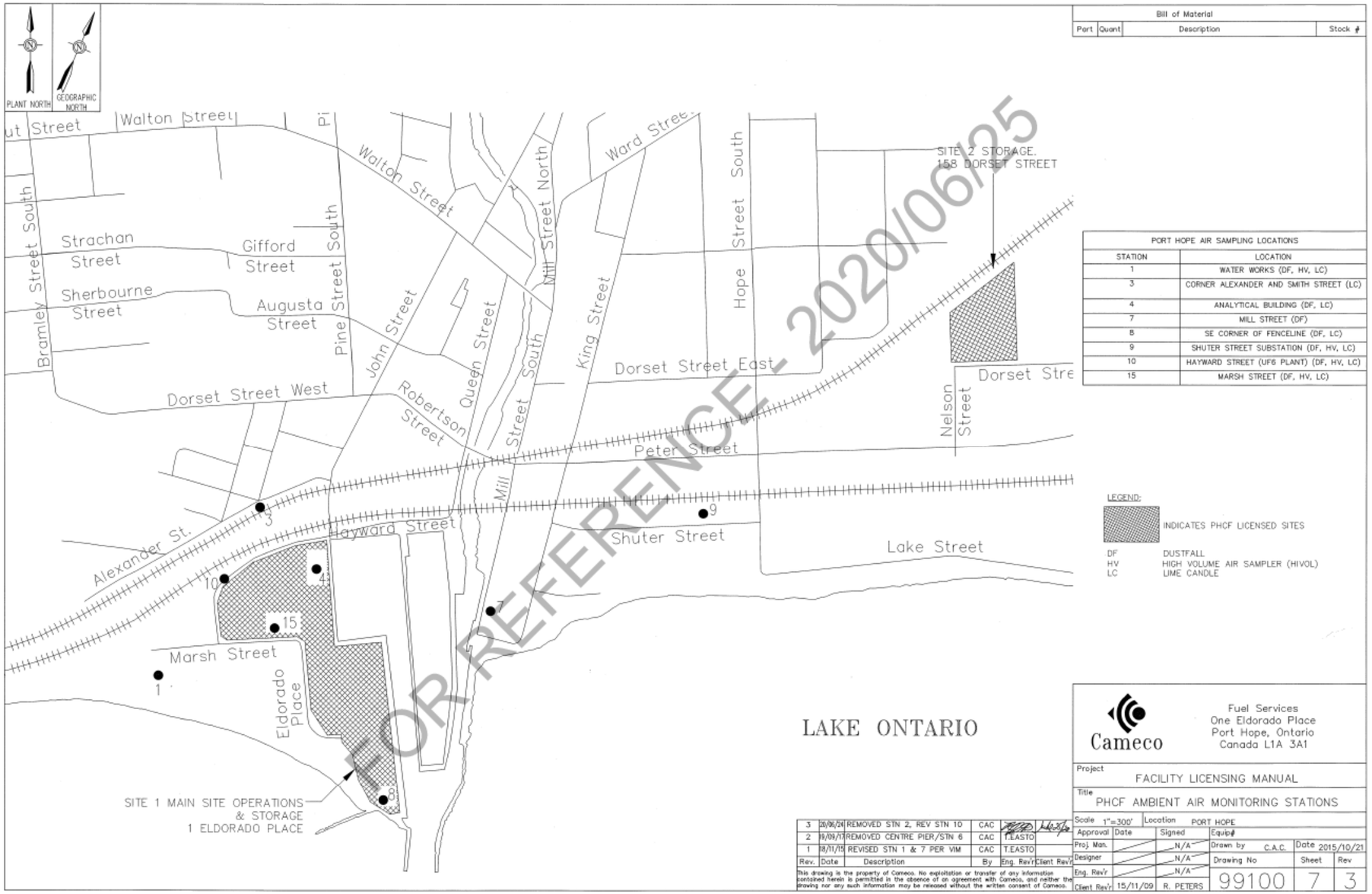


Ambient Air Monitoring

In support of the source sampling program, an ambient air program has been established to measure air quality near the PHCF. Samples from the site and the community are collected and analyzed for a variety of parameters. The facility's fluoride and uranium emissions have the greatest potential environmental impact and therefore are the primary focus of ambient air monitoring program.

PHCF ambient air monitoring station locations for dustfalls, lime candles and high-volume air samplers are shown on Figure 21.

Figure 21


PLANT NORTH
GEOGRAPHIC NORTH
Walton Street
Strachan Street
Gifford Street
Sherbourne Street
Augusta Street
Bramley Street South
Pine Street South
John Street
Queen Street
Mill Street North
Mill Street South
King Street
Ward Street
Hope Street South
Dorset Street West
Dorset Street East
Robertson Street
Peter Street
Nelson Street
Hayward Street
Alexander St.
Shuter Street
Lake Street
Marsh Street
Eldorado Place
SITE 2 STORAGE.
158 DORSET STREET
SITE 1 MAIN SITE OPERATIONS
& STORAGE
1 ELDORADO PLACE
LAKE ONTARIO
FOR REFERENCE - 2020/06/25
Bill of Material
Part | Quant | Description | Stock #
PORT HOPE AIR SAMPLING LOCATIONS
STATION | LOCATION
1 | WATER WORKS (DF, HV, LC)
3 | CORNER ALEXANDER AND SMITH STREET (LC)
4 | ANALYTICAL BUILDING (DF, LC)
7 | MILL STREET (DF)
8 | SE CORNER OF FENCELINE (DF, LC)
9 | SHUTER STREET SUBSTATION (DF, HV, LC)
10 | HAYWARD STREET (UF6 PLANT) (DF, HV, LC)
15 | MARSH STREET (DF, HV, LC)
LEGEND:
INDICATES PHCF LICENSED SITES
DF DUSTFALL
HV HIGH VOLUME AIR SAMPLER (HIVOL)
LC LIME CANDLE
Cameco
Fuel Services
One Eldorado Place
Port Hope, Ontario
Canada L1A 3A1
Project
FACILITY LICENSING MANUAL
Title
PHCF AMBIENT AIR MONITORING STATIONS
Scale 1"=300'
Location PORT HOPE
Drawn by C.A.C.
Date 2015/10/21
Drawing No 99100
Sheet 7
Rev 3
3 | 24/06/24 | REMOVED STN 2, REV STN 10 | CAC
2 | 19/09/17 | REMOVED CENTRE PIER/STN 6 | CAC | T.EASTO
1 | 18/11/15 | REVISED STN 1 & 7 PER VIM | CAC | T.EASTO
Rev. | Date | Description | By | Eng. Rev'r | Client Rev'r
This drawing is the property of Cameco. No exploitation or transfer of any information contained herein is permitted in the absence of an agreement with Cameco, and neither the drawing nor any such information may be released without the written consent of Cameco.
Approval | Date | Signed
Proj. Man. N/A
Designer N/A
Eng. Rev'r N/A
Client Rev'r 15/11/09 R. PETERS

Cameco monitors ambient uranium concentrations in the field using dustfall jars, high volume air samplers and soil samples. The results for these programs are provided below.

Dustfall monitoring is a measurement of deposition rate and is obtained by collecting particulate matter in a container, termed a dustfall jar. The particulate matter is collected over a one-month period and analyzed to determine the uranium deposition rate. There is no regulated standard for uranium content in dustfall. Cameco has established an internal administrative screening level of 10 mg U/m^2/30 days that would be indicative of abnormal conditions.

No uranium dustfall results exceeded the internal administrative screening level in 2024. The facility uranium in dustfall results averaged less than 0.1 mg U/m^2/30 days in 2024, which is consistent with previous years. It should be noted that dustfall uranium results observed from 2020 to 2024 are near method detection levels.

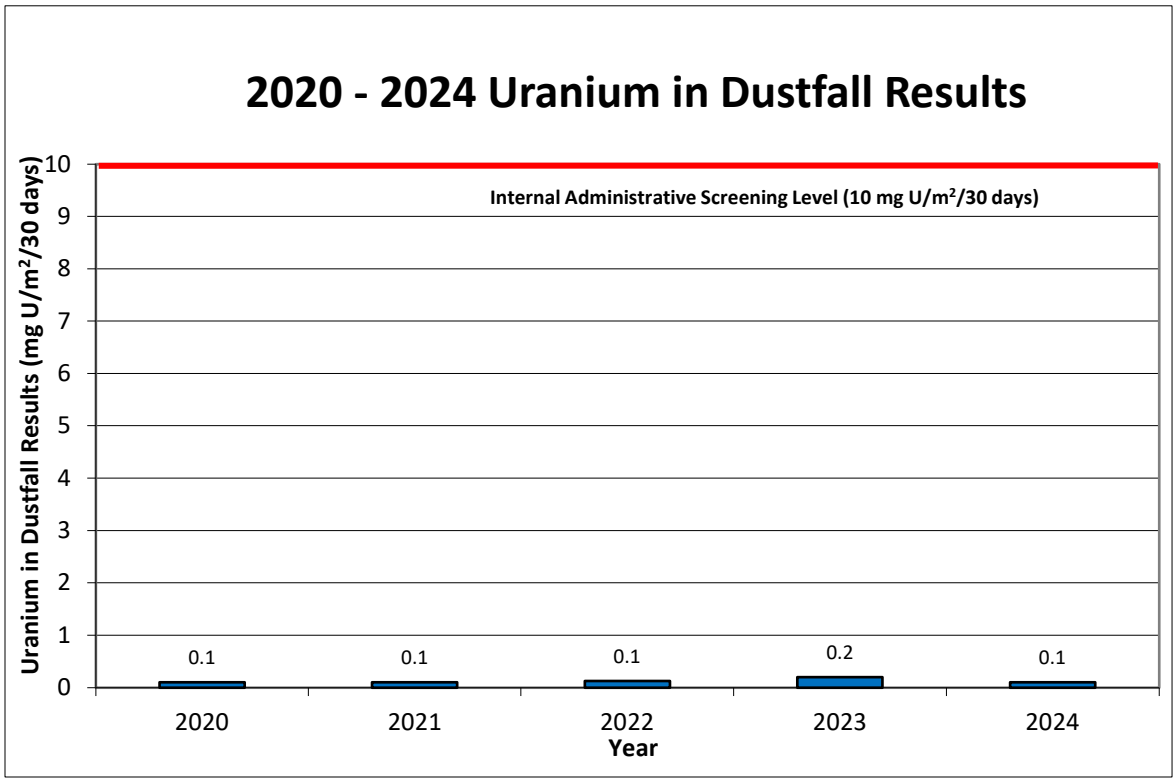
The annual all-station average uranium content in dustfall jars at and near the site in 2020 through 2024 is presented in Table 31.

Table 31

Comparison of Uranium in Dustfall Results (mg U/m^2/30 days)					
Period	**2020**	**2021**	**2022**	**2023**	**2024**
First Quarter	0.0	0.0	0.0	0.0	0.1
Second Quarter	0.1	0.0	0.1	0.1	0.0
Third Quarter	0.1	0.1	0.2	0.3	0.1
Fourth Quarter	0.1	0.1	0.2	0.3	0.1
Average	**0.1**	**< 0.1**	**0.1**	**0.2**	**0.1**
Cameco Internal Administrative Screening Level = 10 mg U/m^2/30 days					

Figure 22 shows the average uranium dustfall results from 2020 through 2024.

Figure 22



The high volume (hi-vol) air-sampling program monitors the concentration of uranium suspended in the air near the facility. There are four monitoring stations located at Marsh Street at the fence line just south of the UF_6 plant, east of the Port Hope Waterworks, Hayward Street and Shuter Street.

Approximately 40 cubic feet per minute of air is passed through and collects on a filter over a 24-hour period. The regulatory criteria for uranium content in ambient air varies by period and particulate size. Cameco uses TSP (total suspended particulates) hivols at the PHCF. The Ambient Air Quality Criteria (AAQC) for U in TSP are 0.3 µg U TSP/m^3 (24 hr) and 0.06 µg U in TSP/m^3 (annual). These U in TSP criteria are compared against the maximum and average PHCF hivol U in TSP results, respectively.

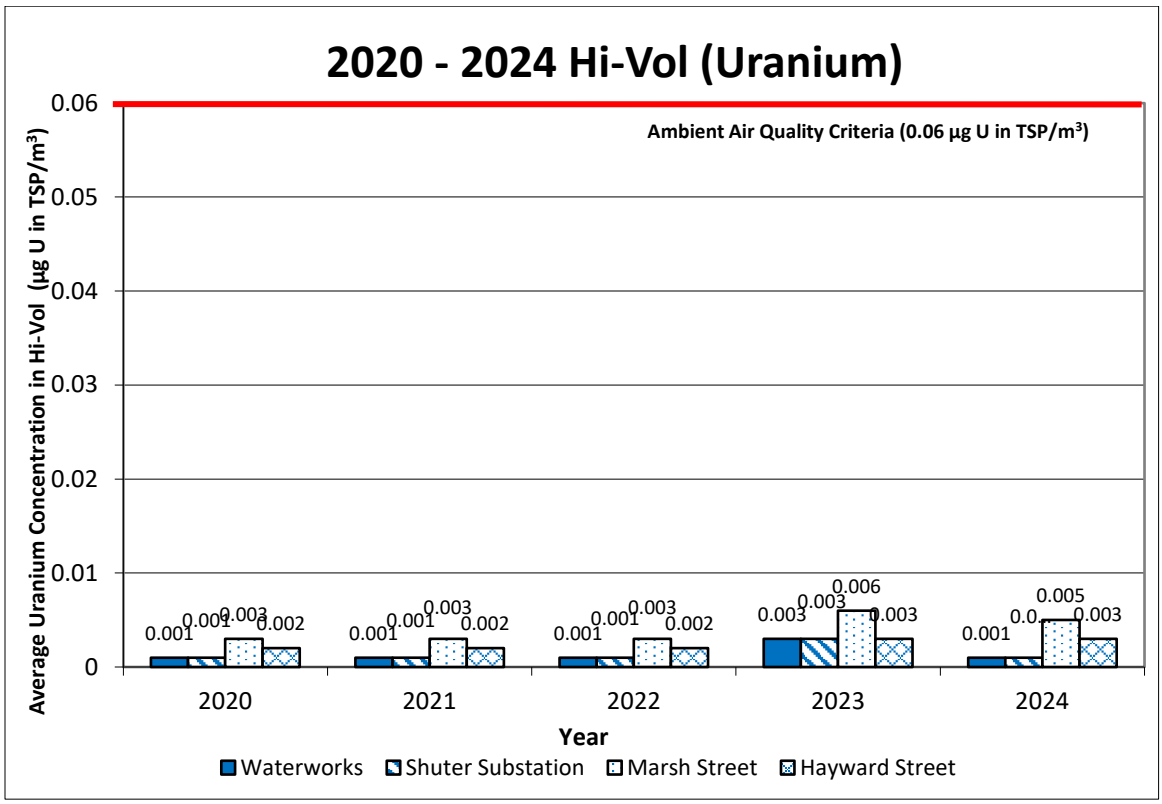
Table 32 shows the average and maximum uranium hi-vol results from 2020 through 2024. Average results are consistent compared to levels observed in the previous years. The 2024 maximum uranium in hi-vol occurred during the small release of UF_6 in the cold trap area and remained below the regulatory criteria 24 hr AAQC.

