



Oral Presentation

Exposé oral

**Written submission from
Julie Cosgrove**

**Mémoire de
Julie Cosgrove**

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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laissée en blanc*

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 cnscc.interventions.ccsn@canada.ca

RE: BWXT Nuclear Energy Canada's application to license FFOL-3620.1/2020

Dear Commission:

I am writing this intervention regarding the license application of BWXT in Peterborough seeking "the flexibility to conduct pellet production." I am submitting this in writing and would also like to make an oral presentation at the Peterborough hearing.

I am a settler to Michi Saagiig Territory, where I have lived in Nogojiwanong/Peterborough for 20 years working, parenting and volunteering in my community. I have lived within a few blocks of GE-HI | BWXT Canada for 19 years; my son attended Prince of Wales Elementary Public School, where I was on Parent Council for several years.

Siting & Criteria:

Through my MP's office, I have been unable as of the date of this submission to obtain answers to some questions regarding siting and criteria with respect to siting nuclear industry operations within populated areas. At the CNSC open house on the evening of January 23rd, 2020, a CNSC representative stated that the CNSC has no jurisdiction over the location of a nuclear facility. When I spoke with my MPP's office, I was informed that Provincial Gov't has no authority over siting or nuclear zoning – that it is a Federal issue; our MP's office suggested that nuclear operations are the purview of the CNSC and our Municipal Government claims to have no authority on this issue.

Question:

- *Can you please clarify who is responsible for determining the location of a nuclear manufacturing facility?*

I have been unable to locate Canadian criteria for siting nuclear facilities. The IAEA's *Safety of Uranium Fuel Fabrication Facilities* suggests rather limited guidance for the siting of such facilities, as noted on pages 4 to 5:

Under Section 3. SITE EVALUATION, item 3.2 speaks to density of human population as a 'consideration' and not criteria in the selection of a nuclear site – population essentially as important as 'the direction of the prevailing wind'; to *minimize*, not *prevent* health consequences:

3.2. The density of population in the vicinity of the uranium fuel fabrication facility and the direction of the prevailing wind at the site should be considered in the site evaluation process to minimize any possible health consequences for people in the event of a release of hazardous chemicals.

Recently, I read somewhere that there is a 2km buffer zone required for continual testing of air and soil quality related to BWXT's proposed uranium dioxide pelleting operations. In Peterborough, a 2Km catchment includes:

- 8 schools
- 11 871 properties
- Approx. 25 000 residents
- Several seniors homes

Questions:

- *What are the criteria for siting a nuclear operation in Canada?*
- *Can you describe what are the allowable the 'minimal' health consequences?*
- *If a nuclear company were to apply for a licence today in downtown Peterborough would this application meet the criteria, and who decides?*
- *Can you please verify what is a 2KM buffer zone, why is it required and if this area should be inhabited by living beings if it's a testing area?*

Legacy:

On the CNSC website, it says that "Regular inspections and evaluations verify that licensees are complying with laws and regulations..." For several reasons, I do not have confidence in either BWXT's or the CNSC's record of adequately establishing and enforcing clear, high standards and regulations for human and environmental health. Below are just a few examples of business owners not operating to safety code, CNSC and Health Canada not understanding the risks to human health and the fact that even with 100 checks and balances, accidents happen because humans make mistakes:

GE-HI|BWXT:

Between Dec. 4th, 2015 and Aug. 22, 2017, workers in the Peterborough nuclear facility were issued the incorrect safety masks exposing them to high levels of Beryllium, a Type I carcinogen. This could easily have been the stack filters operating next to the Prince of Wales elementary school playground.

Shield Source:

In April 2012 Shield Source (Peterborough), which manufactured radioactive 'EXIT' signs using a nuclear reactor waste by-product called Tritium and operating under the CNSC, was exposed by community researchers supported by the Canadian Environmental Law Association (CELA) as in violation of safety regulations.

Shield Source owner, William E Lynch defended Shield Source's safety record arguing, "We've been in Peterborough for 26 years, we are licensed as you know by the Canadian Nuclear Safety Commission and they are regulatory, and watching over what we do, and all the operations we have comply with all the applicable regulations." However, "According to a **Canadian Environmental Law Association, CELA, media release**, Shield Source has "recalculated its tritium emissions for the years 2010 and 2011 at five

to nine times the levels previously reported”, adding, “The new levels are more than twice the release limits allowed by the CNSC licence.” Joseph Castrilli, legal counsel at CELA...”.

