BWXT
Nuclear Energy Canada Inc.

Toronto Public Information Brochure

ABOUT BWXT NUCLEAR ENERGY CANADA

BWXT Nuclear Energy Canada (BWXT), a subsidiary of BWXT Canada, has 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 equipment to fuel, inspect and refurbish reactors.

BWXT Nuclear Energy Canada has been involved with the CANDU industry from its earliest years. In Toronto, we employ 40 people in high-tech, engineering, manufacturing and administrative positions.

Our Toronto facility is licensed by Canada's nuclear regulator, the Canadian Nuclear Safety Commission.

PROUDLY MANUFACTURING FUEL FOR ONTARIO

Our employees make ceramic pellets from natural uranium dioxide powder. We receive the natural uranium dioxide powder from Cameco Corporation in Port Hope. After our manufacturing process, which involves pressing the powder into shape, baking the pellets in a hydrogen furnance, grinding the pellets to a precise size and inspection, we send the pellets to our Peterborough site where they are placed into fuel bundles for CANDU power stations in Ontario.

DID YOU KNOW?

The natural uranium pellets manufactured by BWXT go on to provide approximately **25% of Ontario** with carbon-free, reliable electricity!

Less than 10 natural uranium pellets are needed to power the average Canadian home for a year.

To generate the same amount of electricity as **one natural uranium pellet**, you would need to use 410 litres of oil, 350 cubic metres of natural gas, or 400 kg of coal.

CONTACT OUR TEAM

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STAY CONNECTED

Scan to sign up for our emails to get BWXT news delivered direct to your inbox!

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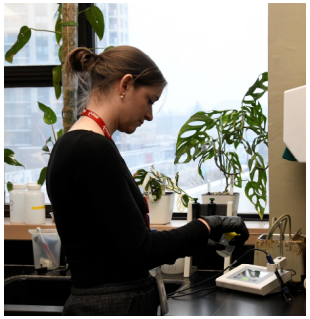
Virtual Tour:

Interested in seeing how natural uranium pellets are made? Scan the QR code to check out our video!

RESPONSIBLE & SAFE OPERATIONS



The safety of employees, the public, and the environment is our first priority. We are committed to minimizing the effects of our operations on the environment and we comply with all relevant environmental regulatory laws. In addition to our environmental programs, Canada's nuclear regulator, the Canadian Nuclear Safety Commission, conducts their own monitoring to verify the community and environment are protected.

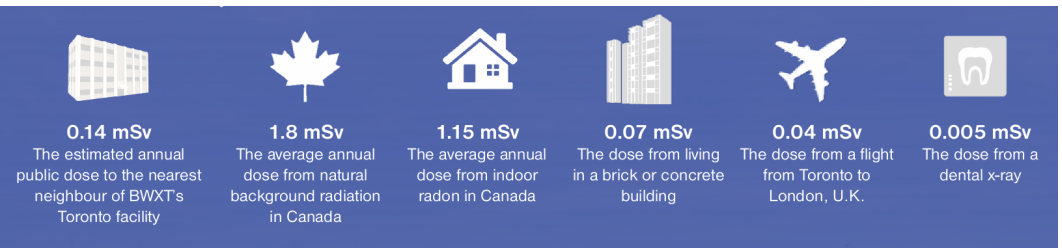
RADIATION

Radiation is energy in the form of waves or particles. Radiation doesn't just come from nuclear energy. It's all around us – and we're exposed to both natural and human-made sources of radiation daily. There are two types of radiation: non-ionizing radiation includes microwaves, radio waves and television signals and ionizing radiation comes from natural sources and man-made sources such as x-ray machines and nuclear power plants.

The Canadian Nuclear Safety Commission regulates the nuclear energy industry to limit the radiation that our employees and neighbours receive. Using studies performed by the International Commission on Radiological Protection on acceptable levels of radiation exposure, they have set a limit of 1 millisievert (mSv) per year for members of the public.

At BWXT, we have a comprehensive radiation protection program and are guided by the principles of ALARA (as low as reasonably achievable). The estimated annual public dose to the nearest neighbour in 2024 was 0.14 mSv. Included below you will find an infographic which illustrates radiation and public dose.

Radiation In Our Daily Lives



NATURAL URANIUM

Uranium is a naturally occurring, weakly radioactive element that is present at low levels in the environment. Uranium is found naturally in soil, rocks, the water we drink and even in the air we breathe. The pellets manufactured by BWXT in Toronto are made of natural uranium.

ENVIRONMENTAL MONITORING

Uranium emissions are measured to ensure we are operating in a responsible manner and monitoring results show we have low emissions.

Air Monitoring

- In-Stack Sampling is conducted for all six stacks at the facility. A sample of air is drawn across a filter capable of trapping uranium. The samples are analyzed in-house daily and verified externally by an independent laboratory.
- Facility Perimeter Sampling are high-volume air samples drawn at five positions strategically located around the facility perimeter. The samples are analyzed externally by an independent laboratory. In both cases, the external independent laboratory tests the filter papers by delayed neutron activation analysis.

Water Monitoring

Water is used in the production process and to clean protective clothing, floors and other janitorial functions. The water is first held in storage tanks at the facility, treated to remove uranium dioxide, tested and only released in batches once the test results confirm it meets release requirements.

Soil Sampling

The Canadian Council of Ministers of the Environment (CCME) established soil quality guidelines to protect human health and the natural environment. Samples of surface soil are retrieved from locations in accordance with a documented plan. Soil sampling is conducted by a third-party consultant and the sampling methodology used is based on Ministry of the Environment Conservation & Parks guidelines.

Data tables are available on our website at nec.bwxt.com.

Want to learn more? Visit nec.bwxt.com to read our Annual Compliance Report