



CMD 26-H3.64

Date: 2026-10-05

**Presentation from the
Port Hope Community Health
Concerns Committee**

**Présentation du
Port Hope Community Health
Concerns Committee**

In the matter of

À l'égard de

Cameco Corporation

Application to renew the Class IB nuclear
fuel facility operating licence for the Port
Hope Conversion Facility for a period of
20 years

Cameco Corporation

Demande visant à renouveler, pour une
période de 20 ans, le permis d'exploitation
d'une installation de combustible nucléaire
de catégorie IB pour l'installation de
conversion de Port Hope

Commission Public Hearing

Audience publique de la Commission

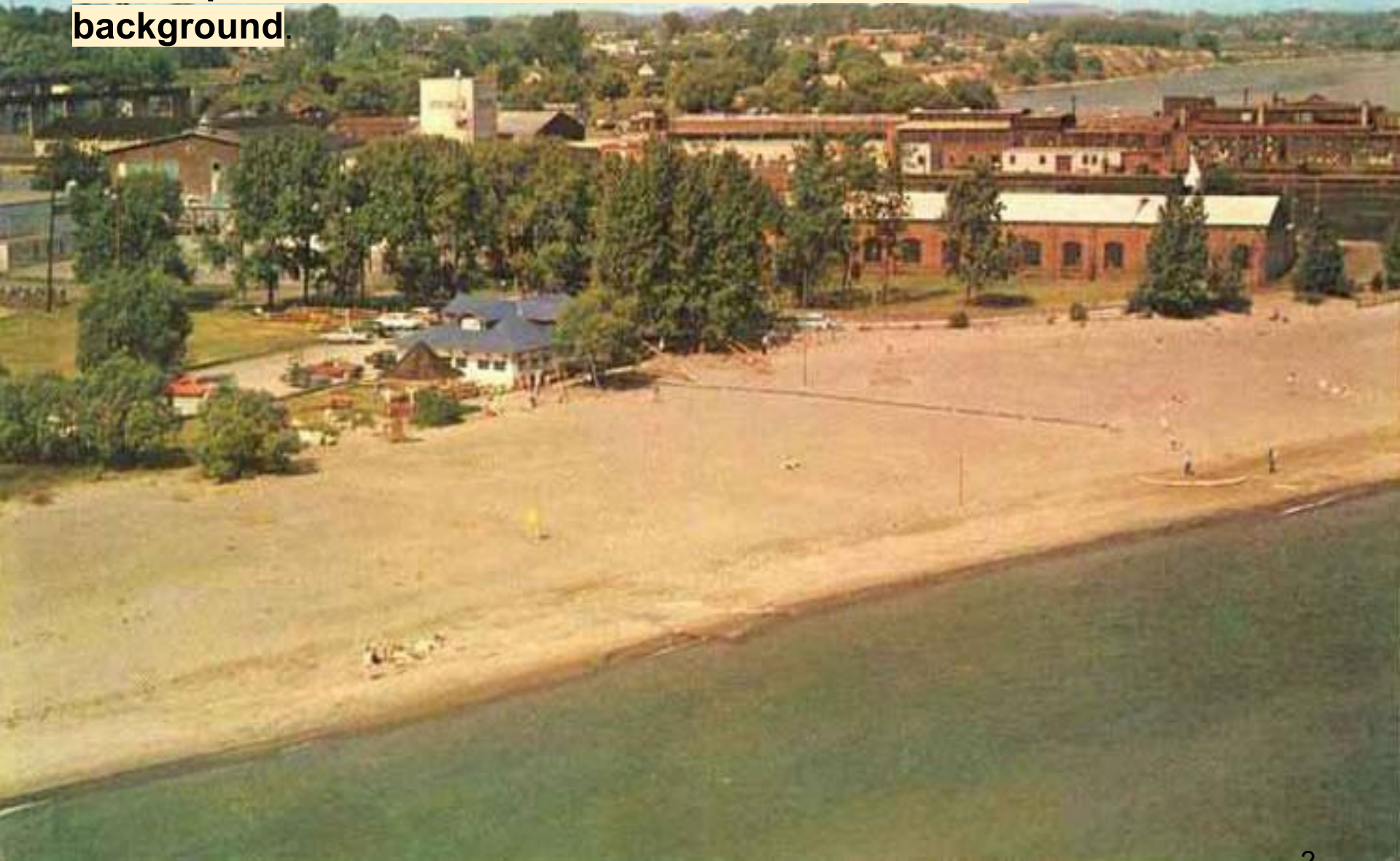
November 2026

Novembre 2026

**Port Hope Community Health Concerns Committee
Intervention to CNSC Re-Licensing Hearing
Cameco Port Hope Conversion Facility**



Port Hope west beach circa 1955. Eldorado Nuclear in background.



