



FINAL REPORT
SRBT Emergency Exercise 2021

December 2021

EXECUTIVE SUMMARY

SRB Technologies (Canada) Inc. (SRBT) holds a Nuclear Substance Processing Facility Operating Licence, issued by the Canadian Nuclear Safety Commission (CNSC).

Condition 11.1 of this licence requires SRBT to “*implement and maintain an emergency preparedness program*”. This program is fully described in the SRBT document titled *Emergency Plan*, Revision 6.

The plan is designed to comply with the requirements of CNSC Regulatory Document (REGDOC) 2.10.1, *Nuclear Emergency Preparedness and Response*, Version 2. Section 2.3.3. of this REGDOC requires licensees such as SRBT to test the implementation of their emergency measures.

Section 7.10.1.1 of the SRBT Emergency Plan requires that an emergency exercise be conducted at least once every five years.

This exercise was conducted in partnership with the City of Pembroke, the Pembroke Fire Department and the County of Renfrew Paramedic Service, and was observed by CNSC staff as part of a compliance inspection.

This report is intended to capture the findings, lessons learned and operating experience associated with the conduct of the most recent emergency exercise, held on October 26, 2021.

Overall, the exercise proved to be a success, with a challenging, multi-faceted scenario being presented for all participants. Personnel response was found to be in line with the expectations and requirements of the *Emergency Plan*, and all exercise objectives were met.

Several observations on ways that the response could be improved in the future were tabled by all participants during collaborative post-exercise debriefings and meetings. A summary of the actions being taken to continuously improve the *Emergency Plan* is also included as part of this report, with all actions being tracked as per MSP-011, *Continual Improvement*.

The next full-scale emergency exercise at SRBT is expected to be conducted on or before October 26, 2026, pursuant to the requirements of the *Emergency Plan* and the facility operating licence in effect at that time.

FINAL REPORT

SRBT Emergency Exercise 2021

December 2021

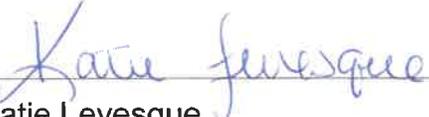
Report written by:	 _____ Jamie MacDonald Manager of Health Physics and Regulatory Affairs	DEC 17/2021 _____ Date
Report reviewed by:	 _____ Katie Levesque Executive Assistant	Dec 17, 2021 _____ Date
Report reviewed by:	 _____ Tanya Sennett Compliance Manager	Dec 17, 2021 _____ Date
Report reviewed by:	 _____ Ross Fitzpatrick Vice President	Dec 17, 21 _____ Date
Report accepted by:	 _____ Stephane Levesque President	DEC 17/2021 _____ Date

Table of Contents

Section	Title	Page
1	Introduction and Scope	5
2	Exercise Objectives	6
3	Exercise Scenario	7
4	Participants	11
5	Public Notifications	13
6	Exercise Implementation	14
7	Evaluators	15
8	Debriefing and Improvement Actions	16
9	Conclusions	17
Appendix A	Minutes of Meetings	
Appendix B	Administrative Instructions	
Appendix C	Exercise Controller Instructions	
Appendix D	Public Notice	
Appendix E	Photographs	
Appendix F	Evaluator Checklists	
Appendix G	Table of Opportunities for Improvement	

1. INTRODUCTION AND SCOPE

SRB Technologies (Canada) Inc. (SRBT) is a Class IB nuclear facility located in Pembroke, Ontario, which processes tritium gas into self-luminous safety light sources and devices.

The facility is operated pursuant to a licence issued by the Canadian Nuclear Safety Commission (CNSC). Licence NSPFOL-13.00/2022 includes a specific condition (11.1) relating to emergency preparedness:

“The licensee shall implement and maintain an emergency preparedness program.”

The program document implemented and maintained by SRBT that ensures compliance with this licence condition is titled *Emergency Plan*. As of the date of this report, Revision 6 of this document is in effect.

The *Emergency Plan* is designed to comply with the requirements of CNSC Regulatory Document (REGDOC) 2.10.1, *Nuclear Emergency Preparedness and Response, Version 2*. This REGDOC is included as compliance verification criteria, as part of the SRBT Licence Conditions Handbook (LCH) for NSPFOL-13.00/2022.

Testing emergency preparedness is a key compliance element of REGDOC-2.10.1. The SRBT *Emergency Plan* complies with this element by requiring that a full-scale emergency exercise be conducted at least once every five years.

The last exercise had been conducted in February 2015; thus, the next exercise was originally scheduled to be implemented in the winter of 2020. The onset of the global COVID-19 pandemic resulted in the deferment of this exercise until a time when it would be safer to complete in-person. A full-scale exercise, in person, as opposed to a tabletop exercise was desired as it represents a more effective test of the emergency preparedness level of all participants.

As the pandemic situation evolved, it was determined that the exercise could be safely completed on October 26, 2021. Throughout the planning of the exercise, CNSC staff authorized deferment of the exercise until this date.

The *Emergency Plan* requires that a final report be documented within sixty (60) days of the completion of any full-scale emergency exercise. This report is intended to meet this requirement, and is to be submitted to CNSC staff for their review and records.

This report describes the planning and execution of the 2021 emergency exercise at SRBT, and documents the operating experience (OPEX) and lessons learned from the exercise. The report describes the input of all participants in the exercise, and tables the set of opportunities for improvement that have been initiated as a result of the exercise.

2. EXERCISE OBJECTIVES

The objectives for the 2021 Emergency Exercise were as follows:

SRBT:

- Demonstrate the organizational ability to plan and conduct a successful and safe full-scale emergency exercise that meets the objectives of the *Emergency Plan*, and the requirements of REGDOC-2.10.1, Version 2;
- Practice staff accountability and confirmation process.
- Practice managing and coordination of an emergency with off-site emergency responders.
- Practice unified command with the Pembroke Fire Department.
- Practice a concurrent medical emergency to a SRBT Staff member during the emergency exercise which will require response by the County of Renfrew Paramedic Service.
- Practice SRBT staff overall response to emergency exercise scenario.
- Practice appropriate communication protocols and procedures.
- Practice appropriate contamination protocols and procedures.
- Practice the notification to regulatory agencies.
- Demonstrate the capability to collect feedback, identify any areas of improvement and identify corrective measures to improve SRBT's Emergency Plan.

Pembroke Fire Department:

- Gain knowledge and confirm the ability to work together with SRBT Incident Commander, Emergency Response Organization (ERO) members, and other key SRBT staff.
- Practice unified command at SRBT facility.
- Practice a concurrent emergency exercise with the City of Pembroke.

City of Pembroke:

- Gain knowledge and confirm the ability to work together with SRBT Incident Commander, ERO members, and other key SRBT staff.
- Practice a concurrent emergency exercise.

County of Renfrew Paramedic Service:

- Gain knowledge and confirm the ability to work together with SRBT Incident Commander, ERO members, and other key SRBT staff.
- Practice a response to a medical emergency to an SRBT staff member during an emergency exercise.

3. EXERCISE SCENARIO

A number of meetings were held by SRBT with officials from the City of Pembroke, Pembroke Fire Department and the County of Renfrew Paramedic Services to discuss and develop a suitable Emergency Exercise.

Minutes were taken at all meetings, and specific comments were recorded in order to ensure they were captured and appropriately actioned, and for use in future planning of emergency exercises. These records and “Synopsis for the Emergency Exercise” are included in **Appendix A** of this report.

Administrative Instructions for the 2021 Emergency Exercise were also developed and included in this report as **Appendix B**.

The following scenario was designed to help achieve the objectives of the exercise:

In accordance with Exercise Controller Instructions in **Appendix C** the Exercise Controller will begin the exercise at approximately 0930h. SRBT’s exercise will also take place on the same day, just following the City of Pembroke’s own emergency exercise.

A small smoldering fire will be detected in the front section of the Assembly Department (radiological safety Zone 2). This area is primarily used for gluing and assembling gaseous tritium light sources (GTLS) into finished products.