Figure 23 shows the average uranium hi-vol results from 2020 through 2024.

Table 32

2020 – 2024 Annual Uranium-in-Air Concentration at Hi-Vol Stations (µg U in TSP/m^3)					
Year	**Result**	**Waterworks**	**Shuter Substation**	**Marsh Street**	**Hayward Street**
2020	Average	0.001	0.001	0.003	0.002
	Maximum	0.007	0.009	0.221	0.010
2021	Average	0.001	0.001	0.003	0.002
	Maximum	0.025	0.011	0.071	0.011
2022	Average	0.001	0.001	0.003	0.002
	Maximum	0.017	0.036	0.031	0.015
2023	Average	0.003	0.003	0.006	0.003
	Maximum	0.381	0.409	0.132	0.066
2024	Average	0.001	0.001	0.005	0.003
	Maximum	0.012	0.083	0.238	0.030
Average <0.06 µg U in TSP/m^3 (annual) AAQC Maximum <0.3 µg U in TSP/m^3 (24 hr) AAQC					

Figure 23



The concentration of fluoride emissions from Cameco in the ambient environment are monitored in the field using dustfall, lime candle and vegetation sampling. The results from these programs are provided below.

In addition to the uranium analysis discussed above, the fluoride content of the collected dust provides information of fluoride in air near the facility. There is no regulated standard for fluoride content in dustfall. However, Cameco has established an internal administrative screening level of 20 mg F/m^2/30 days that would be indicative of abnormal conditions.

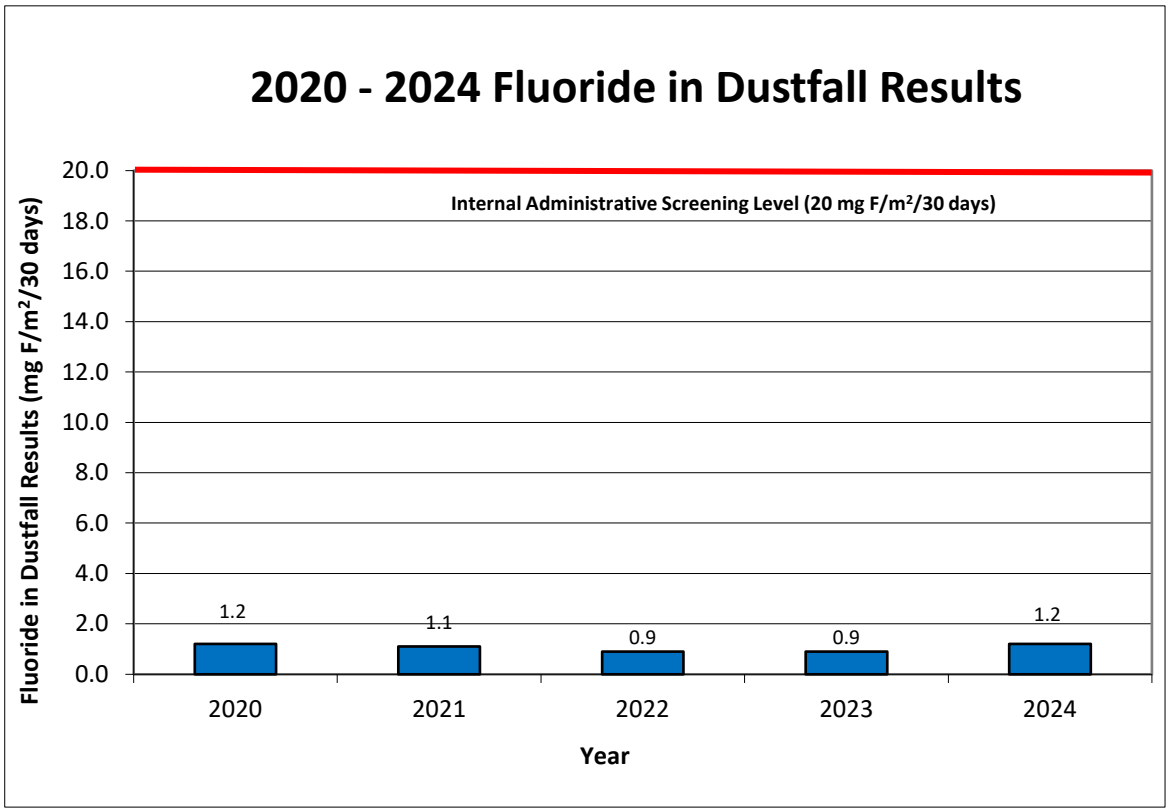
No fluoride dustfall exceeded the internal administrative screening level in 2024. The annual all-station average fluoride content in dustfall jars at and near the PHCF in 2020 through to 2024 is presented in Table 33. The dustfall fluoride levels observed in 2024 are comparable to levels observed in the previous year when production was operational and are within acceptable data range variation.

Table 33

Comparison of Fluoride in Dustfall Results (mg F/m^2/30 days)					
Period	**2020**	**2021**	**2022**	**2023**	**2024**
First Quarter	1.1	1.3	0.9	0.6	0.8
Second Quarter	1.1	1.2	1.5	1.1	1.3
Third Quarter	1.1	0.6	0.4	0.8	1.5
Fourth Quarter	1.4	1.1	0.8	1.0	1.0
Average	**1.2**	**1.1**	**0.9**	**0.9**	**1.2**
Cameco Internal Administrative Screening Level = 20 mg F/m^2/30 days					

Figure 24 shows the average fluoride dustfall results from 2020 through 2024.

Figure 24



Soil Monitoring

The terrestrial sampling program, including soil and vegetation components, is carried out at frequencies specified in the individual procedures to supplement results from the PHCF air emissions monitoring programs and to monitor the long-term effects of facility air emissions, namely uranium and fluoride, in the areas surrounding the PHCF.

The soil monitoring program currently consists of two monitoring locations beyond the facility fence line. One of these locations is within a 0 to 500 m radius zone from the facility, while the remaining location is within the 1000 to 1500 m radius zone. Figure 25 illustrates the general placement of soil monitoring locations beyond the PHCF.

The 2024 soil sampling program was completed November 1, 2024. The soil sampling approach includes the sampling of 15 cm cores, which the contract laboratory separates into composite 0-5 cm, 5-10 cm and 10-15 cm core segments for uranium analysis.

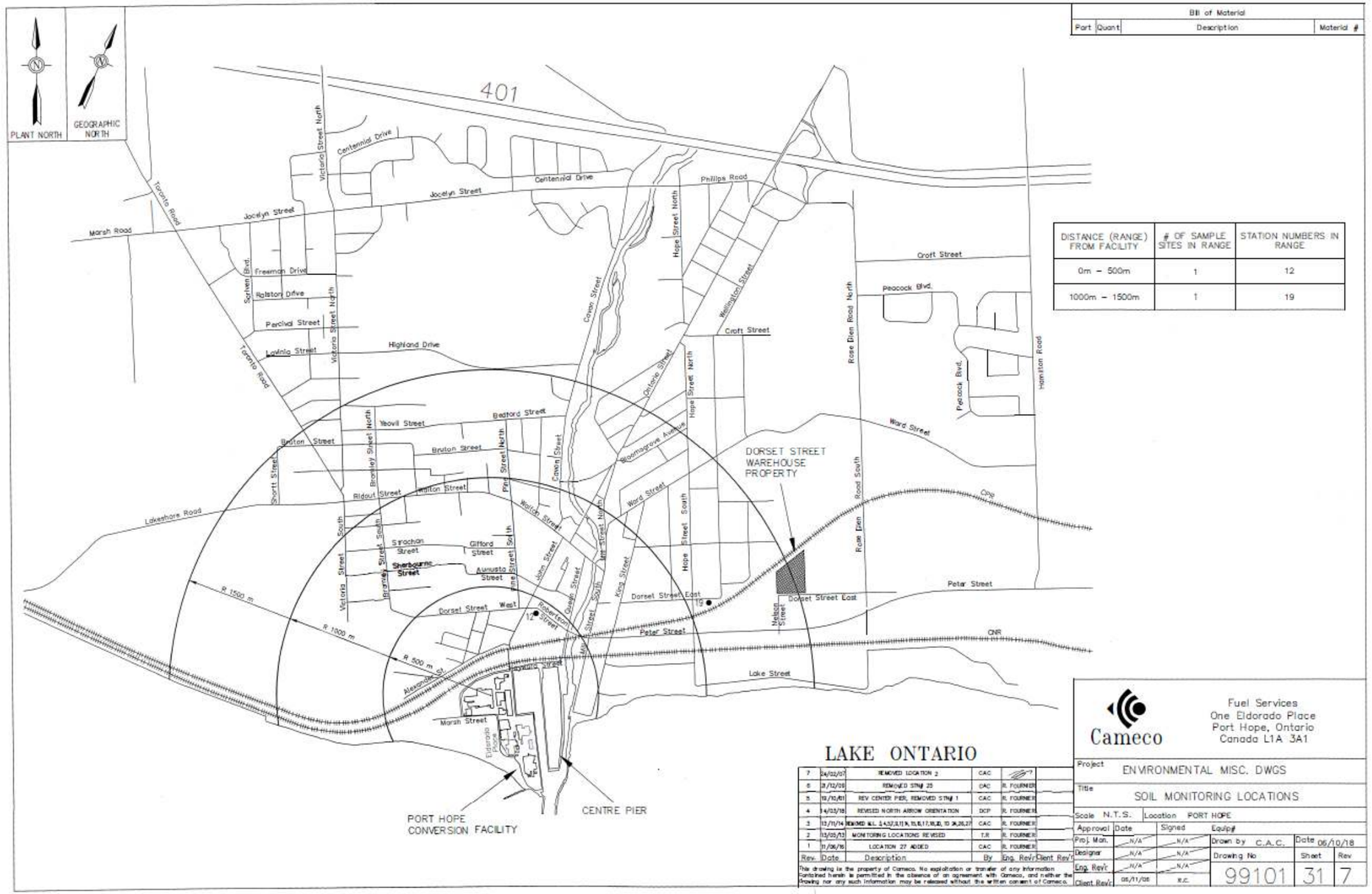
The 2020 through 2022 uranium in soil data is provided in Table 34 for the clean plot monitoring location (location 2) that was previously positioned to the west of municipal water treatment plant. Location 2 was not sampled in 2023 and 2024 as the background monitoring location was impacted by CNL remedial work at the West Beach. Reference is made to Table 35 for 2024 individual sampling location uranium in soil monitoring data.

All individual sampling location values were below the Canadian Council of Ministers of the Environment (CCME) agricultural and residential/parkland land use soil quality guideline of 23 mg/kg (ppm).

Concentrations of uranium in shallow soils at locations 12 and 19 are expected to be influenced by historic fill placements within the community. Small scale variability in shallow soils can be observed and the heterogenous nature of fill materials can influence uranium trending at discrete monitoring locations. At both locations, demolition fill materials have been observed in shallow core samples over time.

Following completion of the Port Hope Area Initiative, Cameco will review and modify soil monitoring locations as appropriate. The siting of revised monitoring locations will consider among other items, CNL clean fill placements.

Figure 25: Soil Monitoring Locations



Bill of Material

Part	Quant	Description	Material #

DISTANCE (RANGE) FROM FACILITY	# OF SAMPLE SITES IN RANGE	STATION NUMBERS IN RANGE
0m – 500m	1	12
1000m – 1500m	1	19

Rev.	Date	Description	By	Eng. Revr.	Client Revr.
7	24/02/07	REMOVED LOCATION 2	CAC		
6	21/12/09	REMOVED STN# 25	CAC	R. FOURNIER	
5	12/10/11	REV CENTER PIER, REMOVED STN# 1	CAC	R. FOURNIER	
4	14/03/18	REVISED NORTH ARROW ORIENTATION	DCP	R. FOURNIER	
3	13/11/14	REMOVED #'S 2,4,5,7,8,11 & 15,16,17,20,21, TO 24,26,27	CAC	R. FOURNIER	
2	13/05/13	MONITORING LOCATIONS REVISED	TJR	R. FOURNIER	
1	11/06/16	LOCATION 27 ADDED	CAC	R. FOURNIER	

Cameco
Fuel Services
One Eldorado Place
Port Hope, Ontario
Canada L1A 3A1

Project	ENVIRONMENTAL MISC. DWGS
Title	SOIL MONITORING LOCATIONS
Scale	N.T.S.
Location	PORT HOPE
Approval	Date / Signed
Proj. Mgr.	N/A / N/A
Designer	N/A / N/A
Eng. Revr.	N/A / N/A
Client Revr.	05/11/08 / R.C.
Equip#	
Drawn by	C.A.C.
Date	06/10/18
Drawing No	99101
Sheet	31
Rev	7

Table 34

Clean Fill Soil Plot (µg/g U)					
Depth (cm)	**2020**	**2021**	**2022**	**2023**	**2024**
0-5 cm depth	0.91	0.87	1.1	N/A	N/A
5-10 cm depth	0.84	0.80	1.0	N/A	N/A
10-15 cm depth	0.81	0.80	0.92	N/A	N/A

Table 35

2024 Soil Data (µg/g U)		
Depth (cm)	**Location 12**	**Location 19**
0-5 cm depth	4.8	4.2
5-10 cm depth	5.1	4.1
10-15 cm depth	4.3	3.7

Fluorination rate is an indirect measurement of the gaseous fluoride concentration in the ambient air. An established method for measuring the fluoride concentration in ambient air is to expose lime coated filter papers, commonly called lime candles, for a fixed period of time. The fluoride reacts with the lime and the analysis of the lime candles provides a time-averaged fluoride concentration. Lime candles consist of a 10 cm x 10 cm filter paper that is soaked with a saturated calcium oxide (CaO) solution housed in a louvered shelter sampling station with a hinged top.

