



Oral Presentation

Exposé oral

**Written submission from
Erica Martin**

**Mémoire de
Erica Martin**

In the Matter of the

À l'égard de

**BWXT Nuclear Energy Canada Inc.,
Toronto and Peterborough Facilities**

**BWXT Nuclear Energy Canada Inc.,
installations de Toronto et Peterborough**

Application for the renewal of the licence for
Toronto and Peterborough facilities

Demande de renouvellement du permis pour les
installations de Toronto et Peterborough

Commission Public Hearing

Audience publique de la Commission

March 2 to 6, 2020

Du 2 au 6 mars 2020

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January 26, 2020

Senior Tribunal Officer
Secretariat, Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046, Station B
Ottawa, Ontario K1P 5S9

Sent by email to cncs.interventions.ccsn@canada.ca

Dear Sir or Madam:

RE: BWXT Licence Renewal (Hearing Ref. 2020 - H - 01)

1. INTRODUCTION

I am submitting this letter in response to the Canadian Nuclear Safety Commission's (CNSC) Public Notice dated December 20, 2019. This notice requested comments on the proposal by BWXT to renew its Class IB fuel facility operating licence for a period of 10 years. A hearing for this matter is scheduled for March 5-6, 2020, in Peterborough.

2. INTEREST AND EXPERTISE OF THE INTERVENOR

I am a Peterborough resident living in the neighbourhood where BWXT operates. For the past 12 years, I have lived on King Street, 583 metres away from BWXT's plant. My two children attended Prince of Wales Public School – across the street from the factory – for 8 and 10 years respectively.

I am not an expert in the law or physics surrounding the nuclear industry. However, in light of the upcoming license renewal, I have educated myself about the health and safety concerns connected to the issues. I am writing as a citizen, concerned for the health of my family and my community.

3. CONCERNS ABOUT THE PROPOSED CHANGES TO BWXT'S LICENSE

My concerns in regard to this licencing application are multi-faceted:

- A. Environmental/health risks
- B. Socioeconomic impacts on the community
- C. Lack of community consultation or social license for this project
- D. Length of license

Each of these concerns will be addressed in detail below:

A. Environmental/health risks

According to the CNSC's website, the Canadian Nuclear Safety Commission has a mandate to "protect the health and safety of Canadians, as well as our environment"¹. This includes a focus on protecting vulnerable populations, for example, children. However, the proposed license change by BWXT does not fulfill this mandate. The BWXT factory is a mere 25 metres away from Prince of Wales Public School. Industrial factories that pose even potential health risks have no place in residential areas like the one where BWXT is currently located, and certainly not this close to vulnerable populations like children.

Why children are at an even greater risk

A single 2.5 micron (2.5 millionths of a metre) dust grain releases a radiation dose 200 times the legal dose limit for a Canadian citizen – i.e. an adult². The CNSC aims for radiation emissions that are ALARA – "as low as reasonably achievable". Given the toxic effects of very small amounts of radioactive materials, this goal does not go far enough in protecting human health. However, even this appallingly inadequate goal is not a legitimate evaluation of risk: exposure standards are developed for adults, but scientists agree that radiation exposure is significantly riskier for children than for adults³. There are a number of reasons for this:

- Children grow quickly, which means that their cells are dividing more often. This means that the toxic effects of radiation can more easily take hold on them than on adults.
- The effects of radiation take years to develop; by virtue of their age, children have a much longer time for any potential effects from radiation to occur.
- Toddlers – i.e. the students whose school playground is closest to the BWXT plant – spend a great deal of time playing in the dirt and putting things into their mouths. Thus, they take in significantly more uranium through the soil than any other age group⁴.

For all of these reasons, uranium exposure is more dangerous for children than for adults. And many Prince of Wales students spend ten years at this school, which puts them at high risk of radiation exposure for most of their childhood. Tragically, if BWXT is allowed to manufacture

¹ <http://nuclearsafety.gc.ca/eng/resources/radiation/index.cfm>

² <http://umrc.net/wp-content/uploads/2012/06/UMRC-corrects-Minister-of-Health-on-Uranium-Contamination-in-Port-Hope-Tedd-Weyman-2008.pdf>

³ https://www.radiologyinfo.org/en/info.cfm?pg=safety-hiw_03

⁴ Canadian Council of Ministers of the Environment, "Canadian Soil Quality Guidelines for Uranium: Environmental and Human Health Scientific Supporting Document", 2007, page 121, Estimated Total Daily Uranium Intake by Age Class for the Canadian General Population. Note: CCME guidelines are quoted in BWXT's own Compliance Report.

uranium pellets in Peterborough, children will be the ones most at risk. The CNSC has an obligation to protect our children from these risks by not allowing BWXT to produce uranium pellets across the street from a public school.

Risk to children: uranium exposure through emissions

According to BWXT's 2016 Compliance Report, significantly more uranium has been released through the air from their Toronto plant (where pelleting is currently being done) than from the Peterborough plant (where it is not being done)⁵. It follows logically that if BWXT is allowed to produce nuclear pellets in Peterborough, much greater quantities of uranium dust will be released into the air. We do not want to have this elevated level of emissions in Peterborough, in a residential neighbourhood and across the street from an elementary school. These airborne emissions will land on the playground of an elementary school, where they will be absorbed by children. This is not fair to our children. They will also land in backyards in my neighbourhood, where my friends and neighbours grow vegetables in their gardens to feed their children. This means that pelleting in Peterborough would be putting our children's health at risk. This is not fair to our children.