Stop Grandfathering Historical Mistakes - CNSC Mandate to Protect the Health, Safety and Security of All People in Canada

- **No buffer zone from public for operations and storage**
- **Secrecy granted for operations unacceptable, incompatible with current location and proximity to people**
- **Secrecy granted for Prelim Decommissioning Plan unacceptable, incompatible with location, proximity to people.**
- **No health monitoring of people, risks & data ignored**
- **No precautionary recognition of current health research**
- **Enriched uranium currently on site, on a floodplain, criticality concerns.**
- **Concerns Cameco will receive CNSC approval mid-license to produce enriched uranium fuel - unacceptable location.**
- **Lack of security emergency planning with residents**
- **Single road public access to beach and facility presents emergency management, public safety concerns**

Stop Grandfathering Historical Mistakes - CNSC Mandate to Protect the Health, Safety and Security of All People in Canada - cont'd

- **Daily radioactive, heavy metal, chemical emissions over people into Ganaraska River/Lake Ontario**
- **Aging, leaking facilities, 80+ years require full assessment asap**
- **Fugitive emissions not measurable, loss of containment ongoing**
- **Lack of appropriate liability insurance for facility and town**
- **Enriched uranium 93% weapons grade approved by AECB in past on site - unknown future approvals**
- **Transportation of radioactive materials emitting radiation**
- **Waterfront recreation & residential area zone of highest air emissions causing deposition in soil and vegetation**
- **Port Hope undergoing \$2.6 B federal remediation of wastes in more than 1200 locations around the town**
- **No compensation for residents**
- **What does Cameco pay to Port Hope for costs, proeprty?**

Committee Petition to the Auditor General of Canada, June 2026 - 80 yrs Eldorado/Cameco in Port Hope

6 Key Issues:

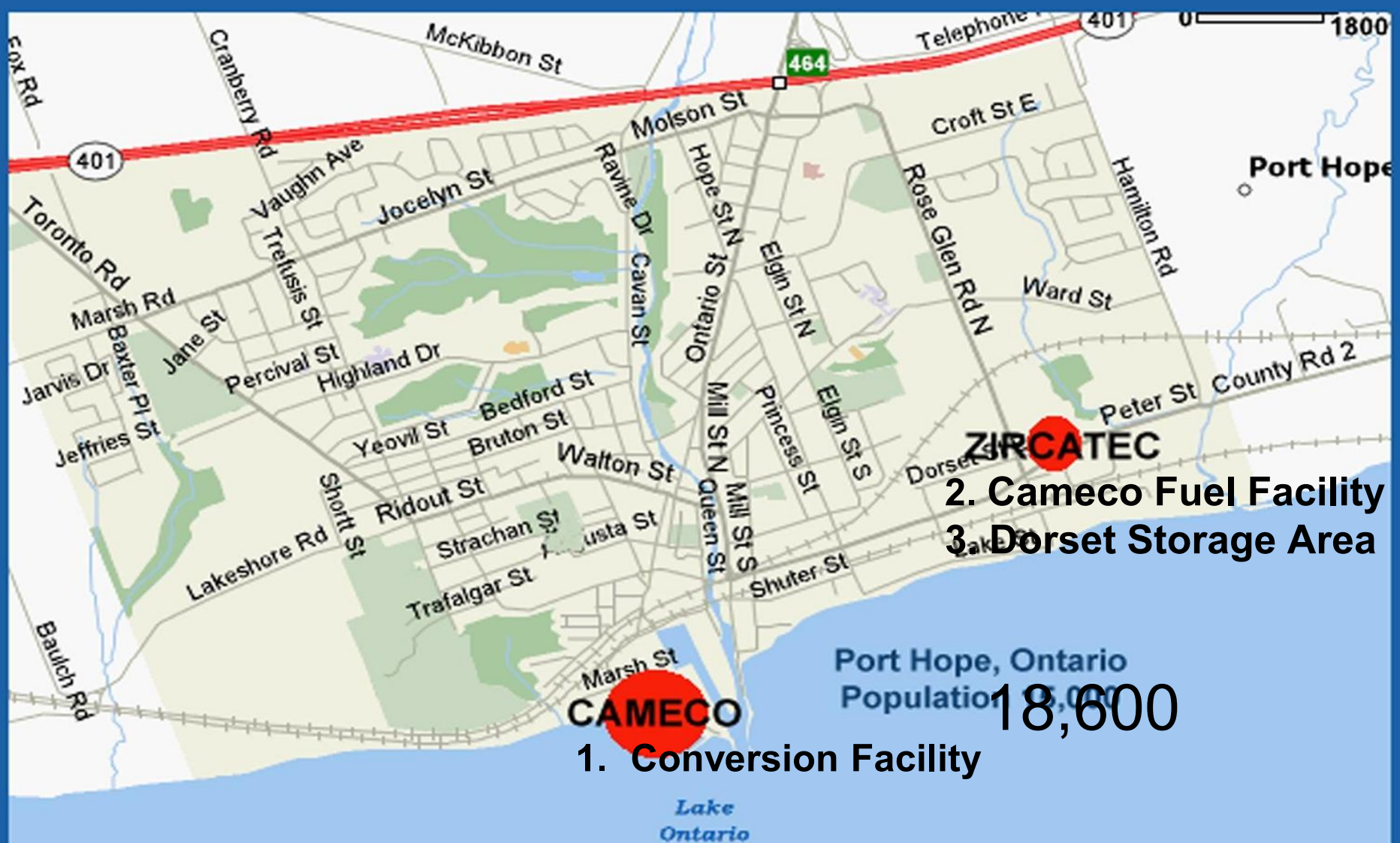
1. Proactive disclosure of contaminated public use properties - roads, frontages, parks, beaches, schools
2. Bill c-226 Protection - No new OPG nuclear facility
3. National public inquiry of radioactive waste management in Canada starting with Port Hope
4. Adhere to the Canada-Port Hope 2001 Legal Agreement - financial-operational audit of AECL/CNL/PHAI - Complete cleanup, legal, case management support for residents
5. Comprehensive health monitoring of residents
6. Compensation for current and former Port Hope families

