



CANADIAN ENVIRONMENTAL LAW ASSOCIATION  
L'ASSOCIATION CANADIENNE DU DROIT DE L'ENVIRONNEMENT

**VIA ELECTRONIC,  
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May 12, 2010

Ms Louise Levert  
Secretariat  
Canadian Nuclear Safety Commission  
280 Slater Street, P.O. Box 1046  
Ottawa, Ontario K1P 5S9

Dear Ms Levert:

**Re: Application by SRB Technologies (Canada) Inc. ("SRB") to renew its Nuclear Substance Processing Facility Operating Licence – Supplementary Submissions of CCRC**

I am the solicitor for the Concerned Citizens of Renfrew County ("CCRC"). The following constitute supplementary submissions of CCRC in respect of the above matter.

The CCRC continues to have concerns about the effect of amendments to the *Nuclear Substances and Radiation Devices Regulations*, made during the period of SRB's current licence that provide direct financial benefits to tritium light manufacturers, while substantially increasing environmental risks associated with this industry. We raised these issues in our April 19<sup>th</sup> submission and propose to expand upon them in this supplemental submission.

**Elimination of Recall Procedure Requirement**

The first change was to section 3(1)(o) of the *Regulations*, eliminating the requirement for a recall procedure for expired tritium lights that are, of course, still radioactive. There is now no requirement that tritium light manufacturers accept the return of discarded tritium lights of their own manufacture unless this requirement is now incorporated directly in a CNSC licence. In addition to relieving manufacturers of the financial burden of receiving waste lights as radioactive materials, this change to the *Regulations* increases the likelihood that purchasers of tritium lights will abandon these radioactive devices in ordinary landfills, even in jurisdictions such as the United States where this practice is not permitted. As discussed in our April 19<sup>th</sup> submission, radioactive pollution from landfills has been reported in various countries from discarded tritium exit signs including Scotland, South Africa, Italy, and the United States. Several U.S. agencies (e.g. Defense, EPA) have prohibited the use of tritium signs as a result.

## Clearance Levels

The second change was the introduction of “clearance levels”, which involved changes to several sections of the *Regulations*. We commend the Commission members for raising this matter, albeit indirectly, during the Day 1 hearing. The CCRC April 19<sup>th</sup> submission summarized this discussion as follows:

“At the February 17, 2010 Day-One hearing (pages 104-107) SRB President, Stephane Levesque, confirmed that between 2009 and 2010 up to 65 drums containing low levels of tritium waste have been, or will be, sent to landfill. Commission staff member, Ann Erdman, confirmed that the company does not have to obtain approval to dispose of nuclear substances, or dispose of them to a licensed waste handling facility, provided that the substances meet the criteria set out in the *Nuclear Substances and Radiation Devices Regulations*, which they did. The average concentration in the drums as measured by SRB and reported to the Commission was less than .01 mega-becquerels per gram. In response to a question from Commission Member Graham about whether the drums containing this material remain intact and whether the landfill was near a drinking water supply or river, Peter Elder, Director General of the Directorate of Nuclear Cycle and Facilities Regulation testified that (1) as long as the package remains below the levels specified in the regulations, there is no regulatory requirement on the form of packaging, and (2) the drums can go to any landfill no matter how close it was to a drinking water supply.”

We note that the SRB 2009 Annual Compliance Report contains the following section:

### **“7.1 WASTE MANAGEMENT PROGRAM**

The Nuclear Substances and Radiation Regulations (CNSC) were amended April 2008 with one of the significant changes being the introduction of regulatory measures that allow for the removal of nuclear substances from regulatory control by establishing clearance limits below which abandonment or disposal is safe. These threshold limits are based on international standards and practices for bulk quantities of materials, published in the 2004 edition of the IAEA Safety Standards Series, Safety Guide No. RS-G-1.7 – *Application of the Concepts of Exclusion, Exemption and Clearance*. The adoption of these new international standards is consistent with the CNSC risk-informed regulatory control and ensures that Canadian regulations are consistent with international practices.

Therefore, as a result of these changes, SRB is able to dispose of some of its waste through conventional methods.

The Waste Management Program [24] will be revised to reflect these changes.”

We note, however, that RS-G-1.7 states: “In the case of clearance, the BSS [International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources (BSS; IAEA Safety Series No. 115)] define the concept and the radiological criteria to be used as a basis for determining clearance levels but leave the establishment of clearance levels to national authorities.” [emphasis added]

Canada (either the federal cabinet on the advice of the CNSC, or the CNSC itself) has chosen to change the *Regulations* to allow tritium light manufacturers, such as SRB, to dispose of in unlicensed facilities up to one tonne per year of waste containing up to one million Becquerels of tritium per gram – a “permissible” total of a trillion Becquerels of tritium per year.

Such a quantity would be sufficient to contaminate 140 million liters of water each year with radioactive tritium to a level in excess of the current 7000 Bq/L drinking water guideline. If the

drinking water guideline were set at the 20 Bq/L level proposed for Ontario's drinking water standards, the amount of water that could be contaminated would be 50 billion liters.

The twenty-three, 200-liter drums containing 8.26 billion Becquerels of tritium sent by SRB to Bee Line Disposal on December 21, 2009 (SRB 2009 Compliance report, Table 15), are sufficient to contaminate more than 400 million liters of water with tritium to a level in excess of the proposed Ontario drinking water standard.

SRB has more drums of radioactive waste on site from its past operations and, if its licence renewal application is approved, will generate additional wastes from future operations. The changes made to the *Regulations* will clearly reduce SRB's waste management costs, while increasing environmental risks.

Accordingly, CCRC respectfully request that the Commission give further consideration to this matter, by addressing at the Day 2 hearing the following issues:

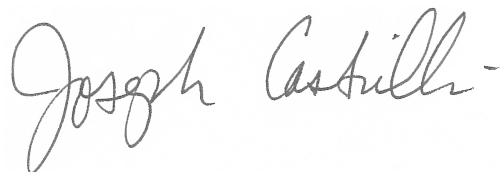
- Who was the impetus for initiating these changes to the *Regulations*?
- What was the purpose of these regulatory changes?
- Were the potential environmental and health effects of these changes assessed prior to their coming into force? If so, what were the findings?
- What has been the environmental health effect of these regulatory changes?
- Given that SRB is revising its Waste Management Program to reflect these changes, and given that this Waste Management Program is incorporated in SRB's licence, should this not constitute a trigger for an environmental screening under the *Canadian Environmental Assessment Act*?

## **ORDER REQUESTED**

In light of the foregoing, CCRC respectfully repeats its request of April 19, 2010 that the Commission issue an Order rejecting the SRB application for licence renewal.

All of which is respectfully submitted,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION



Joseph F. Castrilli  
Counsel

c.c. Concerned Citizens of Renfrew County