



Oral Presentation

Exposé oral

**Written submission from
John Gibb**

**Mémoire de
John Gibb**

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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Filed online on January 27, 2020

The following is a potential list of specific interests I have regarding the granting of the Application in question. A few will be selected for my oral presentation, and the Commission is most welcome to engage me in discussion with any one or more. Further, please feel free to request my expanding upon any of the items prior to the hearing.

1. (a) Given the routine and incident driven radiobioassays (in vitro and in vivo) conducted with NEWs to monitor radiation exposures, how is it determined that no member of the public received higher than permitted exposures as per the 2018 report for BWXT Toronto?

(b) Is the Commission satisfied that a baby or young infant being taken by an adult along a sidewalk adjacent to the plant, or otherwise in close proximity, would be at absolute zero health risk from inhaled airborne powder even while ICRP publications indicate a 70 year 'integration period' for such exposures?
2. Do the perimeter air sampling locations along with the off-site sampling locations adequately monitor the airborne uranium particulate concentrations and migration to local and intermediate public areas not specifically being monitored? How reasonable is to extrapolate values from an area being directly sampled to areas that are not?
3. What engineering controls, cryogenic liquid factors, and fire protection systems are in place to severely reduce the potential for the site's liquid hydrogen storage facility to experience a BLEVE (boiling liquid expanding vapour explosion)?
4. Given that the uranium powder presents a severe explosion hazard when dispersed in the presence of an ignition source, and that said explosion would aid in an acute dispersal of radioactive dust, what prevention and control measures are in place to ensure a virtually zero explosion potential?
5. Does BWXT carry sufficient public injury and public property damage insurance to financially compensate for a worst case emergency scenario involving: a structural fire, a fire involving an explosion, a ventilation or other equipment failure resulting in airborne dispersal of uranium oxide powder, or a liquefied hydrogen BLEVE?
6. Does the Commission truly believe that the employees, the public, and the 911 responders would be adequately protected through BWXT emergency contingency planning and response criteria related to a moderate to severe and even worst case radiation emergency?
7. What company presently underwrites for BWXT, and what is the personal injury and public property damage quantum structure for the policy or policies?

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