



**Written submission from
Rachel Wortis Beda**

**Mémoire de
Rachel Wortis Beda**

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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Peterborough, ON, ██████████
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January 27, 2020

Senior Tribunal Officer, Secretariat
Canadian Nuclear Safety Commission
280 Slater Street, PO Box 1046, Station B
Ottawa, ON, K1P 5S9

Dear Canadian Nuclear Safety Commission Tribunal,

I request to intervene in the BWXT license renewal hearing (notice number 2020-H-01) at Peterborough in writing only. Please find my submission below.

My name is Rachel Wortis Beda. I am a professor in the Department of Physics & Astronomy at Trent University where I work under my maiden name, Rachel Wortis. I am a resident of the neighborhood around Prince of Wales. I am a mother of two sons both of whom went to Prince of Wales elementary school. My older son has now left for university, but my younger son still bikes or walks past the BWXT property daily on his way to Kenner high school.

My request: I respectfully request that the decision on the license renewal be deferred until additional environmental monitoring data can be collected and examined.

My concern:

In 2014, the CNSC launched an independent environmental monitoring program, with data made publicly available online. Thank you.

My concern focuses on beryllium. Soil samples were taken at eight sites in Peterborough in 2014, 2018, and 2019. There is no site at which the beryllium concentration in the soil has declined between 2019 and 2014. At all but one site the measured concentration has increased. At one site the measured concentration has more than doubled. Moreover, this site of maximum increase is Prince of Wales school, across the street from BWXT. I am aware that there are not a lot of data available. Nonetheless, (i) the consistency of the trend across all sites, (ii) the fact that the increase in the average is greater than the standard deviation in the data, and (iii) the apparent correlation between proximity to BWXT and rate of increase all point strongly to a need for additional data collection.

I have not focused here on the air and water samples taken, because fluctuations in the levels of contaminants in these media are much greater than in soil, making the very small number of samples insufficient basis for any conclusions. Nonetheless, it is air-born beryllium which is the greatest concern for health, and if levels in the soil are increasing the most likely way the beryllium got into the soil was through the air. It is therefore important that an effective monitoring strategy be developed to understand whether the existing CNSC IEMP data is simply a fluctuation due to small number statistics or a real increase in the concentration of beryllium in the soil caused by air-born beryllium from the BWXT facility.

Given that a continuation of the apparent trend would put the beryllium levels at the sample sites above the guideline level of 4 mg/kg within the next ten years, I firmly believe this investigation should be carried out before the new license is granted.

Sincerely,



Rachel Wortis Beda

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Peterborough, ON, ██████████
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