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We're Hiring!

Looking for a new opportunity? Join our team!

Working for BWXT means being part of a team focused on safety, technology, innovation and operational excellence.



View open positions and apply online at careers.bwxt.com.

Committed to Progressive Indigenous Relations

BWXT in Canada joined the Canadian Council for Aboriginal Businesses (CCAB) in 2017 and is committed to building and sustaining positive relationships with Indigenous communities in the areas in which BWXT operates in Canada.

We are participating in the CCAB's Progressive Aboriginal Relations (PAR) certification program. Today, BWXT in Canada is PAR Committed – which indicates our commitment to continual improvement in Indigenous relations and our intention to undergo external verification of our performance in the future.

BWXT has an internal Indigenous Relations Committee which meets to discuss ways to build and sustain positive relationships with Indigenous communities in areas where BWXT operates. The group meets every six weeks and is comprised of employees from a variety of departments and sites in Canada.

Our Committee recently completed Phase 3 of the PAR program and has been working on providing cultural awareness training to employees. Throughout the pandemic, the Committee has worked to find ways to support local Indigenous communities, participate in events to spread awareness, and continue to learn about Indigenous culture and history.



Did You Know?

In Peterborough we assemble CANDU® fuel bundles using natural uranium dioxide ceramic pellets from our Toronto facility. The fuel bundles are then sent to Ontario Power Generation's Darlington and Pickering Nuclear Generating Stations.

Fewer than ten 20 gram uranium pellets are needed to power the average household in Canada for a year!



FUEL REQUIRED TO PRODUCE THE SAME AMOUNT OF ELECTRICITY



Learn more nuclear facts by visiting the Canadian Nuclear Association website at cna.ca.

2021 Annual Compliance Report Available



Each year, we submit an Annual Compliance Report (ACR) to Canada's nuclear regulator, the Canadian Nuclear Safety Commission (CNSC).

The ACR demonstrates that BWXT NEC has successfully met the requirements of the Nuclear Safety and Control Act and its Class IB Nuclear Fuel Facility Operating Licence.

The ACR, which is reviewed by CNSC Staff, provides the CNSC with information related to our performance across the CNSC's 14 Safety and Control Areas.

Uranium

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. A summary of the 2021 air and water results are included below:

2021 Air Results - Uranium

At our Peterborough facility we perform continuous in-stack sampling of the single process uranium air emissions point. Samples are analyzed in-house and verified externally by an independent laboratory. The minimum detection limit is 0.01 µg uranium. Due to the nature of the process and stack sample results to-date, boundary monitoring is not required.

Peterborough Air (Stack) - Uranium	2020	2021
Number of samples taken	48	48
Number of samples exceeding action level (1.0 µg/m ³)	0	0
Highest value recorded (µg/m ³)	0.003	0.003
Average value recorded (µg/m ³)	0.001	0.001

0 Action Level Exceedances

2021 Water Results - Uranium

Waste water is generated from routine cleaning activities in the fuel bundle assembly area. All potentially uranium-contaminated waste water is held in a drum, filtered and samples are sent to an external laboratory for analysis. This waste water is only released to the sanitary sewer once the test results confirm it meets release requirements. After the waste water 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.

Peterborough Water - Uranium	2020	2021
Number of samples exceeding action level (3 ppm annual average)	0	0
Average uranium concentration at point of release (ppm)	0.20	0.22
Highest uranium concentration at point of release (ppm)	0.37	0.41
Total amount of liquid discharged (L)	1025	410

0 Action Level Exceedances

2021 Soil Results - Uranium

In Ontario, background levels of uranium in soil are generally below 2.5 µg/g (parts per million (ppm)). The Canadian Council of Ministers of the Environment (CCME) established soil quality guidelines to protect human health and the natural environment.

Soil sampling for uranium began in 2021 and will be conducted annually by a third-party consultant. Samples of surface soil are retrieved from locations surrounding the facility. The sampling methodology used is based on Ministry of the Environment Conservation & Parks guidelines.

Soil Sampling - Uranium	2021
MECP Guideline (µg/g)	2.5 µg U/g
Minimum detectable limit (µg/g)	1.0
Number of samples taken	13
Average concentration (µg/g)	1.0
Maximum concentration (µg/g)	1.0

View the Full Report:

The 2021 ACR is available to the public on our public information website at nec.bwxt.com or you can scan the QR code.

For any questions about the ACR, please contact us by email at questions@bwxt.com or by phone at 1.855.696.9588.



