2024 Fourth Quarter Compliance Monitoring
&
Operational Performance Report

Reporting Period October 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 committed to the safe, clean, and reliable operation of all its facilities and continually strives to improve its performance and processes to ensure the safety of both its employees and local residents. The Port Hope Conversion Facility (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 programs, plans and procedures, the PHCF has maintained radiation exposures to workers and the public well below the regulatory dose limits. Environmental emissions are also being controlled to levels that are a fraction of the regulatory limits.

Cameco utilizes administrative levels and action levels to provide early detection of issues and ensure levels remain well below regulatory limits. A variety of control measures and practices are employed as part of site programs to ensure the protection of the public, site employees and the environment. A robust ALARA program is in place to ensure continual improvement and to ensure exposures and emissions remain well below action levels.

II Table of Contents

1.0 Fourth Quarter Overview

1.1 Facility Operation

Cameco continues to strive for operational excellence at all its facilities through consistent application of management systems 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.

There were no significant changes to Structure, Systems and Components (SSC) or processes in the fourth quarter.

There were two reportable events noted in the fourth quarter of 2024:

- 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 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.

The UF_6 plant operated without incident in the fourth quarter with the exception of the small release noted above. There was 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 in 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.

1.2 Physical Design / Facility Modification

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

At the PHCF, changes to the physical design of equipment, processes, and the facility with the potential to impact safety are evaluated using the internal design change process described in *Process and Design Change Control, CQP-113*. Changes are reviewed through Cameco's management of change workflow, which ensures all potential impacts to the environment as well as to the health and safety of personnel are evaluated prior to implementation.

2.0 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. Cameco manages its Radiation Protection Program at the PHCF using ALARA principles in order to ensure doses are maintained well below regulatory limits.

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.

Whole Body Dose

Table 1 shows the whole-body dose summary results from Q4 2024 for six work groups: UF_6 Plant; UO_2 Plant; Maintenance; Technical Support (including Nuclear Energy Worker (NEW) contractors); Corporate Technical Services; and Administration.

Table 1

Fourth Quarter 2024 Whole Body Dose Results				
Work Group	**Number of Individuals**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
UF_6 Plant	106	0.15	0.00	1.21
UO_2 Plant	25	0.11	0.00	0.33
Maintenance	85	0.08	0.00	0.74
Technical Support [1]	425	0.02	0.00	0.57
Corporate Technical Services	34	0.00	0.00	0.06
Administration	95	0.00	0.00	0.00
Total (Max)	**770**	**0.04**	**0.00**	**1.21**
[1]Includes contractors (NEWs) and Corporate Technical Services				

Table 2 shows the average, minimum and maximum quarterly individual external whole-body exposures from Q4 2023 through Q4 2024. The average whole-body dose is stable compared to previous quarters. The maximum whole-body dose received by UF_6 personnel was related to work in the flame reactor area.

Table 2

Whole Body Dose Results by Quarter				
Monitoring Period	**Number of Individuals**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
Q4 2023	770	0.11	0.00	2.38
Q1 2024	752	0.05	0.00	1.16
Q2 2024	827	0.05	0.00	2.74
Q3 2024	789	0.05	0.00	1.62
Q4 2024	770	0.04	0.00	1.21

Skin Dose

Table 3 shows the quarterly skin dose summary results for six work groups: UF_6 Plant; UO_2 Plant; Maintenance; Technical Support (including NEW contractors); Corporate Technical Services; and Administration. The highest exposures are from the UF_6 work group related to work in the flame reactor area.

Table 3

Fourth Quarter 2024 Skin Dose Results				
Work Group	**Number of Individuals**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
UF_6 Plant	106	0.67	0.00	4.71
UO_2 Plant	25	0.38	0.00	1.07
Maintenance	85	0.56	0.00	3.19
Technical Support[1]	425	0.08	0.00	1.51
Corporate Technical Services	34	0.02	0.00	0.29
Administration	95	0.00	0.00	0.01
Total (Max)	**770**	**0.21**	**0.00**	**4.71**
[1]Includes contractors (NEWs) and Corporate Technical Services				

Table 4 shows the average and maximum quarterly individual skin exposure for Q4 2023 through Q4 2024. The average skin dose is consistent to previous quarters.

Table 4

Skin Dose Results by Quarter				
Monitoring Period	**Number of Individuals**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
Q4 2023	770	0.30	0.00	8.30
Q1 2024	752	0.19	0.00	12.38
Q2 2024	827	0.15	0.00	3.62
Q3 2024	789	0.21	0.00	5.36
Q4 2024	770	0.21	0.00	4.71

Eye Dose

Table 5 shows the quarterly eye dose summary results for six work groups: UF_6 Plant; UO_2 Plant; Maintenance; Technical Support (including NEW contractors), Corporate Technical Services; and Administration. The highest exposure is from the UF_6 work group related to time in the flame reactor areas of the UF_6 plant.

