



**Written submission from  
Stu Morris**

**Mémoire de  
Stu Morris**

In the Matter of the

À l'égard de

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

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

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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

Canadian Nuclear Safety Commission  
280 Slater Street, P.O. Box 1046, Station B  
Ottawa, ON K1P 5S9

**Re: Application to renew licence for the Toronto and Peterborough Facilities**

I am writing to request that the CNSC deny BWXT's application to renew its license for 10 years at the Peterborough facility and also to deny BWXT's request to expand its operations in Peterborough to include uranium pelleting.

My concerns about nuclear power are primarily health, safety and environmental. I moved to Peterborough from Sarnia, AKA the Chemical Valley, in 2001. My decision to relocate to Peterborough on a longer term basis in 2005 was strongly influenced by the lesser industry-caused pollution here. Certainly, there is contamination. I am aware of different sites in Peterborough where industry has spoiled the place. However, it's by no means comparable to the destruction wrought by the petrochemical industry in Sarnia.

The main health, safety and environmental concerns are the contamination of the air, water and soil by uranium powder and beryllium. Both pollutants would increase risk of cancers and ingested / inhaled uranium dust may introduce genetic mutations and deformities.

I note that in BWXT's application, there is a graph that charts a dramatic spike in 2015 in the contamination of water by beryllium. BWXT's report does not explain or justify this spike. Why?

In their application, BWXT has rolled the two facilities together, Peterborough and Toronto, despite differences in their operations and differences of context. This does not benefit the unique circumstances of Peterborough in comparison to Toronto.

It's concerning to me that they are asking for flexibility in the license to start pelleting in Peterborough at their leisure according to preapproval contained within the license and licensing process. The conditions and context on the ground is vastly different. The facility in Toronto opened in 1965, while the BWXT facility in Peterborough looks like a soot-covered relic out of the Industrial Revolution and in fact was built in 1892.

The Toronto facility is licensed to produce 700 Megagrams of uranium while the Peterborough facility is licensed to produce 1500 Megagrams of uranium.

Based on my reading of BWXT's application, the amount of water effluent and airborne emissions of uranium is far greater in Toronto where the pelleting operation is taking place.

If BWXT started pelleting in Peterborough, they would have a much higher potential output than in Toronto (1500 Mg instead of just 700 Mg).

Our water systems in Peterborough are far smaller and more sensitive than Lake Ontario. Also Peterborough's water treatment infrastructure must necessarily be in poorer shape than Toronto's on

account of Peterborough's general lack of infrastructure compared to Toronto, due probably, to lack of profitable industry.

The close proximity of Prince of Whales School should be an obvious moral barrier. Beyond the developmental health impacts of heightened exposure to radioactive and carcinogenic materials, there is the social poison of normalizing the destruction inherent in this industry.

It's noteworthy that sometimes expertise serves to silo experts from the on-the-ground conditions and there are myriad externalities and forms of collateral damage that may be unintelligible to these experts of best-case-scenarios: child development, quality of life, economics, psychological well-being, Treaty obligations with Indigenous Peoples etc...

I ask myself whether the limits developed for nuclear power operations were established for facilities that are remote from, or nestled in residential areas?

The license would allow BWXT to operate within limits proscribed by the CNSC. However, the acceptable limits proscribed are not compelling. They do not account for the real world scenarios... "unplanned events" - the kind of scenarios that are unthinkable in controlled science. "Whoops! Now the water is unsafe to drink. Oh well, theoretically, the operation should have been safe."

Because contaminants are dispersed and generalized it has been historically difficult for workers and residents to draw a direct connection between the health impacts of contaminants. The approach of all responsible parties has been to deny a connection until there is strong scientific evidence produced to the contrary, even if everyone can see with their own eyes a probability of correlation. Obviously, most private individuals don't have the resources, financially, intellectually, etc... to engage in independent studies. The scientific method is used to justify a cavalier approach to the health, safety and environmental effects of this kind of industry. Industry has exploited this systemic failure.

Though not of primary importance to me, it's worth mentioning that there will be economic benefit to BWXT, and very little to Peterborough residents. On the contrary, the number of jobs created by the change in the license to allow uranium pelleting would be minimal and probably involve skilled workers moving to or commuting to Peterborough. It could create more opportunities for experts at the water treatment facility and experts in regulatory compliance with regards to nuclear safety. However, these positions would be external to BWXT and it's difficult for me to imagine the funding for them flowing from BWXT or CNSC to the water treatment facility or to local, on-the-ground, regulatory compliance workers.

The risk of uranium pollutants may cause property values in the immediate vicinity of BWXT Peterborough to decline, which would make the properties only of interest to as investment properties for slumlords who live elsewhere. This would exacerbate the poverty of the rental housing in Peterborough and mean that the poorest remain most at risk of BWXT's pollution.

Additionally, industries such as these are of strategic importance when it comes to war. Fuel and the means of fuel transport and distribution are obvious targets and Peterborough's role as a cog in this nuclear industry makes it a reasonable target to Canada's enemies.

My final beef with the the nuclear industry is, at the bottom of it, it's existence is intrinsically linked with the nuclear weapons proliferation.

The legacy of nuclear technology looms over Hiroshima where 70,000 people were killed immediately upon the dropping of the first atomic bomb (in the context of war). It looms also over Nagasaki where at least 35,000 people were killed immediately after the second atomic bomb. A very small number of these deaths would constitute a military target. Many more suffered long and died from health related effects of the radiation subsequently.

More recently, depleted uranium, the byproduct of the production of enriched uranium for use as fuel in nuclear reactors, has been used in armour plating and armour-piercing munitions in various warzones since the early '90's. Coincidentally, we are told by experts, there has been no correlation identifiable between apparent increases in health problems consistent with those caused by ingestion and inhalation of the dispersed depleted uranium powder.

To wrap this up...

The bureaucratization / division of labour between different nuclear facilities (including BWXT's but not limited to) divides the component health, safety and environmental risks between many different locations as well as the end-use and ultimate half-life of the products and byproducts, which are mystified by this division of labour. We should not lose sight of the ends of this process in total...

Nuclear power is a catastrophic disaster waiting to happen. It's clean until it isn't. How can we forget the handfull of catastrophic "unplanned events" such as Chernobyl and Fukushima. Fukushima has contaminated parts of the Pacific Ocean reaching Canada in a very short time after the disaster. This shouldn't have happened, but it did. The nuclear industry treats these disasters like spilled milk, but the depth and scope are undeniably greater.

Likewise the barbaric use of nuclear weapons against Hiroshima and Nagasaki and in more recent years the uses of depleted uranium in munitions in the Balkans and Iraq. All the hand-wringing and crocodile tears cannot reverse what these uses of nuclear power have caused. And all the bureaucratization insulates those responsible from responsibility.

Again I must underscore that the proximity of the Prince of Whales School should be an obvious moral barrier. The fact that these operations have already been happening to a certain degree under the previous license does not make it ok.

In conclusion I reiterate my request that the CNSC deny BWXT's application to renew it's license for 10 years at the Peterborough facility and also to deny BWXT's request to expand it's operations in Peterborough to include uranium pelleting.

Yours truly,

Stu Morris