The fire will be simulated using a smoke generator to create a realistic scenario.

The Exercise Controller has the role and responsibility to issue injects during different phases of the emergency exercise. An inject is information or data given in a form of a card to key participants during the execution of the emergency exercise. Injects are used to create realistic changes during an emergency exercise and to monitor response actions.

The **first inject** will be provided to an individual in the area where the smoldering fire is being simulated, noting the detection of the fire. Injects are provided by the Exercise Controller.

The expected response from this individual receiving the first inject will be that they will follow their training, and attempt to extinguish the fire using a portable extinguisher.

The **second inject** will be provided that the individual suspects that the fire has not been completely extinguished.

The expected response to the second inject will be for the individual to again follow their training by evacuating in accordance with the Fire Safety Plan.

Upon exiting the Assembly Department, the expectation is that the nearest alarm pull station will be activated by a staff member, resulting in a facility-wide evacuation, as per the Fire Safety Plan.

The facility fire alarm will also result in the alarm monitoring company dispatching the Pembroke Fire Department (PFD).

As all staff make their way to the marshalling area at the back of the facility, the **third inject** will be provided to an individual, resulting in that employee simulating severe chest pains a few minutes after arriving at the marshalling area.

The expectation is that paramedics will be summoned by way of a call to 911, requesting an ambulance via the County of Renfrew Paramedic Service. Any staff member may do this; however, the expectation is that the response will be controlled and coordinated by the Manager – Safety and Security.

All staff and visitors will be accounted for at the marshalling area via a head count, which will be completed by the Production Control Manager, who will then report the head count to the President using two-way radios.

The employee who attempted to extinguish the fire will report to the President that they cannot confirm that the fire is completely extinguished (as per the second inject).

With this information, the expectation is that the President will then declare an emergency to be in progress, and then assemble and direct the Emergency Response Organization (ERO) in managing the situation in accordance with the Emergency Plan. The President will assume the role of Incident Commander (IC).

The IC will direct the Production Control Manager to transfer all staff from the marshalling area to the Pem Ice II arena.

The IC will direct the Manager – Safety and Security to continue to ensure the safety of staff and visitors, including the individual experiencing chest pains.

The IC will also direct the Manager – Safety and Security to act as the primary liaison with the Paramedic Services, who are expected to arrive within several minutes of the call to 911.

The IC will direct the Executive Assistant to communicate with the appropriate authorities, in accordance with the Emergency Plan, including:

- The CNSC Duty Officer
- CNSC staff
- City of Pembroke officials
- Federal Member of Parliament
- Provincial Member of Parliament
- Public and Media

The PFD is expected to arrive on site by this point in the exercise, and will begin to communicate with the IC. The PFD will set up the pumper truck and connect fire hose lines to nearby fire hydrants.

Fire fighters in full gear will commence attack of the fire once it is confirmed that all staff and visitors have been accounted for outside of the facility.

Fire fighters will enter the facility and proceed to the Assembly Department to assess the situation and simulate extinguishing the fire.

The fire will be extinguished in a limited period of time; however, once this is completed, fire fighters will be provided the **fourth inject**, where they notice that there are damaged exit signs on the floor including broke light sources, and that the room tritium-in-air monitor is alarming.

The expectation is that the fire fighters will relay this information via radio back out to their commander, who will then share that information with the IC.

Based on this information, the IC will direct the Manager – Health Physics and Regulatory Affairs (MHPRA) to assess and manage the radiological hazards that may be present.

As per the Emergency Plan, the expectation is that once the PFD clears the area for entry, the MHPRA will then work to safely achieve the objectives defined in the plan, including:

- Determine the radiological risks to personnel inside and outside the facility;
- Assess steps to take with PFD personnel in the Assembly Department;
- Equipment and protective clothing will have to be assessed, and if contaminated, removed safely and contained;
- Contamination assessments in the affected areas;
- Appropriate tritium-in-air monitoring while dealing with the situation;
- Ensure PFD equipment is free of contamination before being removed from the area;
- Begin the process of assessing radiological exposures to responders by arranging for appropriate bioassay samples and analysis.

The expectation is that the MHPRA will achieve these objectives in a controlled, systematic and safe way.

When assessing contamination of personnel protective equipment and clothing, the **fifth and final inject** will be given, noting that no contamination has been detected, allowing for release of personnel and equipment from the facility.

Once the fire fighters have exited the facility, and the MHPRA has determined that there is no emergency-level radiological hazard to personnel, the public or the environment, in consultation with the PFD commander, the IC is expected to declare the emergency to be over, and to shift into recovery operations.

At this point, the President and Exercise Controller are expected to jointly declare the emergency exercise to be complete.

NOTES:

- The Exercise Controller will minimize their interactions with staff in order to provide the best simulation, and thus the best assessment of the response.
- If at any time an exercise participant deviates from expectations, the Exercise Controller may intervene in order to keep the exercise 'on track'.
- All members of the ERO will have an assigned backup shadowing them as a cross-training opportunity. ERO members are encouraged to communicate with their backups while they complete their objectives and duties.

4. PARTICIPANTS

The following participants were involved in the emergency exercise:

SRBT:

- Exercise Controller – Eric Gaudette
- Incident Commander / President – Stephane Levesque
 - Backup in training – Ross Fitzpatrick
- Communications Officer / Executive Assistant – Katie Levesque
 - Backup in training – Chris Mitchell
- Production Control Manager – Mary-Ann Demers
 - Backup in training – Darci Gaudette
- Manager – Safety and Security – Paul Lavigne
 - Backup in training – Bennett Robinson
- Manager – Health Physics and Regulatory Affairs – Jamie MacDonald
 - Backup in training – Joshua Bull
- Evaluator – Tanya Sennett
- Evaluator – Nathalie Belleau
- Key participant – Brenda St. Pierre
- Key participant – Phil Hoffman

Pembroke Fire Department:

- Ed Beaupre – Captain
- Kyle Zimmerman – Fire Fighter
- Tom Watkins – Fire Fighter
- Riley Poirier – Fire Fighter

Paramedic Services:

- Gord Perolli – Commander
- Scott McLeod – Drone Operator
- Responding paramedics (x 2)

CNSC staff:

- Lester Posada, Lead Inspector
- Julian Amalraj, inspection participant
- David Szonyi, CNSC co-op student
- Laurent Nicolai, technical specialist (by phone / remote attendance)

NOTES:

- All staff involved will be provided individual name badges which will clearly reflect their organization, name and function. ERO Members in training will be identified as such on their badges. Table (tent) cards will also be provided with the same information for use during the de-briefing at Pem Ice II.

5. PUBLIC NOTIFICATIONS

Throughout the planning and execution phases of the Emergency Exercise, SRBT ensured that several public notifications were made, in order to inform members of the public that an emergency exercise was being conducted on October 26, 2021, and to avert any concern.

Contact details were consistently shared as part of these notifications, if members of the public wished to ask questions or raise concerns.

Notifications were posted on several social media channels, including:

- Facebook
- Instagram
- Twitter
- LinkedIn
- Reddit
- TikTok

A 'Public Notice' was posted on the SRBT website under the [Public Notifications](#) tab and was placed in the mailboxes of all residences and businesses within 500 metres of the facility, see **Appendix D**.

6. EXERCISE IMPLEMENTATION

Prior to the emergency exercise, the following information was shared with all participants as a pre-job briefing, in order to ensure safety throughout the exercise:

- The exercise will begin at 0930h and should take approximately 2 hours.
- If there is a real emergency, personnel should clearly state “THIS IS A REAL EMERGENCY”, at which point the exercise will immediately be terminated and the real emergency addressed.
- Communications via two-way radios should be frequently prefaced by the words “THIS IS AN EXERCISE”, in case the radio signals are being picked up by members of the public.
- The Exercise Controller, IC and PFD will determine together when the emergency exercise can be considered complete.
- When receiving direction or information on radios, state your name, say “copy” and repeat what instructions were given to you as a form of three-way communication.
- Safety is the number one priority, including COVID safety, throughout the exercise.
- Following the exercise, a debriefing will take place at Pem-Ice II, with lunch provided.