<http://toronto.mediacoop.ca/video/troubles-tritium-shield-source-peterborough-ontario/10650>

Cameco, Port Hope:

In a Mar 1st, 2008 letter addressed to Minister of Health, Tony Clement, the Deputy Director of the Uranium Medical Research Centre, Edward C Weynam, wrote, “*Health Canada, CNSC and Mr. Finkelstein in Error*: Your department in cooperation with the CNSC, and recently joined by Port Hope’s “peer reviewer”, Dr. Murray Finkelstein, an Occupational Health consultant with the Ontario Ministry of Labour, proclaim a position which is scientifically and medically unsupportable: you are on public record as telling Port Hope and members of Parliament that the contaminants found in the bodies of 9 Port Hope workers are not a health concern.” In the letter, Weynam refers also to uranium emissions at “two hundred times the legal dose for civilians”.

<http://umrc.net/projects/port-hope-biological-studies/>

Cameco, recognized as the world's largest publicly traded uranium company operating out of Port Hope, is currently undertaking a massive cleanup of radioactive toxic waste estimated at a cost of between 1.3B and 7B dollars, depending on who is asked.

GE Canada:

In 2006, my mother died from industry exposure after 41 years working with GE Canada in multiple jobs and locations where she was exposed to “40 plus known human carcinogens on a daily basis”. (Jan 31st, 2019 Workplace Safety and Insurance Appeal Tribunal)

GE Canada was an approved and regulated industry, as is BWXT Canada. The legacy of cancer, water contamination (just last year and toxicity of the land surrounding the plant is not one that will easily be forgotten. I believe that any potential increase of toxic load to this land, water and community by introducing a nuclear pelleting process to be essentially unethical.

https://www.cbc.ca/cbcdocspov/m_episodes/town-of-widows

BWXT:

On Jan 8th, 2020, Newswire reported that Zahn’s Corner Middle School in Ohio was suddenly was suddenly closed on May 13, 2019 after uranium was detected within the school resulting in an active lawsuit against BWXT Technologies Inc. I understand BWXT Canada claims to not be using enriched uranium as sited in this U.S. location; however, it is an excellent example of how mistakes are made and why the nuclear industry *does not belong* in populated areas, and *should not* be grandfathered in when there is human encroachment and populations, as has been permitted by the CNSC at both the BWXT Toronto and Peterborough locations.

<https://www.classaction.org/news/another-class-action-filed-over-alleged-radioactive-contamination-near-ohios-portsmouth-gaseous-diffusion-plant>

Questions:

- The CNSC website states that “The CNSC is the sole authority in Canada to regulate the development, production and use of nuclear energy, and the production, possession and use of

nuclear substances, prescribed equipment and prescribed information *in order to prevent unreasonable risk.*” CNSC (Canadian Nuclear Safety Commission) Regulatory Fundamentals
Can you please explain what constitutes an ‘unreasonable risk’?

- *On page 33 of the CNSC recommendation of the BWXT license application, it states:
“Three Beryllium air emission points also exist at the Peterborough facility. The facility performs continuous in-stack monitoring drawing a sample of air across a filter capable of trapping Beryllium. The filter is analyzed for Beryllium at an external independent laboratory. The sample results are compared to previous results, and to an Internal Control Level and Action Level (established in 2018) at the stack exit, which are both very conservative. Can you please explain what ‘very conservative means? Is there an allowable escape level into the public sphere?*
- *Can you please describe the consequences for BWXT Canada if an error is made which potentially puts at risk environmental and human health? Who holds the CNSC accountable?*
- *Can BWXT Canada and the CNSC promise our community there will be no human error, that there will be no accidents jeopardizing the health of children and families living in Peterborough and/or their future children?*
- *My research indicates that there are no safe levels of exposure for inhalation of a radioactive heavy metal, such as uranium. On its website, BWXT claims at the Peterborough facility, “Air monitoring results are hundreds of thousands of times below the CNSC Licensed Release Limit”. How this is possible? Can you please verify what are the recognized safety levels of ingesting radioactive heavy metals and does this differ between infants, children, women, adults etc.? Can you please explain the relationship between ‘licensed release limits” and ALARA – As Low as Reasonably Achievable? How can an ALARA principle protect the public from zero exposure to human carcinogens?*
- *In the application to CNSC posted on the CNSC website, BWXT indicates that an Environmental Risk Assessment (ERA) has been submitted. Can you please clarify the difference between an ERA and an Environmental Assessment or Environmental Impact study and why the latter is not required for all nuclear operations, including at a new facility such as BWXT Peterborough?*

Transparency, Trust & Community Engagement:

As mentioned earlier, and not unlike many people in our community, I have personal, lived experience with respect to ‘regulated’ industry wreaking havoc on both environmental and human health here in Peterborough – that continues with ever emerging health issues including communities downstream of our watershed. Also, I have experience with what I will describe as a lack of transparency and genuine public engagement by BWXT; I believe, despite promises and reports, their Public Information and Disclosure to be grossly inadequate.

