

# SRB TECHNOLOGIES (CANADA) INC.

Presentation – August 10, 2021 Pembroke City Council



## **COMPANY**

- SRB Technologies (Canada) Inc. has been in operation since 1990.
- Employ 41 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** 

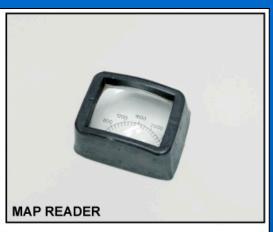
## **PRODUCTS**

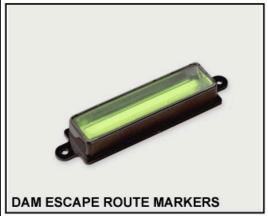
- Our products are fail safe.
- Our products require no maintenance.
- Our products do not use:
  - Electricity
  - Power
  - Batteries
  - Wiring

## **PRODUCTS (Continued)**













**VARIOUS TYPES OF PRODUCTS PRODUCED BY SRBT** 

## **PRODUCTS (Continued)**



PICTURE OF A SOLDIER WITH OUR ILLUMINATED TORCH

# **PRODUCTS (Continued)**





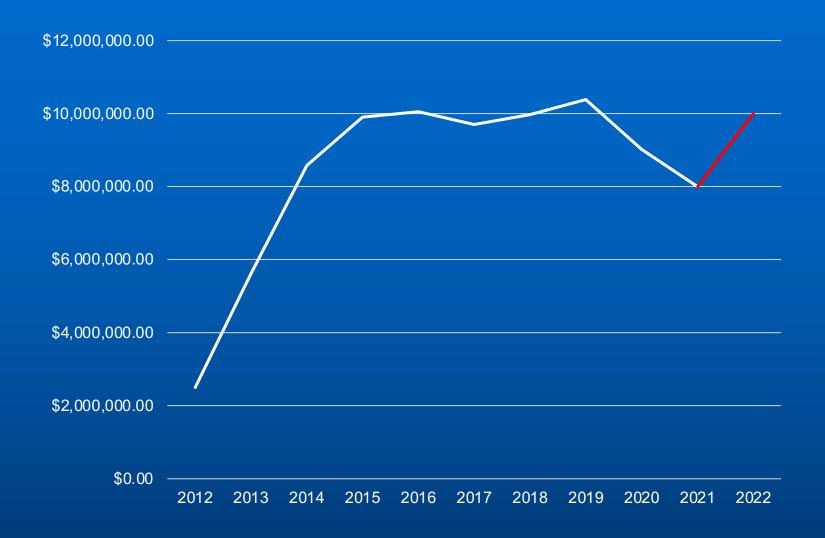


FACE SHIELDS PRODUCED BY SRBT TO HELP FIGHT COVID 19

### **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 19 countries in 2020.
- Made 827 shipments of product in 2020.
- 63% of our products are shipped outside of Canada:
  - United States (55%)
  - United Kingdom (3%)
  - Switzerland (1%)
  - Netherlands (1%)
  - Mexico (1%)

## **ANNUAL SALES**



### **SUPPLIERS**

- SRBT spent over \$6,000,000 worth of goods and services in 2020.
- 170 suppliers of goods and services:
  - Majority of suppliers are located in Ontario.
  - Over 50 local suppliers (BDI, CNL, EIP, ETM, 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.

#### **GROWTH STRATEGY**

Based on our stable and experienced workforce:

- Despite our growth the workforce averages just under 12.5
  years of experience at the facility with an average age of
  just under 42 years old.
- Members of the Health Physics team possess a combined 123 person-years working at SRBT (over 15 years on average per member).
- President and Vice-President, who have owned the company since 2012, have a combined 54 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 Canadian Nuclear Safety Commission (CNSC) to process tritium.
- SRBT has applied to CNSC to renew its Nuclear Substance Processing Facility Operating Licence for a period of fifteen (15) years. SRBT's current operating licence expires on June 30, 2022.
- Our current licence has a seven (7) year term.
- Over the current licence term we have continued to:
  - Operate the facility safely.
  - · Worked to further lower emissions.
  - Improve the effectiveness of our safety programs.
  - Have regular interaction with the public.

#### **INDEPENDENT OVERSIGHT**

- Canadian Nuclear Safety Commission (CNSC).
- Ontario Ministry of the Environment, Conservation and Parks.
- Annual ISO 9001 Registrar.
- Frequent Internal Audits.
- Ontario Power Generation (OPG) audits.
- Annual Pembroke Fire Department Inspections.
- Annual Fire Protection Consultant Inspections.
- Quarterly Underwriters Laboratories (UL) audits.
- Numerous customer audits.

## **KEY TRAINING ACTIVITIES**

- Radiation Safety Training.
- Yearly Fire Extinguisher Training.
- Fire Responder Training.
- Transportation of Dangerous Goods Training.
- Health and Safety Training.