The exercise began on time at 0930h, and in general, proceeded in accordance with the planned sequence of events. Participants acted in accordance with their training and with the requirements of the Emergency Plan. Injects were responded to in reasonable and safe ways, in accordance with expectations.

Off-site responders arrived within expected response times, communicated with the IC and ERO effectively, and responded to the emergency exercise in line with expectations and requirements.

All required notifications were completed in accordance with requirements, within expected time frames. All non-participating personnel were safely evacuated and accounted for, and were safely transferred to the off-site evacuation centre.

Radio communication was effective, but did present challenges that are discussed further in this report. Feedback was provided on an improvement to the specific phrase used to declare if a true emergency situation developed (i.e. “NO DUFF” instead of “THIS IS A REAL EMERGENCY”).

Photographs were taken at various stages of the exercise and the County of Renfrew Paramedic Service had a drone taking footage during the incident. A sample of the photographs can be found in **Appendix E** of this report.

Debriefing sessions with all participants resulted in several opportunities for improvement being identified.

7. EVALUATORS

Two (2) Emergency Exercise Evaluators were assigned. One to accompany the Incident Commander and one to accompany the staff being evacuated.

The Compliance Manager and Quality Manager were selected based on their developed ability to assess and review processes and their effectiveness.

Evaluators took notes during the exercise. Formal checklists were developed in order to capture activities that take place during the exercise in order to determine the effectiveness of the response to ensure that all objectives are met.

The completed checklist found in **Appendix F** represents the combined overall evaluation of the exercise from the perspective of both dedicated evaluators.

It was compiled in a collaborative fashion using observations from both individuals, who were positioned in different locations throughout the exercise.

8. DEBRIEFING AND IMPROVEMENT ACTIONS

Once the exercise was completed, debriefing and discussion was held in stages.

Firstly, all SRBT staff (including all evacuees and exercise participants) and external representatives were invited to the Pem-Ice II to voice their observations and provide their feedback.

Next, all exercise participants (including off-site emergency responders) held a joint meeting where specific challenges, observations, and recommendations were tabled.

Finally, members of the ERO held a separate debriefing to go into additional details and provide any further observations or recommendations in a group setting.

These debriefing sessions provided ample feedback, most of which was positive in nature. In general, the consensus was that the emergency response was very good, and that all exercise objectives had been achieved in a safe and effective fashion. Cooperation between all responding organizations, and between all participants, was excellent.

A total of fourteen (14) opportunities for improvement (OFI) were identified through the debriefing sessions, which will be tracked using the OFI process as per MSP-011, *Continual Improvement*. These are listed in **Appendix G** of this report.

9. CONCLUSIONS

The 2021 Emergency Exercise was a success. All objectives were met in a safe fashion, and many opportunities for improvement were identified through the implementation of the exercise.

No significant non-compliances or non-conformances were identified during the planning and execution of the exercise, and feedback from all participants was very positive.

The results of this exercise demonstrate that personnel training on emergency response processes and requirements is effective, and that both the facility and off-site response organizations remain well-prepared to deal with any emergency situation that may arise during the course of licensed activities.

Several opportunities for improvement were identified that will be actioned accordingly, which will further strengthen preparedness measures at the facility. A total of fourteen (14) OFIs are to be raised to track these items going forth. These are listed in **Appendix G** of this report.

The next full-scale emergency exercise is scheduled to take place in 2026.

APPENDIX A
MINUTES OF MEETINGS

Meeting Minutes dated September 15, 2021

MEETING MINUTES

- Committee:** -Other
- Meeting date:** -September 9, 2021 between 10:00 am and 10:30 am
- Next meeting date:** -September 9, 2021 at 2:00 pm
- Attendees:**
- Stephane Levesque (SL)
 - Ross Fitzpatrick (RF)
 - Katie Levesque (KL)
 - Mary-Ann Demers (MAD)
 - Eric Gaudette (EG)
 - Darci Gaudette (DG)
 - Chris Mitchell (CM)
 - Paul Lavigne (PL)
 - Bennett Robinson (BR)
 - Joshua Bull (JB)
 - Jamie MacDonald (JM) by phone



Handwritten signatures of attendees: SL (red), RF, KL, MAD, EG, DG, CM, PL, BR, JB, and JMAC.

Subject:
-Emergency Exercise

Supporting documentation:
1 - Section 5.0 Roles and Responsibilities from the SRBT Emergency Plan Revision 6.

Last meeting minutes
-N/A

Old Business
-N/A

New Business

- SL called four separate meetings, the first with MAD, DG and CM, the second with PL and BR, the third with JB and JM and the fourth with RF and EG. SL and KL were in attendance for all four meetings in which the following was discussed:
 - The Emergency Exercise is scheduled for October 26, 2021 at 9:30 am and all in attendance need to be available that day.
 - SL gave a brief overview of each Emergency Response Organization ERO members roles and responsibilities during the Emergency Exercise (**see attached 1 for details**).
 - As noted during that last Emergency Exercise in 2015 the importance of having a back-up for each ERO member was highlighted. During this Emergency Exercise the back-ups will shadow the ERO member in order to better understand their roles and responsibilities.

- The following is a list of the ERO members and their assigned back-ups.
- President - SL (back-up RF)
- Vice President - RF (back-up EG)
- Executive Assistant - KL (back-up CM)
- Production Control Manager - MAD (back-up DG)
- Manager – Health Physics and Regulatory Affairs – JM (back-JB)
- Manager – Safety and Security – PL (back-up BR)

Actions

-N/A

Minutes taken by:

-Katie Levesque

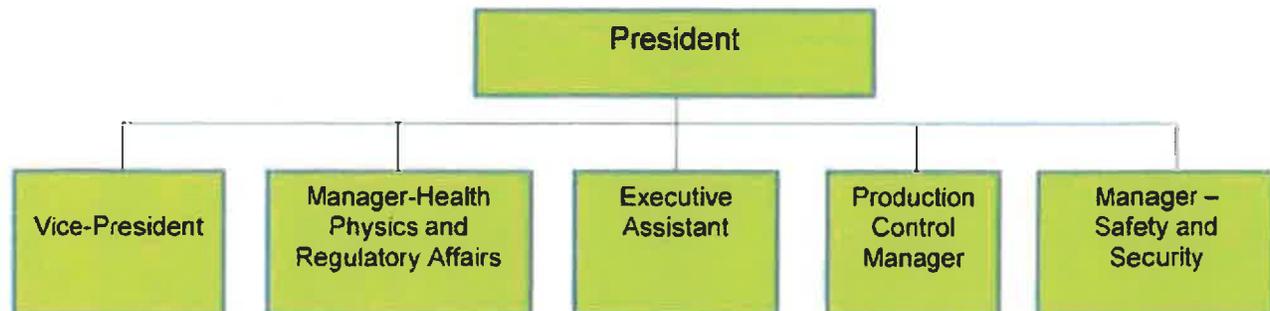


Attachment 1

5.0 ROLES AND RESPONSIBILITIES

SRBT has established an Emergency Response Organization (ERO) which defines roles and responsibilities of each ERO team member.

SRBT Emergency Response Organization (ERO)



The President has the overall responsibility for the design, management and implementation of the EP for the SRBT facility and his responsibilities include:

- assuming the role of Incident Commander (IC) during an emergency and/or exercise;
- ensuring the EP meets all licence regulatory requirements including REGDOC-2.10.1 and all applicable internal programs and procedures;
- scheduling and coordinating meetings with ERO team members;
- scheduling and coordinating emergency exercises;
- ensuring all ERO team members have been trained and assume their duties;
- assessing an emergency and/or exercise in conjunction with Pembroke Fire Department and other off-site responders as required;
- designating a SRBT staff member to assist and provide advice to a senior member (i.e. Fire Captain) of the Pembroke Fire Department who will be stationed outside of the SRBT facility in an emergency situation and/or exercise;
- ensuring that all SRBT staff are properly trained to assume their roles and responsibilities as per the EP;
- determining when an emergency and/or exercise will be terminated based on discussions with key personnel including off-site responders;
- completing of the Emergency Response Procedure Form as per Appendix A of the EP following the termination of the emergency and/or exercise; and
- liaise with the applicable authorities i.e. CNSC.