The lime candles are prepared, deployed, and collected on a specified frequency and are analyzed. The period is normally 30 days; however, shorter terms of weekly periods are also used. These shorter-term results are used to assess impact in a timelier manner, and effect process changes to ensure that the monthly results are in compliance. Monthly and weekly lime candles are operated throughout the year. The MECP Ambient Air Quality Criteria (AAQC) for fluoridation are 40 µg F/100 cm^2/30 days from April 1 to October 31 and 80 µg F/100 cm^2/30 days from November 1 to March 31. These criteria are based on the protection of foraging animals.

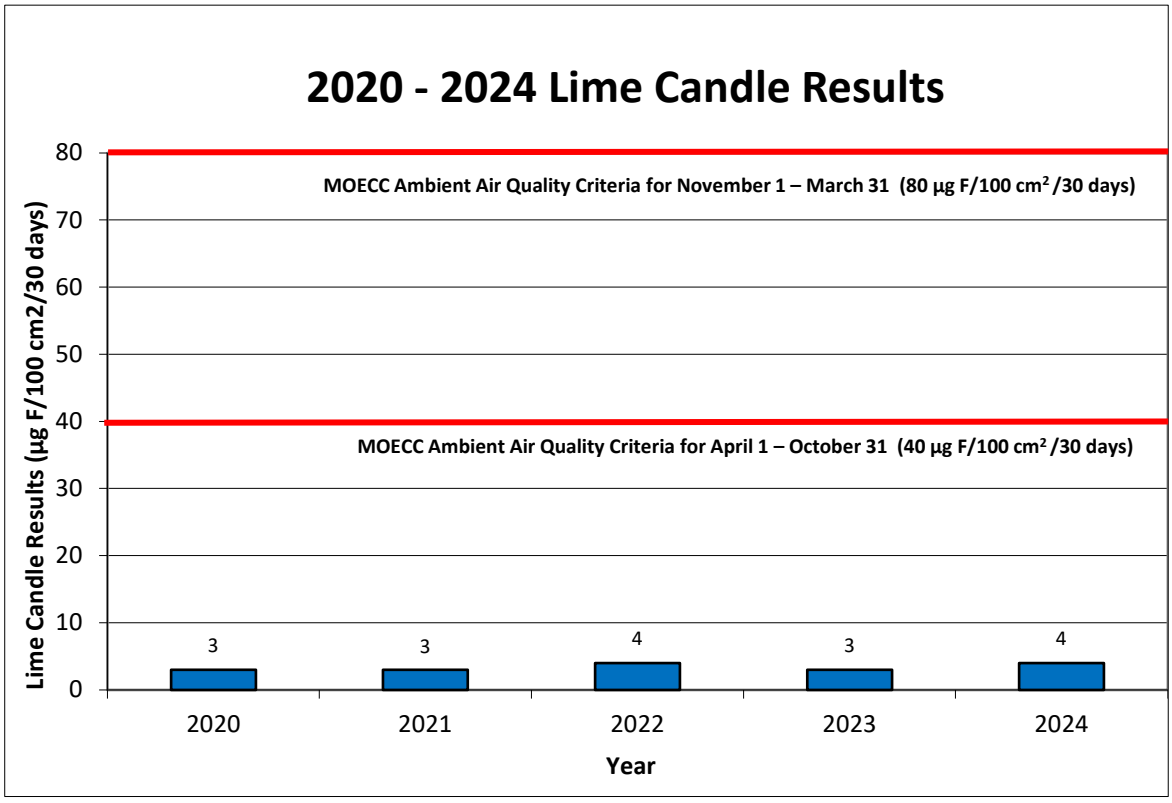
The quarterly average lime candle monitoring results are shown in Table 36 for 2020 through 2024. There were no lime candle results above the MECP AAQC in 2024. The 2024 lime candle annual average is comparable to levels observed in previous years.

Table 36

Comparison of Monthly Lime Candle Results by Quarter (µg F/100 cm²/30 days)					
Period	**2020**	**2021**	**2022**	**2023**	**2024**
First Quarter	3	3	4	3	3
Second Quarter	3	5	4	3	5
Third Quarter	4	3	4	3	4
Fourth Quarter	2	3	2	4	3
Average	**3**	**3**	**4**	**3**	**4**
The desirable ambient air quality criteria for lime candles are to protect forage crops consumed by livestock. During the summer growing season April 1 to October 31, the criteria is 40 µg F/100 cm²/30 days, changing to 80 µg F/100 cm²/30 days in winter November 1 to March 31.					

Figure 26 shows the average lime candle results from 2020 through 2024.

Figure 26



Vegetation Sampling

The focus of the vegetation monitoring program is foliar fluoride concentrations within the Municipality of Port Hope. Although the emissions control systems minimize the discharge of fluorides to the environment, the PHCF is an anthropogenic source of fluoride to the local environment.

Samples of fluoride-sensitive vegetation are collected in August or September. The monitoring program is completed in conjunction with the MECP, and samples are obtained from locations adjacent to PHCF and within the surrounding community. Substitute trees are added to the program as required should external factors impact the targeted monitoring program. Sampling locations are standardized to Manitoba maple locations and clusters of trees are sampled at each location. A composite sample is generated from each monitoring location and split between the MECP and Cameco for laboratory analysis. Two samples are then submitted for laboratory analysis for each sampling location.

The baseline sampling program was last modified in 2021 in coordination with the MECP. Locations 38, 39, 40, 41 were removed from the monitoring program. Consistent with MECP feedback, results obtained from these locations were not adding value to the program and the locations were not positioned in primary areas of focus. Contract laboratory results reported between 2018 and 2020 for the locations in question were all reported below the contract laboratory detection limit of 5 µg/g.

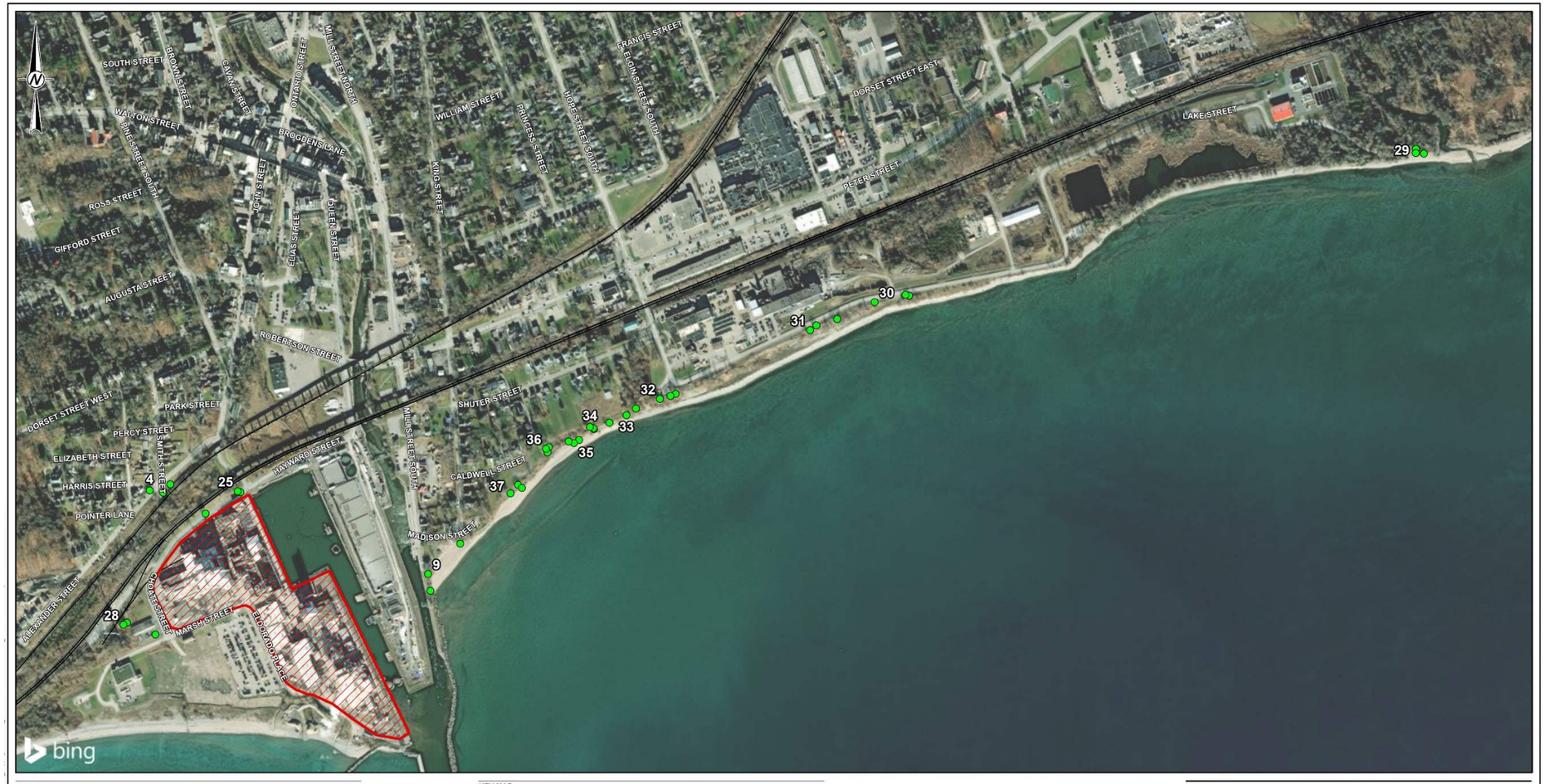
Location 32 trees were all replaced in 2021 as the previous cluster was removed in association with area CNL remedial work. Single trees from monitoring locations 29 and 33 were replaced in 2021, and single trees were substituted at location 31 in both 2022 and 2023. Locations 9 and 28 required single tree substitutions in 2023 and a single tree was substituted at Location 28 in 2024.The sampling program currently consists of 13 cluster locations and the 2024 vegetation sampling program was completed September 12, 2024. Replicate composite samples otherwise continue to be sampled at each cluster location. Reference vegetation monitoring location clusters are illustrated in Figure 27.

Table 37 provides the soluble fluoride replicate sample results by location. The replicate samples are assigned A and B designations. Figure 28 illustrates the mean vegetation survey results for 2020 through 2024.

As a number of individual 2024 sample results (13 of 26) were reported less than the contract laboratory detection limit of 5 µg/g, the detection limit skews the plotted annual mean value when utilizing the detection limit value where necessary for statistical purposes. Of the values reported above the detection limit, a maximum value of 32 µg/g

was reported from the Location 31 replicates. Location 31 is positioned well east of the PHCF, directly adjacent to an active foundry, and maximum results are typically recorded from this location.

Figure 27: Vegetation Monitoring Locations



LEGEND

- VEGETATION MONITORING STATION
- RAILWAY
- OPERATING SITE BOUNDARY

KEY MAP

SCALE: 1:200,000

0 75 150 300
1:7,500 METRES

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO.
2. VEGETATION MONITORING LOCATIONS - PROVIDED BY CAMECO CORP., 2024.
3. BASE MAP: PROVINCE OF ONTARIO, ESRI CANADA, ESRI, TOMTOM, GARMIN, SAFEGRAPH, METI/NASA, USGS, EPA, NPS, USDA, NRCAN, PARKS CANADA. © 2024 MICROSOFT CORPORATION © 2024 MAXAR ©CNES (2024) DISTRIBUTION AIRBUS DS
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N

CLIENT
CAMECO CORPORATION

PROJECT
CAMECO CORPORATION
1 ELDORADO PLACE, PORT HOPE

TITLE
CAMECO PHCF CONSULTING SERVICES

CONSULTANT

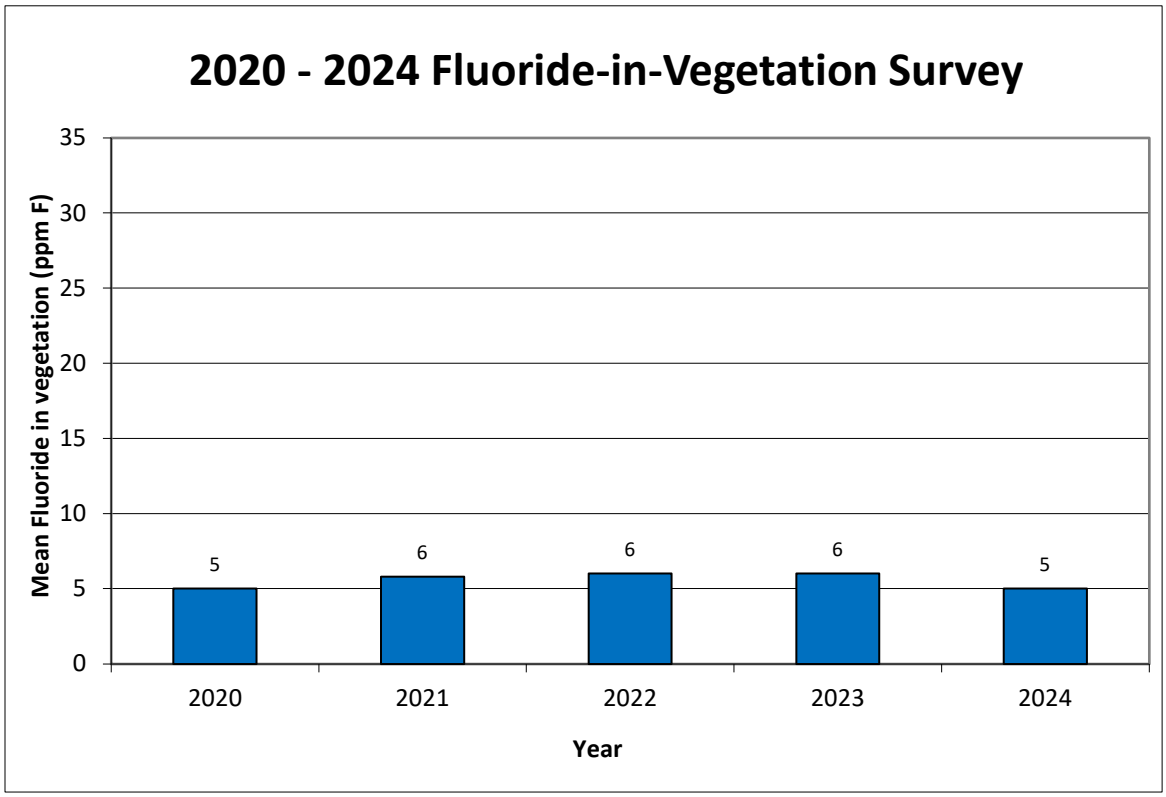
YYYY-MM-DD	2024-12-13
DESIGNED	----
PREPARED	CGE/JT
REVIEWED	HA
APPROVED	AA

PROJECT NO.	CONTROL	REV.	FIGURE
CA0033843.5478	0001	A	1

Table 37

2024 Vegetation Survey Results	
Vegetation Site	**Fluoride Result (µg/g)**
4A	< 5
4B	< 5
9A	14
9B	18
25A	6
25B	7
28A	6
28B	< 5
29A	5
29B	< 5
30A	7
30B	6
31A	27
31B	32
32A	< 5
32B	5
33A	< 5
33B	< 5
34A	<5
34B	< 5
35A	< 5
35B	6
36A	< 5
36B	< 5
37A	6
37B	< 5

Figure 28



Discharge to Water

This section summarizes the PHCF liquid discharges and associated monitoring programs.

