

# SRB TECHNOLOGIES (CANADA) INC.

Presentation – March 22, 2017 Kiwanis

# **COMPANY**

- SRB Technologies (Canada) Inc. has been in operation since 1990.
- Employ 45 people.
- Lease 15,000 square feet of a building.



**AERIAL PHOTOGRAPH OF THE FRONT OF SRBT'S FACILITY** 

# **TRITIUM LIGHT SOURCE**

- SRBT is the original developer of the tritium light source.
- Capsule with luminescent powder and filled with tritium.
- Produces light on a continuous basis.



**VARIOUS TYPES OF TRITIUM LIGHT SOURCES PRODUCED BY SRBT** 

## **PRODUCTS**

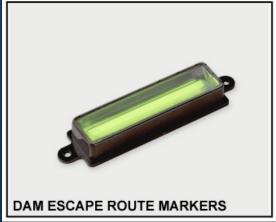
- Our products are fail safe.
- Our products require no maintenance.
- Our products are water proof.
- Our products do not generate heat.
- Our products are spark free.
- Our products can operate in temperatures of -60°C to 70°C.
- Our products do not use:
  - Electricity.
  - Power.
  - Batteries.
  - Wiring.

# **PRODUCTS (Continued)**







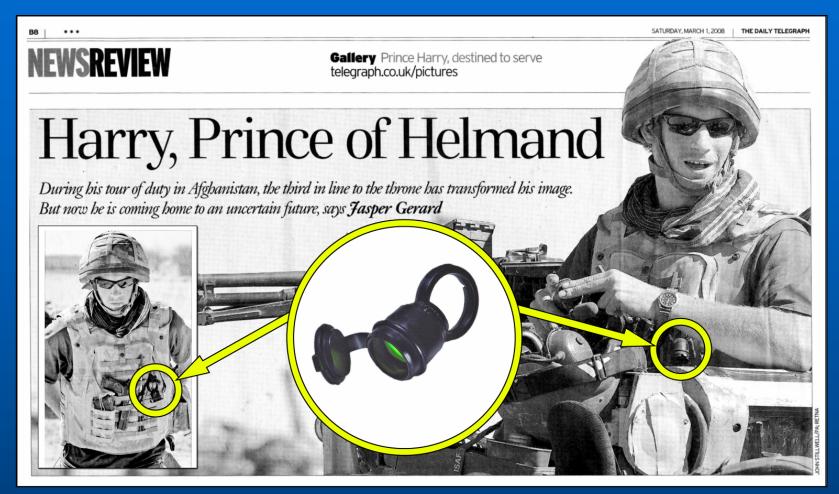






**VARIOUS TYPES OF PRODUCTS PRODUCED BY SRBT** 

# **PRODUCTS (Continued)**

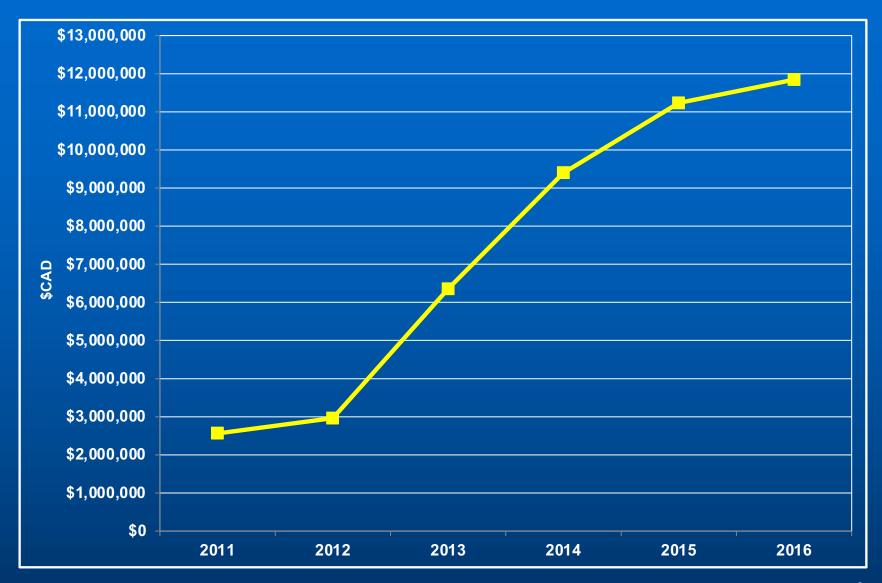


PICTURE OF A SOLDIER WITH OUR ILLUMINATED TORCH

### **MARKETS**

- We supply over 200 customers.
- Our products are used in 3 major markets:
  - Aerospace Industry (Bombardier, Airbus, Boeing).
  - Construction Industry.
  - Defense Industry (US Army, British Ministry of Defence).
- Licensed to ship to 17 countries in 2016.
- Made 1,001 shipments of product in 2016.
- 58% of our products are shipped outside of Canada:
  - United States (47%).
  - Switzerland (3%).
  - United Kingdom (1%).
  - Netherlands (1%).
  - Germany (1%).

# **ANNUAL SALES**



### **SUPPLIERS**

- SRBT spent over \$6,000,000 worth of goods and services in 2016.
- 170 suppliers of goods and services:
  - Majority of suppliers are located in Ontario.
  - Over 50 local suppliers (CNL, EIP, ETM, BDI, Buske, etc.).

## **LOCAL ADVANTAGES**

- Low taxes and rental rates compared to larger centers.
- Available workforce (High unemployment rate).
- Loyal community.
- Elected officials involved at the Municipal, Provincial and Federal level.