For example, the transfer of GE-HI Peterborough to BWXT did not involve any consultation, the news as such released after the fact and with no details of the transaction. On December 19th, 2016 “BWXT Technologies, Inc. (NYSE:BWXT) announced today that its subsidiary BWXT Canada Ltd.

(BWXT Canada) has completed its acquisition of the GE Hitachi Nuclear Energy Canada Inc. (GEH-C) joint venture, which has been re-named BWXT Nuclear Energy Canada Inc. (BWXT NEC). The terms of the transaction are not being disclosed.” On Dec 22, 2016, the local Peterborough Examiner reported “GE Hitachi Nuclear Energy Canada now BWXT Nuclear Energy Canada in Peterborough after sale deal closes.”

As a engaged citizen, I would have been interested to know that BWXT was setting up business in Canada, and according to <https://www.dontbankonthebomb.com/bwxt/> , that BWXT participates in the global nuclear weapons industry.

For 19 years, I have lived with 2-4 blocks from the BWXT Peterborough location (2 blocks away for the last 10yrs). Despite our proximity, there is very little direct communication from BWXT received by me, really anyone in our neighbourhood/school community. BWXT’s license renewal was brought to my attention by a neighbour who chanced upon an early request for license renewal from the CNSC and raised community awareness.

1.1 Application for Licence Renewal

BWXT NEC’s current Nuclear Fuel Facility Operating Licence (FFOL-3620.01/2020) is valid until December 31, 2020. This application for early licence renewal by October 2019 for a period of 10 years, is intended to provide the basis for the renewal of the operating licence and demonstrate BWXT NEC’s compliance with the Nuclear Safety and Control Act (NSCA) and associated Regulations, including, but not limited to the following:

In December, community volunteers with CARN – Citizens Against Radioactive Neighbourhoods, organized a community information night attended by 250 people. In response, BWXT hosted a BBQ open house in the rain during people’s work hours – which I was unable to attend. I wonder why it is that BWXT, with its professional and well-paid communication staff, hasn’t been able to educate and engage the community; rather, hundreds of hours of unpaid work is done by our community by people who are already juggling full-time jobs, families, parent care so that we can be properly informed.

I have learned that BWXT did properly inform Curve Lake First Nation about their license application and were not clear about the request for “flexibility” to bring pelleting to Peterborough.

Questions:

- Can you please clarify: *Are GE-HI and BWXT Canada the same company in a joint venture - or did BWXT Technologies, Inc. fully acquire GE-HI and form a new company?*
- *If BWXT is not GE-HI, how is it that a new nuclear company would be allowed to set up operations in downtown Peterborough without First Nations, municipal or public consultation? The transfer of license appears to have been signed off the President of the CNSC only.*
- Will BWXT please describe their process for consulting with First Nation Communities. *Who decides what type of activity requires a Duty to Consult process – the company, the CNSC, First Nations? Does BWXT’s licensing application for new activity require Duty to Consult – why or why not? Does this happen after the CNSC staff have approved an*

application? Does the CNSC impose consequences for a company that omit important details in communication with communities?

- The CNSC declares on its website a mandate, “to implement Canada’s international commitments on the peaceful use of nuclear energy”. *Can the CNSC confirm if BWXT is involved internationally in the production of nuclear weapons; if yes, how does the CNSC justify licensing BWXT to operate in Canada?*
- The CNSC website states: **The Commission is an independent administrative tribunal set up at arm's length from government, with no ties to the nuclear industry.** *Has the CNSC ever denied a nuclear license application? How is this process impartial if the CNSC staff have made to the CNSC a recommendation to approve a license renewal without first having heard from First Nations, the public?*

Summary

If there is one thing we should have learned at this time in the Anthropocene, it is that every single thing released into our water, into our air, into our bodies has an impact somewhere, at sometime; that there is accumulative impact, whether we can measure it or not. We might reflect for a moment what it means be Inuit living in 2020 on Arctic shorelines ingesting DDT introduced in the 1940’s to the southern slave-laboured cotton fields in the USA, and PCBs now as a traditional food source.

We are part of a living, sophisticated and interconnected ecosystem that includes all living things. If we are to survive, if our children are to survive, we truly need to conduct all our business within a new and framework. We need leadership from the CNSC, and other regulatory bodies: to make decisions informed by an understanding of Indigenous Science and Knowledge, personal relationships to the land and each other and Precautionary Principles, so we can stop wasting precious resources and fumbling billions of dollars in futile efforts clean up preventable mistakes. With Peterborough cancer rates exceeding Provincial levels, we know from our intimate experiences with toxic industrial activity, that not all mistakes can be fixed.

I am requesting that the CNSC **does not approve** BWXT’s 10-year license application renewal with the flexibility to add uranium dioxide pelleting in Peterborough, so that the license application be approved as a renewal of current operations only.

Thank you for your consideration.

Julie Cosgrove