Table 5

Fourth Quarter 2024 Eye Dose Results				
Work Group	**Number of Individuals**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
UF_6 Plant	106	0.41	0.00	2.57
UO_2 Plant	25	0.26	0.00	0.71
Maintenance	85	0.32	0.00	1.90
Technical Support[1]	425	0.05	0.00	0.79
Corporate Technical	34	0.01	0.00	0.13
Administration	95	0.00	0.00	0.00
Total (Max)	**770**	**0.13**	**0.00**	**2.57**
[1]Includes contractors (NEWs)				

Table 6 shows the average and maximum quarterly individual external eye exposures for Q4 2023 through Q4 2024. The average eye dose is similar to previous quarters.

Table 6

Eye Dose Results by Quarter				
Monitoring Period	**Number of Individuals**	**Average Dose (mSv)**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**
Q4 2023	770	0.20	0.00	4.58
Q1 2024	752	0.12	0.00	5.26
Q2 2024	827	0.10	0.00	2.80
Q3 2024	789	0.13	0.00	3.35
Q4 2024	770	0.13	0.00	2.57

Urine Analysis

The urine analysis action levels are presented in Table 7 below.

Table 7

Urine Analysis Action Levels		
Parameter		**Action Level**
Urinalysis (NEW)	Weekly - UO_2/UF_6 Operators, Maintenance, Technical Support	65 µg U/L
	Monthly - Administrative Support	25 µg U/L
	Long-term Contractors	65 µg U/L
	Short-term Contractors	80 µg U/L
	Chemical toxicity – post shift sample	500 µg U/L
	Fluoride toxicity – all samples	7 mg F/L
Urinalysis (Non-NEW)	Daily - Routine Sample	40 µg U/L
	Monthly - Routine Sample	25 µg U/L
	Chemical Toxicity - Post Shift Sample	500 µg U/L
	Fluoride Toxicity – All Samples	4 mg F/L

Table 8 shows the distribution of urine results for Q4 2024. A total of 11,358 urine samples were collected and analyzed for uranium during Q4 2024. The majority of routine urine analysis results (97.8%) were less than 5 µg U/L in the quarter.

All results above 13 µg U/L were screened by radiation protection staff. There were three official investigations completed in the fourth quarter. All were investigated and corrective actions were taken where appropriate.

Table 8

Fourth Quarter 2024 Routine Urine Analysis Results	
Distribution of Results	**Q4 2024**
Number of Samples < 5 µg U/L	11,105
Number of Samples > 5 to < 25 µg U/L	207
Number of Samples > 25 to < 50 µg U/L	25
Number of Samples > 50 µg U/L	21
Number of Samples Analyzed (Uranium)	11,358

Table 9 presents the internal urine analysis doses for the last five quarters. The average and maximum internal urine analysis doses in the quarter were 0.01 mSv and 0.49 mSv, respectively, which was consistent with previous quarters.

Table 9

Internal Dose (Urine) by Quarter				
Quarter	**Number of Individuals**	**Minimum Dose (mSv)**	**Maximum Dose (mSv)**	**Average Dose (mSv)**
Q4 2023	662	0.00	0.19	0.01
Q1 2024	657	0.00	0.16	0.01
Q2 2024	693	0.00	0.17	0.01
Q3 2024	684	0.00	0.26	0.01
Q4 2024	656	0.00	0.49	0.01

Fluoride in Urine

A total of 6,323 urine samples were analyzed for fluoride during Q4 with summary results provided in Table 10.

There were 17 routine and non-routine samples above the internal administrative investigation level of 4 mg F/L during Q4. The samples were investigated and entered into CIRS.

Table 10

Fourth Quarter 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	6,323	0.0	8.8
Routine post-shift fluoride samples >= 7 mg F/L	0	-	-
Routine post-shift fluoride samples >= 4 mg F/L	17	-	-
Non-routine fluoride samples	523	0.0	8.8
Samples analyzed for U, insufficient volume (< 30mL) for F analysis	10	-	-

Lung Counting

The lung count trailer was located at the Blind River Refinery for the month of October counting employees at that location. The trailer was at the PHCF for November and December counting contractors and Cameco Fuel Manufacturing employees.

Contamination Control

The 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, men's, and women's change rooms. There is also a monitor located at the gate 12 vehicle port. In Zone 2 areas and the yard Zone 3 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 production areas are production areas where uranium compounds are expected. Incidents of zone contamination are presented in Table 11.