- Lots of funding opportunities (CFDC, EODF, BDC, IRAP, etc).

### **GROWTH STRATEGY**

Based on our stable and experienced workforce:

- Despite our growth the workforce averages nearly 9 years of experience at the facility, with an average age of 42 years of age.
- Members of the Health Physics team possess a combined 129 person-years working at SRBT (over 16 years on average per member).
- President and Vice-President, who have owned the company since 2012, have a combined 46 years of experience managing and operating the facility.
- Carefully hired skilled staff from other facilities with specific expertise, good values and work ethic.

### LICENSED BY THE CANADIAN NUCLEAR SAFETY COMMISSION

- SRBT is licensed by the CNSC to process tritium.
- In July 2015 CNSC renewed SRBT's license for a period of 7 years.
- Longest license in our history.
- Recognized that SRBT have operated the facility safely.
- Over the 7 year term we will continue to:
  - Operate the facility safely.
  - Further lower emissions.
  - Improve the effectiveness of our programs.
  - Have regular interaction with the public.

#### **OVERSIGHT**

- Canadian Nuclear Safety Commission (CNSC).
- Ontario Ministry of the Environment (MOE).
- ISO 9001 Registrar.
- Frequent Internal Audits.
- Ontario Power Generation (OPG) audits.
- Pembroke Fire Department Inspections.
- Fire Protection Consultant Inspections.
- Underwriters Laboratories (UL) audits.
- Customer audits.

# **KEY TRAINING ACTIVITIES**

- Radiation Safety Training.
- Yearly Fire Extinguisher Training.
- Fire Responder Training.
- Transportation of Dangerous Goods Training.
- Health Physics Training.
- Fire Protection Committee Member Training.
- Health and Safety Training.

# **ANNUAL RADIATION WORKER DOSE**

DOSE	2011 mSv					2016 mSv	<b>LIMIT</b> mSv
Maximum	1.15	0.80	1.93	1.29	0.87	0.34	50
Average	0.25	0.11	0.21	0.10	0.07	0.05	- 50



**ANNUAL WORKER DOSE METRICS** 

# **ANNUAL MAXIMUM PUBLIC DOSE**

DOSE	2011 mSv		2013 mSv				<b>LIMIT</b> mSv
Maximum	0.0050	0.0049	0.0068	0.0067	0.0068	0.0046	1.0000