Recommendations to CNSC

1. A two year license be issued to Cameco with the condition that within the two year time period, Cameco will prepare and submit a plan for approval to the CNSC, the municipality and the public to fully decommission all sites used/occupied by Cameco within the boundaries of the Municipality of Port Hope within the next five years, by 2031

2. The decommissioning of all Cameco sites to include removal of all wastes, building and contaminated materials. CNSC to ensure full remediation and restoration paid by Cameco to be in compliance with the Canada/ Municipality of Port Hope Legal Agreement (2001) and approved cleanup criteria to allow unfettered future use of lands..

3. Fund independent health monitoring: ongoing biological testing, cancer, morbidity, mortality health studies and followups of Port Hope residents and nuclear workers with all data peer reviewed and publicly released .



Cameco Conversion Facility Single Road Access



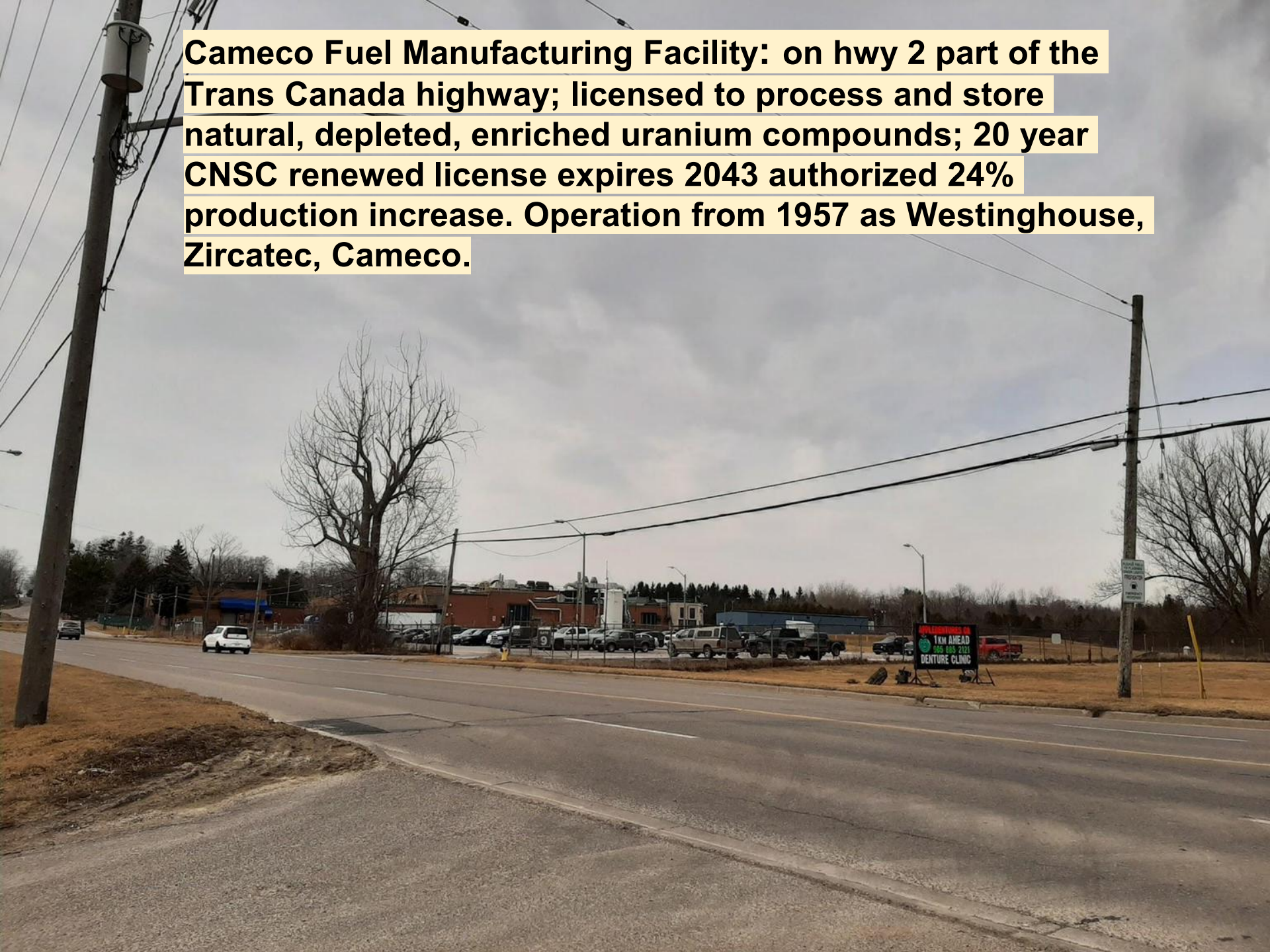


Cameco emissions February 10, 2026 north over families

**Living in the buffer zone of Cameco Conversion Facility:
remediation continues today of many surrounding
private and public properties.**



Cameco Fuel Manufacturing Facility: on hwy 2 part of the Trans Canada highway; licensed to process and store natural, depleted, enriched uranium compounds; 20 year CNSC renewed license expires 2043 authorized 24% production increase. Operation from 1957 as Westinghouse, Zircatec, Cameco.



