



Nuclear Energy Canada Inc.

# COMMUNITY NEWSLETTER

PROUDLY SUPPORTING OUR COMMUNITY

SPRING 2019

1160 Monaghan Road, Peterborough, ON

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## Progressive Aboriginal Relations

In 2017, BWXT in Canada joined the Canadian Council of Aboriginal Business (CCAB), committing 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 and most recently completed Phase 1 of the program as evaluated by an independent third-party PAR verifier.



## BWXT Volunteer Strong



At BWXT, we believe that healthy communities are strong communities. Through BWXT Volunteer Strong, all employees have the opportunity to help build stronger communities for those that live and work in them and can volunteer their time and expertise to local causes that are important to our communities for initiatives such as education, health & wellbeing, arts & culture, environment and Indigenous relations.

### Canadian Canoe Museum

In 2018, eight volunteers from BWXT Nuclear Energy Canada Inc.'s (BWXT NEC) Technical Publications and Registry department spent the afternoon painting the education room at the Canadian Canoe Museum. This summer, the same group of volunteers are returning to the museum to finish painting the education room and begin painting the hallway and kitchen.

### Peterborough Science Fair

On April 10<sup>th</sup>, four employees volunteered their morning judging projects created by inspiring young scientists at Trent University's Peterborough Regional Science Fair. This year marked the 50th Anniversary of the Peterborough Science Fair. BWXT also supported the Science Fair by continuing as a Platinum sponsor of the event.



## YOU'RE INVITED TO BWXT NEC'S FREE COMMUNITY BBQ!

June 5th from 2:00 - 5:00 p.m.

1160 Monaghan Road in the grassy area of the parking lot.

Enjoy hot dogs, hamburgers, freezies and more! Speak with BWXT NEC subject matter experts and learn about our operations, safety and community involvement.



# Annual Compliance Report Available

BWXT NEC's 2018 Annual Compliance Report was submitted to Canada's nuclear regulator, the Canadian Nuclear Safety Commission (CNSC), on March 29, 2019. The purpose of this report is to demonstrate that BWXT NEC has successfully met the requirements of the Nuclear Safety and Control Act and its Class 1B Nuclear Fuel Facility Operating Licence. BWXT NEC holds a 10-year licence, which expires December 31, 2020.

The report, which is reviewed by CNSC staff, provides the CNSC with information related to BWXT NEC's performance in 14 Safety and

Control Areas (SCAs). The 14 SCAs are management system, human performance management, operating performance, safety analysis, physical design, fitness for service, radiation protection, conventional health and safety, environmental protection, emergency management and fire protection, waste management, security, safeguards and non-proliferation, packaging and transport.

The report is available to members of the public on BWXT NEC's website at [nec.bwxt.com/safety](http://nec.bwxt.com/safety). For any questions about the Annual Compliance Report please contact [questions@bwxt.com](mailto:questions@bwxt.com) or 1.855.696.9588.

## 2018 Stack Results

Air and water emissions are routinely measured for the presence of uranium.

The results show that the BWXT NEC Peterborough facility is a near-zero emissions plant.

The release limit for uranium air emissions, which is set by the CNSC, is 550 g/year. BWXT NEC releases just a small fraction of the limit. The latest stack sampling results are as follows:

Peterborough Stack	2017	2018
Number of samples taken	46	47
Number of samples > action level (1.0µg/m <sup>3</sup> )	0	0
Highest value recorded (µg/m <sup>3</sup> )	0.003	0.006
Total discharge to air (grams U)	0.002	0.002

## 2018 Water Results

Water at BWXT NEC is used to clean walls, floors and other janitorial functions in the uranium pellet loading and end closure weld areas.

At the BWXT NEC facility in Peterborough, all potentially uranium-contaminated waste water is held in storage tanks, filtered and then samples are sent to an external lab for independent analysis. This waste water is only released once the test results confirm it meets regulatory requirements to be released.

The latest water effluent sampling results are as follows:

Peterborough Water	2017	2018
Number of samples exceeding 6 ppm batch release action level	0	0
Average uranium concentration at point of release (ppm)	0.04	0.02
Highest uranium concentration at point of release (ppm)	0.09	0.03
Total discharge to sewer (kg uranium)	0.00003	0.00001

## Radiation in our Daily Lives

.42 mSv



Mammogram

.18 mSv



Smoking 1/2 pack of cigarettes a day for a year

.07 mSv



Live in a brick or concrete building

.025 mSv



Flight from Vancouver to Toronto

3 mSv



Average background exposure living in Canada

Less than .00 mSv



Exposure from BWXT air and direct gamma radiation emissions from standing outside the Peterborough facility every minute of every day for one year.

\*Information obtained from <http://www.new.ans.org/pi/resources/dosechart/> except for Monaghan and Canadian background. That information is provided by BWXT Nuclear Energy Canada and verified by the Canadian Nuclear Safety Commission and Health Canada respectively.

