

2024 January 18

Table 1 – Effluent Results (2023 October to December)

Parameter	Units	Action Level (Weekly Concentration Composite Sample)	Release Limit (Weekly Concentration Composite Sample)	Release Limit (Monthly Mean Concentration Composite Sample)	Maximum Weekly Concentration Composite Sample			Monthly Mean Concentration Composite Sample		
					October	November	December	October	November	December
Acute Toxicity	-	-	-	Cannot be toxic	-	-	-	PASS	PASS	PASS
Radium-226 (Ra)	Bq/L	0.05	0.74	0.37	0.007	<0.005	0.01	<0.006	<0.005	<0.006
Total Aluminum (Al)	µg/L	55	220	110	1	1	2	<1	<1	1.5
Total Arsenic (As)	µg/L	50	300	150	2.2	1.2	0.5	1.9	0.9	0.4
Total Cadmium (Cd)	µg/L	0.14	0.34	0.17	0.005	<0.003	0.005	<0.004	<0.003	<0.004
Total Cobalt (Co)	µg/L	52	210	105	0.66	0.42	0.37	0.53	0.38	0.32
Total Copper (Cu)	µg/L	7.5	30	15	0.7	0.5	0.8	0.5	0.4	0.6
Total Lead (Pb)	µg/L	5	46	23	0.07	0.07	0.17	0.047	0.06	0.15
Total Uranium (U)	µg/L	55	300	150	0.24	0.25	0.36	0.21	0.22	0.27
Total Vanadium (V)	µg/L	2.2	8.8	4.4	0.02	0.02	0.02	0.017	<0.02	<0.01
Total Zinc (Zn)	µg/L	15	420	210	1	2	2	<1	<1.3	1.8
Total Phosphorus (P)	mg/L	0.25	1	0.5	<0.003	0.004	0.004	<0.003	<0.003	<0.003
pH	--	6.5 - 8.5	6.0 – 9.0	6.0 – 9.0	7.42	7.30	7.31	7.11	7.20	7.20
Total Suspended Solids	mg/L	7.5	30	15	7	1	1	<3	<1	<1

Notes:

“<” denotes some or all results were below the minimum detection limit

Action levels and release limits for liquid effluent are defined in:

- CNL, *Port Hope Project Environmental and Biophysical Monitoring Plan, 4501-509247-PLA-001*, Revision 4, 2018 October 24.
- CNSC, *Record of Decision In the Matter Of Canadian Nuclear Laboratories Ltd. Application to Renew the Waste Nuclear Substance Licence for the Port Hope Project as a Single Licence for the Port Hope Area Initiative*, DEC 22-H13, 2023 April 20.
- Letter, R. Buhr (CNSC) to S. Morris (CNL), *CNSC Staff's Review of CNL's Assessment of Action Levels and Release Limits for the Port Hope Waste Water Treatment Plant*, 4501-NOCN-23-0020-L, 2023 May 19.
- Letter, R. Buhr (CNSC) to S. Morris (CNL), *CNSC Staff's Review of CNL's Proposed Revised Liquid Effluent Action Levels for the Port Granby and Port Hope Waste Water Treatment Plants*, 4500-NOCN-23-0014-L, 2023 August 29.