Beryllium

Air and water emissions are measured for the presence of beryllium. Beryllium is used as part of the fuel bundle manufacturing process. A summary of the 2021 air and water results are included below:

2021 Air Results - Beryllium

At our Peterborough facility we perform continuous in-stack sampling of the three beryllium air emissions points, drawing a sample of air across a filter capable of trapping beryllium. Samples are taken from the outflow lines and verified externally by an independent laboratory.

Peterborough Air (Stack) - Beryllium	2020	2021
Total number of samples taken	144	147
Number of samples exceeding action level (0.03 µg/m ³)	0	0
Highest value recorded (µg/m ³)	0.001	0.003
Average value recorded (µg/m ³)	0.000	0.000

0 Action Level Exceedances

2021 Water Results - Beryllium

Waste water is generated from equipment use and cleaning activities in the beryllium classified zones. Water passes through a weir settling system prior to release to the sanitary sewer. Regular sampling of the beryllium waste water is conducted via a 24-hour composite sample taken from the outflow lines which is sent for analysis externally by an independent laboratory. The minimum detectable concentration is 0.007 µg beryllium/L (0.000007 mg beryllium/L or parts per million (ppm)).

Peterborough Water - Beryllium	2020	2021
Number of samples exceeding action level (40 µg/L)	0	0
Average beryllium concentration at point of release (ppm)	1.4	0.9
Highest beryllium concentration at point of release (ppm)	9.1	3.1
Total number of samples analyzed for beryllium concentration in water	20	17

0 Action Level Exceedances

2021 Soil Results - Beryllium

In Canada, levels of beryllium in soil range from 0.25 mg/kg to 16 mg/kg and averages 0.75 mg/kg. The Canadian Council of Ministers of the Environment (CCME) established soil quality guidelines to protect human health and the natural environment.

Soil sampling for beryllium began in 2020 and will be conducted annually by a third-party consultant. Samples of surface soil are retrieved from locations in accordance with a documented plan. The sampling methodology used is based on Ministry of the Environment Conservation & Parks guidelines.

Soil Sampling - Beryllium	2021
MECP Guideline (µg/g)	2.5 µg Be/g
Minimum detectable limit (µg/g)	0.5
Number of samples taken	13
Average concentration (µg/g)	0.50
Maximum concentration (µg/g)	0.52

Canadian Nuclear Safety Commission 2021 Independent Environmental Monitoring Program Results Available

The Canadian Nuclear Safety Commission (CNSC) has made available the results of its 2021 Independent Environmental Monitoring Program (IEMP) sampling from areas around our Peterborough facility at 1160 Monaghan Road.

CNSC staff collected water, soil and air samples from public areas outside our Peterborough facility to detect for uranium and beryllium.

As noted by the CNSC, “IEMP results from 2014, 2018, 2019 and 2021 are below federal and provincial guidelines. The results add to the body of evidence that people and the environment in the vicinity of BWXT Peterborough are protected and that there are no anticipated health impacts.”



To view the full report and see sampling data, visit the CNSC’s website at nuclearsafety.gc.ca.

Our People - Meet Zowie



Meet Zowie, a Mechanical Engineer (Engineer in Training) from our Peterborough facility. Zowie has a Bachelor of Engineering Honours in Energy Systems Engineering from Ontario Tech University.

Zowie is part of the Target Delivery System design team who are designing specialized tooling to enable the production of molybdenum-99, a medical isotope used in over 40 million diagnostic imaging procedures each year, at Darlington.

When asked about her experience thus far at BWXT NEC, Zowie shared, “I am learning as much as I can from mentors and others in the industry and immersing myself in challenging and diverse projects to find the technical subjects I love.”

TALK TO US

We Want to Hear From You!

Phone: 855-696-9588
Email: questions@bwxt.com
Online: nec.bwxt.com

1025 Lansdowne Avenue
Toronto, ON M6H 4H2

1160 Monaghan Road
Peterborough, ON K9J 0A8

 Follow us on Facebook and
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About BWXT NEC in Peterborough

In Peterborough, we assemble CANDU® fuel bundles using natural uranium dioxide ceramic pellets from our Toronto facility and zircaloy tubes from our Amnprior facility. The fuel bundles are then sent to Ontario Power Generation’s Darlington and Pickering Nuclear Generating Stations. Both our Peterborough and Toronto facilities are licensed by Canada’s nuclear regulator, the Canadian Nuclear Safety Commission (CNSC).



Approximately 400 people work at BWXT in Peterborough in high-tech, manufacturing and administrative positions (180 are engineers in disciplines such as software, metallurgy, mechanical, electrical and systems). This team produces the fuel to power 1 in 4 homes and businesses in Ontario with greenhouse gas emissions-free, affordable electricity!