The Vice-President will assume the full responsibilities of the President in his absence and assist the President in his duties as required which include the design and maintenance of the EP. His responsibilities include:

- providing assistance to the President and other ERO team members as needed;
- liaise with the Pembroke Fire Department with regards to scheduling emergency exercises;
- assuming the lead role as IC in the absence of the President.

Attachment 1

The Executive Assistant responsibilities include:

- assuming the lead role as Communications Officer during an emergency and/or exercise;
- providing notification to all key personnel as per the emergency contact list in the event of an emergency and/or exercise;
- providing ongoing updates to SRBT staff assembled at Pem Ice II;
- providing ongoing communications with the CNSC staff (including Duty Officer) and any other applicable authorities;
- updating the media and SRBT's Public Information Program and social media (Facebook) as required; and
- collect and maintain completed Appendix A document.

The Manager, Health Physics & Regulatory Affairs responsibilities include:

- assuming the lead role in assessing radiological impacts during an emergency and/or exercise;
- conducting radiological surveys during emergency and/or exercise;
- collecting and analyzing swipe and other samples taken during and following an emergency and/or exercise;
- documenting radiological results;
- liaise and provide radiological related advice directly to IC and other ERO team members;
- ensuring SRBT staff and off-site responders involved in the emergency and/or exercise provide bioassay samples as required;
- assessing and determining any radiological releases from the facility;
- ensuring monitoring and sampling equipment is available and maintained;
- assigning roles and responsibilities to SRBT health physics team members during emergency and/or exercise as needed; and
- ensuring appropriate contamination swipe surveys are taken on off-site responders and affected equipment in an emergency and/or exercise.

The Production Control Manager responsibilities include:

- assuming the lead role in conducting SRBT staff accountability verification at the Marshalling Area in the event of an emergency and/or exercise;
- ensuring SRBT staff follow the designated route from the Marshalling Area to Pem Ice II;
- providing accountability information to the IC and Communications Officer;
- recording the time taken for SRBT staff to assemble at Marshalling Area and assemble at Pem Ice II if applicable during an emergency and/or exercise;
- ensuring access to Pem Ice II is available during an emergency and/or exercise;
- confirming and documenting staff accountability at Pem Ice II; and
- tracking of emergency and/or exercise start and stop times (using portable timers provided).

Attachment 1

The Manager – Safety and Security responsibilities include:

- liaise in advance of an emergency exercise with off-site responders;
- carrying out activities as direct by Incident Commander during an emergency and/or exercise;
- utilization and management of the personnel tracking system during an emergency, for personnel accountability and location determination, and
- assuming the lead role with regards to health and safety aspects of SRBT staff during an emergency and/or exercise.

Notes:

- In the situation where the President and Vice-President are not available during an emergency, the Manager of Health Physics & Regulatory Affairs will assume the role of the IC.
- A back-up person will be assigned and trained for each of the ERO positions. This will provide additional coverage should a first line ERO team member not be available during an emergency and/or exercise.

Meeting Minutes dated September 15, 2021

MEETING MINUTES

- Committee:** -Other
- Meeting date:** -September 9, 2021 at 2:00 pm
- Next meeting date:** -To be determined
- Attendees:**
- Stephane Levesque (SL) 
 - Ross Fitzpatrick (RF) 
 - Colleen Sauriol (CS), Manager of Planning, Building & By-Law Enforcement for the City of Pembroke
 - Scott Selle (SS) Fire Chief for the City of Pembroke
 - Gord Perolli (GP), Paramedic for the County of Renfrew

Subject:
-Emergency Exercise

Supporting documentation:

- 1 – Emergency Exercise meeting dated August 27, 2021
- 2 – Emergency Exercise meeting dated September 1, 2021
- 3 – Synopsis for the Emergency Exercise dated September 9, 2021

Last meeting minutes

-All in attendance, reviewed the meeting minutes (**see attached 1 and 2 for details**) and all agreed there are no changes required.

Old Business

-Actions stemming from **attached 1:**

- Send a copy of the minutes to CS and SS.
 - SL sent by e-mail a copy of the signed completed minutes. **Action closed.**
- SL will create a synopsis of SRBT's emergency exercise and will sent a copy to CS and SS.
 - A synopsis was created (**see attached 3 for details**) and sent by e-mail. **Action closed.**
- SL and RF will contact Brian Leahy regarding the Ambulance service being available for the exercise.
 - SL and RF contacted Brian Leahy regarding the Ambulance service. GP is in attendance representing the Paramedics for the County of Renfrew. **Action closed.**
- SL will contact the CNSC informing them of the date for the Emergency Exercise.
 - SL notified the CNSC and agreed on the chosen date. **Action closed.**
- CS will check to make sure the Pembroke & Area Community Center (PACC) will be available to access for the Emergency Exercise
 - CS noted that the PACC will be available between 9:00 and 1:00 pm. **Action closed.**

-Actions stemming from **attached 2:**

- SL will send GP an e-mail with the next meeting details as well as the meeting minutes from the August 25, 2021 meeting and the meeting minutes from this meeting.
 - All meeting minutes as well as the synopsis (**see attached 3 for details**) was sent to GP by e-mail. **Action closed.**

New Business

-Since there will be a lunch served at the PACC following the Emergency Exercise, SL will contact the Health Unit to receive guidance on any restrictions regarding serving food and distancing. **New Action.**

- Reviewed the Emergency Exercise Synopsis (**see attached 3 for details**) and the following was discussed:
 - RF noted that SRBT recently purchased a smoke machine to create a more realistic scene during the scheduled fire alarms which will also now be used during the Emergency Exercise. SS commented this is a good addition for the Pembroke Fire Department (PFD).
 - SS asked if the alarm monitoring company will be notified of the Exercise before hand, SL noted yes they will be told prior to the exercise. SS noted he will contact the 911 dispatch to also notify them.
 - As noted during the **attached 2** meeting, GP stated during active fire the paramedics have been called in the past to attend the scene as the risk of injury increases. Discussed and agreed that for this exercise the paramedics will be called by an SRBT employee through 911 dispatch. Also, all agreed that unless otherwise stated during the exercise the paramedics along with the patient and the person who called 911 will remain in the marshalling area for the length of the patient assessment.
 - The fire hoses will not actually be connected to a fire hydrant and therefore the hose will not have water. The hoses will be taken into the facility as per usually procedure.
 - SS confirmed two (2) members of the PFD will enter be entering the facility to attend to the fire.
 - Powder and sign parts (without tritium sources) will be placed on the floor in the Assembly room to mark where the fire will be located.
 - SS asked how long it takes to assess the gear for contamination, RF noted no more than 30 minutes.
 - CS noted a couple contact details for the City of Pembroke may need updating. Katie Levesque (KL) as the Emergency Response Organization (ERO) member in charge of communication with the City of Pembroke during an Emergency Exercise will ensure the updated information is accurate in the Emergency Plan which was last issued in 2017. KL will also double check that the contact details are up to date in the Fire Protection Program and the Fire Safety Plan. **New Action.**
 - All in attendance agree with the Emergency Exercise Synopsis (see attached 3 for details) with no changes identified.
- SL stated that he would send a copy of the Emergency Exercise Synopsis and associated meeting minutes (**see attached 3**) to the Canadian Nuclear Safety Commission (CNSC). **New Action,**
- SL asked SS if he could inform SL which PFD members would be on shift for the exercise and who would be the designated contact for the PFD where communication could be sent going forward. **New Action.** SL indicated that a couple of meetings with the crew on shift may also be scheduled to give them further details.
- Approximately 11 individuals from SRBT (ERO members and their back-ups) will attend the closing meeting immediately following the exercise. SS confirmed the crew on shift (on behalf of the PFD) will also be able to attend and GP (on behalf of the Paramedics for the County of Renfrew) noted he will also be in attendance.
- The City of Pembroke is performing their own Emergency Exercise (table top) at 8:00 am on the same day. As noted in **attached 1** their emergency will be a small tornado touching down at a separate location on the other end of Pembroke which will trigger the Emergency Exercise for the City of Pembroke. During the evaluation and clean up stemming from the tornado the Pembroke Fire Department will then receive a call regarding the fire at the SRBT facility.
- GP offered the use of a drone and pilot which will be used as an extra visual during the exercise, all agreed.
- SRBT will be posting on their social media and website a notification of the Emergency Exercise. The PFD also has a sign that will be used on site during the exercise.