Cameco Cylinders - Licensed Storage Site in a Neighbourhood.





Radiation: “There is no safe level of exposure and there is no dose of radiation so low that the risk of malignancy is zero” - Dr. Karl Morgan, Founder of Health Physics, Director of Health Physics at Oak Ridge 1943-1972.

“For a given uranium intake the inhalation pathway gives doses 200 times greater than ingestion” – Ontario MOE Rationale Document, Draft Uranium in Air Standard, 2010

Inhalation of daily Cameco radioactive heavy metal and chemical emissions is the primary biological exposure pathway in Port Hope

9. APPENDIX A

Ambient Gamma Fields

1st Quarter 2009

mSv

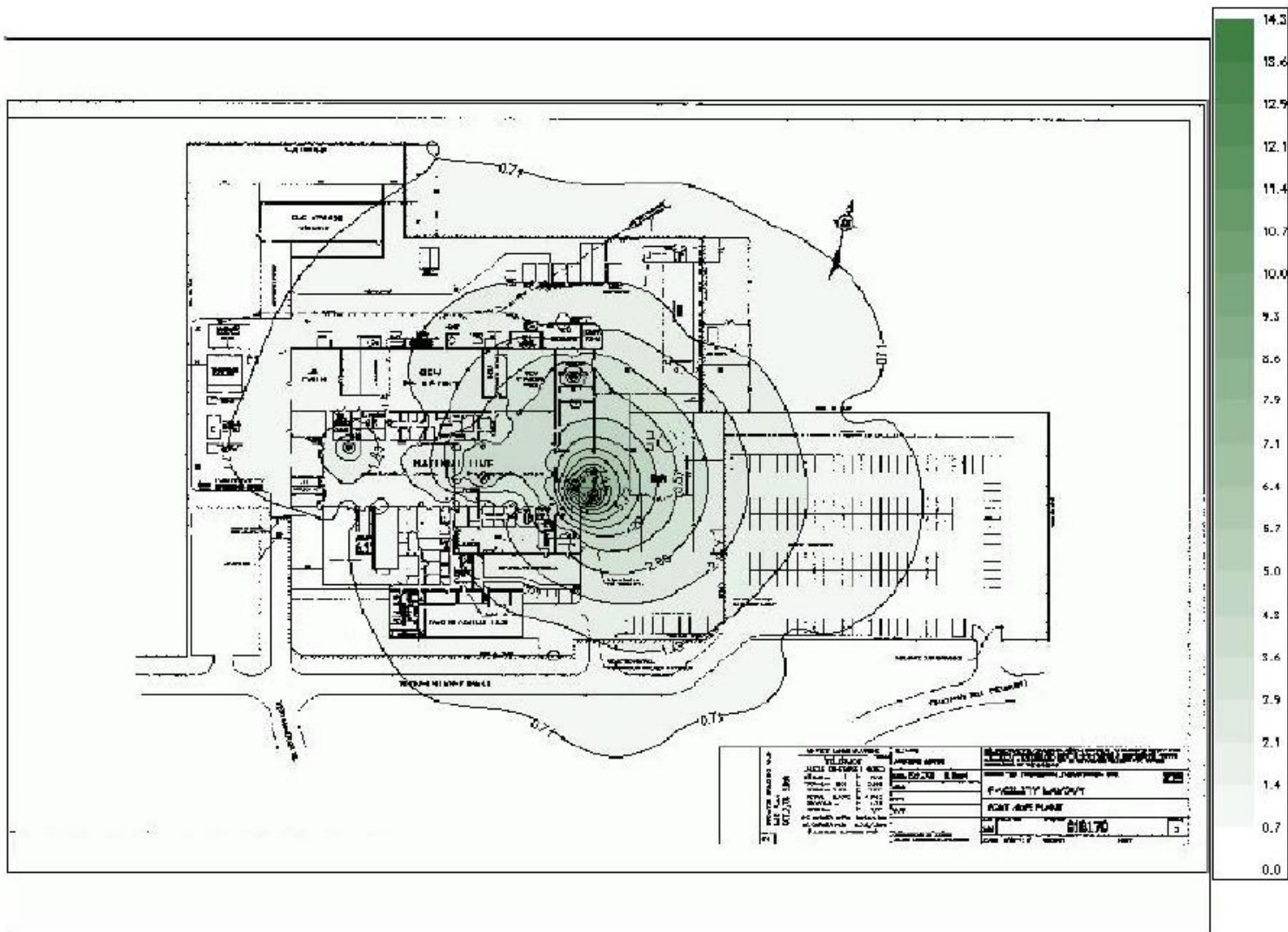
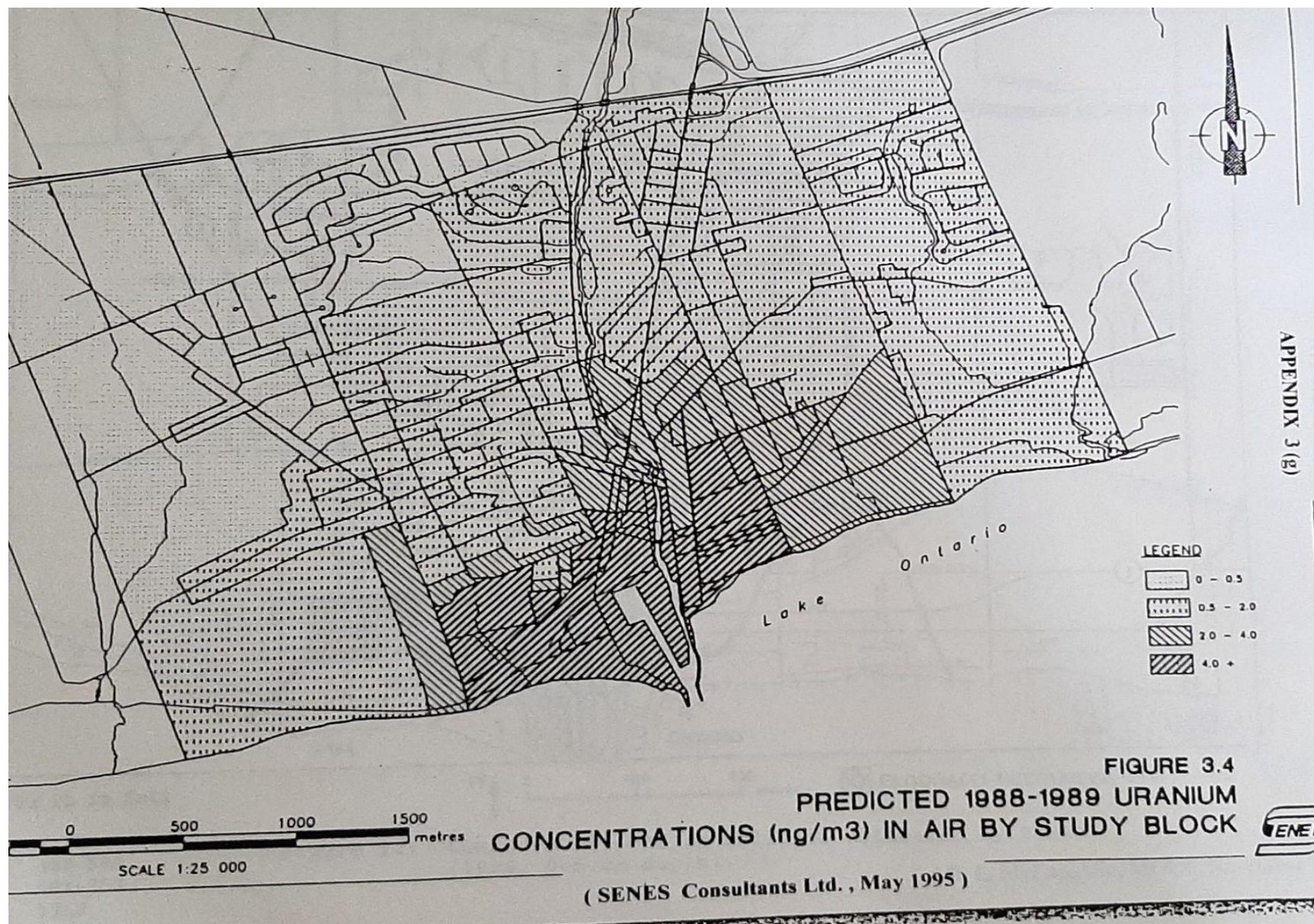