## Our People

Meet Ron Wollenschlager from BWXT in Peterborough.

Ron is a Senior Mechanical Engineer with over forty years of design experience including fourteen years in the Canadian nuclear industry with BWXT.

Ron and our team have recently designed, built and tested the Grapple tool (shown on the right), which is used for fuel recovery operations to successfully grapple and retrieve the fuel bundles from the fuel channel of a CANDU® reactor.

In his spare time, Ron enjoys model railroading.



## We're Hiring!

At BWXT NEC we have multiple job postings at our Peterborough facility in disciplines such as engineering, project management and quality.

BWXT NEC is a subsidiary of BWXT Canada Ltd. with more than 60 years of extensive experience and innovation in the supply of nuclear fuel and fuel channel components, services, equipment and parts for the CANDU® nuclear power industry. This includes designing and supplying highly reliable nuclear equipment to fuel, inspect and refurbish reactors.

BWXT NEC employs approximately 400 skilled employees at three locations in Ontario: Peterborough, Toronto and Arnprior. Working for BWXT means being part of a team focused on safety, technology, innovation and operational excellence. Current job openings are posted online at [bwxt.com/careers](http://bwxt.com/careers).

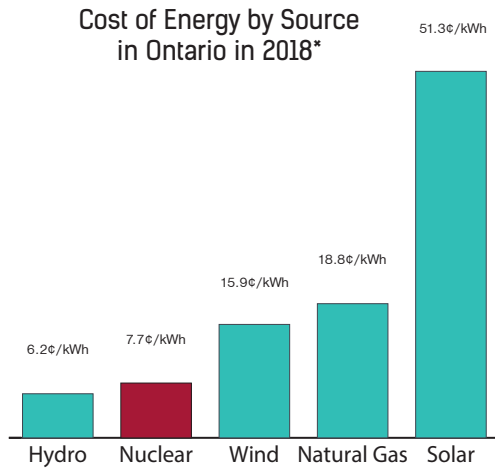
## CNSC Publishes 2018 Independent Environmental Monitoring Results

In addition to BWXT NEC having an environmental monitoring program to demonstrate that the public and the environment are protected from emissions related to our facility's nuclear activities, the Canadian Nuclear Safety Commission (CNSC) has also implemented its Independent Environmental Monitoring Program (IEMP) to verify that the public and the environment around licensed nuclear facilities are safe. The IEMP program is separate from, but complementary to, the CNSC's ongoing compliance verification program. The IEMP involves taking samples from public areas around the facilities, and measuring and analyzing the amount of radiological and hazardous substances in those samples. CNSC staff then collect the samples and send them to the CNSC's laboratory for testing and analysis.

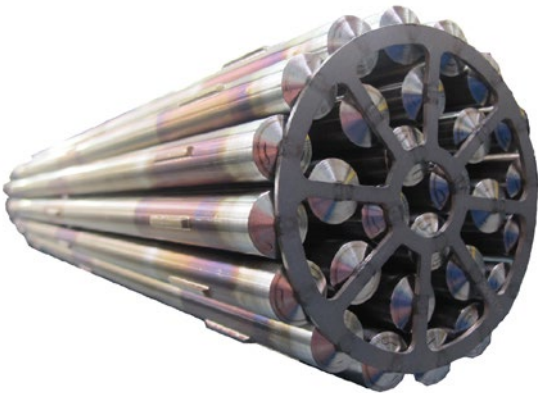
The IEMP 2014 and 2018 results indicate that the public and the environment in the vicinity of the BWXT Peterborough facility are protected and that there are no expected health impacts. These results are consistent with the results submitted by BWXT and the conclusions of available health studies for uranium processing facilities – demonstrating that the licensee's environmental protection program protects the health and safety of people and the environment. The CNSC is planning to conduct IEMP sampling in Peterborough and Toronto this spring/summer. For more information about IEMP or to see the full report, visit: [www.nuclearsafety.gc.ca](http://www.nuclearsafety.gc.ca)

## Did You Know?

Nuclear energy remains the second most affordable electricity source in Ontario next to hydroelectric power.



The fuel produced at BWXT goes on to supply approximately 25% of Ontario's electricity.



Nuclear medicine uses radiation to diagnose and determine the stages of various diseases, including cancer.

Over 1.5 million diagnostic scans are performed each year in Canada.



BWXT is working to create new innovative products to meet the demand for critical diagnostic imaging. Check out the BWXT website ([www.bwxt.com](http://www.bwxt.com)) and YouTube channel to learn more about what we're doing to diagnose and treat complex conditions like cancer and heart disease.



\*<https://www.oeb.ca/sites/default/files/RPP-Supply-Cost-Report-20180501-20190430-correction.pdf>

## TALK TO US

We Want to Hear From You!

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