Actions

- SL will contact the Health Unit to receive guidance on any restrictions regarding serving food and distancing before next meeting.
- CS will send Katie Levesque (KL) revised contact details for the City of Pembroke by September 13, 2021
- KL will ensure revised contact details are accurate in the Emergency Plan. KL will also double check that the contact details are up to date in the Fire Protection Program and the Fire Safety Plan.
- SL will send a copy of the Emergency Exercise Synopsis to the CNSC once all minutes complete.
- SS to send SL who is on shift and responding the exercise so SL can send communication to them going forward as well before the next meeting.

Minutes taken by:

-Katie Levesque



Attachment 1

August 27, 2021
Page 1 of 2

MEETING MINUTES

Committee: -Other

Meeting date: -August 25, 2021

Next meeting date: -September 9, 2021 at 2:00 pm

Attendees: -Stephane Levesque (SL) 
-Ross Fitzpatrick (RF)
-Colleen Sauriol (CS), Manager of Planning, Building & By-Law Enforcement for the City of Pembroke
-Scott Selle (SS) Fire Chief for the City of Pembroke

Subject:
-Emergency Exercise

Supporting documentation:
-N/A

Last meeting minutes
-N/A

Old Business
N/A

New Business

- All agreed the Emergency Exercise will take place on October 26, 2021 at 9:30 am. SL noted all shifts will be in attendance and the exercise should be completed by lunch.
- SL stated the preliminary scenario for the Emergency Exercise will be as follows:
 - An uncontrolled fire occurs in Zone 2 (Assembly room).
 - The fire alarm is pulled.
 - The Pembroke Fire Department is called via 911.
 - All employees (other than the ones with specific duties) will evacuate the facility and meet at the muster point at the back of the facility for a head count then walk to the Pembroke & Area Community Center (PACC).
 - During the head count an employee start to experience chest pain which will trigger calling an ambulance.
- The CNSC is expected to either be at the facility in person or via zoom.
- CS noted the City of Pembroke will be performing their own Emergency Exercise (table top) on the same day prior to SRBT's emergency exercise and discussed how to incorporate the two exercises together. It was agreed that a small tornado will touch down at a separate location in Pembroke which triggers the Emergency Exercise for the City of Pembroke. During the evaluation and clean up stemming from the tornado the Pembroke Fire Department will then receive a call regarding the fire at the SRBT facility.
- SL will create a synopsis of SRBT's Emergency Exercise plan and will sent a copy to CS and SS in order to incorporate it into their scenario.
- A copy of these minutes will be sent to both CS and SS.
- All agreed the next meeting will take place on September 9, 2021 at 2:00 pm. Before the next meeting the following actions will take place:
 - SL and RF will contact Brian Leahy regarding the ambulance service being available for the exercise.
 - SL will contact the CNSC informing them of the date for the Emergency Exercise.

Attachment 1

August 27, 2021
Page 2 of 2

-CS will check to make sure the PACC will be available to access for the Emergency Exercise.

Actions

- Send a copy of the minutes to CS and SS.
- SL will create a synopsis of SRBT's emergency exercise and will sent a copy to CS and SS.
- SL and RF will contact Brian Leahy regarding the Ambulance service being available for the exercise.
- SL will contact the CNSC informing them of the date for the Emergency Exercise.
- CS will check to make sure the PACC will be available to access for the Emergency Exercise.

Minutes taken by:

-Katie Levesque



Attachment 2

September 1 2021
Page 1 of 2

MEETING MINUTES

Committee: -Other

Meeting date: -September 1, 2021

Next meeting date: -September 9, 2021 at 2:00 pm

Attendees: -Stephane Levesque (SL) 
-Ross Fitzpatrick (RF)
-Gord Perolli (GP), Paramedic for the County of Renfrew

Subject:
-Emergency Exercise

Supporting documentation:
-N/A

Last meeting minutes
-N/A

Old Business
-N/A

New Business

- SL spoke briefly about the facility and the fact we use radioactive gas, tritium.
- SL stated the preliminary scenario for the Emergency Exercise will be as follows:
 - An uncontrolled fire occurs in Zone 2 (Assembly room).
 - The Pembroke Fire Department is called via 911.
 - Employees evacuate and during the evacuation one employee starts to experience chest pains which will trigger calling an ambulance.
- SL asked GP if the paramedics would be available to participate in the Emergency Exercise on October 26, 2021 shortly after 9:30 am., GP stated yes it won't be a problem.
- GP noted during an active fire, the paramedic can be asked by the Pembroke Fire Department to be in attendance at the fire as the risk of an injury increases during an active fire. Therefore, a scenario could be that the paramedic would not need to be called if they are already at the facility, this will be discussed with City of Pembroke and the Pembroke Fire Department during the next meeting.
- It was also noted that the chest pains would stem from an anxiety attack and would not require the person to be sent to the hospital.
- Due to the several possible scenarios, SL asked if GP could join the next scheduled meeting with Colleen Sauriol (CS), Manager of Planning, Building & By-Law Enforcement for the City of Pembroke and Scott Selle (SS) Fire Chief for the City of Pembroke on September 9, 2021 at 2:00 pm. GP noted he could.
- GP also agreed to be in attendance during the debriefing immediately following the emergency exercise.
- SL noted he would send GP an e-mail with the next meeting details as well as the meeting minutes from the August 25, 2021 meeting and the meeting minutes from this meeting. **New Action.**
- SL indicated members of the regulatory body, the Canadian Nuclear Safety Commission (CNSC) will be in attendance during the Emergency Exercise either by phone or in person.
- GP asked if there are any "special" requirements required from the paramedics due to the use of radioactive gas at the facility. SL stated no not under the scenario being used and then offered to provide a plant tour, GP agreed. A full plant tour was given.

Attachment 2

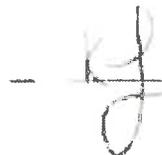
September 1, 2021
Page 2 of 2

Actions

-SL will send GP an e-mail with the next meeting details as well as the meeting minutes from the August 25, 2021 meeting and the meeting minutes from this meeting.

Minutes taken by:

-Katie Levesque

A handwritten signature in black ink, appearing to be 'K. Levesque', written over a horizontal line.

Attachment 3

September 9, 2021

Page 1 of 2

Synopsis for the Emergency Exercise:

Company: SRB Technologies (Canada) Inc. (SRBT)

Emergency Response: County of Renfrew Paramedic Service
Pembroke Fire Department

Location: 320 Boundary Road, Unit 140

Date: October 26, 2021

Time: 9:30 a.m.

The exercise will consist in a small smoldering fire that is detected in the front section of the Assembly Department (Zone 2). This area is primarily used for gluing and assembling Gaseous Tritium Light Sources (GTLS) in SRBT's finished products.

A smoke generator or smoke bomb will be used to create a realistic scenario. The initial response to the smoldering fire will have a SRBT Staff Member (already working in the Assembly Department) try and put the fire out using a portable fire extinguisher.

The SRBT Staff Member will not be convinced that the fire has been extinguished and will then pull the fire alarm located closest to the Assembly Department (unless the alarm is already triggered by the smoke).

This action will result in the Alarm Monitoring Company being notified and in turn the Alarm Monitoring Company dispatch the Pembroke Fire Department (PFD).

