

# **SRB TECHNOLOGIES (CANADA) INC.**

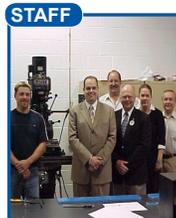
Report and presentation to the  
Pembroke City Council  
by  
Stephane Levesque  
President of SRB TECHNOLOGIES (CANADA) INC.  
and resident of Pembroke

**PREPARED BY:           STEPHANE LEVESQUE**

**DATED:                   SEPTEMBER 6, 2005**

## OUR COMPANY

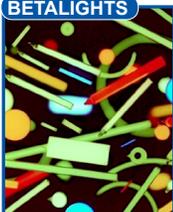
- My name is Stephane Levesque, I am the President of SRB TECHNOLOGIES (CANADA) INC., I am also responsible for our sister company in the United States. Although not from this area, my wife and I chose to live in Pembroke near the facility with our 6 month old daughter and have done so for the last 12 years.
- I am joined here today by many of our staff members.
- Our facility is located at 320 Boundary Road and has been in operation since 1991 manufacturing all product sold by our company in Canada and sister companies in the United Kingdom and the United States.
- Over the years, our company has steadily grown to employ 38 hard working and motivated local residents.
- Our staff turnover is low and the average experience of our staff averages over 6 years despite an average age of only 36, setting a good foundation for the future.
- Our company makes a conscious effort to hire local contractors and to purchase materials from local suppliers. We estimate that our company spends over one million dollars a year with local businesses, a major contribution to the local economy.
- Our company is the only one in its industry to be awarded ISO 9001 registration ensuring all processes are performed in an organized, controlled and repeatable manner under a detailed quality program.
- Our recycling program is also the only one in our industry which allows the return of any product at the completion of its useful life for the recycling of tritium for re-use in new products.
- Over the years our company has invested considerable resources in the implementation of radiation protection measures and monitoring programs.
- We proudly support a number of charitable events, local organizations and individuals.
- Audits of our facility, procedures and processes are performed by:
  - Various departments of our regulatory body, the Canadian Nuclear Safety Commission (CNSC)
  - Our internal auditors
  - Our ISO 9001 registrar, BSI
  - Underwriter laboratories, UL
  - The local fire department
  - The Ministry of Environment
  - The Ministry of Health
  - By various customers
  - By suppliers, notably Ontario Power Generation a supplier of tritium



## OUR PRODUCT

- All devices manufactured at our company use a product called a Betalight. A Betalight is a sealed glass capsule internally coated with a phosphorescent powder and filled with a low energy radioactive gas called tritium which activates the phosphorescent powder to produce light.
- Tritium occurs naturally and through man made technology. Tritium is a beta emitter with an energy too low to penetrate the skin. Another advantage of tritium over other radioactive isotopes is that trace amounts can very easily be detected.
- Tritium is also used in the medical industry as a tool to investigate metabolic pathways.
- All product is manufactured to strict procedures and inspected at all stages of production to drawing, customer requirements and regulatory standards.
- Betalights are then assembled into a variety of products or directly shipped to end users throughout the world.
- Our product saves lives all over the world in emergency situations. With the absence of power, our product will continue to generate light and guide people to safety.
- We make aircraft exit signs, like the ones which helped guide the passengers of the AIR FRANCE flight to safety when it crashed in Toronto recently.
- Our product is water proof and does not require electricity. Our building exit signs perform better than any other product in emergency situations like the recent flooding in New Orleans and the evacuation of the World Trade Center.
- We manufacture the light sources used in the gun sights of the new Iraqi police, and other law enforcement agencies all over the world including the Pembroke Police.
- Our Canadian Military, NATO and peace keeping troops all over the world use our products for mine clearing and for other applications requiring illumination.
- We have supplied our light sources to NASA and the Chinese space program.
- We manufacture miniature light sources for watches sold all over the world.
- Many Fortune 500 companies like WAL-MART, McDONALDS and HOME DEPOT have recognized the many advantages of the product and have purchased our exit signs.
- Our product is installed and authorized for use in schools, restaurants, hospitals, supermarkets, shopping centers, government facilities and many other public buildings.
- Our tritium light sources are incorporated in many products used by a wide range of industries for every day applications.

BETALIGHTS



SIGNS



AIRCRAFT



LAW ENFORCEMENT



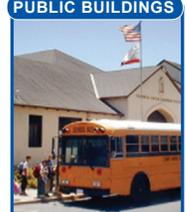
MILITARY



WATCHES



PUBLIC BUILDINGS



## OUR RADIATION PROTECTION PROGRAM

- Through our manufacturing process small quantities of tritium are released. Our company continuously works to improve its radiation protection program and to reduce its emissions.
- A minimal amount of radioactive waste is generated by our facility. All of it is stored in a small dedicated secure location within the building and disposed of at AECL.
- Throughout the term of its license SRB is often required to address issues raised by the CNSC to improve its radiation safety program. SRB has always and will continue to address these concerns. Our company has been working diligently to address recent issues that have been raised by the CNSC. As I speak today these issues have either been resolved or are in the process of being resolved.
- Once again we are licensed by the CNSC to operate. We are the only ones held accountable, and who suffer the consequences for what we and others say regarding our company whether true, false or misrepresented. And as a result we could lose our license forcing us to close the facility in Pembroke.

