

**SRB Technologies (Canada) Inc.
CNSC License NSPFOL-13.00/2005
Annual Compliance Report
Year 2000**

**SRB Technologies (Canada) Inc.
CNSC License NSPFOL-13.00/2005
Annual Compliance Report
Year 2000**

Prepared by:

**K.K. Shane MacDougall
Corporate Health Physicist, SRBT**

Approved by:

**Stephane Levesque
President, SRBT**

Date: March 28, 2001

2000 Annual Compliance Report

Forward

During the year 2000, SRB Technologies operated under two licenses issued by the Atomic Energy Control Board:

1. 05-11341-97 (Rev. 3): 851- manufacturing of sealed sources
2. 05-11341-98 (Rev. 1): 864- device manufacturing

Both licenses expired as of December 31, 2000 at which time a single license was issued by the Canadian Nuclear Safety Commission designating SRBT(C)I as a Class 1B Nuclear Facility:

1. NSPFOL-13.00/2005: Nuclear Substance Processing Facility Operating License

The CNSC issued license expires December 31, 2005.

As SRB Technologies (Canada) Inc. is presently licensed under the CNSC, this Annual Compliance Report is prepared as per the requirements of the CNSC issued license: NSPFOL-13.00/2005.

In accordance with Condition R2 of NSPFOL-13.00/2005, the following report has been prepared for submission to the CNSC for the year 2000.

2000 Annual Compliance Report

Facility Operations

Facility performance

The SRBT(C)I facility has during 2000 operated without any reportable occurrence. In accordance with the recommendations of the CNSC and through management due diligence the following items have been implemented:

- (a) A revised Fire Safety Plan that conforms to the OFC for the facility which has received the approval of the Pembroke Fire Department Officials.
- (b) Upgrades to all pressurized systems in accordance with TSSA requirements.
- (c) CNSC recommendations for the purpose of enhancement of the physical security system.
- (d) Upgrades to corrosive and flammable chemical storage systems.

Equipment performance

All equipment related to Radiation Safety has been maintained in a condition that did not compromise the assurance of the health and safety of the staff, the public and the effect on the environment.

Reportable Occurrences

Safety or Safety-related System Failure

There were no safety or safety-related failures during the year 2000.

Inaccuracy or Incompleteness in the Documents Listed in Appendix A

There were no noted inaccuracies or areas of incompleteness in any of the documents listed in Appendix A of the CNSC license.

Hazard Beyond Safety Report Description

During the year 2000 there were several accident scenarios proposed to the CNSC for evaluation. The staff at CNSC presented the accident scenarios to SRBT. SRBT contracted an independent health physics consultant firm that evaluated the scenarios and presented an evaluation of worst case radiation exposures due to such incidents. The evaluations were presented to the staff of the CNSC. The scenarios were incorporated into the license conditions of NSPFOL-13.00/2005. SRBT management proposed and implemented further mitigating measures that would maintain probable exposures in the event of such scenarios to ALARA.

Environment Monitoring Program

Failure Resulting in Loss of Data Collection

During the year 2000 passive tritium-in-air samplers were sampled on a quarterly basis for the purpose of determining the tritium hydrate concentrations at various points throughout the community. Of the 52 samples taken at 13 various points there were 4 samples that were not obtainable as the sample bottles were either removed or destroyed.

Calculated Dose Result to Public in Excess of 250-uSv per Quarter

The total effective dose equivalent to any member of the public due to the operations of the SRBT facility did at no time exceed 250-uSv per quarter. This has been determined using the data obtained through the stack monitoring analysis performed on a weekly basis and the results of the analysis of the passive tritium-

SRB Technologies (Canada) Inc. Annual Compliance Report for Year 2000

in-air monitors performed on a quarterly basis. Also included for the purpose of dose assessment is the data from the assessment of tritium in locally grown fruit and vegetables.

Personnel Radiation Exposures

The personnel radiation exposures for the 37 SRBT staff monitored under DSL-1-1.0/2005 are summarized in the following table:

Year	Dose (mSv)			
	Maximum Annual	Maximum 5-year	Average Annual	Cumulative Annual
2000	4.89	4.89	0.34	11.91

As shown in the above table there was no radiation exposure to SRBT staff in excess of regulatory limits during the year 2000. All internal dosimetry results have been submitted to the National Dose Registry of Health Canada on a timely basis.

Changes to Organization Structure

There were no major changes to the organization structure during the year 2000. There were several title changes, however, responsibilities within the CNSC license requirements were not affected.

SRB Technologies (Canada) Inc. Annual Compliance Report for Year 2000

SRBT Environment Monitoring Program Results				
Monitor	Analysis Results (Bq/M3)			
	2000			
	Q1	Q2	Q3	Q4
1	110.8	101.3	76.5	80.0
2	<0.6	54.9	35.5	39.1
3		34.8	18.9	20.9
4	131.9	37.0	22.8	34.2
5		<0.6	5.7	9.0
6			12.2	10.9
7	<0.6	<0.6	<0.6	<0.6
8	<0.6	<0.6	<0.6	2.9
9	15.8	8.4	10.2	10.9
10	5.5	2.6	3.5	10.1
11	<0.6	<0.6	<0.6	0.7
12	<0.6	<0.6	<0.6	<0.6
13	<0.6	61.2	25.9	25.9