There were two types of point source discharges from the PHCF operations that were monitored on prescribed intervals in 2024: the combined facility sanitary sewer discharge and storm sewer outlets. The transition of production facilities to independent closed loop cooling systems was completed within the 2023 calendar year and as a result, former once-through cooling water works are permanently inactive. The end-of-pipe fish protection screen structure was removed, the associated cooling water pump house intake line was abandoned, and the UF_6 plant cooling water return piping was abandoned within the 2024 calendar year.

The municipal sewage treatment plant processes sanitary sewer discharges from the PHCF, and sewage quality is defined by municipal sewer use by-law 30/94. Primary facility inputs to this discharge include greywater and blackwater sources (excluding

laundry effluent), Powerhouse effluent (such as boiler blowdown and softener regeneration effluent streams) and condensates. It should also be noted that a portion of the sanitary sewer discharge from PHCF originates upstream of the facility, primarily from the municipal water treatment facility. Figure 29 illustrates the combined sanitary sewage monitoring location positioned immediately upstream of the municipal system.

The combined PHCF sanitary sewer return is sampled on a continuous basis using daily composite sampling. Table 38 summarizes the annual average uranium concentration and uranium loadings to the Municipality of Port Hope's sanitary sewer system. Uranium loadings are also illustrated in Figure 29. Table 39 summarizes the monthly average and maximum uranium concentrations in sanitary sewer discharges for 2024.

The sanitary sewer action level was revised in the second quarter of 2024. A daily uranium action level of 100 µg U/L (0.10 mg U/L) applied through June 18. Effective June 19, the action level was revised to a monthly mean action level of 150 µg U/L (0.15 mg U/L). The monthly mean release limit of 275 µg U/L (0.275 mg U/L) otherwise remained unchanged.

No uranium action level excursions were recorded in the 2024 calendar year and sanitary sewer discharges remained well below the facility monthly mean release limit. Uranium loadings otherwise significantly decreased from 2023, and the 2024 loadings were the lowest annual loadings from the 5-year period. The 2023 loadings were skewed high due to flow meter operational issues and the flow meter system was ultimately replaced, with commissioning taking place July 2024.

The magnitude and frequency of precipitation events has been seen to influence sanitary sewer quality as a function of an increase in groundwater infiltration potential. Cameco continues to evaluate targeted sanitary sewer infrastructure rehabilitation, replacement and/or abandonment tasks, taking into consideration work completed to date and planned VIM project sanitary sewer system improvements.

Building l3 lateral service improvements on the utility alignment between Building 13 and the sanitary sewer main were completed in September 2024. A portion of the service was replaced, and the balance of the alignment was relined.

Upcoming focus areas include the replacement and realignment of sewer infrastructure servicing existing facility lift stations and portions of Building 20, and the abandonment of associated, inactive utilities. Work was initiated on the replacement/realignment of infrastructure adjacent to Building 32 in 2024, but the site project work was halted due to challenges posed by subsurface utility interferences. The sanitary sewer work will resume at a later date.

Figure 29: Sanitary Sewage Monitoring Locations

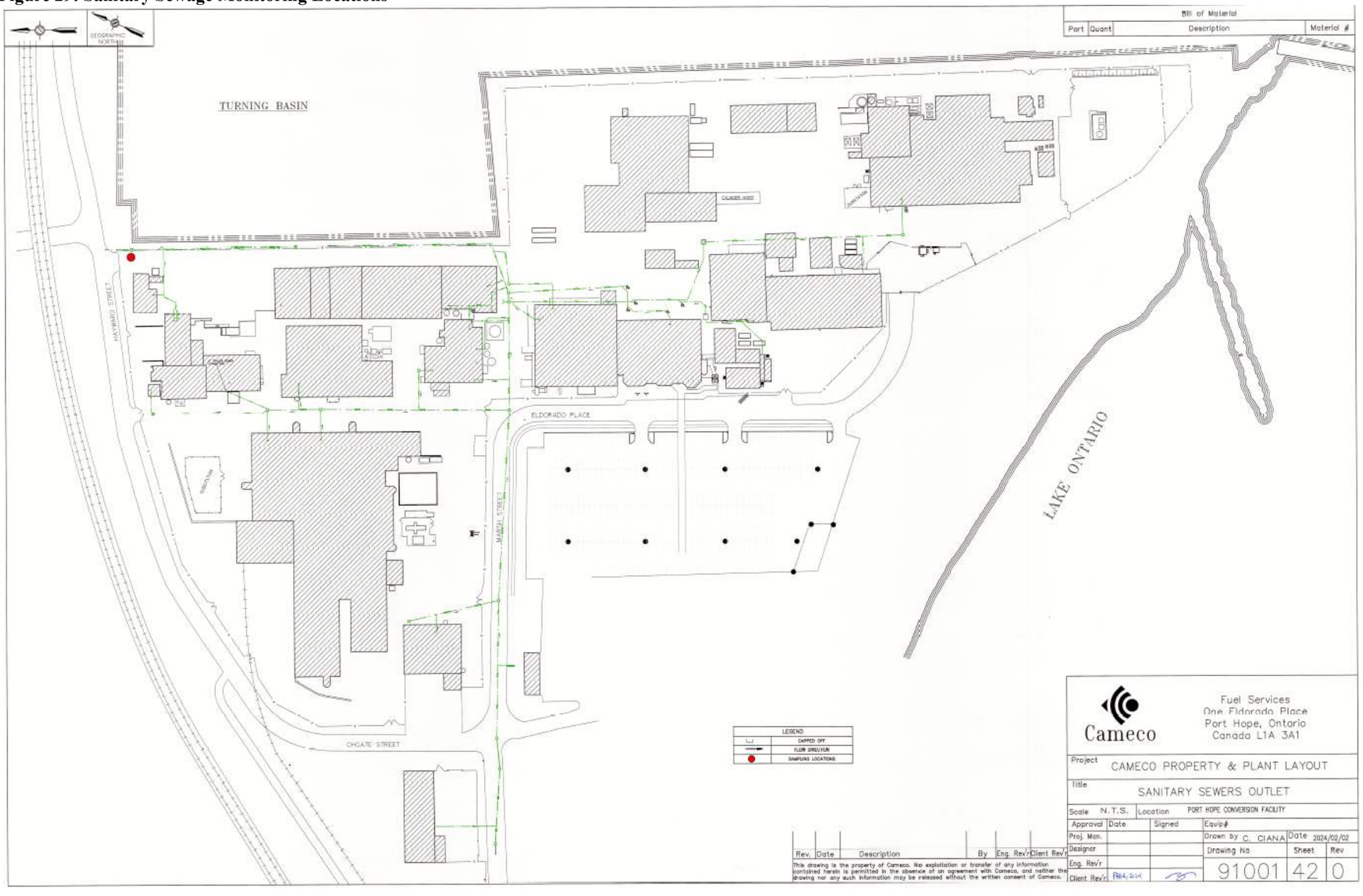


Table 38

2020 – 2024 Sanitary Sewer Discharges			
Period	**Annual Average Flow (m^3/day)**	**Annual Average Uranium Concentration (µg/L)**	**Uranium Loadings (kg/year)**
2020	383	13	1.8
2021	334	23	3.0
2022	423	39	6.0
2023	1,167	21	7.0
2024	445	4.6	0.76

Table 39

2024 Monthly Sanitary Sewer Discharges			
Period	**Sanitary Sewer Action Level/Release Limit**	**Monthly Average Uranium Concentration (µg/L)**	**Daily Maximum Uranium Concentration (µg/L)**
January	Daily action level of 100 µg U/L through June 18. Monthly average action level of 150 µg U/L effective June 19. Monthly average release limit of 275 µg U/L for the 2024 calendar year.	6.6	14
February		4.6	9.1
March		4.7	11
April		12	53
May		3.7	7.1
June		3.3	18
July		3.0	6.4
August		2.4	3.7
September		2.9	4.9
October		3.2	7.2
November		3.9	11
December		4.9	10

Storm Water Monitoring

The storm water monitoring program is currently carried out twice per calendar year. Precipitation events targeted for sampling, where available and practical, are 10+ mm forecasts preceded by 48 hours of dry weather.

Amended ECA 1310-CK5MMH, includes a stormwater monitoring program specific to planned VIM storm sewer works upgrades and associated changes to storm sewer outlet locations. The revised monitoring program will be phased in on a per outlet basis following full completion of proposed works. A new VIM outlet is now operational at the southernmost portion of the facility, however, a portion of the proposed works upstream of the outlet remains to be completed. The outstanding civil works in question are to the east of the UO_2 plant and will displace existing Outlets 14 and 15 when operational.

Grab samples are currently obtained from up to six storm sewer outlets immediately upstream of the harbour at catch basin/maintenance hole access points, where available. Outlets 2, 6, 8, 11, 13 and 15 are the focus of the current monitoring program. Licensed facility storm sewer outlets and current monitoring locations are illustrated on Figure 30.

It's important to note that in the current storm sewer works operating condition, storm water quality is routinely highly variable and influenced by factors such as precipitation event duration and intensity, infrastructure deficiencies, and external factors (i.e. bird waste/droppings). Table 40 provides a summary of storm water quality parameters results for the 2024 calendar year; field duplicate samples excluded.

Outlet 8 is typically dry during sampling events due to its catchment area comprising of granular cover. One Outlet 8 sample was collected on April 3. There was no outlet flow at the time of the November 26 sampling event.

Despite reported variances in storm water quality for select parameters, individual grab samples all passed their respective *Daphnia magna* and rainbow trout acute lethality single concentrations tests in 100% effluent.

As part of the planned VIM civil works upgrades, all historic site outlets are planned for abandonment. Existing infrastructure realignments and upgrades will take place upstream of active outlets and a reduced number of new harbour outlets will be installed with oil and grit separator systems. In the interim, all historic facility storm sewer outlets continue discharge to the CNL harbour work zone bounded by the wave attenuator installations.

Figure 30: Storm Sewer Outlets

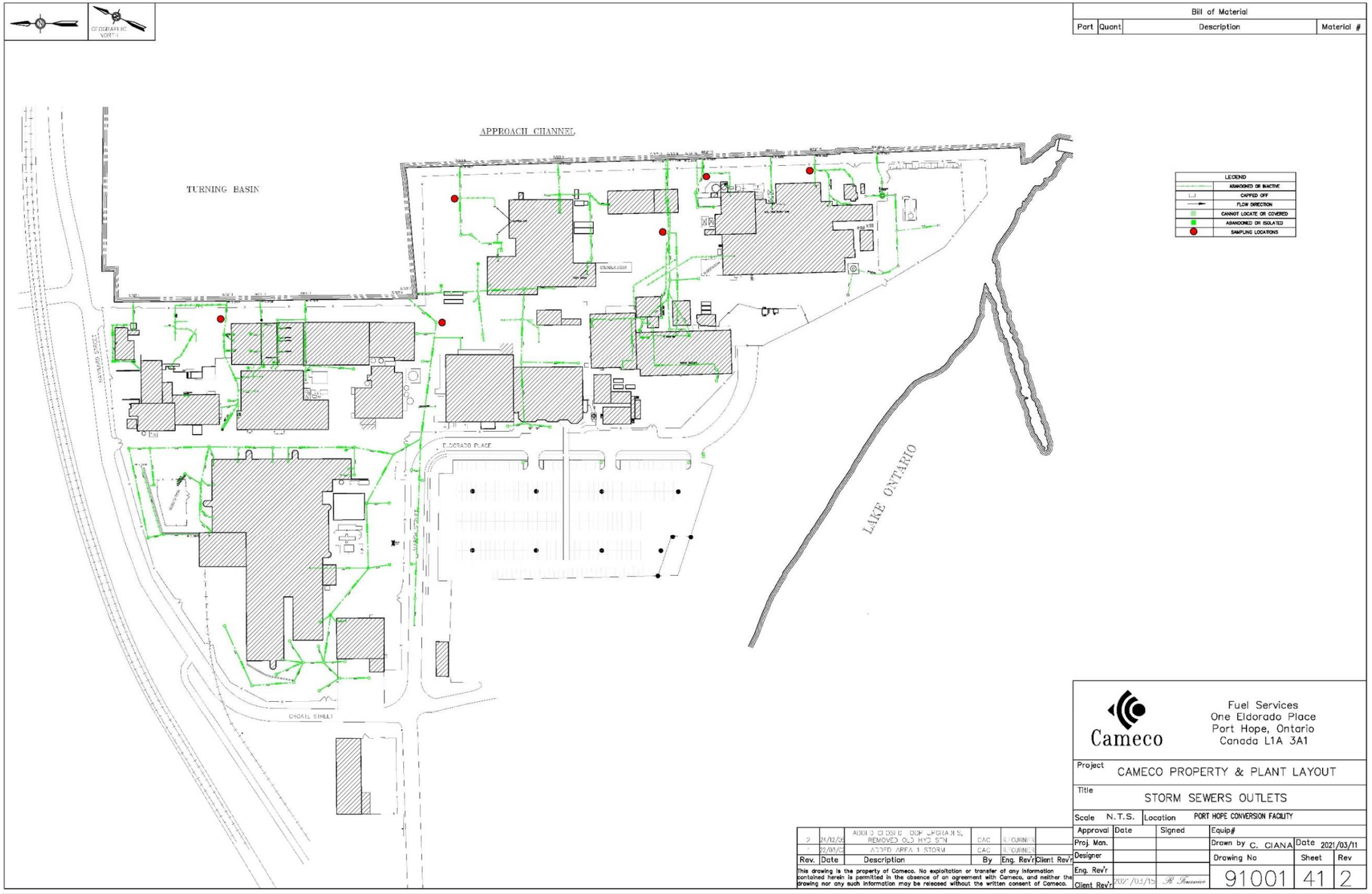


Table 40

2024 Storm Water Monitoring Results								
Sample Location	Date	Uranium	Fluoride	Ammonia + Ammonium	Nitrate	Arsenic	Acute lethality	
							Daphnia magna	Rainbow trout
		mg/L	mg/L	as N mg/L	as N mg/L	mg/L	% Mortality	% Mortality
Outlet 2	April 3, 2024	0.338	0.86	<0.1	1.35	0.0200	0.0	0.0
	November 26, 2024	0.362	0.62	0.2	1.46	0.0299	0.0	0.0
Outlet 6	April 3, 2024	0.132	0.61	0.1	0.45	0.0017	0.0	0.0
	November 26, 2024	0.126	0.71	0.3	0.60	0.0012	0.0	0.0
Outlet 8	April 3, 2024	0.297	0.35	<0.1	0.08	0.0254	0.0	0.0
	November 26, 2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Outlet 11	April 3, 2024	0.0988	0.24	0.2	0.12	0.0020	0.0	0.0
	November 26, 2024	0.161	0.28	0.9	0.50	0.0008	0.0	0.0
Outlet 13	April 3, 2024	0.0910	0.11	0.2	0.36	0.0019	0.0	0.0
	November 26, 2024	0.0626	0.10	7.9	0.59	0.0006	0.0	0.0
Outlet 15	April 3, 2024	0.0812	<0.06	0.2	0.28	0.0080	0.0	0.0
	November 26, 2024	0.0279	<0.06	0.3	0.42	0.0014	0.0	0.0

Groundwater Monitoring

The PHCF long-term groundwater monitoring program includes groundwater level monitoring and groundwater sampling at select wells. Groundwater level monitoring is completed on a quarterly or annual basis.

