



**Supplementary Information
Oral Presentation**

**Presentation from
Citizens Against Radioactive
Neighbourhoods (CARN)**

In the Matter of the

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

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

Commission Public Hearing

March 2 to 6, 2020

**Renseignements supplémentaires
Exposé oral**

**Présentation de
Citizens Against Radioactive
Neighbourhoods (CARN)**

À l'égard de

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

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

Audience publique de la Commission

Du 2 au 6 mars 2020

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Relicensing of BWXT's Peterborough Uranium Processing Facility CNSC Licence Renewal (Ref. 2020-H-01)

Oral Submission of the
Citizens Against Radioactive Neighbourhoods

March 5, 2020

Kerrie Blaise and Morten Siersbaek, Legal Counsel
Dr. Markvart, Sustainability Expert
Dr. Edwards, Human Health Expert

An Introduction to CARN Interest and Expertise

- Peterborough-based, volunteer-led non-profit concerned about the impact of radionuclides and pollution on the health of communities and the environment adjacent to nuclear facilities
- Seek to raise awareness about nuclear facilities and advocate for strong human health and environmental safeguards
- CARN hosted public information night on December 3, 2019 and workshop on interventions January 7, 2020 (materials online at www.nopellets.ca)

Representation by CELA

Interest and Expertise

- Founded in 1970s; non-profit, public interest organization that advocates for the protection of human health, safety and the environment
- Specialty clinic funded by Legal Aid Ontario to provide equitable access to justice
- Engage in litigation and law reform to advocate for comprehensive laws, standards and policies that will protect and enhance public health and environmental quality
- Collection of nuclear materials available online at www.cela.ca

Summary of Findings

1. Ten-year licence is not appropriate:
 - Reduces opportunities for public engagement & access to information
 - Due to deficiencies in BWXT materials, 10-yr licence would contravene precautionary principle
2. Proponent has not fulfilled information and disclosure obligations set by CNCC
3. High level of community concern about potential human health risks arising from environmental monitoring data
4. Critical need for more nuclear projects to be covered by *Impact Assessment Act*
5. Inadequate consideration of sustainability by CNSC and proponent (**Expert Report, Dr. Markvart**)
6. Critical need to examine human health implications on vulnerable populations (**Expert Report, Dr. Edwards**)

1. Safeguarding Human Health & Environment

10-year licence

Licence Conditions Proposed by CNSC Staff

15.1 The licensee shall submit and implement an updated environmental monitoring program at the Peterborough facility prior to the commencement of production of fuel pellets as described in paragraph (iv) of Part IV of this licence.

15.2 The licensee shall submit a commissioning report related to production of fuel pellets as described in paragraph (iv) of Part IV of this licence that is acceptable to the Commission, or a person authorized by the Commission.

Recommendation No. 1: Matters of critical public interest (ie. human health and the environment) should not be delegated to licence conditions, only reviewable by the Commission and licensee at a later date.

1. Safeguarding Human Health & Environment

10-year licence

- Precautionary principle adopted into Canadian law by Supreme Court of Canada in *Spraytech* (2001):

In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation.

Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

Recommendation No. 3: CNSC's licensing decision must align with the Precautionary Principle, and only licence activities demonstrating protection of the environment, human health and safety.

2. Access to Information and Public Disclosure

Environmental Justice

- Convenient access to information is essential to fair public participation in decision making
→ accountability of decision makers is enhanced when citizens have access to relevant documents
- Core environmental justice principle is the public's right to information, or "right to know"
- BWXT not open nor transparent. Documents denied:
 - x BWXT Business Management System Manual
 - x BWXT Licenced Activity Quality Assurance Program
 - x BWXT Business Plan
 - x BWXT Preliminary Decommissioning Plans
 - x BWXT Public Information and Disclosure Program document

2. Access to Information and Public Disclosure *per CNSC Regulatory Documents*

- High level of concern about the risk accompanying BWXT’s licence application for pelleting operations - rooted in legacy of illness and contamination from GE facility

“The public information program and its disclosure protocol shall be commensurate with the public’s perception of risk”

s 2.1, RegDoc 3.2.1

“The public information program shall provide open and transparent means and access for the public to obtain desired operational, environmental and safety information about the licensed facility or activities”

s 2.2.4, RegDoc 3.2.1

Recommendation No. 6: The CNSC must require BWXT to make all reports, analyses, and data associated with its licence application readily accessible to the public via its website or an internal process that the public can easily access.