Table 11

Q4 2024 Alpha Contamination Monitoring Results			
Area	**Number of Samples Taken**	**Zone Contamination Criteria (Bq/cm²)**	**Number of Samples Above Criteria**
Site 1 - Zone 1	1,183	0.4	0
Site 1 - Zone 2	14,145	0.4	52
Site 1 - Zone 3 (Yard)*	4	4.0	4
Site 2 – Zone 2	371	0.4	0

*Note – Samples are not routinely required in the yard area. Samples are taken as required if contamination is suspected.

The contamination in Zone 2 areas was primarily detected in the office areas and lunchrooms of production buildings. Contamination measurements are taken upon request in Zone 3 areas when contamination is suspected and only documented when above the applicable levels.

In-Plant Air

Routine air sampling is performed by collecting airborne particulate on air sampling filters and quantifying the airborne concentration of uranium. The Q4 results are presented in Table 12.

The site administrative level and derived air concentration (DAC), based on slow moving (low solubility) material, is 100 µg U/m^3 but protective measures, such as investigation and respiratory protection, are normally required as a precaution at lower DAC levels. Continuous air monitoring equipment (iCAMs) in the UF_6 and UO_2 plants are also used to provide early warning and to prompt response to elevated airborne uranium concentrations. Local alarms and direct communication with the control rooms provide early warning to plant personnel.

Table 12

Fourth Quarter 2024 In-Plant Air Uranium Concentration by Operations Group				
Operations Group	**Number of Samples Taken**	**Average (µg U/m^3)**	**Maximum (µg U/m^3)**	**Number of Samples Taken Above Administrative Level**
UF_6 Plant	4,918	15	671	208
UO_2 Plant	1,409	4	245	3
Waste Recovery	478	1	8	0
CUP	454	1	3	0

The maximum in-plant air sample of 671 µg U/m^3 was recorded on December 5, 2024, in the UF_6 plant. This result was due to a small release from the 1st floor flame reactor area.

The average in-plant air concentrations are consistent when compared with previous quarters.

3.0 Conventional Health and Safety

This safety and control area covers the implementation of a program to manage non-radiological workplace safety hazards and to protect personnel and equipment. Conventional safety statistics are presented in Table 13.

Table 13

2024 Safety Statistics					
Quarter / Parameter	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Q4 2024**	**YTD**
First Aid Injuries	9	18	17	10	54
Medical Diagnostic Procedures	8	4	2*	2	16
Medical Treatment Injuries	1	2	0	2	5
Lost Time Injuries	0	2	0	1	3
Lost Time Injury Frequency	0	1.64	0	0.91	0.65
Lost Time Injury Severity	0	63.08	0	0.91	21.26
Other Recordable Injuries	0	0	0	0	0

*Standard threshold shift (hearing) was added as a medical diagnostic for October 2024.

Health and Safety Activities

- **Communications**: OHS and CSSC continued to issue safety bulletins to promote a focus on continuing safety awareness. Safety meeting presentations were also used to communicate safety focused messages.
- **Education and Training**: Training continued routinely using both in person methods and computer-based learning.
- **Safety Awareness Activities**: A vendor show focused on safety was held over two days in November 2024. This event brought various vendors to site to showcase various safety related items for employees.
- **CSSC:** The CSSC committee continues to meet for regulatory meetings.
- **Safety & Industrial Hygiene**: The safety group focused on HIRAC assessments in the fourth quarter of 2024.

- **Total Recordable Injury Rate (TRIR)** – Q4 Ending = 2.17 (54 First Aids, 16 Medical Diagnostics, 5 Medical Treatments, 3 Lost Time Injuries). Contractor TRIR YTD is 1.79.

4.0 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.

Public Dose

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 monthly dose from Site 1 and Site 2 are based on monitoring results for each dose component as shown in Table 14.

Table 14

Quarterly Dose (mSv/quarter)					
ORL Component	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Q4 2024**	**2024 Total**
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	0.021	0.021	0.002	0.007	0.051
Gamma – Site 2	0.029	0.023	0.005	0.013	0.071
Quarterly Dose – Site 1	0.021	0.021	0.003	0.008	0.053
Quarterly Dose – Site 2	0.030	0.024	0.006	0.013	0.072

Gamma Monitoring

Dose to the public is calculated for both site 1 and 2 using specific gamma fenceline monitoring locations. The results at station 2 are used for site 1 public dose calculations and the results at station 21 are used for site 2 public dose calculations. The results at these locations for this quarter are summarized and compared with regulatory action levels in Table 15.

There were no monthly gamma radiation action levels exceeded during Q4.

