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Written submission from Juan Carlos Herrera

Mémoire de Juan Carlos Herrera

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

Canada

Notice of public hearing for nuclear facility in Kanata:

I became aware of the petition BWXT Medical Ltd for a Class IB nuclear processing licence. They are seeking a 10 year licence agreement near my home in Kanata. I have the following concerns and questions regarding the petition. I am a chemist and work as a chemical process engineer specializing in wastewater treatment and waste management with 20 years experience. I have also developed and own a patent technology used in industrial wastewater treatment. I like to offer my expertise in the area of wastewater treatment and waste management. I am interested in the community service and like to offer ideas to ensure safety in our community.

BWXT Medical wants to produce Mo99 here in Kanata (on March Rd) to help with the ongoing medical demand to have radioactive medical isotopes readily available for the medical diagnosis.

The petition of a *Class IB nuclear licence*, tells me that probably the company wants to use high power particle accelerators with U235 to produce the Mo99. I am a little concerned about it and want to know how the new company is planning to handle the solid and liquid waste that would be generated during the process.

I like to ask the following initial questions:

1. Does the current building located at 447 March Rd already handles HEU high enriched uranium (U235)?
2. Can you confirm if the plan is to use U235 for the production of Mo99?
3. How well equipped is the building to prevent overheating?
4. What measures will the company take to contain the radioactive products and byproducts within the building. I am specially concerned about fission gasses?
5. Is the company planning to perform the recovery and purification of Mo99 at the facility as well?
6. If so how much water is estimated to be used per week during the cooling process?
7. Will the company have a zero discharge policy?
8. How will the water used during the process be treated?
9. How much Mo99 does the company is planning to produce per week? I would like to put it into perspective to have an idea of the volume of waste that will be generated during the 10 year contract.
10. How does the company plans to handle the chemical processing waste?

My concerns comes from the fact that Mo99 has a very short half life (66 hours) so the demand to produce it will be constant and steady.

I like to know how much water is going to be used on a weekly basis during the production? Or perhaps the water will be reused, regardless, I like to know how much water are they planning to treat on a weekly basis?

How the wastewater is going to be disposed?

Where the water is going to be disposed?

Thank you!