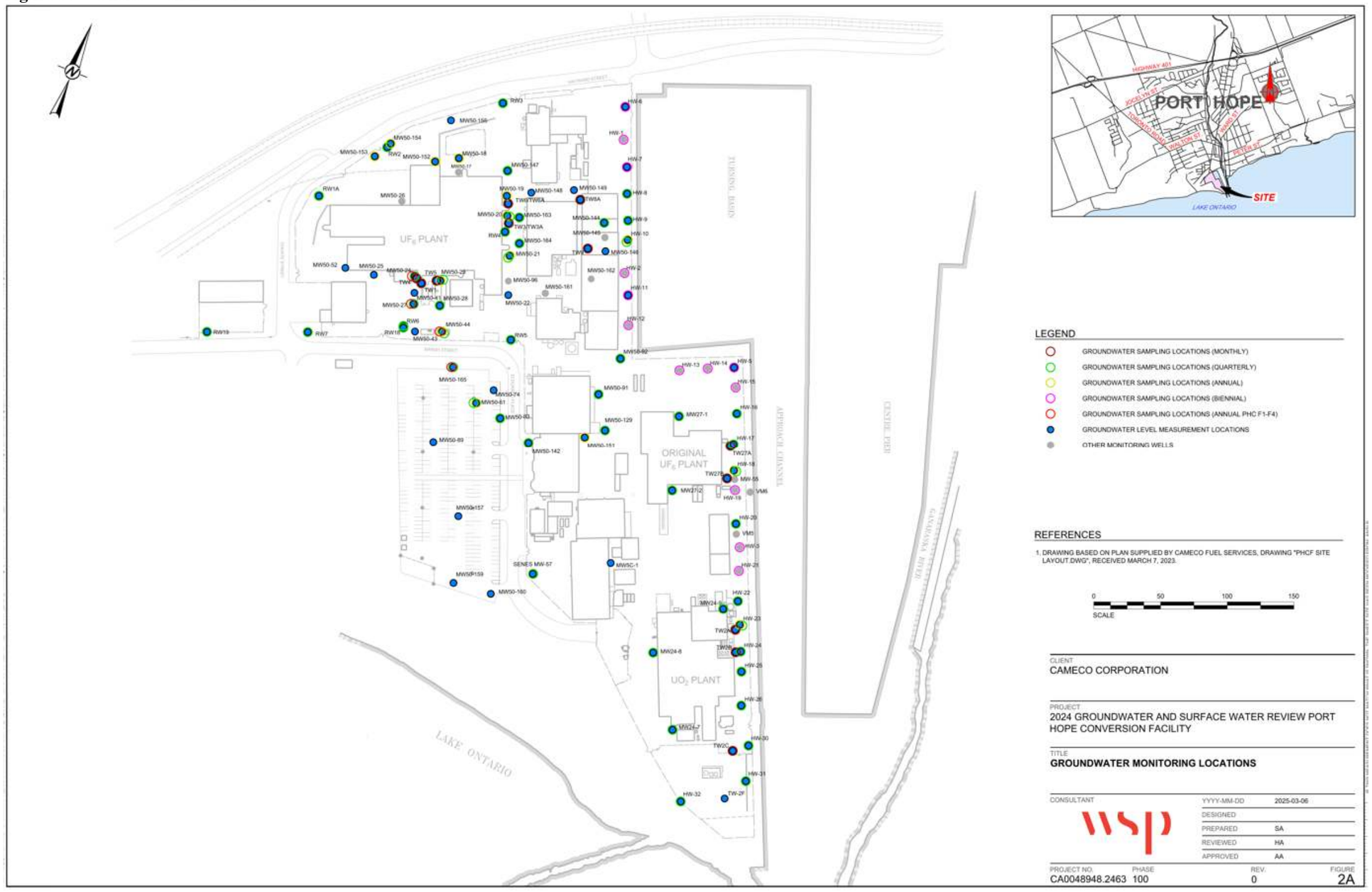
Groundwater is sampled under the following schedules: monthly sampling of the operating recovery wells; quarterly sampling of select monitoring wells; annual sampling of select bedrock monitoring wells; and biennial sampling of select harbour area monitoring wells. Areas of focus include the UF_6 plant area (east and south); the waste recovery building/warehouse areas; the former UF_6 plant area; and the UO_2 plant area.

Recovery of contaminated groundwater for treatment from the east and south perimeters of the UF_6 plant began in the first quarter 2008, while pumping well locations between the UF_6 plant and the harbour, as well as one pumping well to the east of the UO_2 plant (TW2A), were on-line as of the fourth quarter 2008.

Four additional pumping wells commenced operation during the fourth quarter of 2011. These installations are located to the east of the former UF_6 plant (TW27A and TW27B) and to the east/southeast of the UO_2 plant (TW2B and TW2C).

Up to twelve pumping wells were in operation during the 2024 calendar year. Figure 37 illustrates the PHCF groundwater monitoring program well locations.

Figure 37 – Onsite Well Locations



Effluent and Environmental Monitoring Program Performance

The facility Environmental Protection Program sets out the effluent and environmental monitoring requirements for the facility to ensure adequate environmental protection measures are in place. The performance criteria of these programs are that at least 90% of planned samples are collected and analyzed to meet the data acceptance criteria.

- Water samples (i.e., sanitary discharge) – 99.4% of planned samples were collected.
- Stack samples (i.e., stacks) – 96.7% of planned samples were collected.
- Environmental Samples (i.e., surface water, groundwater, hivol, dustfall, lime candle, fenceline gamma, soil, vegetation) – 98.8% of planned samples were collected.

In 2024, all analysis under the environmental program was completed with the quality control set out in the analytical methods. There were 83 instances where samples were flagged for issues with laboratory quality control. Of these 83 were reviewed and/or repeated and deemed acceptable for use in accordance with the laboratory quality program. There was no sample analysis missed in the annual reporting due to analytical issues.

2.3.4 Emergency Management and Response

This safety and control area covers emergency plans and emergency preparedness programs. These procedures must exist for emergencies and for non-routine conditions. This also includes the fire protection program and any results of emergency exercise participation.

The fire protection and security group have focused efforts to refine training to site specific chemicals, needs and responses for both emergency and medical requirements.

This activity and associated records are subject to various audits and are incorporated into the PHCF annual management review.

There was one response by the emergency response team (ERT) in building 50 cold trap and 5 emergency medical responses in 2024. There were 28 drills/exercises including the joint exercise with the Port Hope Fire and Emergency Services in 2024. All drills/exercises were entered into UShare. Deficiencies or injuries were entered into CIRS.

PHCF conducted a full-scale exercise jointly with Port Hope Fire and Emergency Services on November 26, 2024, that tested the ERO and Port Hope Fire and Emergency Services ability to respond to a penthouse fire in building 50.

There were no recordable injuries in 2024 for ERO personnel.

There were a number of internal drills and exercises conducted, which tested the effectiveness of the site and the emergency response organization. The following is a general list of the internal drills and activities in which the emergency response organization participated in 2024:

- Site Assembly Alarms/Drills
- Full Scale Exercise
- Hazmat Tabletop Exercise
- PCB Tabletop Exercise
- Hazmat Cold Trap Exercise
- Confined Space, Stair Drop Exercise
- High Angle Rope Rescue – Lift Well
- Confined Space B50 Effluent Sump
- B50 Stairwell Drop “Stair 6”
- Joint Exercise PHFES E2 Ammonia Release
- UF_6 Release E2
- Hydrogen Fire / Search and Rescue
- RIT Search and Rescue
- Live Fire Propane Props

- Radiological Fire B50
- Burn Tower Simulated High Rise Fire
- Sprinkler Activation
- Hazmat Fuel Pump Spill
- EMT HF Inhalation
- EMT HF Burn

All drills and exercises are documented, and deficiencies are tracked to ensure that appropriate corrective actions are taken.

The emergency response and training assistance agreement between Cameco and the Municipality of Port Hope, continues to ensure that the two response organizations are provided the opportunity to train together in order to prepare for emergencies that could require a joint response. Also, as part of the agreement, Cameco continues to provide Port Hope Fire and Emergency Services (PHFES) with the necessary equipment and training to effectively respond to emergencies at the PHCF.

Cameco and PHFES continue to find opportunities to bring the organizations together for training and other activities. Additionally, Cameco has supported the PHFES for responses in the municipality and for non-emergency related initiatives.

Emergency preparedness and response training is provided on an ongoing basis to ensure that responders have the knowledge and skills necessary to provide for an effective emergency response.

The PHCF Fire Protection program (FPP) has been designed to promote fire safety within the site and minimize the likelihood and frequency of fire as well as the potential impact on the health and safety of the employees, contractors, the public, the environment and Cameco's assets and continuity of operations.

In order to confirm the effectiveness of the Fire Protection Program, the following third-party verifications were conducted in 2024:

- Annual Facility Condition Inspection
- SHEQ Audit
- Annual Sprinkler Inspections Testing and Maintenance
- Annual Alarm Inspection and Verification.

The third-party verifications listed above are documented and deficiencies are tracked to ensure that appropriate corrective actions are taken.

2.3.5 Waste and By-product Management

This safety and control area covers internal waste and by-product-related programs which form part of the facility's operations, up to the point where the waste is removed from the facility to a separate waste and by-product management facility. This also covers the ongoing decontamination and planning for decommissioning activities.

PHCF has a focus on reducing the inventory of accumulated radioactive waste and disposing of all eligible materials at the LTWMF.

Solid wastes contaminated by uranium are reprocessed, recycled, and re-used to the extent possible. Waste materials that cannot be reprocessed, recycled, or re-used are safely stored on site until appropriate disposal options are available.

Wastes at the facility are segregated at the point of generation into contaminated and non-contaminated. Non-contaminated waste is either recycled or transferred to a suitable facility. Contaminated waste is stored in appropriate containers pending assessment of recycling or disposal options.

In 2024, a total of 81.7 tonnes of non-contaminated wastes were sent to a local landfill. A total of 25.2 tonnes of non-contaminated materials were sent to a recycling facility for recovery.

PHCF produces two by-products at the facility. These include ammonium nitrate which is sold to a fertilizer company and fluoride product which is sent for uranium recovery at a licensed facility. The amount of ammonium nitrate recycled in 2024 was 1,530 m^3. A total of 3,647 drums of fluoride product were generated in 2024.

In 2024, PHCF shipped 598 totes of contaminated combustible materials (CCM) offsite to appropriately licensed hazardous waste facilities. 81 of those totes were shipped to BRR for incineration.

Waste reduction activities associated with Vision in Motion are discussed in further detail in section 3.1.3 Improvement Plans and Future Outlook.

2.3.6 Nuclear Security

This safety and control area covers the programs required to implement and support the security requirements stipulated in the regulations, in *Nuclear Safety and Control Regulations*, the *Nuclear Security Regulations* and other CNSC requirements.

PHCF maintains a comprehensive security program which meets the requirements of the General Nuclear Safety and Control Regulations, the Nuclear Security Regulations and other CNSC requirements.

The security plan provides the basis for security operations at the facility and identifies the systems and processes in place to meet security program objectives; accordingly, this document is considered prescribed information and is subject to the requirements of the General Nuclear Safety and Control Regulations.

PHCF ensures that security operations and procedures are reviewed (and revised as needed) in order to maintain compliance with General Nuclear Safety and Control Regulations, the Nuclear Security Regulations and other CNSC requirements.

2.3.7 Emergency Management and Fire Protection

This safety and control area covers the programs required to implement and support the emergency management and fire protection requirements stipulated in the regulations, in *Nuclear Safety and Control Regulations*, the *Nuclear Security Regulations* and other CNSC requirements.

PHCF maintains a comprehensive emergency management and fire protection program which meets the requirements of the General Nuclear Safety and Control Regulations, the Nuclear Security Regulations and other CNSC requirements.

The fire safety plan provides the basis for the fire protection program at the facility and identifies the systems and processes in place to meet fire protection program objectives; accordingly, this document is subject to the requirements of the General Nuclear Safety and Control Regulations.

The Emergency Response Plan provides the basis for the the emergency response program at the facility and identifies the systems and processes in place to meet the program objectives; accordingly, this document is subject to the requirements of the General Nuclear Safety and Control Regulations.

PHCF ensures that emergency management and fire protection operations and procedures are reviewed (and revised as needed) in order to maintain compliance with General Nuclear Safety and Control Regulations, and other CNSC requirements.

2.3.8 Safeguards and Non-proliferation

This safety and control area covers the programs required for the successful implementation of the obligations arising from the Canada/IAEA Safeguards and Non-proliferation Agreement.

The PHCF participated in nine Safeguard inspections/activities in 2024.

- Seven short notice random inspections (January, February, March, June, July and September).
- A physical inventory verification in April.
- A DIV in March.

The safeguards program is well-established and continues to be effective through the successful implementation of the obligations arising from the Canada/IAEA Safeguards and Non-proliferation Agreement.

In June 2019, a Fuel Services Safeguards Program Manual was published to document how the Fuel Services Division, including PHCF, meets the requirements in Canadian Nuclear Safety Commission (CNSC) *REGDOC-2.13.1, Safeguards and Nuclear Material Accountancy* for the establishment and maintenance of a safeguards program.