Table 15

Fourth Quarter 2024 Public Dose Gamma Monitoring Results					
Station Number	**October**	**November**	**December**	**Action Level (µSv/h)**	**Licence Limit (µSv/h)**
2	0.047	0.030	0.137	0.400	0.570
10	0.000	0.000	0.000	0.400	0.610
21	0.019	0.000	0.026	0.250	0.260

Air Emissions

The quarterly average and maximum stack emissions from the UF_6 plant main stack and the UO_2 plant main stack are presented in Table 16.

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.

No licensed action levels were exceeded for uranium emissions from the UF_6 plant main stack in the quarter. The UF_6 main stack average uranium emission rate was consistent with previous quarters during which production was operational.

No licensed action levels were exceeded for uranium emissions from the UO_2 plant main stack in the quarter. The UO_2 main stack average uranium emission rate was consistent with previous quarters during which production was operational.

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 fluorides in the quarter. The UF_6 main stack average fluoride emission rate was consistent with previous quarters during which production was operational.

The UO_2 main stack is also continuously sampled for ammonia. No licensed action levels were exceeded for ammonia emissions from the UO_2 plant main stack in the quarter. The UO_2 main stack average ammonia emission rate was consistent with previous quarters.

Table 16

Daily Main Stack Emissions by Quarter									
Plant	**Parameter**	**Licence Limit**	**Action Level**	**Value**	**Q4 2023**	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Q4 2024**
UF_6	Uranium g U/h	280	40	Quarterly Daily Average	2.7	2.8	1.9	2.1	1.9
				Quarterly Daily Maximum	6.3	9.3	5.7	5.3	5.3
	Hydrogen Fluoride g HF/h	650	230	Quarterly Daily Average	10	14	24	14	10
				Quarterly Daily Maximum	75	128	226	120	139
UO_2	Uranium g U/h	240	10	Quarterly Daily Average	0.7	0.6	0.5	0.5	0.5
				Quarterly Daily Maximum	1.4	1.7	1.7	0.9	0.9
	Ammonia kg NH_3/h	58	10	Quarterly Daily Average	2.0	2.0	2.2	1.4	2.0
				Quarterly Daily Maximum	3.0	2.7	3.7	3.2	3.7

Liquid Discharges

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 remains unchanged.

Tables 17 and 18 summarize uranium concentrations and pH values recorded for the fourth quarter of 2024. Facility discharge quality remained well below both the monthly mean action level and monthly mean limit through the quarter. No uranium excursions were recorded in the second half of 2023, and no excursions were recorded in the 2024 calendar year.

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. As water main infrastructure work is required in support of the targeted sanitary sewer tasks, the sanitary sewer work is anticipated to resume in 2026.

Table 17

Sanitary Sewer Discharge Data by Quarter							
Parameter	**Units of Measure**	**Value**	**Q4 2023**	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Q4 2024**
Uranium	mg U/L	Average	0.0039	0.0053	0.0064	0.0028	0.0040
		Maximum	0.021	0.014	0.053	0.0064	0.011
pH	-	Minimum	7.59	7.30	7.63	7.62	7.32
		Maximum	8.96	8.24	8.26	8.70	8.68

Table 18

Q4 2024 Monthly Sanitary Sewer Discharges			
Period	**Sanitary Sewer Action Level/Release Limit**	**Monthly Average Uranium Concentration (µg U/L)**	**Daily Maximum Uranium Concentration (µg U/L)**
October	Monthly mean action level of 150 µg U/L Monthly mean release limit of 275 µg U/L	3.2	7.2
November		3.9	11
December		4.9	10

Ambient Air Monitoring

Table 19 shows the quarterly all-station average and maximum uranium dustfall results from Q4 2023 through to Q4 2024.

No uranium dustfall results exceeded the internal administrative screening level in the fourth quarter. The average uranium in dustfall results in the fourth quarter of 2024 were consistent with the uranium in dustfall averages during the previous quarters.

Table 19

Uranium in Dustfall Results by Quarter (mg U/m^2/30 days)					
Value	**Q4 2023**	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Q4 2024**
Average	0.3	0.1	<0.1	0.1	0.1
Maximum	1.8	0.2	0.1	0.3	0.2
Internal Administrative Screening Level = 10 mg U/m^2/30 days					

Table 20 summarizes the average and maximum uranium hi-vol results from Q4 2023 through to Q4 2024. The average uranium in hi-vol results in the fourth quarter of 2024 were consistent with the uranium in hi-vol averages during the previous quarters. The Q4 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.