3. Public Right to Know & Environmental Monitoring Data *per CNSC's 2019 Independent Environmental Monitoring Program*

- 9 locations tested for Beryllium in 2019 (only 8 of these had been tested in 2014 and 2018)
- 7 out of 8 locations had increases in Beryllium levels in 2019 (compared with 2014)
- Prince of Wales Public School among the locations showing elevated Beryllium levels in soil samples

Recommendation No. 9: The CNSC should have proactively communicated IEMP findings to the public

Recommendation No. 11: A press release should be issued, prior to the public hearing.

Recommendation No. 13: The licencing materials should explicitly address impacts on children.

Recommendation No. 14: IEMP data should be required for 2020.

4. Nuclear projects escape impact assessment reviews *per Impact Assessment Act*

- Significance of requested licensing change merits an impact assessment (IA).
- IA would provide a more comprehensive and robust forum to consider impacts on environment, health, social and economic conditions:
 - CNSC does not consider socio-economic effects in decision-making nor alternatives to the projects being considered
 - No forum to discuss site location, population density, and demographics
 - Piecemeal approach to licencing reduces attention to other critical licensing stages (ie. decommissioning)

Recommendation No. 15: CNSC should recommend to the federal government that a greater range of nuclear projects and facilities be designated for review under the federal *Impact Assessment Act* so that considerations of social, economic, and principles of sustainability can be addressed.

5. Sustainability Assessment

Findings - Expert Report of Dr. Markvart

- BWXT's Environmental Risk Assessment (ERA) and Application do not devote adequate attention to guiding principle of sustainability → concept is not incorporated in a systematic way throughout analysis
- BWXT's ERA and Application do not explicitly devote attention to the concept of adaptive management → integral to sustainability and taking a precautionary approach
- Our review of BWXT's attention to the principles of sustainability, precaution, and adaptive management in its Application was severely limited by the inaccessibility of relevant documents.

5. Sustainability Assessment

Recommendations - Expert Report of Dr. Markvart

- At a minimum, BWXT should have acknowledged and incorporated the principles of sustainability, precaution, and adaptive management in analyses in a systematic way in combination with such methods explained in CSA 288.6.
- The CNSC must require BWXT to provide a detailed explanation of how the CNSC guiding principles of sustainability, precaution, and adaptive management were applied in analysis.
- The CNSC must require BWXT to evaluate the long-term, cumulative impacts of uranium and beryllium releases to the environment (air, water, and soil), especially in the context of consolidated operations at the Peterborough facility.

6. Human Health Implications

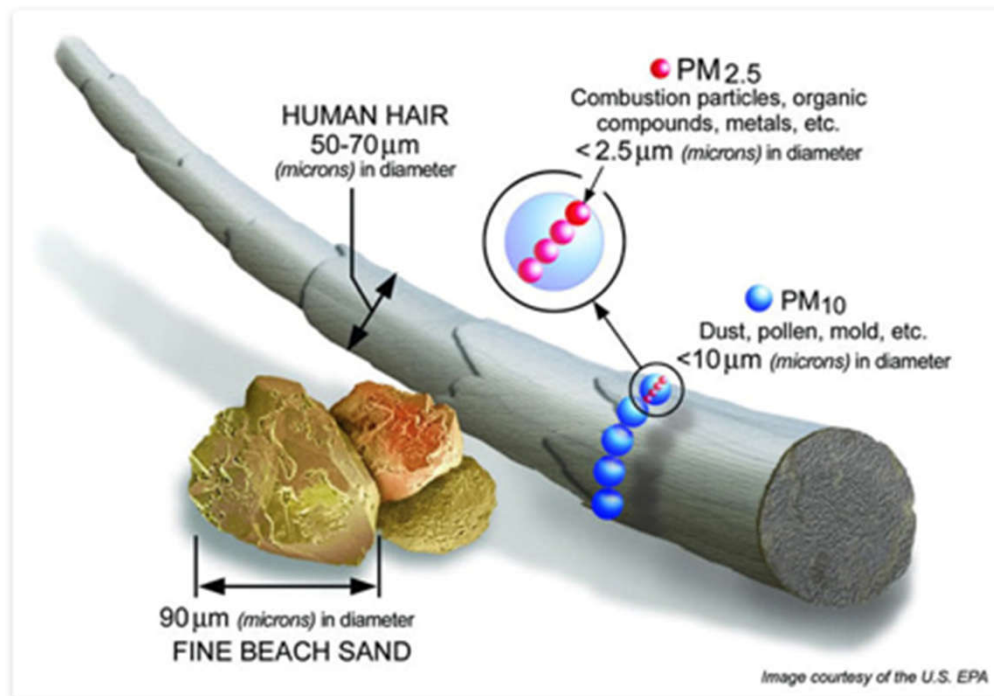
Findings - Expert Report of Dr. Edwards



Elementary school & playground with BWXT factory and smokestack across the street

