



File / dossier : 6.01.07

Date: 2021-05-03

Edocs: 6554589

Oral Presentation

Exposé oral

**Written submission from the
Canadian Nuclear Association**

**Mémoire de
l'Association nucléaire canadienne**

In the Matter of the

À l'égard de

BWXT Medical Ltd.

BWXT Medical Ltd.

Application for a Class IB nuclear substance
processing facility operating licence

Demande pour un permis d'exploitation d'une
installation de traitement de substances
nucléaires de catégorie IB

Commission Public Hearing

Audience publique de la Commission

June 9, 2021

9 juin 2021

May 3, 2020

Canadian Nuclear Safety Commission
c/o Louise Levert, Secretariat
280 Slater St. PO Box 1046
Ottawa, Ontario K1P 5S9

Subject: Canadian Nuclear Association Intervention in support of BWXT Medical Ltd.'s application for a Class 1B nuclear substance processing facility operating licence.

The Canadian Nuclear Association (CNA) has over 120 members representing over 76,000 Canadians employed directly or indirectly in generating clean electricity, researching and producing nuclear medicine, exploring and mining uranium and promoting Canada's worldwide leadership in science and technology innovation. Our members are committed to safety throughout the entire life-cycle of the nuclear industry and as such are supportive of BWXT Medical Ltd. (BWXT) application for a Class IB license for its facility in Kanata, Ontario.

Every year in Canada, nuclear technology helps avoid 80 million tonnes of carbon dioxide emissions by displacing fossil fuels and supplies 70% of the global supply of cobalt-60 radioisotopes that are used to treat cancer and sterilize medical equipment, among other things.

At one point, Canada produced about 40% of the world's supply of Mo-99 - the precursor of technetium-99m (Tc-99m), the most widely used isotope in nuclear medicine. Since the National Research Universal (NRU) reactor was taken offline in 2018, Canada has had to rely on importing Tc-99m from various other reactors and Canada is no longer the world leader in producing medical isotopes. However, operating under the current IB license for the Kanata facility, BWXT Medical produces two radiopharmaceuticals and is nearing the ability to produce a stable, reliable, and long-term domestic supply of Tc-99m.

The CNA believes it is important to note that BWXT Medical has been operating under the existing Class IB license for the Kanata facility since 2018 (when BWXT purchased this business). This license application is for the existing processes, in the existing facility with the existing staff.

CNA would also like to highlight that BWXT has a long history of safe operations and its number one priority is the health and safety of its employees, members of the public and the environment.



BWXT's commitment to this has been clearly demonstrated through its strong performance in all of the 14 Safety and Control Areas detailed in their license application.

BWXT's corporate policy commits its leaders and individuals to emphasize safety, quality, ethics and security over competing goals to ensure protection of people and the environment. BWXT will measure its commitment to a strong safety culture by means such as audits, self assessments and the use of experience and corrective action program metrics which can identify and measure the effects of safety culture improvements.

BWXT has a strong history of applying as low as reasonably achievable (ALARA) principles across its various locations and BWXT Medical is committed to ALARA through its radiation protection program. Highlights of their ALARA approach include:

- Management control over work practices;
- Personnel qualification and training;
- Control of occupational and public exposure to radiation; and,
- Planning for unusual situations

CNA notes that on average, each year, the Canadian public is exposed to 1.8mSv of natural background radiation. In contrast in 2019, the dose to a member of the public from the Kanata facility was approximately 0.00087 mSv. Additionally, when referencing Table 1 in section 3.8.8 of BWXT Medical's Application, the annual public dose has been trending down since 2015 (0.0057 mSv).

Between 2015-2019 inclusive, doses to BWXT Medical Nuclear Energy Workers (NEW) averaged less than 0.4 mSv per year and the maximum effective does was less than 2.6 mSv. These are well below the regulatory limit of 50 mSv per year (100 mSv over 5 years). The annual average skin dose was less than 0.5 mSv and the maximum skin dose was less than 2.6 mSv. The annual average extremity dose was less than 0.9 mSv and the maximum extremity dose was less than 16.4 mSv. These are well below the regulatory limit of 500 mSv/year. The airborne releases of the Kanata facility from the years 2015-2019 inclusive, were less than 2% of the Derived Release Limit (DRL)

Emergency Response Plans (ERPs) have been developed to ensure roles, responsibilities and actions are clearly understood in the event of an emergency. Due to two businesses being located at this facility, BWXT and Nordion have created a joint ERP that involves trained employees from each business to provide support in the unlikely event of an emergency.

BWXT recognizes the criticality of Indigenous Engagement for all its facilities and activities. BWXT has been a member of the Canadian Council for Aboriginal Business (CCAB) since 2017 and is participating in the CCAB's Progressive Aboriginal Relations (PAR) program at the Committed level.

BWXT has identified its Communities of Interest for the Kanata site and its Indigenous Relations Committee will use the PAR program framework to guide meaningful engagement for these communities.

Like all CNA members, BWXT is committed to open communication and public disclosure. BWXT recognizes that the most effective way to build and sustain public trust is to maintain environmental excellence while fostering an atmosphere of openness and transparency with stakeholders and other interested parties. BWXT does this through its “Public Information Program”. Highlights of this program include:

- A focus on Improving the level of awareness and understanding of BWXT’s licensed operations, activities, products and services including providing facility tours for community and stakeholder representatives
- Actively working to build and maintain a relationship of trust with local residents and stakeholders
- Provide meaningful opportunities for community members to discuss/share issues and relay concerns related to BWXT’s Kanata facility

A company’s past performance is a good indicator of its future performance and BWXT’s proven track record of safely operating the Kanata facility as well as its other facilities and its high environmental, health and safety standards should give the CNSC confidence that BWXT is a dependable and reliable operator and the CNA is pleased to strongly recommend that the CNSC grant BWXT an operating licence for its Class IB Kanata facility.

Thank you for the opportunity to provide our comments.

Sincerely,



John Gorman
President and CEO
Canadian Nuclear Association