Table 20

Uranium-in-Air Concentration at Hi-Vol Stations by Quarter (µg U in TSP/m^3)					
Quarter	**Result**	**Waterworks**	**Shuter Substation**	**Marsh Street**	**Hayward Street**
Q4 2023	Average	0.002	0.008	0.006	0.003
	Maximum	0.012	0.409	0.104	0.066
Q1 2024	Average	0.002	0.001	0.003	0.002
	Maximum	0.011	0.003	0.013	0.016
Q2 2024	Average	0.001	0.001	0.004	0.002
	Maximum	0.012	0.003	0.017	0.030
Q3 2024	Average	0.001	0.001	0.007	0.003
	Maximum	0.004	0.004	0.042	0.025
Q4 2024	Average	0.001	0.002	0.007	0.002
	Maximum	0.011	0.083	0.238	0.017
Average <0.06 µg U in TSP/m^3 (annual) AAQC Maximum <0.3 µg U in TSP/m^3 (24 hr) AAQC					

Table 21 shows the quarterly all-station average and maximum fluoride dustfall results from Q4 2023 through to Q4 2024.

The average fluoride in dustfall results in the fourth quarter of 2024 were consistent with previous quarters.

Table 21

Fluoride in Dustfall Results by Quarter (mg F/m^2/30 days)					
Value	**Q4 2023**	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Q4 2024**
Average	1.0	0.8	1.3	1.5	1.0
Maximum	7.0	5.8	8.5	9.6	9.3
Internal Administrative Screening Level = 20 mg F/m^2/30 days					

Table 22 shows the average and maximum lime candle results from the fourth quarter of 2023 through to the fourth quarter of 2024. The average results are comparable to levels observed in the previous quarters.

Table 22

Monthly Lime Candle Results by Quarter (μg F/100 cm^2/30 days)					
Value	**Q4 2023**	**Q1 2024**	**Q2 2024**	**Q3 2024**	**Q4 2024**
Average	4	3	5	4	3
Maximum	9	9	11	15	10
The desirable ambient air quality criteria for lime candles are to protect forage crops consumed by livestock. During the summer growing season (April 1 – October 31), the criteria is 40 µg F/100 cm^2/30 days, changing to 80 µg F/100cm^2/30 days in winter (November 1 – March 31).					

5.0 Public Information Program

During the fourth quarter of 2024, PHCF continued to meet the requirements of CNSC RD/GD 3.2.1, Public Information and Disclosure programs.

Public Engagement

On October 1, 2024, Cameco opened the application for its Cameco Fund for Mental Health, allowing not-for-profit, charitable and community groups in the Port Hope area to apply for a one-time grant to support mental health programs and initiatives.

In early October, Cameco employees participated in two Habitat for Humanity build days at the Baltimore location as part of Cameco's donation to the first local net zero build.

In early November, Cameco representatives attended and sponsored the Northumberland Hills Hospital Galalicious event and the Port Hope & District Chamber of Commerce's annual Business Awards in which Cameco presented the award for Healthy Workplace.

From mid-November to late December, Cameco participated in the Capitol Theatre's Festival of Lights and Trees, donating a decorated tree to help raise funds for the Capitol Theatre.

On November 26, 2024, Cameco's Port Hope Conversion Facility conducted a planned Emergency Response exercise. Cameco notified the Port Hope community of this exercise via social media and provided contact information for any inquiries. Later that evening, Cameco provided its annual update to Port Hope municipal council on its local operations.

At the end of November, Cameco staff participated in the Port Hope Santa Claus Parade driving Cameco's two new fire trucks along the parade route.

On December 5, 2024, Cameco hosted representatives from the World Nuclear University for a tour of PHCF.

In early December, the Winter 2024 issue of Energize was released. Due to the ongoing Canada Post strike, this edition was unable to be delivered to Port Hope households. For this reason, Cameco increased online promotion using social media and its website. Cameco published individual posts for each story in the issue, including Fuel Service Division's climate action success, results for Cameco's 2024 Port Hope polling, new fire trucks at PHCF, and Cameco-sponsored days at Port Hope recreation centres. An ad was also included for career opportunities.

On December 14, 2024, Cameco sponsored and attended the White Rose Dinner organized by the Victoria Hall volunteers. Cameco was also a sponsor of this event.

In mid-December, Cameco announced 12 successful applicants to receive support through its Cameco Fund for Mental Health. Funding decisions were made in late November by a group of Cameco representatives and local mental health professionals.

Over the holiday season, Cameco sponsored free recreation at Port Hope's local recreation centres.

Cameco provided free advertising to local charitable organizations with its sponsorship of MyFM's Community Partner Program. Through the quarter, United Way Northumberland, Community Counselling & Resource Centre, and Northumberland Fare Share Food Bank benefitted from this sponsorship by received free advertising spots.

