Facts About Beryllium, BWXT and Children

Prince of Wales Primary School Junior Playground

45m!!!!

Beryllium Point Source

BWXT Nuclear Energy Canada
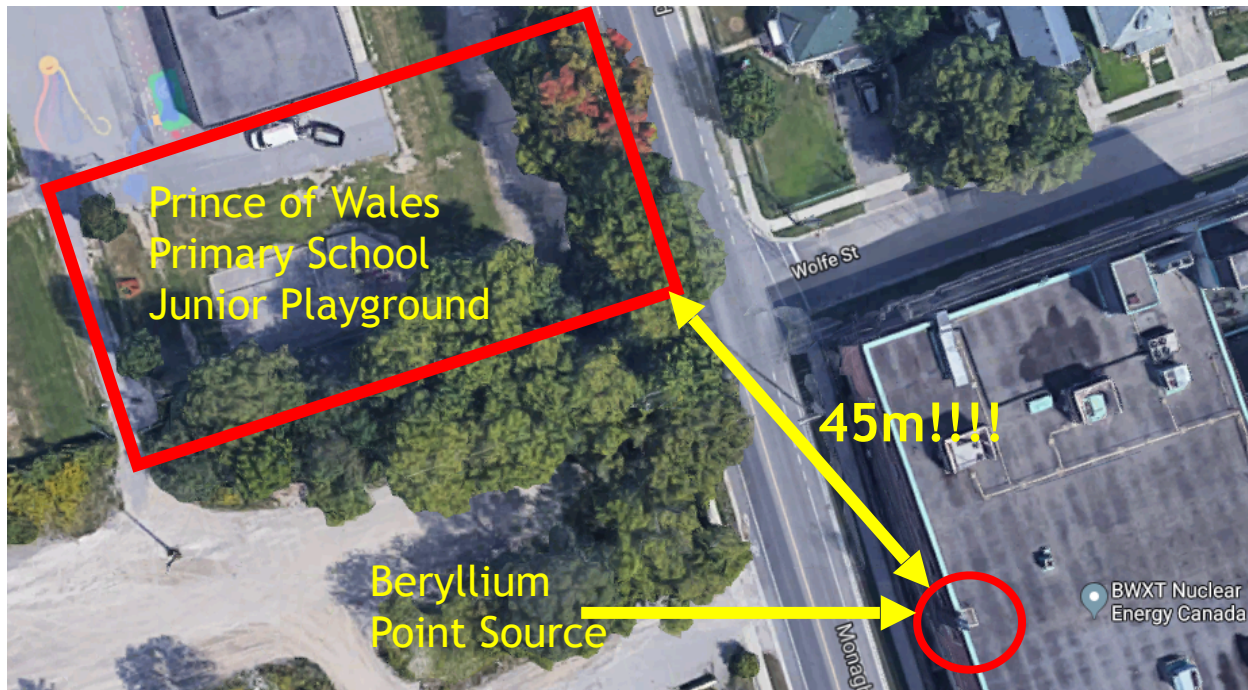
BWXT has 3 stacks that release Beryllium into the local environment. They are located immediately adjacent to Prince of Wales Junior Playground.

- BWXT uses beryllium in its Candu reactor fuel bundle manufacturing process at the Peterborough location
- Beryllium (*Be)* is classified as a type 1 carcinogen, which means that it is a known carcinogen in humans
- *Be* exposure is known to cause chronic beryllium disease (CBD), an irreversible and sometimes fatal disease.
- *Be* sensitization causes an immune response in humans. While there are no known side effects of this sensitization, it is the basis of a simple test that detects exposure to *Be* by measuring the presence of antibodies. BWXT currently tests its employees for Be exposure but not members of the public.
- The name of the test is BeLPT - the Beryllium Lymphocyte Proliferation Test
- Be sensitization is an indication of CBD but not all subjects with a positive BeLPT test have CBD.
- In 2017 standards for *Be* exposure were decreased by 40 times to reflect new knowledge of *Be*'s toxicity. Standards have been trending downward for many years. What was a safe level 20 years ago is not considered to be safe now. Be's toxicity is still not well understood and it would be reasonable to expect that standards will continue to become more stringent in the future.
- The European Union for Nuclear Research (CERN) recognizes that beryllium is "the most dangerous of the industrial metals"

- Ontario's MOE has set permissible levels of Beryllium in air as .05 μg per cubic metre of air. This an approximate equivalent weight of one 80 millionth of a standard sheet of printer paper divided in a cubic meter of air! *Be* is very very toxic!
- There have been NO studies on the effects of Beryllium in children. Consequently, safety levels for kids are assumed safety levels
- Why is BWXT's Beryllium point source so close to Prince of Wales School? **That's a good question!**

https://www.ontario.ca/page/ontarios-ambient-air-quality-criteria-sorted-contaminant-name