## MONITORING

- Through various monitoring programs our company measures tritium in:

WHAT	FREQUENCY
Facility stack emissions	Weekly, and recently real time
Environment with passive air samplers	Monthly
Liquid effluent from facility	Daily
Staff urine	Weekly
Locally grown vegetables	Yearly
Local dairy products	Yearly
Precipitation, well, pool	Random

- All these monitoring results are reported to CNSC staff. During 2002 and 2003, CNSC staff independently measured airborne concentrations of tritium near SRB. CNSC staff stated that the trend followed SRB stack monitoring and that the monitoring results demonstrated that the dose to the public is considerably less than the regulatory dose limit and does not pose an unreasonable risk to the public.
- The facility stack emission results are entered in a program and an intricate calculation called the derive release limit (DRL) to determine the maximum dose to the public. This calculation is based on numerous factors such as wind data, stack design, proximity of public to the facility and industry factors relating to humans and their living habits, vegetation and animals.
- Environmental sampling results can also be entered in a calculation to determine the maximum dose to a member of the public.
- It is common to have a discrepancy between the maximum dose to the public calculated from these two different sources.

STACKS



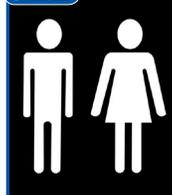
ENVIRONMENT



EFFLUENT



URINE



VEGETABLES



DAIRY



WELL, ETC...



•When the two were compared the maximum dose to the public which was calculated from our facility stack emissions was found to be approximately 14 times less than the dose calculated from our environmental measurements. Assuming this to be true, the maximum public dose resulting from SRB is as follows, note that emissions have been decreasing over the last 5 years:

YEAR	USING 14X FACTOR (mSv)	REGULATORY LIMIT (mSv)	AVERAGE DOSE DUE TO NATURAL SOURCES (mSv)
2000	0.0896	1.0000	3.0000
2001	0.0588	1.0000	3.0000
2002	0.0518	1.0000	3.0000
2003	0.0280	1.0000	3.0000
2004	0.0224	1.0000	3.0000

•The CNSC has therefore requested that SRB review its derive release limit (DRL) calculations. The DRL's had already been reviewed by a consultant in 2004. A different consultant has been hired to revise our DRL calculations by September 30, 2005 to modern industry standards.

### EMISSION REDUCTION DEVICE

•SRB installed an emission reduction device in 1993 which proved to be ineffective. The CNSC recently hired a consultant who was unable to find another off the shelf emission reduction device. We continue to attempt to find or develop an emission reduction device and are undergoing talks with a consultant.

•We continuously make improvements to our processes and equipment which have reduced emissions.

### ENVIRONMENTAL MONITORING PROGRAM (EMP) REVIEW

•SRB has recently increased environmental monitoring by increasing the number of passive air samplers in the community, sampling local pools and wells.

### PUBLIC INFORMATION PROGRAM

•SRB has also developed a new Public Information Program which will be in full force by November 15, 2005. The objective of this program is to provide the public with information about its operations, a description and results of its monitoring programs and the public dose in comparison to that from other known sources as well as attempting to reassure the public of their health and safety.

•The information will be distributed in the following forms:

- 1) **Pamphlet** mailed to the population of Pembroke on a yearly basis.
- 2) **Report** to Pembroke City Council supported by a presentation at a session of Council open to the public once a year.
- 3) **Brochure** available to the public with respect to the effects of the products on health and safety and on the environment.
- 4) **Notification** to the Mayor of Pembroke of any weekly emissions exceeding administrative limits.
- 5) Training of emergency response personnel.
- 6) Web site which includes the annual compliance reports submitted to the CNSC and will soon include the **pamphlet**, **report** to City Council, **brochure** and any **notification** to the Mayor of Pembroke.



## **OUR GOALS**

- To continue to meet and exceed the CNSC regulations and address CNSC staff expectations.
- Increase monitoring and improve accuracy of our monitoring results and calculation of the public dose.
- Committed to the search for a tritium emission reduction device and consider its installation taking social and economic factors into account.
- Maintain support of the local community and its officials and help familiarize the public with our operations while reassuring them of their health and safety.
- Continue to grow and expand our marketing efforts and to increase productivity and quality standards with a strong emphasis on radiation safety.
- At the expiry of our current license in December 31, 2005, we strive to be issued an operating license with a long term to provide us the financial stability which will allow our company to allocate funds to achieve its goals.