Public Disclosure

There was one public disclosure during the fourth quarter:

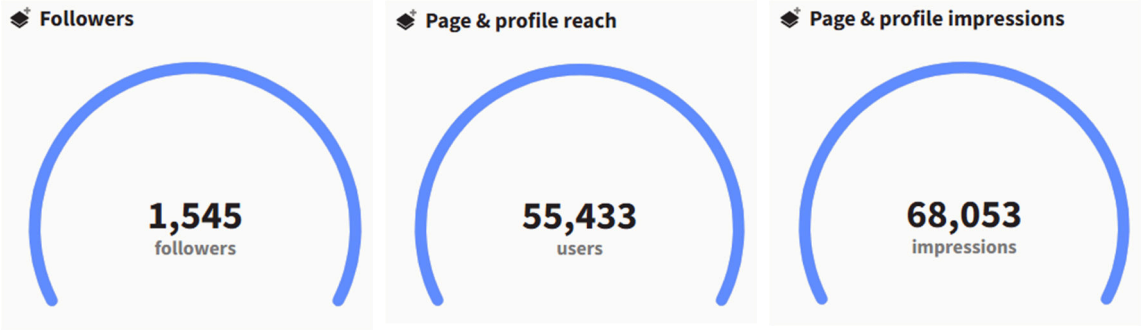
- PHCF: Environment & Safety | Cameco

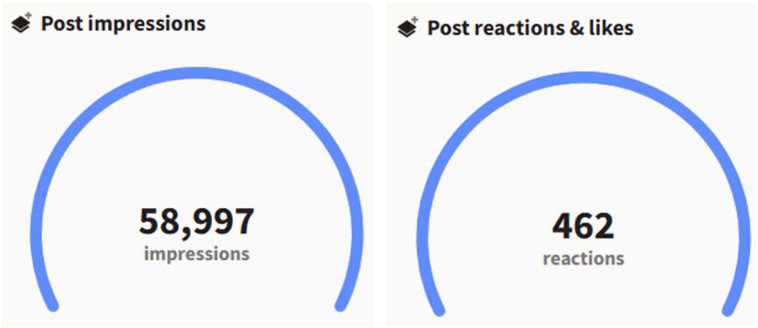
Latest incident or event:

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

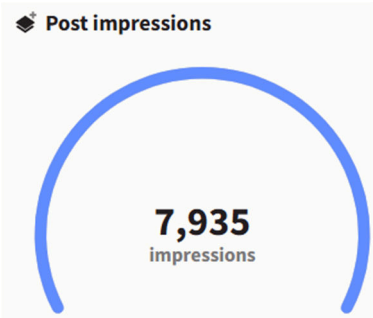
Social Media

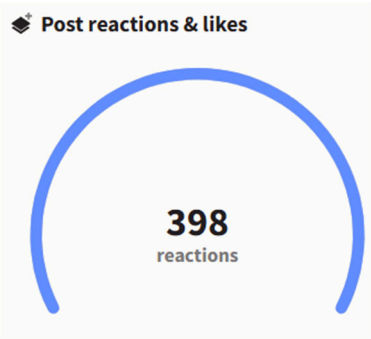
Facebook: *October 1 to December 31, 2024*



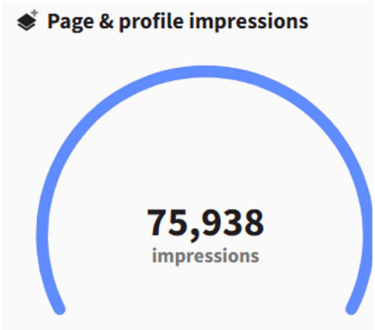


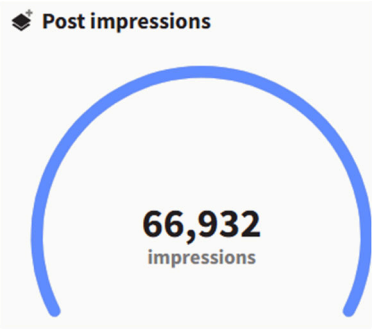
Other platforms (Instagram, X & YouTube): *October 1 to December 31, 2024*