The President of SRBT is the Incident Commander (ERO Member) and will assign responsibilities to SRBT staff as per the SRBT Emergency Plan. The Vice-President (ERO Member) will provide assistance to the President and other ERO team members as needed

Pulling the fire alarm will initiate staff response as per the evacuation procedure in Fire Safety Plan. Staff will initially be evacuated to the Marshalling Area at the back of the facility.

As Staff make their way to Marshalling Area at the back of the facility a SRBT Staff Member will experience severe chest pains and another SRBT Staff Member will contact 911 and request an ambulance (County of Renfrew Paramedic Service)

Once the ambulance arrives (at the back of the facility) the SRBT Staff Member will be treated accordingly.

Once all staff are believed to be at the Marshalling Area at the back of the facility a head count of the Staff will be taken by the Production Control Manager (ERO Member responsible for taking and reporting the head count).

Attachment 3

September 9, 2021

Page 2 of 2

The Production Control Manager will then report the head count to the Incident Commander and as the fire is not yet to be confirmed to be extinguished the Incident Commander will declare an "emergency" and will direct the Production Control Manager to transfer Staff from the Marshalling Area to Pem Ice II.

It is anticipated that the **PFD** will arrive on site and will initially communicate with the Incident Commander. The **PFD** will set up their pumper truck and connect fire hose lines with the nearest fire hydrant. Fire Fighters (in full gear) will commence movement inside the facility following verification all Staff have all been accounted for.

PFD (one or two members) will enter the Assembly Department (Zone 2) to assess the fire situation in the room. The **PFD** will locate the area where the fire has started and will commence the extinguishing of the fire with water supplied fire hoses.

The fire will be extinguished in a limited period time, however upon retrieval from the area they will note that some signs that were being assembled and were damaged and are lying on the floor broken and tritium-in-air monitors in the Assembly Department will have alarmed.

This information will be communicated to the Incident Commander.

The issue of possible release of tritium along with possible contamination of equipment and fire fighter Personal Protective Equipment (PPE) will have to be addressed by **The Manager - Health Physics and Regulatory Affairs** (ERO Member responsible assessing radiological impacts during an emergency and/or exercise):

- Determine radiological risk to personnel inside the facility and outside
- Assess steps to take with **PFD** personnel in the Assembly Department
- Equipment and protective clothing will have to removed and contained
- Contamination swipes will be required to be taken in several areas
- Portable tritium-in-air monitors will have to set up in Zone 1 areas outside of Zone 2
- Swipes will be required to be taken on fire hoses and equipment that would have been placed on the floor area where the damaged sign tubes were located
- Bioassay samples will be required from **PFD** personnel

The **Executive Assistant** (ERO Member responsible for communicating with the media and public and non emergency personnel) will notify appropriate authorities.

- Canadian Nuclear Safety Commission (CNSC)
- City of Pembroke Officials
- Federal Member of Parliament Office
- Provincial Member of Parliament Office
- Public and Media as required

The **Manager of Safety and Security** (ERO Member) will carry out activities as directed by Incident Commander during the exercise.

As an action arising from the last emergency exercise all ERO Members will perform their duties (during the exercise) with their assigned backup shadowing them.

Meeting Minutes dated October 21, 2021

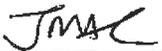
MEETING MINUTES

Committee: -Other

Meeting date: -October 15, 2021

Next meeting date: -October 25, 2021 at 4:00 pm

Attendees:

- Stephane Levesque (SL) 
- Jamie MacDonald (JM) 
- Ed Beaupre (EB), Captain for the Pembroke Fire Department
- Tom Watkins (TW) Firefighter for the Pembroke Fire Department
- Brad Lapierre (BL), Firefighter for the Pembroke Fire Department

Subject:
-Emergency Exercise

Supporting documentation:
1 - Synopsis for the Emergency Exercise dated September 9, 2021

Last meeting minutes
-N/A.

Old Business
-N/A

New Business

- SL gave an overview of the Emergency Exercise Synopsis (**see attached 1 for details**) to EB.
- SL noted the Canadian Nuclear Safety Commission (CNSC) will have three staff at the facility as well as one via zoom.
- JM discussed the contamination assessment of the equipment once the emergency has been declared over and noted the process may taken between 20-30 minutes.
- Once the emergency and contamination assessments are complete there will be a de-brief meeting at PemIce II as well as a lunch that will be provided.
- A tour of zone 2 where the smoldering fire will occur was given to EB, TW and BL. EB noted that BL will not be in attendance during the emergency exercise but firefighter Kyle Zimmerman will be covering his shift.
- Discussed and agreed on a second meeting to take place on October 25, 2021 at 4:00.
- SL stated all comments noted from the CNSC will be provided to the Pembroke Fire Department.

Actions
-N/A

Minutes taken by: -Katie Levesque 

Synopsis for the Emergency Exercise:

Company: SRB Technologies (Canada) Inc. (SRBT)

Emergency Response: County of Renfrew Paramedic Service
Pembroke Fire Department

Location: 320 Boundary Road, Unit 140

Date: October 26, 2021

Time: 9:30 a.m.

The exercise will consist in a small smoldering fire that is detected in the front section of the Assembly Department (Zone 2). This area is primarily used for gluing and assembling Gaseous Tritium Light Sources (GTLS) in SRBT's finished products.

A smoke generator or smoke bomb will be used to create a realistic scenario. The initial response to the smoldering fire will have a SRBT Staff Member (already working in the Assembly Department) try and put the fire out using a portable fire extinguisher.

The SRBT Staff Member will not be convinced that the fire has been extinguished and will then pull the fire alarm located closest to the Assembly Department (unless the alarm is already triggered by the smoke).

This action will result in the Alarm Monitoring Company being notified and in turn the Alarm Monitoring Company dispatch the **Pembroke Fire Department (PFD)**.

The President of SRBT is the Incident Commander (ERO Member) and will assign responsibilities to SRBT staff as per the SRBT Emergency Plan. The **Vice-President** (ERO Member) will provide assistance to the President and other ERO team members as needed

Pulling the fire alarm will initiate staff response as per the evacuation procedure in Fire Safety Plan. Staff will initially be evacuated to the Marshalling Area at the back of the facility.

As Staff make their way to Marshalling Area at the back of the facility a SRBT Staff Member will experience severe chest pains and another SRBT Staff Member will contact 911 and request an ambulance (**County of Renfrew Paramedic Service**)

Once the ambulance arrives (at the back of the facility) the SRBT Staff Member will be treated accordingly.

Once all staff are believed to be at the Marshalling Area at the back of the facility a head count of the Staff will be taken by the **Production Control Manager** (ERO Member responsible for taking and reporting the head count).

Attachment 1

September 9, 2021

Page 2 of 2

The Production Control Manager will then report the head count to the Incident Commander and as the fire is not yet to be confirmed to be extinguished the Incident Commander will declare an “emergency” and will direct the Production Control Manager to transfer Staff from the Marshalling Area to Pem Ice II.

It is anticipated that the **PFD** will arrive on site and will initially communicate with the Incident Commander. The **PFD** will set up their pumper truck and connect fire hose lines with the nearest fire hydrant. Fire Fighters (in full gear) will commence movement inside the facility following verification all Staff have all been accounted for.

PFD (one or two members) will enter the Assembly Department (Zone 2) to assess the fire situation in the room. The **PFD** will locate the area where the fire has started and will commence the extinguishing of the fire with water supplied fire hoses.

The fire will be extinguished in a limited period time, however upon retrieval from the area they will note that some signs that were being assembled and were damaged and are lying on the floor broken and tritium-in-air monitors in the Assembly Department will have alarmed.

This information will be communicated to the Incident Commander.