Figure 2. Annual Uranium Point-of-Impingement Model



Cameco Conversion Facility on a Floodplain



Cameco Corporation
Hydraulic Assessment and Preparation of Flood Plain Mapping
of the Ganaraska River from Robertson Street to Lake Ontario

Section 3 – Flood Plain Calculations

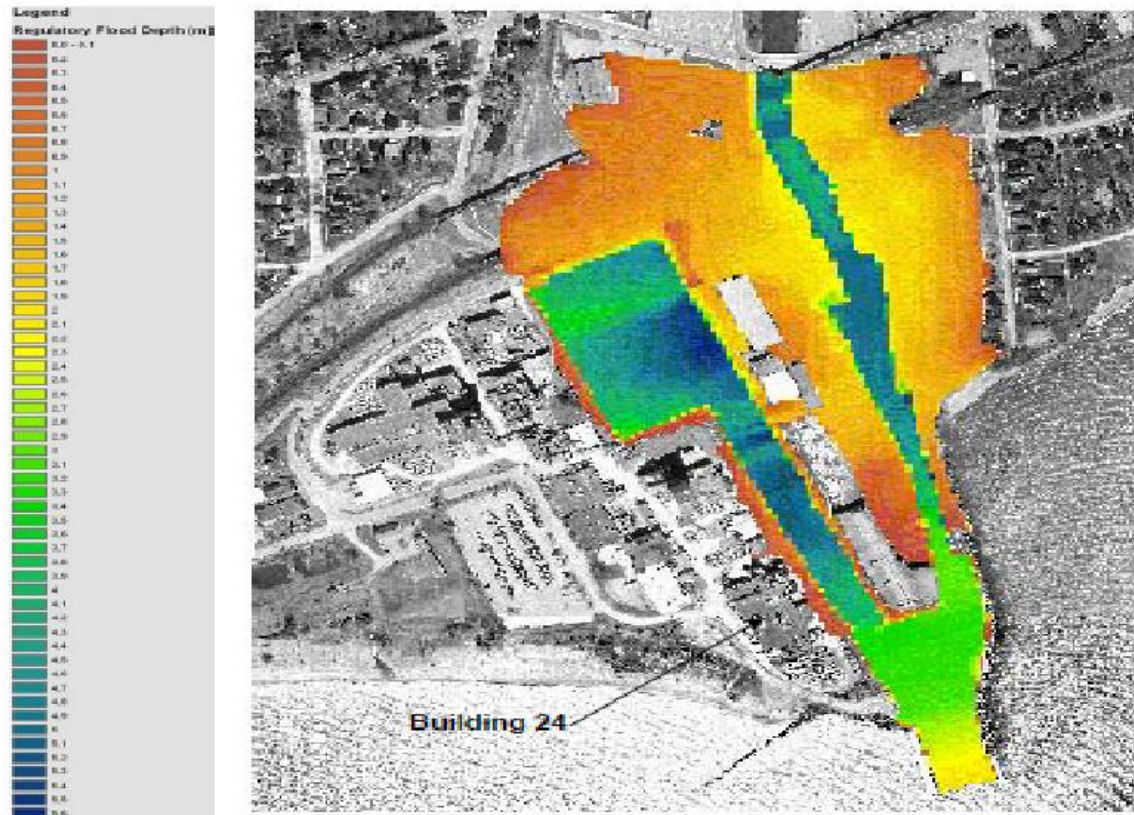


Figure 3-9
Regulatory Flood Depths in the Study Reach

- No co-processing is allowed. A change of enrichment requires a complete clean down and material accounting approved by the CCC before another enrichment can be introduced.

Zircotec's CCM represents a robust method for controlling the processing of special projects using enriched uranium as evidenced by the long history of such campaigns at Zircotec that are detailed in the table below.

**TABLE 6: History of Enriched Uranium Work Performed at Zircotec
1970 - Present**

Date/ Campaign	Description of work
2002 - Ongoing	Process development tests on various batches of SEU (1%) and BDU. Material is pressed into pellets in the Development Laboratory and sintered in production furnaces. The programs are conducted according to the existing CCM procedures.
1997/1998 Manufacture of Test Bundles	Work involved approximately 0.3 SCM of enriched material. Work was conducted under the approval of the CCC since the enrichment was within the Licence Limits. Source enriched uranium powder at 2.26 % was downblended to two different enrichments in the Development Laboratory. Pellets were sintered in production furnaces and ground in the Development Laboratory. The test bundles were built and delivered to the customer.
1996/1997 Slowpoke Elements	Approximately 1.1 SCM of 19.89% enriched uranium was processed into Slowpoke elements for a customer. The work involved a Special Licence approval from the CNSC since the enrichment exceeded the Zircotec Facility Licence limit of 5% 235U. Material was processed in 0.45 SCM batches in defined and discrete CCZs in the Development Laboratory. Except for pellet sintering (conducted in production furnaces) all other processing was done in the Development Laboratory.
1994	Approximately 40 – 50 kgU of 2.26 % enriched material was processed into test bundles. Again, except for sintering in production furnaces, all other processing was conducted in the Development Laboratory.
1993	Approximately 0.74 SCM of 2.28% enriched uranium was processed according to the CCM.
1984	Approximately 1.2 SCM of 19.87% enriched uranium was processed into Slowpoke elements for a customer. The work involved a Special Licence approval from the CNSC since the enrichment exceeded the Zircotec Facility Licence limit of 5% 235U. Material was processed in 0.45 SCM batches in defined and discrete CCZs in the Development Laboratory.
1982	Various jobs were conducted in accordance with the Criticality Control Manual to manufacture fuel elements and bundles from UO_2 powder for a customer, i.e., 20 kg of 4.4% enriched UO_2 powder, 7 kg of 10% enriched UO_2 powder that involved a Special Licence from the CNSC and approximately 100 kg of 1.4% enriched UO_2 powder.
1981	Approximately 18 kg of 1.4% enriched UO_2 powder was used to manufacture fuel pellets and elements.
1980	A total of 40 kg of enriched UO_2 powder of two enrichments (2.4% and 4.4%) was manufactured for a customer in accordance with the CCM's protocols.
1979	Approximately 200 kg of enriched UO_2 powder was fabricated into fuel pellets, fuel elements and bundles. The enrichment levels were from 1.4% to 1.7% in 4 different jobs.
1978	80 kg of enriched UO_2 powder was fabricated into fuel bundles at an enrichment of 1.4%.
1970	Establishment of the CCM.



Uranium Hexafluoride UF₆ cylinders adjacent to street emit neutron as well as gamma radiation; the most penetrating of all types of radiation, not measured or reported.