Risk to children: uranium exposure through transport

As well as this very real danger, there is an additional risk through transportation. If BWXT is allowed to produce pellets, large quantities of uranium dust will have to be brought to the plant. Remember, this plant is 25 metres away from an elementary school playground. Any shipping materials which becomes accidentally contaminated will be passing 25 metres away from children playing. The possibility of contaminated transportation materials is real – it happened in the Toronto plant in April 2016, according to the BWXT compliance report⁶. Contaminated pallets and other shipping materials could easily give off radioactive dust, which could easily fall off enroute to the factory – i.e. right by the school. This means that pelleting in Peterborough would be putting our children's health at risk. This is not fair to our children.

Recommendation No. 1:

Because of the increased risks to children's health, and the fact that the BWXT plant is located 25 metres from an elementary school, the BWXT plant should not be licensed to produce uranium pellets at its Peterborough facility.

⁵ BWXT 2016 Compliance Report, page 43, table 18: Summary of Hazardous Substance Releases to Air at Exhaust Stack

⁶ Ibid, page 60: "In April 2016, a minor compliance miss for a Class 7 shipment from Peterborough to Toronto was reportable to the CNSC. A pellet stack was discovered in Toronto in a skid of contaminated empty trays"

Recommendation No. 2:

The CNSC should use a third-party reputable organization to determine through an environmental assessment – and make public – the potential health and safety concerns from the BWXT proposed license renewal.

B. Socioeconomic impacts on the community

Although BWXT claims that my neighbourhood is “mixed industrial/residential”, this characterization is false. My neighbourhood is residential, with single-family homes on small streets where children play. We have only one industrial facility in our neighbourhood: BWXT.

The factory was established in 1892. Now, 128 years later, we are more aware of effects of toxic emissions on human health. In 2020, new industrial facilities are no longer allowed to be built in the middle of residential neighbourhoods. As a homeowner, I am very concerned about the impact on my property value of a pelleting facility 583 metres away from my house. Because of perceptions about uranium powder close by, the value of my house will decline if BWXT is allowed to make uranium pellets right in my neighbourhood. I am relying on the value of my house to support me in my retirement. BWXT’s plan to produce uranium pellets will have a long-term effect on my ability to support myself as I age.

As well, if houses in my neighbourhood decline in value, the city of Peterborough will generate less money in property taxes. This means fewer municipal services for my family and my community. This is not fair to me or anyone in the Peterborough. Businesses should not profit at the expense of communities and residents.

Recommendation No. 3:

Because of the negative socioeconomic impacts of the BWXT proposal on property taxes, the BWXT plant should not be licensed to produce uranium pellets at its Peterborough facility, located in a residential neighbourhood.

Recommendation No. 4:

The CNSC should use a third-party reputable organization to determine through a community impact analysis – and make public – the potential socio-economic issues from the BWXT proposed license renewal.

C. Lack of community consultation or social license for this project

Social licence is more important than ever. Governments may be able to issue permits but only communities can grant permission⁷.

– Prime Minister Justin Trudeau

According to BWXT, public attitude surveying was conducted in 2018 among “residents who live in proximity to BWXT”. Neither I nor anyone I know in my neighbourhood received any communication whatsoever – either online, by telephone or through postcards from BWXT⁸. My house is only 583 metres away from the facility, so I surely qualify as someone who lives in proximity to the factory and who deserves to be contacted about potential changes to operations. The fact that my neighbours and I were not contacted means that BWXT is not aware of the significant opposition to its proposal. Perhaps they do not know about the weekly demonstrations against the proposal. Perhaps they are not aware of the numerous anti-pelleting information meetings which were filled beyond capacity. Both of these show that Peterborough residents do not want pelleting here. Social license is increasingly seen as key to an industry’s ability to operate in a community. BWXT does not have that social license in our community.

Recommendation No. 5:

Because BWXT does not have community buy-in for its license renewal, the BWXT plant should not be licensed to produce uranium pellets at its Peterborough facility.

D. Length of license

The “precautionary principle” means that we should go out of our way to protect human health because the consequences are so great if we do not. In other words, we should err on the side of caution in cases where consequences are potentially lethal. This principle has been adopted into Canadian law by the Supreme Court⁹.

Because the proposed change to BWXT’s license does not adhere to the precautionary principle, I believe that ten years is too long a period for this license. Let me be clear: I adamantly do not support a license to permit BWXT to produce uranium pellets in Peterborough. If the CNSC decides (against my wishes and the wishes of the majority of residents in the community) to grant this license, it is important that it is granted for a much shorter timeline. This would mean that potentially serious or irreversible human health and

⁷ <https://www.youtube.com/watch?v=iH9fSBtXLF4&feature=youtu.be>

⁸ 2018 BWXT report, page 72.

⁹ 31 114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town), 2001

environmental harms might be somewhat less widespread and might have the possibility to be mitigated (as much as is possible) more immediately.

Recommendation No. 6:

The CNSC should not consider a ten-year period for this license. If the license is granted, it should be for one year only, to align with the precautionary principle and to allow for mitigation of serious human health and environmental health harms.

4. CONCLUSION AND ORDER REQUESTED

For the abovementioned reasons provided in this intervention, I request that the CNSC:

- (1) Disallow the BWXT application to produce uranium pellets at the Peterborough facility.
- (2) Use a third-party reputable organization to determine through an environmental assessment – and make public – the potential health and safety concerns from the BWXT proposed license renewal.
- (3) Use a third-party reputable organization to determine through a community impact analysis – and make public – the potential socio-economic issues from the BWXT proposed license renewal.
- (4) Not consider a ten-year period for this license. If the license is granted, it should be for one year only, to align with the precautionary principle and to allow for mitigation of serious human health and environmental harms.

Yours truly,

Erica Martin