The issue of possible release of tritium along with possible contamination of equipment and fire fighter Personal Protective Equipment (PPE) will have to be addressed by The **Manager - Health Physics and Regulatory Affairs** (ERO Member responsible assessing radiological impacts during an emergency and/or exercise):

- Determine radiological risk to personnel inside the facility and outside
- Assess steps to take with **PFD** personnel in the Assembly Department
- Equipment and protective clothing will have to removed and contained
- Contamination swipes will be required to be taken in several areas
- Portable tritium-in-air monitors will have to set up in Zone 1 areas outside of Zone 2
- Swipes will be required to be taken on fire hoses and equipment that would have been placed on the floor area where the damaged sign tubes were located
- Bioassay samples will be required from **PFD** personnel

The **Executive Assistant** (ERO Member responsible for communicating with the media and public and non emergency personnel) will notify appropriate authorities.

- Canadian Nuclear Safety Commission (CNSC)
- City of Pembroke Officials
- Federal Member of Parliament Office
- Provincial Member of Parliament Office
- Public and Media as required

The **Manager of Safety and Security** (ERO Member) will carry out activities as directed by Incident Commander during the exercise.

As an action arising from the last emergency exercise all ERO Members will perform their duties (during the exercise) with their assigned backup shadowing them.

Meeting Minutes dated October 26, 2021

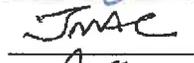
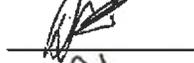
MEETING MINUTES

Committee: -Other

Meeting date: -October 25, 2021

Next meeting date: -October 26, 2021

Attendees:

- Stephane Levesque (SL) 
- Jamie MacDonald (JM) 
- Ross Fitzpatrick (RF) 
- Eric Gaudette (EG) 
- Ed Beaupre (EB), Captain for the Pembroke Fire Department
- Tom Watkins (TW) Firefighter for the Pembroke Fire Department
- Kyle Zimmerman (KZ), Firefighter for the Pembroke Fire Department
- Austin Loback (AL), Firefighter for the Pembroke Fire Department

Subject:
-Emergency Exercise

Supporting documentation:
-N/A

Last meeting minutes
-N/A.

Old Business
-N/A

New Business

- Viewed the zone 2 area where the smoldering fire will take place. Noted a smoke machine will be used to simulate a fire.
- JM discussed the contamination assessment of the equipment once the emergency has been declared over and noted the process may taken between 20-30 minutes.
- Once the emergency and contamination assessments are complete there will be a de-brief meeting at Pem Ice II as well as a lunch that will be provided. Masks will be required to be worn while at Pem Ice II.
- SL stated he will have a map of the facility to show the location of the fire.
- “In training” signs will be posted in the parking lot and by road.

Actions
-N/A

Minutes taken by: -Katie Levesque



Meeting Minutes dated October 27, 2021

MEETING MINUTES

Committee:

-Other

Meeting date:

-October 26, 2021

Next meeting date:

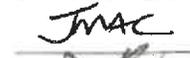
-October 26, 2021

Attendees:

-Stephane Levesque (SL)



-Jamie MacDonald (JM)



-Ross Fitzpatrick (RF)



-Katie Levesque (KL)



-Paul Lavigne (PL)



-Mary-Ann Demers (MAD)



-Josh Bull (JB)



-Darci Gaudette (DG)



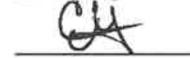
-Chris Mitchell (CM)



-Bennett Robinson (BR)



-Eric Gaudette (EG)



-Tanya Sennett (TS)



-Nathalie Belleau (NB)



-Brenda St. Pierre (BSP)



-Philip Hoffman (PH)



-Gord Perolli, County of Renfrew Paramedic Service

-Scott McLeod, Drone operator

-Julian Amalraj, CNSC Staff

-Lester Posada, CNSC Staff

-David Szonyi, CNSC co-op student

-Laurent Nicolai, CNSC Staff (by phone)

Subject:

-Pre-Exercise briefing meeting

Supporting documentation:

1 - Attendance sheet

Last meeting minutes

-N/A.

Old Business

-N/A

New Business

- All in attendance signed the attendance sheet (**see attached 1 for details**).
- SL made introductions of all in attendance.
- SL noted the emergency exercise will start at 9:30 am and should take approximately 2 hours.
- SL also stated the following:
 - If there is a real emergency, over the hand-held radios the following will be stated "THIS IS A REAL EMERGENCY" which would then terminate the exercise immediately.
 - When possible, over the hand-held radios state "THIS IS AN EXERCISE" just in case someone in the general public can hear the conversations through the radios.
 - The exercise controller, SL and the Pembroke Fire Department will determine together when the emergency exercise can be considered complete.
 - When talking on the hand-held radios as best as possible, say your name, say "copy" and repeat what instructions were given to you if required.
 - Above all else safety is the number 1 priority, including COVID safety.
 - Following the exercise, a de-briefing (hot wash) meeting will take place at Pem Ice II as well as a lunch being provided. Due to COVID restrictions only those who wear a badge will be staying at Pem Ice II to eat and the rest will be eating at the facility.

Actions

-N/A

Minutes taken by:

-Katie Levesque



Attachment 1



Attendance

Pre-exercise briefing meeting

October 26, 2021

Print Name	Signature	
Mary-Ann Demers		
Chris Mitchell		
Beonett Robinson		
Joshua Bull		
Darci Gaudette		
Paul Lavigne		
Katie Levesque		
JAMIE MACDONALD		
Piero Perelli		PARA
Ross Fitzpatrick		
Eric Gaudette		
Scott McLeod		PARA
JULIAN AMALURA		CNSC
David Szanyi		CNSC
Lester Posada		CNSC

Attachment 1

Print Name	Signature
Tanya Sennett	
NATHALIE BELLEAU	
Brenda St Pierre	
Philip Hoffman	
STEPHANIE LUGSUG	

Meeting Minutes dated November 14, 2021

MEETING MINUTES

Committee: -Other
Meeting date: -October 26, 2021
Next meeting date: -October 28, 2021

Attendees: -Stephane Levesque (SL) Incident Commander
-Jamie MacDonald (JM) Manager-Health Physics & Regulatory Affairs
-Ross Fitzpatrick (RF) In Training with SL
-Katie Levesque (KL) Communications Officer
-Paul Lavigne (PL) Manager-Safety & Security
-Mary-Ann Demers (MAD) Production Control Manager
-Josh Bull (JB) In Training with JM
-Darci Gaudette (DG) In Training with MAD
-Chris Mitchell (CM) In Training with KL
-Bennett Robinson (BR) In Training with PL
-Eric Gaudette (EG) Exercise Controller
-Tanya Sennett (TS) Evaluator
-Nathalie Belleau (NB) Evaluator
-Brenda St. Pierre (BSP) Assembly Supervisor
-Philip Hoffman (PH) Production Technician
-SRBT Staff
-Julian Amalraj, CNSC Staff, Inspector
-Lester Posada, CNSC Staff, Lead Inspector
-David Szonyi, CNSC, Technical co-op student
-Laurent Nicolai, CNSC Staff (by phone)
-Ed Beaupre, Captain, Pembroke Fire Department
-Kyle Zimmerman, Firefighter, Pembroke Fire Department
-Tom Watkins, Firefighter, Pembroke Fire Department
-Riley Poirier, Firefighter, Pembroke Fire Department

SL
JM
RF
KL
PL
MAD
JB
DG
CM
BR
EG
TS
NB
BSP
PH
R/S

Subject:

-Emergency Training Exercise de- briefing (hot wash)

Supporting documentation:

- 1 - Attendance sheet
- 2 - Emergency Response Procedure Form

Last meeting minutes

-N/A.