Section 4 Contaminants in Recycled Uranium

DOE/RL-2000-43

Table 4-4 Analyses of UO₃ Produced In/After 1984 at Hanford

Lot No.	Date	Pu ppb	Np * ppb	Tc ppm	¹⁰³ Ru + ¹⁰⁶ RuRh uCi/lb U	⁹⁵ ZrNb uCi/lb U	²³⁴ Th/Pa uCi/lb U	²³⁴ U wt %	²³⁵ U wt %	²³⁶ U wt%	²³⁸ U wt %
84-08	6/11/84	2	N/A	N/A	<5	<3	<10	0.008	0.884	0.060	99.088
85-11	6/21/85	<0.5			<8	<6	<10	0.008	0.845	0.065	99.082
85-12	6/25/85	<5			<6	<8	<10	0.010	0.849	0.068	99.073
85-13	6/26/85	<5			<6	<8	<10	0.011	0.852	0.070	99.067
85-14	7/16/85	<5			<6	<8	<10	0.009	0.846	0.068	99.077
85-15	7/16/85	<5			<6	<8	<10	0.009	0.849	0.071	99.071
85-16	7/19/85	<5			<4	<6	<10	0.008	0.848	0.066	99.078
85-17	7/19/85	<5			<4	<6	<10	0.009	0.848	0.067	99.076
85-18	9/30/85	<5	<1000	7	<8	<6	<1	0.009	0.924	0.076	98.991
85-19	9/30/85	<5	<1000	7	<8	<6	<1	0.010	0.942	0.074	98.974
85-20	9/30/85	<5	<1000	7	<8	<6	<2	0.010	0.940	0.072	98.978
86-05	5/6/86	<2	490	12	<6	<4	<31	0.011	0.807	0.080	99.102
86-16	9/22/86	1	400	10	<6	<4	6	0.010	0.873	0.073	99.044
86-23	11/17/86	1	300	8	<6	<4	6	0.011	0.957	0.075	98.957
88-1	3/17/88	2	40	4	<6	<4	9	0.008	0.819	0.074	99.099
88-2	3/17/88	2	120	4	<6	<4	8	0.008	0.950	0.074	99.068
88-3	3/17/88	<1	160	3	<6	<4	10	0.009	0.818	0.073	99.100

Data retrieved from Analytical Data Sheets

* Limited additional ²³⁷Np data preceding 1985 are provided in Section 4.5.4, 4.5.5, and Table 4-7.

Doses from Transportation

The transport of natural UO₂ also adds to the annual gamma radiation dose, not only to the driver but also to others on the road, and residents in the vicinity. The Environmental Review (SENES 2007) estimates an annual dose of 170 $\mu\text{Sv/yr}$ for a driver exposed to incoming material for 44 hours (asThe transport of natural UO₂ also adds to the annual gamma radiation dose, not only to the driver but also to others on the road, and residents in the vicinity.

The Environmental Review (SENES 2007) estimates an annual dose of 170 $\mu\text{Sv/yr}$ for a driver exposed to incoming material for 44 hours (assuming 66 trips of approximately 40 minutes each with a 20' or 40' truck). The dose to a member of the public from incoming material (assuming 33 hours of exposure) is estimated to be 1.7 $\mu\text{Sv/yr}$ to 3.2 $\mu\text{Sv/yr}$ (for 20' and 40' trucks respectively). The dose to a driver exposed to outgoing material is estimated at 400 $\mu\text{Sv/yr}$, assuming 125 hours of exposure over 25 trips.

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Zircatec Environmental Review 2007

Transportation Impact Assessment for Shipment of Uranium Hexafluoride (UF₆) Cylinders from the East Tennessee Technology Park to the Portsmouth and Paducah Gaseous Diffusion Plants

**Environmental Assessment Division
Argonne National Laboratory**



Operated by The University of Chicago,
under Contract W-31-109-Eng-38, for the

United States Department of Energy

Table D-15 Radiological Latent Cancer Fatalities from Incident-Free Truck Transportation of Radioactive Materials

Material	Route	Maximum Individual	Crew	In-Transit			Crew		Total Public	Total Worker
				Public Off-Link	Public On-Link	Public Stop	Loading	State Inspection		
Feed Material in Type 48X Cylinder	Port Hope, ON	7×10^{-9}	1×10^{-3}	3×10^{-4}	2×10^{-3}	2×10^{-3}	9×10^{-4}	7×10^{-3}	3×10^{-3}	9×10^{-3}
Feed Material in Type 48Y Cylinder	Port Hope, ON	5×10^{-9}	9×10^{-4}	2×10^{-4}	1×10^{-3}	1×10^{-3}	5×10^{-4}	5×10^{-3}	2×10^{-3}	6×10^{-3}
Feed Material in Type 48X Cylinder	Metropolis, IL	7×10^{-9}	6×10^{-4}	1×10^{-4}	6×10^{-4}	7×10^{-4}	9×10^{-4}	2×10^{-3}	1×10^{-3}	3×10^{-3}
Feed Material in Type 48Y Cylinder	Metropolis, IL	5×10^{-9}	4×10^{-4}	9×10^{-5}	5×10^{-4}	5×10^{-4}	5×10^{-4}	1×10^{-3}	1×10^{-3}	2×10^{-3}
Product in Type 30B Cylinder	Columbia, SC	4×10^{-10}	3×10^{-5}	1×10^{-5}	6×10^{-5}	6×10^{-5}	2×10^{-4}	6×10^{-4}	1×10^{-4}	8×10^{-4}
Product in Type 30B Cylinder	Wilmington, NC	4×10^{-10}	4×10^{-5}	1×10^{-5}	6×10^{-5}	7×10^{-5}	2×10^{-4}	7×10^{-4}	1×10^{-4}	9×10^{-4}
Product in Type 30B Cylinder	Richland, WA	4×10^{-10}	4×10^{-5}	9×10^{-6}	6×10^{-5}	9×10^{-5}	2×10^{-4}	9×10^{-4}	2×10^{-4}	1×10^{-3}
DUF ₆ in Type 48Y Cylinder	Paducah, KY	5×10^{-9}	4×10^{-4}	8×10^{-5}	4×10^{-4}	6×10^{-4}	6×10^{-4}	2×10^{-3}	1×10^{-3}	3×10^{-3}
DUF ₆ in Type 48Y	Portsmouth, OH	5×10^{-9}	6×10^{-4}	1×10^{-4}	7×10^{-4}	7×10^{-4}	6×10^{-4}	2×10^{-3}	2×10^{-3}	3×10^{-3}