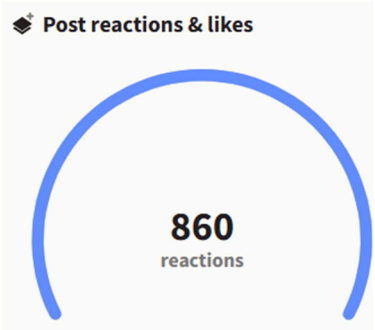




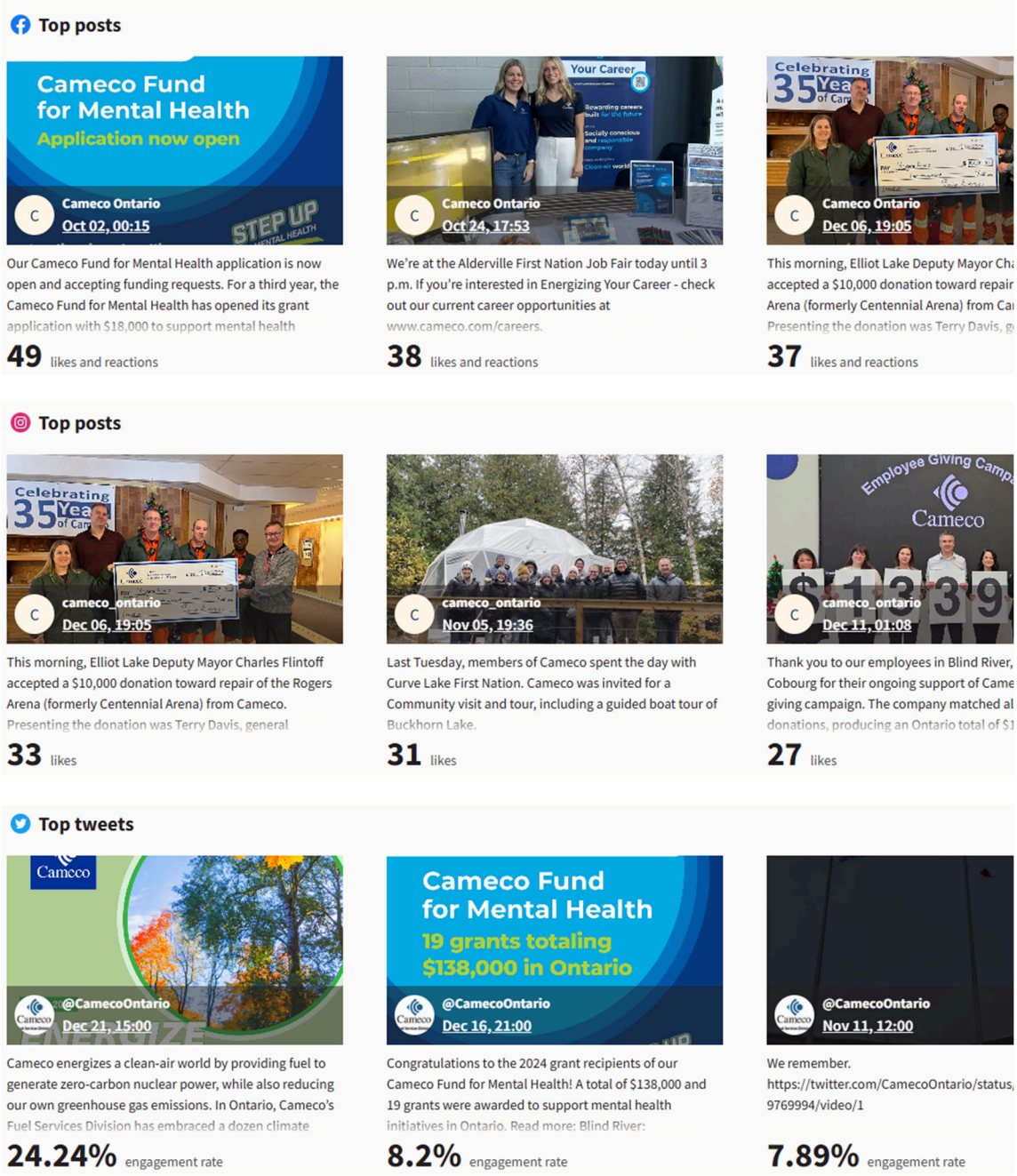
All Platforms: *October 1 to December 31, 2024*







Top Performing Posts



Summary

Cameco Ontario's 101 posts (combined across Facebook, Instagram, X and YouTube):

- Facebook: 35 posts

- Instagram: 34 posts
- X: 32 posts

These posts covered information such as:

- Indigenous engagement activities including:
  - Participation in Alderville First Nation's job fair
  - Cameco employees participating in a community visit of Curve Lake First Nation
- Community engagement activities, including:
  - Notification of a planned Emergency Response exercise at PHCF
  - Annual presentation to Port Hope municipal council on Cameco's local operations
  - Cameco sponsorship of family days at local Port Hope recreation centres over the holiday season
- Community investment activities, including:
  - Employee participation in two Habitat for Humanity build days
  - Cameco Fund for Mental Health, including a call for applications and announcement of successful grant recipients in Northumberland County
  - Announcement of Cameco's employee giving fundraising total
- Industry involvement, including:
  - Participation in a panel discussion on workforce development at the Nuclear Innovation Institute's Clean Energy Frontier conference
  - Participation in the World Nuclear University's LEAD 24 program
- Cameco's Fall 2024 Energize issue and key stories
- Key findings from our 2023 Sustainability Report
- Career opportunities

Website

Fall issue of Energize

- Energize - Fall 2024 | Cameco Fuel Services

The Q3 2024 Compliance Report:

PHCF-2024-Q3-compliance-report.pdf

News release announcing Cameco Fund for Mental Health application open:

- Cameco's Fund for Mental Health Opens 2024 Application with $118,000 Available for Local Mental Health Programming | Cameco Fuel Services

News release announcing Cameco Fund for Mental Health grant recipients:

- Cameco Fund for Mental Health awards 2024 grants to 12 Northumberland County organizations | Cameco Fuel Services

Media Analysis

- During Q4, Cameco (Port Hope) did not receive any media coverage.