### **ANNUAL AIR EMISSIONS OF TRITIUM**

### Annual emissions to atmosphere **less than 8%** of licence limit:

Emissions	<b>2016</b> GBq	<b>2017</b> GBq	2018 GBq		2020 GBq	
Tritium	28,945	24,822	33,180	31,769	25,186	448,000

**TOTAL ATMOSPHERIC RELEASES** 

## **ANNUAL LIQUID EMISSIONS OF TRITIUM**

Annual emissions to sewer less than 7% of licence limit:

Emissions	<b>2016</b>	<b>2017</b>	2018	2019	<b>2020</b>	<b>LIMIT</b>
	GBq	GBq	GBq	GBq	GBq	GBq
Tritium	5.18	6.85	10.02	13.67	5.56	200

**TOTAL RELEASES TO SEWER** 

#### **ENVIRONMENTAL MONITORING**

SRBT also collects and analyzes samples as dictated by SRBT's Environmental Monitoring Program:

- 40 air monitoring stations (35 within 2 km of the facility).
- 8 precipitation monitors.
- Muskrat River.
- 36 wells (29 monitoring and 7 residential/business).
- Local milk.
- Sludge samples.
- Produce sampling from local gardens and local market.

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

## **ANNUAL MAXIMUM PUBLIC DOSE**

Maximum dose to public **much less than 1%** of the regulatory limit:

DOSE	2016 mSv	2017 mSv	2018 mSv			<b>LIMIT</b> mSv
Maximum	0.0046	0.0034	0.0038	0.0022	0.0024	1.0000

**ANNUAL MAXIMUM PUBLIC DOSE** 

## **ANNUAL RADIATION WORKER DOSE**

Maximum dose to a staff member less than 2% of the regulatory limit:

DOSE	2016 mSv		2018 mSv		2020 mSv	
Maximum	0.34	0.46	0.48	0.57	0.43	
Average	0.049	0.045	0.044	0.065	0.077	50

**ANNUAL WORKER DOSE METRICS** 

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

- In addition to performing regular fire drills we conducted a fullscale emergency exercise in 2015 with another planned in October 2021.
- Emergency exercises are conducted with the Pembroke Fire Department, the City of Pembroke, and observed by CNSC staff.



**EMERGENCY EXERCISE, FEBRUARY 9, 2015** 

### **PUBLIC INFORMATION PROGRAM**

#### Various direct Interaction with the Public:

- We conducted 188 plant tours between 2016 and the end of 2020.
- Presentations to service clubs (Kiwanis, Rotary, etc).
- Like in 2015, information pamphlets on SRBT will be sent to those living within ten (10) kilometers of the facility including 13,000 residences, businesses and establishments in Pembroke and Laurentian Valley.
- We are on Facebook, Instagram, Twitter, LinkedIn, Reddit and TikTok.
- We operate a website "SRBT.com".

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



www.SRBT.com

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

### Website is frequently updated:

- Public notifications.
- Licence, Conditions Handbook and application.
- Annual Compliance Reports.
- Monitoring results.
- Details of main presentations and meetings.
- Information on tritium and radiation.
- Emergency Preparedness information.
- CNSC inspection reports and Annual Regulatory Oversight Reports
- Key SRBT documents (Preliminary Decommissioning Plan, Environmental Risk Assessment, etc).
- Community support and involvement initiatives.

### **PUBLIC INFORMATION PROGRAM (continued)**

Copies of our licence application were provided to:

- Pembroke Mayor, City Council and Staff.
- Federal Member of Parliament.
- Provincial Member of Parliament.
- Concerned Citizens of Renfrew County.
- Indigenous Groups (Algonquins of Ontario, Algonquins of Pikwakanagan, Algonquin Anishinabeg Nation and to the Metis Nation of Ontario).
- Local media (The Daily Observer, The Eganville Leader, MyFM Pembroke, North Renfrew Times and Cogeco TV).
- Members of the public who we sample their gardens and wells.

### **FINANCIAL GUARANTEE**

- CNSC-approved Financial Guarantee in 2020 based on previous revision of Preliminary Decommissioning Plan.
- Hired contractors directly involved with decommissioning of similar facilities to determine decommissioning costs of \$727,327.
- Over \$735,622 is currently held in escrow and building interest.

### **ACHIEVEMENT AWARDS**

In the last few years SRBT has received industry recognition for demonstrating its ability for its technical innovation and expertise in delivering high quality products all over the world:

- In May 2016 at the second annual Spring Business Leadership Conference in Pembroke, SRBT accepted the Business Innovation Award from Algonquin College.
- In May 2017 at the Chamber of Commerce Awards gala in Petawawa Ontario, SRBT accepted the Professional Services Award – Technical and Engineering award.
- In November 2017 at the Ontario Export Awards in Toronto Ontario, SRBT accepted the Ontario Export Award – Consumer Products & Technology Category.

#### **FUTURE OUTLOOK**

- Committed to expand market for existing products.
- Committed to development of new products.
- Committed to expand our own manufacturing capabilities.
- Committed to research of emission reduction initiatives.
- Committed to the reduction of doses and environmental effects as a result of our operation.
- Committed to communication with the general public, environmental groups, Indigenous groups and the Nuclear Community.