6. Human Health Implications

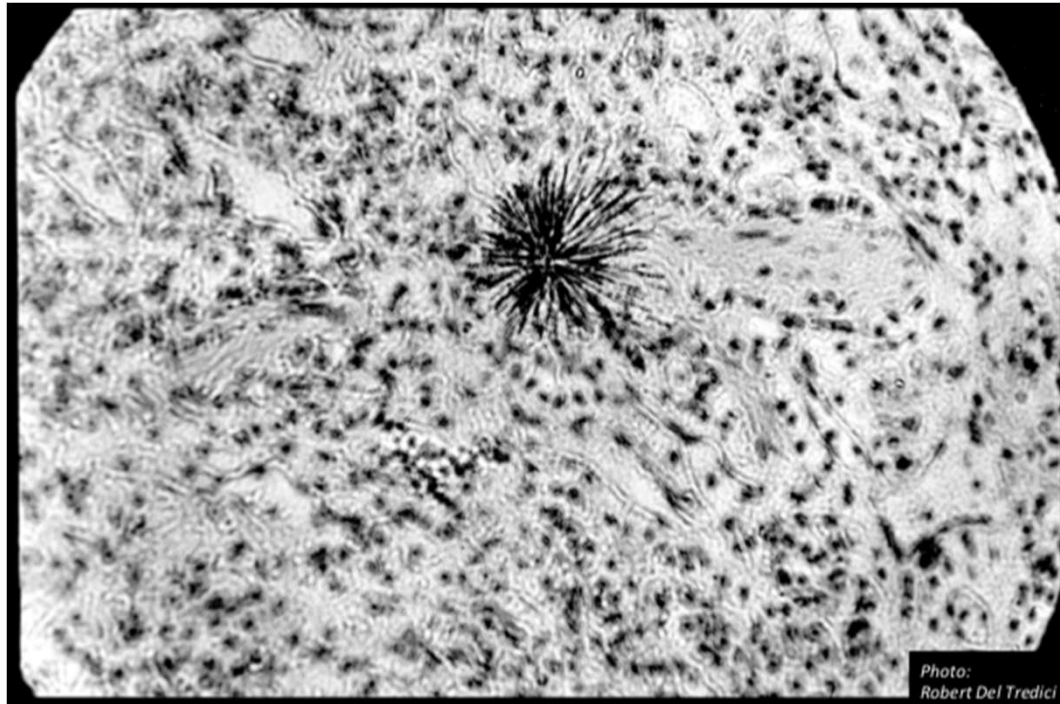
Findings - Expert Report of Dr. Edwards



Size of uranium dioxide particulate (in red) compared with the size of human hair

6. Human Health Implications

Findings - Expert Report of Dr. Edwards



Tracks of alpha particles from a single insoluble particulate lodged in lung tissue

6. Human Health Implications

Recommendations - Expert Report of Dr. Edwards

- CNSC has a duty “to prevent unreasonable risk to ... the health and safety of Canadians” (*Nuclear Safety and Control Act*, s. 9)
- Basic principle of radiation protection: “All unnecessary exposures should be eliminated or prevented”
- There is no justification of any kind offered for the commencement of pelleting in Peterborough
- BWXT should not be given permission to expose hundreds of schoolchildren to needless risk - all unjustified exposures, without specific benefits, are unreasonable

Order Requested

Summary of Findings

- Based on legal and expert review undertaken by CARN, we find the Commission lacks the evidentiary basis to conclude that in carrying out its licence, BWXT will ensure protection of human health and the environment
- BWXT has not considered impacts on vulnerable populations, nor demonstrated that all reasonable precautions have been taken to limit and control emissions to the environment
- Granting a 10-year licence would be inconsistent with the international law principle, the precautionary principle, given current environmental monitoring findings

Order Requested

Strike BWXT's request for a flexible licence allowing it to produce uranium pellets in Peterborough from its licence application and the CNSC's proposed Licence and Licences Condition Handbook

and

Deny BWXT's request for a 10-year licence.