2.3.9 Packaging and Transport of Nuclear Substances

This safety and control area covers the packaging and transport of nuclear substances and other nuclear materials to and from the licensed facility.

Uranium dioxide (UO_2) is produced, packaged in drums, and transported by road from the PHCF to Cameco's Fuel Manufacturing Facility in Port Hope and/or other domestic fuel manufacturing facilities. UO_2 is also packaged in drums and transported by road and marine to other overseas fuel manufacturing facilities. There is also a small amount of material transported by air for customer evaluation purposes. The drums used for air transport meet the Type IP-3 packaging requirements; all other drums meet the Type IP-1 packaging requirements as specified in the CNSC *Packaging and Transport of Nuclear Substance Regulations*.

Uranium hexafluoride (UF_6) is produced and transported in Type H(M) and H(U) cylinders certified by the CNSC by road or marine from the PHCF to the USA or overseas, including but not limited to, the United Kingdom, France, Germany, Holland, and Japan.

In addition to UO_2 and UF_6, uranium scraps and by-products are transported by road from the PHCF to Cameco's Key Lake operation or to the USA for uranium recovery.

There were two reportable transportation events related to the PHCF in 2024:

- On April 4, 2024, there was a minor traffic/vehicular incident with a 48Y cylinder destined for Urenco USA. There was no damage to the 48Y cylinder and only minor damage to the truck.
- On October 17, 2024, there was a minor traffic incident with a 48Y cylinder destined for Urenco USA.

3.0 PUBLIC INFORMATION PROGRAM

In 2024, Port Hope Conversion Facility continued to fully meet the requirements of the Canadian Nuclear Safety Commission's (CNSC) REGDOC 3.2.1, Public Information and Disclosure.

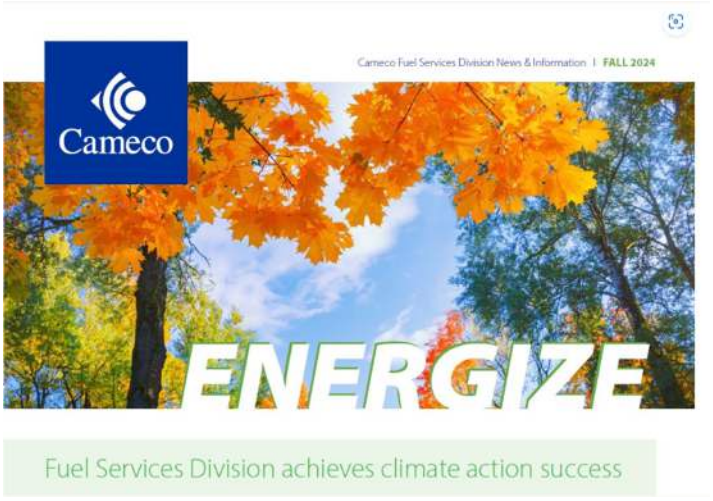
In 2024, the communications team for Cameco's Fuel Services Division was comprised of a director of public and government affairs, a specialist, Indigenous engagement and two communications specialists who joined in March. The divisional communications team is part of Cameco's Corporate and Community Relations department (formerly Sustainability and Stakeholder Relations).

Education and Awareness

Cameco leverages a range of communications tools to help inform and educate interested persons and/or groups of Port Hope Conversion Facility (PHCF) operations and activities.

Cameco issues its Energize newsletter to help keep the Port Hope community up to date. Three issues were published in 2024 and mailed to all addresses in the Municipality of Port Hope. The Fall 2024 issue was unable to be mailed due to the Canada Post strike that was ongoing at the time of publication (November/December 2024).

Each issue was posted to camecofuel.com and promoted on social media. The fall issue received additional promotion online due to the strike.



Fall 2024: Energize - Fall 2024 | Cameco Fuel Services

Summer 2024: [Energize - Summer 2024 | Cameco Fuel Services]

Spring 2024: [Energize - Spring 2024 | Cameco Fuel Services]

Each issue provided readers with a variety of updates about Cameco's activities such as Vision in Motion (VIM), community initiatives, and safety and environmental performance.

Public Inquiries

Ensuring stakeholders and residents have access to information about Cameco is an important component of the Public Information Program. Interested persons can contact Cameco via email (cameco_ontario@cameco.com) or phone (905.800.2020).

In 2024, the cameco_ontario email received 17 emails from the public to RSVP to the annual BBQ.

Cameco received no inquiries regarding the PHCF.

Community Engagement

Cameco's annual community barbeque was held on June 27 from 4-7 p.m. in Memorial Park, Port Hope.

Postcards advertising the event were mailed out to approximately 3,622 addresses in Port Hope and advertised via social media. The invitation was also posted on Cameco's FSD website.

Cameco leadership and subject matter experts were available to talk with guests and answer questions. Information boards and displays provided information about CFM, Vision in Motion and PHCF operations. Approximately 400 people attended the BBQ.

Cameco sponsored an information booth at the Port Hope Fall Fair from September 13-15, 2024. The booth was staffed by Cameco leaders and subject matter experts throughout the weekend.

This year's setup featured a new large scale nuclear fuel cycle infographic and information boards featured Cameco's operations and activities including PHCF, Vision in Motion, CFM and more.

Public Polling

A third-party firm, Praxis Consulting conducted a public opinion survey of 303 Port Hope residents was conducted between July 9 to 26. The objective of the survey was to estimate support for Cameco's Port Hope operations and to gather perspectives regarding the corporation.

Results of the survey continue to demonstrate Port Hope residents consistent support for Cameco's local operations, citing the company's economic impacts, positive corporate citizenship and support for clean, nuclear energy as the top drivers.

According to the most recent public opinion survey, 91 per cent of respondents support the continuation of Cameco's operations locally, and 82 per cent expressed pride in having Cameco as part of the Port Hope community.

Further 2024 survey highlights include:

- 84% agree Cameco has the environmental monitoring in place to protect the health of the Port Hope community
- 93% of respondents describe themselves as knowledgeable about Cameco's operations
- 95% of respondents are aware that Cameco invests in the Port Hope area through sponsorships and other community initiatives

Since 2005, long-term tracking has shown high awareness of Cameco Corporation, and the majority of respondents are supportive of its Port Hope operations. The last survey was conducted in 2022.

Polling results were promoted on Cameco's FSD website, on social media and in our Fall 2024 Energize issue.

Port Hope Polling Results 2024 | Cameco Fuel Services

Port Hope 2024 Public Opinion Survey

In July 2024, Praxis Consulting conducted a third party public opinion survey of Cameco's operations in Port Hope, Ontario. Thank you to all participants for your time and perspectives. **We value your input.**

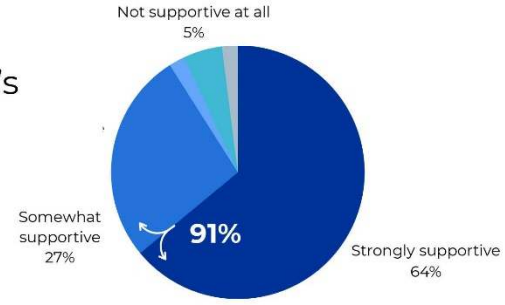
To read the full report, visit camecofuel.com

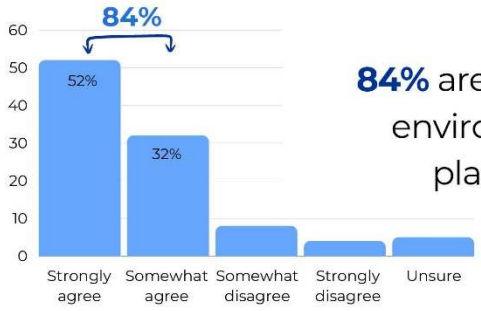
9 out of 10 people describe themselves as knowledgeable about Cameco's Port Hope operations

*Results on **page 13**.*

91% support the continuation of Cameco's operations in Port Hope

*Results on **page 10** of the Report.*





84% are confident Cameco has environmental monitoring in place to protect Port Hope

*Results on **page 15** of the Report.*

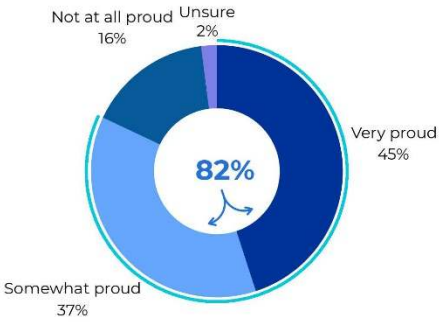
Read the report on **camecofuel.com**

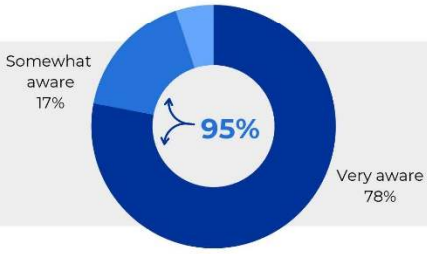
Cameco

Port Hope 2024 Public Opinion Survey

82% are proud to have Cameco in the Port Hope community

*Results on **page 17** of the Report.*



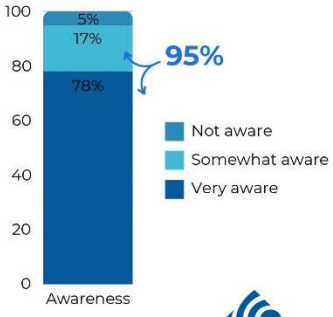


95% are aware of Cameco's operations in Port Hope

*Results on **page 8** of the Report.*

95% are aware that Cameco invests in the Port Hope area through sponsorships and other community initiatives.

*Results on **page 24** of the Report.*



Read the report on **camecofuel.com**

Cameco

Social Media

@Cameco.Ontario @CamecoOntario @Cameco_Ontario

The following are examples of content and updates provided across Cameco Ontario's social media channels:

- Cameco's participation in industry events such as the Canadian Nuclear Association conference
- Step Up for Mental Health 5km run/walk
- Employment opportunities
- Cameco's community investments including a gift of $500,000 to support Northumberland County's new Youth Wellness Hub
- Cameco's Indigenous engagement activities including the signing of a relationship agreement with the Mississaugas of Scugog Island First Nation

Facebook

In 2024, the Cameco Ontario Facebook page grew by 135 followers (9.6% increase YoY) ending the year with 1,545 followers. Over the course of the year, 183 posts were shared.

Instagram

In 2024, Cameco's Instagram page has continued to grow, reaching 1,011 followers, and 18.1% increase YoY or 155 followers. Content is similar to that which is posted on Facebook.

X

Cameco continues to use X (formerly Twitter) to share content about its local operations, safety, environmental and community investments. In 2024, Cameco Ontario's X page grew 21 followers (4.6% YoY) to 453 followers.

Public Disclosures

PHCF made six public disclosures in 2024. Two of the disclosures were related to environmental limit exceedance. Other disclosures included a transportation incident, emergency transport to external medical facility, a reportable spill and ERT activation.

Environment & Safety - Conversion: Port Hope - Fuel Services - Businesses - Cameco

Public Disclosures were sent to Curve Lake and Scugog Island First Nations and then discussed during regular meetings. In April, Cameco received a request to share Public Disclosures going forward with Hiawatha First Nation. No questions were received from members of the public.

Posting Date	October 24, 2024
Incident Date	October 23, 2024
Incident	ERT Activation
Details	A small release of Uranium Hexafluoride (UF_6) occurred from a line on the third floor of the UF_6 plant. The plant was not in operation at the time. There was no health or safety risk posed to the public or the environment.
Corrective Action	The release was successfully contained and an investigation to determine the cause has been initiated. When the release was discovered, the Emergency Response Team (ERT) was activated for standby support and performed air monitoring outside of the release area. Air monitoring was also conducted outside of the plant with nothing detected. The Canadian Nuclear Safety Commission and the Ministry of Environment, Conservation and Parks have been notified.
Cameco Environmental Effect Rating	1

Posting Date	May 24, 2024
Incident Date	May 14-16, 2024
Incident	Environmental Limit Exceedance
Details	The Marsh Street high volume air sampler recorded a results of 148 µg TSP/m3, 121 µg TSP/m3 and 217 µg TSP/m3 suspended particulate (TSP) for the period of May 14-16, 2024. This result is above the regulatory dust criteria of 120 µg/m3 set by Environment and Climate Change Canada and the Ministry of Environment, Conservation and Parks. There was no health or safety risk posed to the public, workers, or the environment.
Corrective Action	The elevated dust results were localized and caused by sections of roadway along Marsh Street that were being prepared for paving (May 14), and asphalt paving (May 15), and street sweeping (May 16). The Canadian Nuclear Safety Commission and the Ministry of Environment, Conservation and Parks have been notified.
Cameco Environmental Effect Rating	1

Posting Date	April 23, 2024
Incident Date	April 18, 2024
Incident	Reportable Spill
Details	A vacuum truck was removing water from a storage tank containing accumulated rainwater from a floor area of a recently demolished building when the hatch of the vacuum truck leaked approximately 200L of water to the ground. Efforts were made to contain the leaked water however a small portion of that water, estimated up to 10 litres at an approximate uranium concentration of 120 µg/L, drained into the restricted harbour area where remediation activities are taking place. There was no health or safety risk posed to the public, workers, or the environment.
Corrective Action	A tray was placed under the leak, a second vacuum truck emptied the truck that was leaking, sandbags were placed at the nearby catch basin perimeter, and pooling water was recovered. The catch basin was pumped out for any remaining water that could be removed. The Canadian Nuclear Safety Commission and the Ministry of Environment, Conservation and Parks have been notified.
Cameco Environmental Effect Rating	1

Posting Date	April 9, 2024
Incident Date	April 9, 2024
Incident	Emergency Transport to External Medical Facility
Details	A contractor sustained injuries while working at Cameco's Dorset Street warehouse after falling from a height. The individual is in stable condition and was transported to a Toronto hospital via air ambulance. There was no health or safety risk posed to the public or the environment. There was no health or safety risk posed to the public, workers, or the environment.
Corrective Action	Northumberland Paramedics and Port Hope Police attended the location and paramedics provided medical attention. The individual was transported to a Toronto hospital via air ambulance. Cameco notified the Municipality of Port Hope, Canadian Nuclear Safety Commission. All work at the Dorset Street warehouse location has been halted while the incident is investigated.
Cameco Environmental Effect Rating	1

Posting Date	April 8, 2024
Incident Date	April 4, 2024
Incident	Transportation Incident
Details	A transport carrying one cylinder of uranium material was involved in a minor traffic accident on the 401 westbound between Mavis Road and Creditview Road. Traffic had slowed down and came to an abrupt stop, resulting in the transport rearending another truck. There was no damage to the cylinder and only minor damage to the front of the truck. There was no health or safety risk posed to the public, workers or the environment.
Corrective Action	A new transport truck and driver carried on with the shipment. Cameco notified the Canadian Nuclear Safety Commission.
Cameco Environmental Effect Rating	1

Posting Date	January 22, 2024
Incident Date	January 19-20, 2024
Incident	Environmental Limit Exceedance
Details	The Marsh Street high volume air sampler recorded a result of 171 µg TSP/m^3 total suspended particulate (TSP) for the period of January 19-20, 2024. This result is above the regulatory dust criteria of 120 µg/m^3 set by Environment and Climate Change Canada and the Ministry of Environment, Conservation and Parks. There was no health or safety risk posed to the public, workers or the environment.
Corrective Action	Watermain construction work is occurring on Marsh Street and has resulted in unpaved sections of road. It is believed that the unpaved road and traffic levels are contributing to the elevated dust levels at the Marsh Street Hi-Vol. The Canadian Nuclear Safety Commission and the Ministry of Environment, Conservation and Parks have been notified.
Cameco Environmental Effect Rating	1

Community Investment

In 2024, Cameco provided support and sponsorship through grant opportunities to 61 not-for-profit, charitable and community organizations including:

- Northumberland Hills Hospital Foundation

- Big Brothers Big Sisters Northumberland
- Rebound Child & Youth Services
- YCMA Northumberland
- Cornerstone Family Violence and Prevention Centre
- Northumberland Humane Society
- Northumberland Diverse People's Coalition
- Northumberland Diversity Festival
- United Way Northumberland
- The Help & Legal Centre
- Community Care Northumberland

This does not include the organizations that were supported through the Cameco Fund for Mental Health.

