



**Written submission from
Ontario's Nuclear Advantage**

**Mémoire de
Ontario's Nuclear Advantage**

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 9-10, 2021

9 et 10 juin 2021

April 30, 2021

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

RE: Hearing Notice No. Ref. 2021-H-05 - BWXT Medical Ltd. Application for a Class IB Licence

Dear Senior Tribunal Officer, Secretariat,

Ontario's Nuclear Advantage (ONA) appreciates the opportunity to provide feedback on the application before the Canadian Nuclear Safety Commissions (CNSC) from BWXT Medical Ltd. (BWXT Medical) to operate a Class IB nuclear substance processing facility in Kanata, Ontario under a dedicated licence for a period of ten years. ONA understands that since BWXT Medical acquired the Nordion (Canada) Inc. (Nordion) medical isotope business on July 30, 2018, BWXT Medical employees have been conducting licensed activities in the existing medical isotope facility under Nordion's management and oversight, as well as under Nordion's Class IB Licence and are currently doing so as they undertake this licencing process.

The ONA is an information and advocacy initiative launched in 2016. While ensuring adequate environmental protections, robust processes and transparency is essential, it is important not to overlook Canada's leadership in utilizing nuclear technology and our existing nuclear infrastructure to save lives through use of medical isotopes for the screening, diagnosis, and therapy of a wide variety of medical conditions.

BWXT Medical's primary purpose is to safely and reliably generate the diagnostic and therapeutic medical isotopes and radiopharmaceuticals that are relied upon by Canadians and patients all over the world. In Canada, the isotope Technetium-99m accounts for approximately 80% of nuclear medicine diagnostic procedures according to the National Research Council of Canada, which means that this single isotope enables almost 5,500 diagnostic procedures every day. The CNSC may recall that in 2018, BWXT Medical announced its intention to advance innovative technology to produce Molybdenum-99, the parent isotope of Technetium-99m, which is used in over 40 million diagnostic imaging procedures around the world each year to diagnose a wide range of oncological, cardiopulmonary, and other serious health issues.

Manufactured molybdenum targets from BWXT Nuclear Energy Canada's facility in Peterborough will be irradiated in a commercial nuclear reactor to produce Molybdenum-99, which will be transferred to BWXT Medical's Kanata facility to manufacture Tc-99m generators which will then be transported to hospitals and clinics across North America. The CNSC licenses the use and production of more than 250 isotopes alone in Canada, including Indium 111

Oxyquinoline which is a medical radiocompound used in the diagnosis and assessment of inflammation and infection, also produced in Kanata.

Since the world's first cancer treatment with the Cobalt-60 isotope took place in the Province of Ontario, Canada has established itself as a world leader in the endeavour to fulfill a commitment to nuclear science and technology for not just peaceful purposes, but to explore and develop its potential for the betterment of humanity. While the year 2018 marked the end of an era for medical isotope production in Canada, as the National Research Universal (NRU) reactor was taken out of services after six decades of supplying medical isotopes to the world, companies like BWXT Medical are ensuring that Canada does not abandon its global leadership position in this important space.

Given the negligible modification to activities to be carried out at the Kanata facility by BWXT Medical, the importance of those activities to the health and well-being of Canadians and individuals around the world, and BWXT Medical's unwavering commitment to public and environmental safety through its actions and performance metrics, ONA fully endorses the granting of the license sought pursuant to this application.

Sincerely,
Taylor McKenna
Project Manager
Ontario's Nuclear Advantage
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