
**OTTAWA RIVERKEEPER INC.
REQUEST TO INTERVENE WITH ORAL PRESENTATION
TO
THE CANADIAN NUCLEAR SAFETY COMMISSION**

**RE: SRB Technologies Canada Inc. - Application for the Renewal of its
Nuclear Substance Processing Facility Operating Licence**

SUBMITTED TO CNSC: Nov. 16, 2006

c/o Louise Levert, Secretariat
Canadian Nuclear Safety Commission
280 Slater St., P.O. Box 1046
Ottawa, Ontario K1P 5S9
Submitted via E-mail: interventions@cnsccsn.gc.ca

The citizen-based Ottawa Riverkeeper is the voice that works to protect and enhance the ecological health and integrity of the Ottawa River system. Through expert, independent action Ottawa Riverkeeper encourages responsible decision-making, public education and participation, and compliance with existing protection regulations throughout the watershed.

Ottawa Riverkeeper respectfully requests permission to make the following arguments before the Canadian Nuclear Safety Commission (CNSC) on Nov. 27th, 2006 regarding the matter of the renewal of SRB Technologies' operating licence:

1. Compliance and operating record of SRB Technologies is not glowing:

- SRBT has polluted groundwater around their facility with tritium to levels well beyond Provincial Water Quality Standards - levels up to 80 times higher than what is considered safe.
- SRBT has failed to fulfil license condition 12 and the requirements in Appendix F of their current operating licence.
- SRBT does not yet have an approved decommissioning plan to deal with the current contamination issues and no financial guarantee for decommissioning or cleaning up their mess. As a Class 1 Nuclear facility, it was required to do so under the new Nuclear Safety and Control Act that came into force in 2000.
- SRBT is not following international standards for a tritium processing facility, as described in the Handbook on Tritium Safe Handling Practices (DOE 1994). Any tritium handling facility should operate as a closed system, with internal capture and recycling of fugitive emissions generated during operations.
- SRBT is currently operating under restrictive operating parameters that prohibit operation during rainfall events. This restriction is clearly a "Band-Aid" solution to an ongoing and cumulative contamination problem.
- SRBT has never demonstrated a proactive attitude toward protecting the public's groundwater. Attempts to mitigate pollution problems have not been due to diligence on the part of the company; they have acted only when forced to by the CNSC.

2. We must take a precautionary approach with tritium exposure as international discrepancy abounds around tritium releases and what is considered “safe”.

- In Ontario, the Provincial Water Quality Objectives for radionuclides are based on drinking water requirements, which are derived from dose-response relationships. The “safe” or “acceptable” levels for tritium are currently set at 7,000 Bq/L.
- In 1994, an (Ontario) appointed “Advisory Committee on Environmental Standards” recommended that the maximum permissible concentration of tritium in drinking water be immediately reduced 70 fold to 100 Bq/L, grading to 20 Bq/L over 5 years. Their recommendations were rejected by the Ontario government.
- Canada (the National Guidelines for Drinking Water Quality) recently lowered the limit for tritium in drinking water from 40,000 Bq/L to 7,000 Bq/L.
- In the U.S., the Environmental Protection Agency (EPA) sets a limit under the Safe Drinking Water Act of 740 Bq/L.
- The U.S. EPA classifies tritium as a human carcinogenic.
- There is a growing body of evidence which suggests that tritium is mutagenic (i.e. mutates genes causing hereditary defects) and teratogenic (i.e. causes malformations of an embryo or fetus). The most sensitive populations to tritium are considered to be fetuses, young children and women of childbearing age.
- Tritium has a particular affinity for genetic material. Safe drinking levels for humans are not the only measure we need to be concerned with. Pollution of the entire food web is at risk as tritium bioaccumulates.
- The International Joint Commission identifies tritium as a persistent toxic substance, and a candidate for zero discharge.
- Canadian federal regulators allow discharges of tritium well in excess of national safe drinking water standards, based on the dilution effect that occurs when “tritiated” water mixes with river water.

3. “The Plan” to mix/dilute contaminated water with municipal sewage is flawed and will not effectively address the problem.

- Given that tritium is a persistent pollutant, it is not the concentration in receiving waters that we should be controlling or regulating but the total loading into the environment. Dilution is not the solution for substances that bioaccumulate.
- There are no robust models to predict the behaviour of tritium emissions and therefore SRBT’s plan is no more than a blind attempt to address a complex problem. They are merely stirring the pot and mixing the tritium around; the plan will not reduce tritium pollution in our environment.

4. The disposal of tritium through the City of Pembroke’s sanitary sewers creates unnecessary and unpredictable risks.

- No city or town has sewer systems that are 100% efficient and over time pipes leak. With tritium flowing in the sewer system there are risks of contamination beyond the existing contaminated aquifer.
- Not only do pipes leak, but sewage pumping stations also fail. Three years ago in the town of Arnprior it took one whole month to detect a major problem with a forcemain at one of the pumping stations. Sewage was leaking everywhere. If tritium were



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present in the sewage mix there would be an additional uncontrolled release of tritium into the environment. Add tritium to the sewage and you complicate the risks to sewer maintenance crews who are on the job to fix the pipes. Or perhaps sewage backs up into residential housing and now SRBT is passing exposure risks onto local residents.

- Once the contaminated effluent from SRBT enters the sewers, the Town of Pembroke becomes responsible and liable for the waste. This puts the Town at considerable risk as they are ultimately accountable for the quality of the effluent leaving their waste water treatment facility.
- Once the tritium is released into the Ottawa River for dilution the entire food chain (of which humans are part of) is put at risk. Suddenly there are many people and critters that are taking unnecessary risks so that one small company and their shareholders can profit.

The uncontrolled release of tritium into the Ottawa River is very concerning to the public whose river is being used as a receiving body for radioactive waste. Tritium from Chalk River, Tritium from Pembroke's sewers...who is measuring the cumulative impacts and who is accountable for the accumulation of tritium in our food web? Are glow-in-the-dark signs more important than human/ecosystem health and clean water?

The disposal of tritium through the City of Pembroke's sanitary sewers creates unnecessary and unpredictable risks. Ottawa Riverkeeper believes that it is imperative to avoid further aggravation of the current groundwater contamination problem and SRBT's license to operate at Boundary Road should be permanently rescinded. Furthermore, SRBT must be made accountable for their impact on the surrounding environment and be forced to clean up the site.

Sincerely,

Meredith Brown, Riverkeeper