Youth Wellness Hub Northumberland

On May 3, Cameco's president and CEO announced a $500,000 gift to Northumberland County's first Youth Wellness Hub located in Port Hope, Ontario. This gift is to support the renovation and improvements of the new Port Hope space.

A news release was issued to local media, posted to Cameco Fuel Services Division website and posted on Cameco Ontario social media platforms.

Cameco Fund for Mental Health

Surpassing last year's record-setting numbers, the Cameco Fund for Mental Health raised over $118,000 to support mental health initiatives in Northumberland County and area. There were two events held in support of the Cameco Fund for Mental Health – the Step Up for Mental Health 5k event, which raised over $78,000 with the support of 700 runners and walkers, with every dollar collected from registration fees being matched by Cameco. In June, Cameco held its 13th annual Cameco Charity Golf Tournament, raising more than $21,000 with a sold-out tournament at Dalewood Golf and Country Club.

Adjudication for the Cameco Fund for Mental Health took place in November and involved Cameco representatives and local mental health experts. In Northumberland County, 12 organizations received a mental health grant. Recipients were notified and a news release was issued.

Employee Volunteers in the Community

Day of Caring

Approximately 16 PHCF employees took part in the 25th annual United Way Day of Caring on June 7, helping to complete 40 projects around the community.

Habitat Build Days

In the fall, 6 PHCF employees participated in three Habitat for Humanity build days at the Baltimore location. This engagement opportunity was a part of Cameco's multi-year gift made in late 2023.

Other activities

Cameco employees also volunteered for other community initiatives included Big Brothers Big Sisters Bowl for Kids' Sake, McDonald's McHappy Day and Tim Horton's smile cookie campaign**.**

Vision in Motion

The Spring 2024 issue of Energize provided a VIM project updates regarding the removal of building 27.

ENERGIZE Cameco Fuel Services Division News & Information | SPRING 2024

VISION IN MOTION: The Removal of Building 27—A Changed Landscape.

For several years the Vision in Motion project has been working at the Port Hope Conversion Facility on the removal of Building 27. This past January, Cameco and its many contractors and construction management teams celebrated the completion of the demolition of Building 27.

Preparation activities for demolition began in mid 2019 with several months interrupted due to the COVID-19 pandemic. These activities included decontamination of interior surfaces and equipment, followed by equipment removal, equipment and piping size reduction and packaging into waste packaging designed for hazardous and radioactive material. The contents of the building were packaged into approximately 3,000 'Supersacs'. These Supersacs were safely shipped to the Long-Term Waste Management Facility (LTWMF) in designated shipping containers between 2019 and 2024.

Once the internal equipment had been removed and internal surfaces decontaminated, demolition of the building exterior occurred. In 2023, this effort included installation of interior and exterior scaffolding, which allowed the building to be wrapped in a heavy weight rubber coated tarp. The tarp was installed in vertical strips fitted into custom channels that allowed the material to be opened and closed as work and weather conditions allowed. The exterior wrapping contained airborne debris during the dismantling and removal of material and equipment. The tarp assembly took over three months of work. Specialized ductwork and negative air machines were installed to capture airborne particles within the HEPA filtration systems and specialized staff were brought on-site to complete asbestos and lead remediation before any equipment removal or demolition. Building debris was shipped to the LTWMF in dump trucks and roll-off bins in accordance with applicable regulations.

The total estimated time to complete the demolition of Building 27 is 125,000 hours. This was a significant milestone for the Vision in Motion project and one of the most publicly visible activities as its removal has altered the Port Hope waterfront skyline forever. Building 27 was safely and methodically demolished without any safety or environmental incidents. Commitment, dedication and teamwork made this possible.

For any questions or additional information regarding the Vision in Motion project, or the removal of Building 27, please visit: https://www.camecofuel.com/business/port-hope-conversion-facility/vision-in-motion

VIM update from the Spring 2024 issue of Energize

Information about VIM was also made available at the community barbeque and Port Hope Fall Fair.

Community notices related to VIM activities were posted to our camecofuel.com website.

Industry

Cameco attended the Canadian Nuclear Association conference which took place in Ottawa from February 27 to March 1, 2024. Cameco was a bronze sponsor of the conference and staffed a booth.

On March 12, 2024, Durham College 3rd year Chemical Engineering Technology students toured PHCF.

On March 26, Women in Nuclear members toured PHCF.

On July 17, 9 employees from the Canadian Nuclear Association joined Cameco for a tour of PHCF.

On December 5, representatives from the World Nuclear University met with Cameco representatives to tour local Cameco operations including PHCF.

Earned Media

Cameco received media coverage throughout the year covering a range of activities. Media coverage was overall positive:

- **Cameco Recognized for its Ongoing Support of Student Nutrition** — Today's Northumberland
  - Cameco Recognized for Its Ongoing Support of Student Nutrition Programs in Northumberland - Today's Northumberland - Your Source For What's Happening Locally and Beyond (todaysnorthumberland.ca)
- **Cameco Makes $4,500 donation to Northumberland student nutrition program** – March 25, 2024 – Northumberland News
  - Northumberland student nutrition program receives donation (northumberlandnews.com)
- **Cameco Makes $4,500 donation to Northumberland student nutrition program** – March 25, 2024 – InQuinte.ca
  - InQuinte.ca | Northumberland Food For Thought receives $4,500 donation from Cameco
- **Cameco Makes $4,500 donation to Northumberland student nutrition program** – March 26, 2024 – GoNorthumberland.ca
  - Cameco are fueling students with a $4,500 grant to Northumberland Food for Thought | 93.3 myFM (gonorthumberland.ca)

- **Ontario government supports new youth wellness hub in Port Hope** – May 2, 2024 – Global News
  - Ontario government supports new youth wellness hub in Port Hope | Global News
- **Cameco supports new Youth Wellness Hub with half-a-million dollar donation** – May 7, 2024 – GoNorthumberland.ca
  - Cameco supports new Youth Wellness Hub with half-a-million dollar donation | 93.3 MyFM (gonorthumberland.ca)
- **COMMUNITY SPOTLIGHT: Hey Northumberland, are you ready to Step Up for Mental Health?** – May 9, 2024 – GoNorthumberland.ca
  - COMMUNITY SPOTLIGHT: Hey Northumberland, are you ready to Step Up for Mental Health? | 93.3 MyFM (gonorthumberland.ca)
- **Next week we'll be showcasing Local Manufacturers, fueled by the support of Cameco** – August 16, 2024 – GoNorthumberland.ca
  - Next week we'll be showcasing Local Manufacturers, fueled by the support of Cameco | 93.3 myFM (gonorthumberland.ca)

Advertising

In 2024, advertising was conducted through social media platforms, local news websites and local radio.

Cameco conducts advertising to support various activities in the local community. In 2024, much of the advertising was conducted through social media platforms, local news websites and local radio.

The three local social and radio media campaigns ran at various times through the year:

- Cameco's Step up for Mental Health 5K
- Port Hope Cameco Charity Golf Tournament
- Port Hope Community BBQ

Online ads were placed with Today's Northumberland and Go Northumberland.

Cameco also continued the monthly community partner advertising program with the local radio station. With this program, a one-month radio advertising package is donated to a local charity or community organization each month. Recipients included Community Counselling and Resource Centre, Cornerstone Family Violence Prevention Centre, Northumberland Fare Share Food Bank and Northumberland's Diversity Festival.

Cameco placed print ads in the Northumberland Hills Hospital Gala booklet, Handbags for Hospice and advertised on the Port Hope Police reusable shopping bag which was given out at community events by the Port Hope police. Cameco also sponsors boards at the Cobourg Community Centre and Jack Burger Complex in Port Hope.

Government Stakeholders

Government relations (GR) involves building strong relationships and positive interactions with local elected officials. Cameco engages in GR activities at the municipal, provincial, and federal levels. The majority of federal engagements take place through Cameco's GR experts located in Ottawa and Saskatoon. Locally, the focus is primarily on municipal and provincial officials.

The VP of Fuel Services Division, the general managers of PHCF and CFM and the director of government and public affairs met with the Port Hope CAO on February 14. The presentation introduced Cameco's local operations and activities.

On November 26, VP of Fuel Services Division presented to Port Hope municipal council to provide Cameco's annual update on local operations.

Tours

Providing facility tours is a valuable component of PHCF's engagement and outreach activities.

The following tours were held in 2024:

Date	Group
March 12, 2024	Durham College – 3rd year Chemical Engineering Technology
March 26, 2024	Women in Nuclear
April 2, 2024	Port Hope & District Chamber of Commerce
April 4, 2024	Port Hope & District Chamber of Commerce
July 17, 2024	Canadian Nuclear Association
August 21, 2024	Curve Lake First Nation
October 10, 2024	Mississaugas of Scugog Island First Nation & Voyageur Services Limited
December 5, 2024	World Nuclear University

Website

Cameco has a dedicated website for its Ontario operations: Home - Cameco Fuel Services.

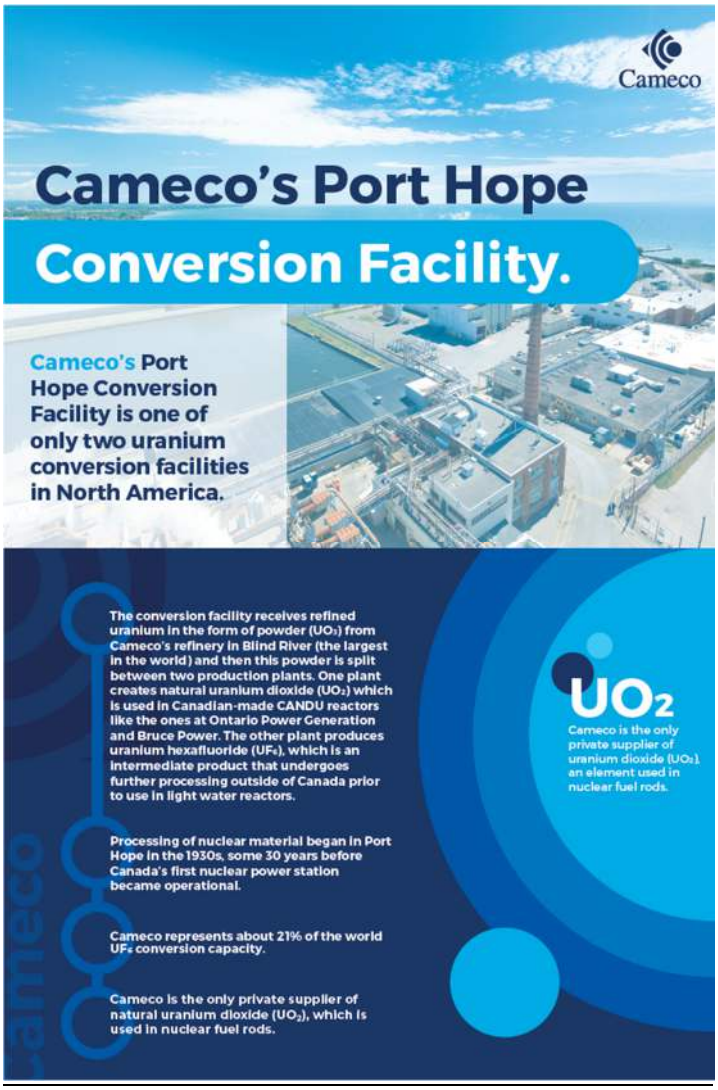
Cameco updated its website with information throughout 2024 including:

- Six Public Disclosures related to PHCF
- Three Energize newsletters
- Port Hope 2024 Polling results
- Cameco Step Up for Mental Health activities including news releases
- News release celebrating Cameco and Mississaugas of Scugog Island First Nation formalize their working relationship
- News releases announcing community investments
- Quarterly and annual CNSC reports
- Annual Sustainability Report
- Community notices regarding site activities

Communications Products

Cameco strives to provide accurate and timely information to stakeholders and other interested parties. Information products are developed to support various communications and engagement vehicles and activities.

- Three issues of Energize – two mailed to all Port Hope addresses (third prevented due to Canada Post strike). All issues were posted online
- Leveraging social media to link to Energize and other key updates for the public
- Invitation to the community barbeque – posted online and mailed
- Advertising on local media
- Printed information boards at the community barbeque and Port Hope Fall Fair



Vision in Motion

Through the Vision in Motion project, Cameco will clean up and improve the Port Hope Conversion Facility site, address legacy waste inherited from previous operations, and give the public access to more of the waterfront.

Building 27 Demolition

For several years the Vision in Motion project has been working at the Port Hope Conversion Facility on the removal of Building 27. This past January, Cameco and its many contractors and construction management teams celebrated the completion of the demolition of Building 27.

Preparation activities for demolition began in mid 2019 with several months interrupted due to the COVID-19 pandemic. These activities included decontamination of interior surfaces and equipment, followed by equipment removal, equipment and piping size reduction and packaging into waste packaging designed for hazardous and radioactive material. Once the internal equipment had been removed and internal surfaces decontaminated, demolition of the building exterior occurred.