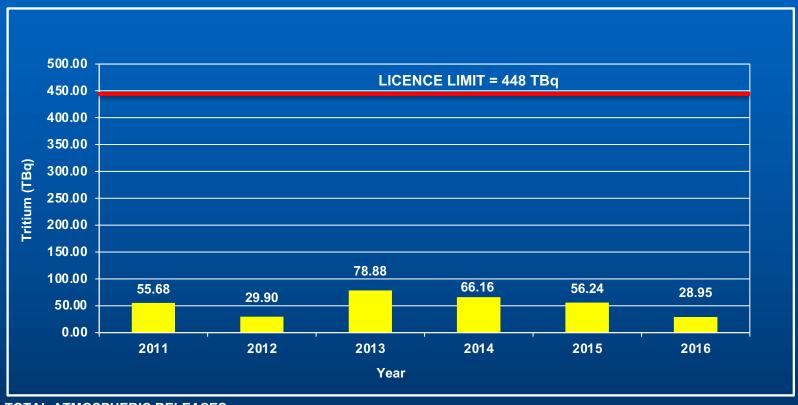


**ANNUAL MAXIMUM PUBLIC DOSE** 

## **ANNUAL AIR EMISSIONS OF TRITIUM**

Annual emission of tritium to atmosphere <18% of licence limit:

Emissions	2011 TBq					2016 TBq	
Tritium	55.68	29.90	78.88	66.16	56.24	28.95	448.00



**TOTAL ATMOSPHERIC RELEASES** 

#### **ENVIRONMENTAL MONITORING**

We collect and analyze samples as dictated by our Environmental Monitoring Program:

- 40 air monitoring stations within 2 km of the facility.
- 46 wells.
- 8 precipitation monitors.
- Produce sampling from local gardens and local market.
- Local milk.
- Local wine.
- Muskrat River.

Data is used to calculate the maximum dose to a member of the public as a result of the emissions from SRBT.

### **EMERGENCY MANAGEMENT AND FIRE PROTECTION**

- Conducted a full-scale emergency exercise on February 9, 2015.
- Conducted with Pembroke Fire Department and the City of Pembroke, and was observed by CNSC staff.



**EMERGENCY EXERCISE, FEBRUARY 9, 2015** 

## **PUBLIC INFORMATION PROGRAM**

#### Various direct Interaction with the Public

- Information pamphlet and license renewal information sent to various stakeholders including those living within 500 meters of the facility.
- Information pamphlet sent to 10,000 residences, businesses and establishments in Pembroke and Laurentian Valley.
- 166 plant tours between 2011 and the end of 2016, with 44 tours conducted in 2016.
- Door to door campaign of 369 residences, 76 individuals that were at home expressed very little to no concern.

# **PUBLIC INFORMATION PROGRAM (Continued)**



www.SRBT.com

## **PUBLIC INFORMATION PROGRAM (Continued)**

- Website is frequently updated:
  - Public notifications regularly posted.
  - Licence and Licence Conditions Handbook posted.
  - Annual Compliance Reports posted.
  - Monitoring results posted.
  - Details of main Presentations and meetings posted.
  - Information on tritium and radiation posted.
  - Emergency Preparedness information posted.
  - Community support and involvement initiatives.
- Facebook and Instagram page developed and linked to website.

## **FINANCIAL GUARANTEE**

- CNSC-approved Financial Guarantee in 2015 based on previous revision of Preliminary Decommissioning Plan.
- Hired contractors directly involved with decommissioning of similar facilities to determine decommissioning costs of \$652,488.
- \$616,153 currently held in escrow and building interest.
- SRBT proposes 3 more equal payments to fund balance, to be made every six months to escrow account with the last payment to be made in April 2018.

### **FUTURE OUTLOOK**

- Committed to expand market for existing products and to the development of new products.
- Committed to expand our own manufacturing capabilities.
  - Recently expanded our building by 3,000 square feet.
  - Recently purchased 300 ton molding machine.
  - Recently purchased largest 3D printer in Renfrew County.
  - Will hire 5-10 staff over the next two years.
- Committed to Research of emission reduction initiatives where no less than 5% of our annual profit is allocated to researching and implementing emission-reduction strategies and technologies.
- Committed to communication with Nuclear Community, environmental groups and the public.
- Committed to reduction of doses as a result of our operation.