Communication Products

Fall issue of Energize

- Energize - Fall 2024 | Cameco Fuel Services

News release announcing Cameco Fund for Mental Health application open:

- Cameco's Fund for Mental Health Opens 2024 Application with $118,000 Available for Local Mental Health Programming | Cameco Fuel Services

News release announcing Cameco Fund for Mental Health grant recipients:

- Cameco Fund for Mental Health awards 2024 grants to 12 Northumberland County organizations | Cameco Fuel Services

6.0 Indigenous Engagement

Cameco continues regular engagement with Curve Lake First Nation (CLFN) and the Mississaugas of Scugog Island First Nation (MSIFN).

On October 8, an email communication was sent to Alderville, Curve Lake, Mississaugas of Scugog Island and Hiawatha First Nations with information regarding Cameco's Fund for Mental Health and how to apply.

On October 24, Cameco attended the Alderville Career Fair providing information to attendees regarding Cameco's facilities and career opportunities.

On October 10, Cameco hosted MSIFN to tour the PHCF and to exchange information about the respective businesses.

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.

On November 14, Cameco and CLFN met in-person and began early planning and next steps for 2025 initiatives.

On November 20, Cameco attended the CLFN Alternative Roots Job Fair providing information to attendees regarding Cameco's facilities and career opportunities.

On December 9 the fall edition of Energize was shared with Alderville, Curve Lake, Mississaugas of Scugog Island, Hiawatha, Mohawks of the Bay of Quinte and Rama First Nations.

On December 12 Cameco met with MSIFN for a virtual kick-off meeting to discuss objectives for 2025.

In December, Cameco sponsored CLFN's Invasive Phragmites Study and MSIFN's Member Home Support Program.

On December 13, MSIFN received a grant from Cameco's Fund for Mental Health to support their Emergency Discretionary Health Fund, an initiative that provides community support to members without access to benefits.

Public disclosures were shared with Curve Lake, Mississaugas of Scugog Island, and Hiawatha First Nations.

Q2 Compliance Report for PHCF was sent to Curve Lake, Alderville, Hiawatha, Mississaugas of Scugog Island, Mohawks of the Bay of Quinte and Chippewas of Rama

First Nations on October 16 and the Q3 Compliance Report for PHCF was sent to the same on November 29.

7.0 Other Matters of Regulatory Interest

7.1 Vision in Motion

VIM engineering and procurement activities during this period included completion of the structural design for Building 72, submission of a building permit application to the Municipality of Port Hope (MPH) for the structure, and award of the foundation work. Design of the interior fit out of the building was on-going. Planning for future pipe rack work, warehouse demolition work, and building improvements at the Dorset Street facility also took place throughout the period. MPH and Cameco were working to award a municipal procurement contract for stormwater equipment that will be installed in the vicinity of Eldorado Place and the Cameco parking lot (Area 9) in 2026.

Field activities throughout the quarter included in-situ soil stabilization proof of concept work (Area 5), removal of equipment from Building 2, and water management at the former Building 27 slab. Installation of an ergonomically improved drum filling access platform at the Dorset Street site began at the end of the period.

Waste shipments to the LTWMF continued from the PHCF main site and the Dorset Street facility, including packaged wastes, bulk wastes (dump trucks) and vac trucks.

Coordination with CNL continued, including support for their road allowance investigations near PHCF, and collaboration with the Ganaraska Region Conservation Authority and MPH on flood model updates.

The Supplementary Environmental Monitoring Plan for Vision in Motion and Other Clean-Up Program Projects is in place to monitor environmental impacts for the VIM activities, primarily during demolition/excavation.

There were 5 environmental monitoring exceedances in the fourth quarter related to VIM activities. All were elevated DustTrak results from the Area 5 trenching activities.

8.0 Concluding Remarks

Cameco is committed to the safe, clean, and reliable operations of all 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 the fourth quarter of 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 CNSC regulatory limits, and public radiation exposures are also well below the regulatory limits.

PHCF's ALARA program continued to be effective in the fourth quarter of 2024.

Cameco's relationship with local residents remains strong and Cameco is committed to maintaining the strong support and trust developed over the past several years.