In 2023, this effort included installation of interior and exterior scaffolding, which allowed the building to be wrapped in a heavy weight rubber coated tarp. to contain airborne debris during the dismantling and removal of material and equipment. Building debris was shipped to the Long-Term Waste Management Facility in dump trucks and roll-off bins in accordance with applicable regulations.

Building 27 before

The total estimated time to complete the demolition of Building 27 is 125,000 hours. This was a significant milestone for the Vision in Motion project and one of the most publicly visible activities as its removal has altered the Port Hope waterfront skyline forever. Building 27 was safely and methodically demolished without any safety or environmental incidents. Commitment, dedication and teamwork made this possible.

Port Hope Conversion Facility Site Changes from Vision in Motion

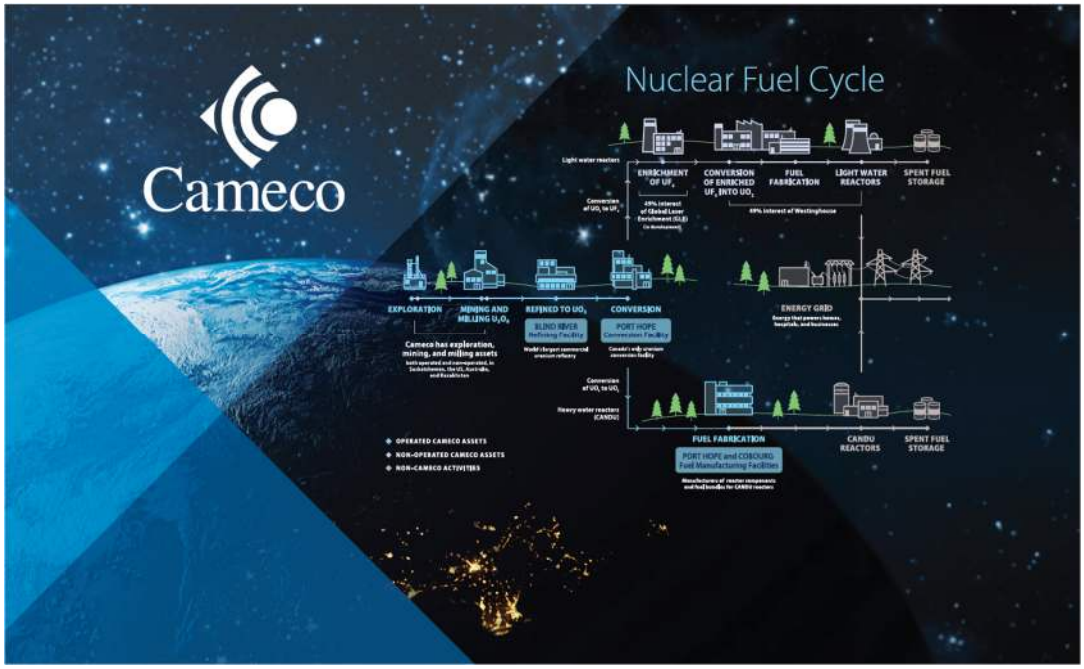
The Vision in Motion project will reduce the footprint of the Port Hope Conversion Facility by more than

25%

The lands freed up by the project will be returned to the community.

For more information on the Vision in Motion project, please scan the QR code or visit www.camecofuel.com/vim


Cameco
Environmental
Monitoring.
At Cameco, we have made a clear, strong promise that safety is the highest priority – it's embedded in everything we do.
Cameco's comprehensive environmental monitoring programs ensure that emissions to air and water are kept as low as reasonably achievable and well below regulatory limits. We monitor air, soil, vegetation and water quality at our facilities and out in the community.
Approximately 14% of the Cameco workforce in Port Hope work full-time on safety and environmental programs.
Cameco's regular environmental monitoring programs include in-house or independent analysis of more than 29,200 samples each year.
Cameco's air quality monitoring program includes emissions monitoring directly from plant stacks and ventilation systems, as well as weekly analysis of ambient air monitoring in the surrounding area.
The Canadian Nuclear Safety Commission (CNSC) regulates the use of nuclear energy and limits the dose from radiation that our employees and neighbours can receive from our operations. This limit for members of the public is set at 1 mSv/year. Cameco's dose to the public is a small fraction of that limit.
There is an extensive network of groundwater monitoring wells at the Port Hope Conversion Facility, with monthly, quarterly, bi-annual and tri-annual analyses.
Soil samples are regularly collected from locations surrounding both of our Port Hope facilities. These surveys measure and document uranium concentrations in the soil to verify that no significant buildup has occurred.
Cameco works closely with municipal emergency responders, conducting joint drills to ensure any situation can be effectively and safely resolved.
At Cameco we closely monitor the environment and our people to ensure the safety and protection of both.



Port Hope Chamber Members Tour Cameco's Conversion Facility

Port Hope Chamber of Commerce members from local businesses were invited to tour the Port Hope Conversion Facility in early April. Two groups were welcomed and safely guided through the two production plants where uranium trioxide (UO_3) from Cameco's Blind River Refinery is converted to either uranium hexafluoride (UF_6) or uranium dioxide (UO_2).

Chamber members learned about Cameco's responsible production practices and the stringent safety protocols in place to protect both workers and the environment. They also gained a better understanding of the vital role that Cameco plays in the global energy market and how these products go on to power the homes and businesses of people here in Port Hope, throughout Ontario and all over the world.

"Cameco is an important part of the Port Hope community, and we appreciate the opportunity to visit the facility and learn more about Cameco's local operations," said Brenda Whitehead, CEO, Port Hope & District Chamber of Commerce. "We gained a deeper appreciation for Cameco's contributions to local and global energy, and the economic opportunities and job creation that stem from the nuclear industry."

Tours serve as an important bridge between Cameco and the community, providing an opportunity for education, open dialogue and building stronger connections.

New fire trucks, Rescue 1 and Pumper 1, welcomed to Port Hope Conversion Facility

In September, Cameco's Port Hope Conversion Facility (PHCF) welcomed two new fire trucks to the site, Rescue 1 and Pumper 1, both equipped with the latest technology to modernize Cameco's on-site fire response and enhance support for its Emergency Response Team (ERT).

Capable of safely leading Cameco's fire response for the next 15 years, these apparatuses offer improved safety standards and meet all current National Fire Protection Association requirements.

Rescue 1, a dependable medium-rescue apparatus, is mounted on a 2024 International CV515 Chassis and can safely carry five responders to on-site service calls. At the same time, the machine offers an ergonomic design to ensure that all required rescue equipment can be safely accessed including breathing apparatuses, confined space rescue gear and hazmat gear. Also equipped with a mobile command post, Rescue 1 offers a coordinated control point to optimize performance and ensure effective communication during response situations.

A dependable mini-pumper mounted on a 2023 Ford F-550 Chassis, Pumper 1 has a 1050 pump able to disperse 1,500 gallons of water per minute. Pumper 1 also delivers safe ergonomic conditions carrying up to 5 ERT members while ensuring all required equipment can be safely accessed during firefighting situations. Both trucks require a G licence to operate, eliminating the need for a special licence and improving access to the machinery.

The new fire trucks have replaced PHCF's former equipment, a 2008 Seagrave with 3300 GMP pump, which during its first five years of service, was one of the largest industrial pumpers on wheels in Canada. Now, the Seagrave will continue service at its new home at Cigar Lake mine in northern Saskatchewan, where Cameco operates the world's highest-grade uranium mine.

PHCF's new Rescue 1 and Pumper 1 provide increased passenger capabilities, improved maneuverability and meet the latest technology and safety standards. This investment reinforces Cameco's commitment to safety through quality processes, and products while continually aiming to improve overall performance and foster a strong safety culture.

Members of Cameco's leadership team with members of Port Hope Conversion Facility's Emergency Response Team in front of the new fire trucks.

4.0 INDIGENOUS ENGAGEMENT

Cameco continued regular meetings with Curve Lake First Nation (CLFN) and Mississaugas of Scugog Island First Nation (MSIFN) in 2024.

Public disclosures were emailed to Curve Lake and Scugog Island throughout the year, and these were discussed at regular scheduled meetings. On April 24, Cameco received a request from Hiawatha First Nation to share Public Disclosures moving forward.

Quarterly compliance reports and copies of the Energize newsletters were sent to Curve Lake, Hiawatha, Alderville, Scugog Island, Rama and the Mohawks of the Bay of Quinte throughout the year.

On April 1, an email was sent to Curve Lake, Alderville, Hiawatha, Mississaugas of Scugog Island, Mohawks of the Bay of Quinte and Chippewas of Rama First Nations with details of Cameco's Step-Up for Mental Health 5k walk/run with information regarding the event and registration details. Members from CLFN attended and participated in this event.

On April 30, select Cameco staff attended the First Peoples House of Learning at Trent University and participated in the Two-Spirit History training.

From June 19-21, Cameco hosted representatives from CLFN in Saskatchewan. The visit combined an educational tour of Cameco's Cigar Lake mine with a cultural immersion experience in the northern community of Pinehouse. The visit aimed to enhance CLFN's understanding of the nuclear fuel cycle and its safety measures, while also fostering community connections through participation in local traditions and community events.

An invitation to Port Hope's annual community barbeque was sent to Curve Lake, Alderville, Mississaugas of Scugog Island and Hiawatha First Nations on June 24.

On June 26, the First Peoples House of Learning Two-Spirit training was brought to PHCF where it was attended in-person and offered virtually across all Canadian Cameco sites.

On July 10, Cameco attended the Harvest meeting at CLFN. Cameco set up a booth and provided information about Cameco's operations to community members.

On July 29, Cameco's vice-president of Cameco Fuel Services Division met with MSIFN's Chief, members of Council and consultation committee for the official signing of an agreement that formalized the relationship between MSIFN and Cameco. Cameco and MSIFN issued a joint news release announcing the formalization of their relationship. The news release was sent to local media, posted on camecofuel.com and shared on social media.

On August 7, Cameco met with Hiawatha First Nation for an introductory meeting.

Cameco attended the Alderville First Nation Job Fair in October and the CLFN Alternative Routes Fair in November, highlighting information about Cameco's operations and career opportunities.

The Cameco Fund for Mental Health news release with information on how to apply to the Fund was sent via email to Hiawatha, Alderville, Curve Lake, Mississaugas of Scugog Island and Mississauga First Nation in October. MSIFN's 'Emergency Discretionary Fund' was a Cameco Fund for Mental Health recipient. This initiative will provide community support to members without regular access to benefits and services within the community.

On October 29, CLFN hosted representatives of Cameco's Fuel Services Division for a community visit and tour. The visit included a boat tour where CLFN representatives provided information on the rich history and traditions on the waterway. On land, the visit showcased community growth and development.

Cameco was a sponsor for the MSIFN Pow Wow in July and the CLFN Pow Wow in September. In December, Cameco sponsored CLFN's Invasive Phragmites Study and MSIFN's Member Home Support Program.

Below is a summary of the meetings and topics covered in 2024:

Indigenous Community	Date of Meeting	Topics
Curve Lake First Nation	March 6	Environmental Working Group Meeting. Cameco provided information on: Operations Vision In Motion Closed Loop Cooling Water System Public disclosures Q4 Report Overview Cameco and CLFN discussed community events and sponsorship opportunities, as well as the opportunity for CLFN to visit and tour a northern mine site in SK.
	August 21	Environmental Working Group and Oversight Committee Meeting. Cameco provided information on: Operations Vision In Motion Public disclosures Cameco facilitated tours of PHCF and CFM-PH. The group discussed a CLFN community visit and began workplans for 2025 deliverables.
	November 14	Cameco provided information on:

		Operations Vision In Motion Public disclosures Cameco and CLFN discussed the framework for a food study and a scholarship program and implementation of both initiatives in 2025.
Mississaugas of Scugog Island	July 29	Meeting at MSIFN with Chief LaRocca and MSIFN representatives, and Cameco to recognize the formalizing of the relationship. General discussion about future initiatives and opportunities.
	September 16	Presentation on Cameco's operations and activities as a recap for meeting attendees who are new. MSIFN shared information about their community and both Cameco and MSIFN outlined future work plans for 2025.
	October 10	Business meeting and tour of PHCF. Discussion included Vision in Motion and potential future work opportunities for MSIFN.
	December 13	Presentation on Cameco's operations and activities as a recap for meeting attendees who are new to the committee apart from past meetings. Cameco presented on: Operations Vision in Motion Public disclosures Cameco and MSIFN discussed the framework for a food study and a scholarship program and implementation of both initiatives in 2025.

5.0 SITE - SPECIFIC

The nuclear criticality safety program at the PHCF follows the criticality control principles as described in Radiation Protection Program Manual. In summary, processing of any amount of enriched material at the PHCF is governed by a criticality control committee (CCC) as described in the revised Nuclear Criticality Safety Program Manual.

There were no processing activities of enriched material conducted on site in 2024.

Cameco has an accepted Preliminary Decommissioning Plan (PDP) and financial guarantee for the PHCF.

The PHCF met all other site-specific reporting requirements.

6.0 IMPROVEMENT PLANS AND FUTURE OUTLOOK

The Vision in Motion (VIM) project is a significant undertaking at PHCF with the key objective of transferring Cameco Decommissioning Waste to a long-term waste management facility (LTWMF) in Port Hope that is operated by the Port Hope Area Initiative (PHAI). The materials being transferred include buildings, equipment, contaminated soils, and stored wastes. The project is also implementing building and infrastructure modifications needed to support the remediation effort.

The VIM project is being executed in accordance with standard corporate Technical Services policies and procedures for project delivery. The project also conforms to PHCF site policies and procedures for activities carried out at PHCF.

VIM activities are detailed in the 2024 Annual VIM Supplementary Report.

7.0 SAFETY PERFORMANCE OBJECTIVES FOR FOLLOWING YEAR

There are no major changes planned in 2025 that could require Commission approval.

PHCF remains committed to continual improvement and will continue to look for opportunities to make the site operate more efficiently, while minimizing risk to employees, the public and the environment.

8.0 CONCLUDING REMARKS

Cameco is committed to the safe, clean, and reliable operations of all of its facilities and continually strives to improve safety performance and processes to ensure the safety of both its employees and the people in neighbouring communities.

In 2024, PHCF did not exceed any CNSC regulatory limits. As a result of the effective programs, plans and procedures in place, the PHCF was able to maintain individual radiation exposures well below all regulatory dose limits. In addition, environmental emissions continued to be controlled to levels that are a fraction of the regulatory limits, and public radiation exposures are also well below the regulatory limits.

Cameco's relationship with our neighboring communities remains strong and we are committed to maintaining these strong relationships.