

2025 Environmental Dashboard: Peterborough (Uranium)

At BWXT Nuclear Energy Canada's (BWXT) Peterborough facility, air and water emissions are measured for the presence of uranium and results show the 1160 Monaghan Road facility is a near-zero emissions plant.

Airborne and liquid effluent discharged from a fuel fabrication facility like BWXT are regulated by concentration limits. Action Levels and our own internal limits are set at just a fraction of the Licence Release Limits, which are set by the Canadian Nuclear Safety Commission (CNSC), to keep public exposure to any radiation as low as possible. Although Action Levels are set below Licence Release Limits, exceeding an Action Level is considered a CNSC reportable event in which BWXT must notify the Commission within 24 hours of becoming aware that an Action Level has been exceeded. Accordingly, BWXT has established Internal Control Levels for various radiological and environmental parameters that are set even lower than Action Levels to act as an early warning system. An Internal Control Level exceedance results in internal investigation and corrective and preventive action.

Water: Wastewater is generated from routine cleaning activities in the fuel bundle assembly area. The water is held in a drum, filtered and agitated prior to sampling, then sent for independent analysis at an accredited external laboratory. After the wastewater sample result is verified to be below the Internal Control Level of 3 ppm (per batch) and the Action Level of 3 ppm (annual average), the water is discharged to the sanitary sewer. The Action Level is 0.003 g/L (3 ppm (annual average)) and the Licence Release Limit is 0.14 g/L (weekly composite).

Air: The facility performs continuous in-stack monitoring of the single process uranium air emission point, drawing a sample of air across a filter capable of trapping uranium dust. The samples are analyzed by an independent laboratory. The minimum detection limit is 0.01 µg uranium. The Action Level is 1.0 µg/m³ and the Licence Release Limit is 410 µg/m³.

To continue to demonstrate transparency and provide information to the public, BWXT has developed this Environmental Dashboard to provide more detail on our low uranium emissions. This document will be updated throughout the year when new data becomes available.

For more information, please visit the [Environmental Monitoring](#) page of our website or refer to our Annual Compliance Reports, a thorough document submitted to the CNSC annually, which can be found on our website [here](#).

If you have any questions, please contact us at questions@bwxt.com or 1.855.696.9588 (toll-free).

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Water				Stack (Air)			
Status: no action level exceedances				Status: no action level exceedances			
Week	Concentration (mg/L)	Licence Release Limit (mg/L)	Number of Action Level Exceedances	Week	Concentration (µg/m ³)	Licence Release Limit (µg/m ³)	Number of Action Level Exceedances
Jan 1	—	140	—	Jan 1	—	410	—
Jan 8	0.0438	140	0	Jan 8	0.0002	410	0
Jan 15	—	140	—	Jan 15	0.0036	410	0
Jan 22	—	140	—	Jan 22	0.0018	410	0
Jan 29	—	140	—	Jan 29	0.0009	410	0
Feb 5	—	140	—	Feb 5	0.0016	410	0
Feb 12	—	140	—	Feb 12	0.0020	410	0
Feb 19	—	140	—	Feb 19	0.0006	410	0
Feb 26	—	140	—	Feb 26	0.0005	410	0
Mar 4	—	140	—	Mar 4	0.0005	410	0
Mar 11	—	140	—	Mar 11	0.0012	410	0
Mar 18	—	140	—	Mar 18	0.0004	410	0
Mar 25	—	140	—	Mar 25	0.0005	410	0
Apr 1		140		Apr 1		410	0
Apr 8		140		Apr 8		410	0
Apr 15		140		Apr 15		410	0
Apr 22		140		Apr 22		410	0
Apr 29		140		Apr 29		410	0
May 6		140		May 6		410	0
May 13		140		May 13		410	0
May 20		140		May 20		410	0
May 27		140		May 27		410	0
Jun 3		140		Jun 3		410	0
Jun 10		140		Jun 10		410	0
Jun 17		140		Jun 17		410	0
Jun 24		140		Jun 24		410	0
Jul 1		140		Jul 1		410	0
Jul 8		140		Jul 8		410	0
Jul 15		140		Jul 15		410	0
Jul 22		140		Jul 22		410	0
Jul 29		140		Jul 29		410	0
Aug 5		140		Aug 5		410	0
Aug 12		140		Aug 12		410	0
Aug 19		140		Aug 19		410	0
Aug 26		140		Aug 26		410	0
Sep 2		140		Sep 2		410	0
Sep 9		140		Sep 9		410	0
Sep 16		140		Sep 16		410	0
Sep 23		140		Sep 23		410	0
Sep 30		140		Sep 30		410	0
Oct 7		140		Oct 7		410	0
Oct 14		140		Oct 14		410	0
Oct 21		140		Oct 21		410	0
Oct 28		140		Oct 28		410	0
Nov 4		140		Nov 4		410	0
Nov 11		140		Nov 11		410	0
Nov 18		140		Nov 18		410	0
Nov 25		140		Nov 25		410	0
Dec 2		140		Dec 2		410	0
Dec 9		140		Dec 9		410	0
Dec 16		140		Dec 16		410	0

Note: if you would like the Dashboard table in .xls format (Excel), please email us at questions@bwxt.com