Health impacts of inhaled uranium-containing particles

- Uranium-bearing respirable dust can cause various health problems, such as cardiovascular and neurological disorders, cancers, immunosuppression, and autoimmunity.
- Exposure to elevated levels of uranium is linked to many such health conditions in Navajo Nation residents in northwestern New Mexico.
- Most studies have focused on the fate of inhaled dust particles ($<4\text{ }\mu\text{m}$) in the lungs. However, larger-sized inhaled particles ($10\text{--}20\text{ }\mu\text{m}$) can be cleared to the human gastrointestinal tract (GIT), thereby enabling them to interact with stomach and intestinal fluids.

- “The fate of inhaled uranium-containing particles upon clearance to gastrointestinal tract”

article by E. Hettiarachchi - published in Journal “Environmental Impacts: Processes & Impacts”, Issue 8, 2022, The Royal Society of Chemistry website

Port Hope Health Canada Data - 1998, 2000, 2002

- Port Hope elevated for selected periods and cohorts for: Overall death rate, circulatory disease, leukemia, non-Hodgkins lymphoma, cancers including childhood cancer deaths, and cancers of the lung, brain, nasal/sinus, esophageal, lip, bone, and colorectal.

2000, 2002 Health Canada/CNSC Data for Port Hope (Reassessed by Mintz, 2004)

- Causes of death 1986-92 significantly higher than Ontario include: hereditary, neurological, cardiovascular, respiratory diseases; cancers, including lip and oral cavity, pharynx, gallbladder, lung, trachea, bronchus, bone.

1998 Health Canada Great Lakes Health Effects Program Health Study on the Population Around Port Hope Harbour

Port Hope Health Data Peer Review Analysis

- ...the patterns of several cancer rates show cause for concern in that the patterns are consistent with environmental contamination.
- Certainly the raised leukemia rates, which were even higher before remediation are not reassuring.
- 100 more female deaths than expected in the 1986-97 period due to circulatory disease...surprise finding requires further scrutiny.
- Findings suggest children experienced high cancer rates, particularly before 1986.
- The findings taken together show a pattern that is quite suggestive of an excess of brain cancer in Port Hope.
- Along with the brain cancer, colon cancer and some of the rare cancer results, the available evidence points to there being problems in Port Hope.

Dr. Eric Mintz Epidemiologist (AECB contract Peer Reviewer)

No Federal Health Follow-up for Port Hope

- Federal commitments to Port Hope dating from 1979 public announcements for \$5 million health investigations - not done
- The Lees Study (Queen's University, 1983) – showed association of radon and lung cancer in small Port Hope study (25) – no follow-up
- Health Canada PH Harbour Area of Concern Report (1997), Health Canada data 2000, 2002 – elevated rates of cancers, neurological, cardiovascular, respiratory, – no follow-up
- Community Health Survey Design – created by York U Professor with promise of funding by AECB, not implemented
- Pilot Tracking Study – promised by AECB, not implemented
- Childhood Kidney Function Bio-testing –promised by AECB, not implemented
- UMRC-PHCHCC human radiobiological testing results showing ^{236}U , DU, elevated ^{234}U industrial U in PH subjects– no followup, findings not included in CNSC's Synthesis Report
- **CNSC and Health Canada conclude no health studies are necessary just before the community was to begin a \$2.6B cleanup of 2 million m³ of wastes with two nuclear facilities operating in town.**
- **CNSC says our health is protected - Decision document 2023**

U.S. Law Compensates for Nuclear Radiation Exposures

- U.S. Dept. of Justice recognizes in law (*Radiation Exposure Compensation Act, Energy Employees Occupational Illness Compensation Program*) more than 40 diseases as associated with radiation exposure; compensation is paid to military personnel, nuclear workers, community downwinders, Manhattan Project waste exposures.
- To date, more than \$36 billion has been paid to eligible claimants. More states are being included in the programs.

Instead of denying, Canada needs finally to recognize and enact similar legislation to compensate for health impacts caused by the nuclear industry in Canada

Petition to the Auditor General of Canada, June 2026

1. Proactive disclosure of contaminated public use properties - roads, frontages, parks, beaches
2. Bill c-226 - No new nuclear facility in Port Hope
3. National public inquiry of radioactive waste management in Canada starting with Port Hope
4. Adhere to the remediation 2001 Legal Agreement - financial-operational audit of AECL/CNL/PHAI
5. Comprehensive health monitoring of residents
6. Compensation for current and former Port Hope families

PHCHCC Recommendations to CNSC

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Fund independent health outcome monitoring: ongoing biological testing, cancer, morbidity, mortality health studies of Port Hope residents and nuclear workers with all data peer reviewed and publicly released .

Thank You...Questions?