Old Business

-N/A

New Business

- All in attendance signed the attendance sheet (**see attached 1 for details**).
- SL thanked everyone for their support during the emergency training exercise.
- SL asked all SRBT staff if they have any questions, comment or improvements in regard to the exercise.
 - Owen Egan, Project Engineer noted there were questions regarding an employee who was missing during both head counts and wasn't sure if they were counted as missing. MAD stated she did in fact get told that employee was missing but was also aware they were not at the facility and therefore not participating in the emergency exercise.
 - No other comments were noted. SL stated if anyone thinks of something at a later time not to hesitate let him know.
- SL now excused SRBT Staff who did not have a role during the exercise (those without a badge).
 - SL stated before Gord Perolli, Commander, County of Renfrew Paramedic Service left (he could not attend this meeting) he noted a possible improvement could be to use a code word, i.e. NO DUFF when there is a need to notify of a real emergency instead of "THIS IS A REAL EMERGENCY". **New Action**.
- SL discussed each step listed on the Emergency Response Procedure Form (**see attached 2 for details**).
 1. Emergency response initiation
 - On October 26, 2021 at 9:30 am the emergency response was initiated.
 2. Notification of company staff
 - Notified by other staff by two-way portable radio
 3. Notification of responders
 - The Pembroke Fire Department was contacted.
 4. Assessment of emergencies
 - Smoldering fire in assembly room
 5. Assisting emergency responders
 - The environment: Little to no risk
 - The health and safety of persons: dose is insignificant to PFD as they were wearing protective clothing and a Self-Contained Breathing Apparatus (SCBA)
 - The maintenance of security: All doors remained locked other than the front door which had the hose coming through it.
 6. Mitigate radiation exposure
 - Confirm evacuation of area: Complete
 - Confirm that Self Contained Breathing Apparatus are used: Complete
 - Confirm that full protective clothing is worn: Complete
 - Ensure that protective clothing and equipment are quarantined after use: Complete
 7. Mitigate the effects on the environment
 - Provide advice to responders: Complete.
 - Rationale for advice: Complete
 8. Formal notification of emergency
 - KL stated the notification of stakeholders started at approximately 9:35 am and was completed at approximately 9:59 am.
 - The Canadian Nuclear Safety Commission (CNSC) was contacted via their 24-hr duty officer and Lester Posada, SRBT's Project Officer. A call center is used to notify the duty officer, a return call was received in approximately 13 minutes.

- The City of Pembroke was contacted via Colleen Sauriol, Manager of Planning, Building & By-Law Enforcement for the City of Pembroke.
- The Provincial Member of Parliament was contacted through his office staff.
- The Federal Member of Parliament was contacted through his office staff
- Both Med-Eng and Linde Canada were contacted and notified of the emergency.
- Once the emergency was deemed complete, KL successfully completed the notification of all Stakeholders.

9. Assess radiation exposure

- Develop a list with the names and contact details of all emergency response personnel.
 - JM received contact names and details of all emergency response personnel.
- Ensure emergency response personnel provide urine samples.
 - JM provided bioassay containers to the emergency response personnel for them to provide urine samples shortly after the emergency.
- Provide a report of bioassay level and dose to:
 - Each emergency response personnel of their personal bioassay level and dose
 - JM will discuss dose results with each emergency response personnel.
 - Emergency response officials for all emergency response personnel
 - JM will provide emergency response officials with dose results.
 - CNSC officials for all emergency response personnel
 - JM will provide CNSC officials with dose results.
 - Health Canada officials for all emergency response personnel
 - JM will provide Health Canada officials with dose results.

10. Assess spatial extent and level of surface contamination

- Protective clothing
 - Assessment of surface contamination was completed.
- Equipment
 - Assessment of surface contamination was completed.
- Facility
 - Assessment of surface contamination would be completed shortly after the emergency has been completed.
- Environment
 - The chart recorder will be used to determine if there were any significant releases during an event that would require additional environment sampling to be performed.

11. Decontamination

- Protective clothing
 - If the assessment of surface contamination determines that protective clothing is contaminated and cannot be cleaned the clothing would become radioactive waste and would be replaced by SRBT.
- Equipment
 - If the assessment of surface contamination determines that the equipment is contaminated and cannot be cleaned the equipment would become radioactive waste and would be replaced by SRBT.

12. Termination of Emergency Response

- Discussed termination of emergency response at 10:17 am. KL contacted all stakeholders between 10:18 am and 10:27 am to notify the end of the emergency (see 8. for more details).
- SL stated number 13 and 14 (see attached 2 for details) cannot be completed at this point.
- SL introduced individually each person in attendance, they then commented or made suggestions on the exercise.
 - Ross Fitzpatrick (RF) In Training with SL
 - Communication issues at times with the 2-way radios. Continue to repeat yourself if you don't get a response.
 - Katie Levesque (KL) Communications Officer
 - Using/listening to the 2-way radios and making the phone calls can be confusing at times. Having CM there to help listen to the radio was helpful.
 - Chris Mitchell (CM) In Training with KL
 - Agrees with KL, nothing additional to add.

- Mary-Ann Demers (MAD) Production Control Manager
 - Could improve on her head count sheet to include more columns for multiple times i.e. at marshalling area and at Pemlce II. **New Action.**
 - Also noted an issue with SRBT staff entering Pemlce II as we were unaware we would be asked to provide proof of vaccination.
- Darci Gaudette (DG) In Training with MAD
 - MAD gave explanations while performing her duties which was helpful for training.
- Eric Gaudette (EG) Exercise Controller
 - Noted he was in zone 2 for the entire exercise. The injects were handed out with no issues and were acted on accordingly. Had to shut his 2-way radio off in order for the fire fighters to communicate clearly using their radios, informed SL of this by text. Noted the injects were given at the following times. Inject #1 – 9:30 am, inject #2 – 9:31 am, inject #3 – 9:31 am, Inject #4 – 9:45 am, Inject #5 – 9:51 am.
- Jamie MacDonald (JM) Manager Health Physics & Regulatory Affairs
 - The Pembroke Fire Department Staff were calm and accessed the active area. Noted there were a lot of radios going at the same time but we managed well. Having a second person is helpful when activities are happening.
- Josh Bull (JB) In Training with JM
 - Thought the exercise went exceptionally well. Noted when JM requested 60 secs to answer a question by SL was a good idea.
 - JM further explained how long swipes take in reality and stressed patience in a real event.
- Paul Lavigne (PL) Manager Safety & Security
 - Hard time listening to both the 911 operator and the 2-way radios at the same time.
- Bennett Robinson (BR) In Training with PL
 - Agreed with the comment from PL but noted he felt confident with using the 2-way radios due to the training received.
- Phillip Hoffman (PH) Production Technician
 - Paramedics asked questions and explained what they were doing and what would happen during a real emergency.
- Brenda St. Pierre (BSP) Assembly Supervisor
 - Received the first inject from EG, tried to put out the smoldering fire with no luck, pulled the fire alarm. The other employees in zone 2 did well by staying back.
 - EG confirmed the employees in zone 2 did very well.
- Tanya Sennett (TS) Evaluator
 - The checklist isn't great, it's much easier to take notes and go back later to finish the checklist. Having a small clock or timer would be a good addition. **New Action.** Consider always having a backup ERO in play during emergency to assist primary.
- Nathalie Belleau (NB) Evaluator
 - Heard communications with the 2-way radios, noted static while inside Pemlce II. In agreement with TS regarding the checklist. Noted the proof of vaccination requirement we encountered when trying to enter Pemlce II.
 - KL noted the issue was resolved by calling Colleen Sauriol Manager of Planning, Building & By-Law Enforcement for the City of Pembroke.
- Stephane Levesque (SL) Incident Commander
 - Overall the Emergency Training Exercise went very well. Agreed the 2-way radios were an issue, personally would rather use cell phones as primary form of communication and have the radios as a back-up. **New Action.**
 - The training received for the 2-way radios was good but should have a procedure with the proper lingo and how to use would be beneficial. **New Action.** The 2-way radios should be labeled with Incident Commander (IC) etc. for clarity. **New Action.** Noted nobody was in his way during the exercise, i.e. evaluator, Pembroke Fire Department.
- Ed Beaupre, Captain, Pembroke Fire Department
 - Noted the communication between BSP to SL, then SL to them went very well which made their job much easier. Also noted issues with the 2-way radios.
- Kyle Zimmerman, Firefighter, Pembroke Fire Department
 - Also noted the communication was very good especially before they entered the building and from JM while performing his assessments.

- Tom Watkins, Firefighter, Pembroke Fire Department
 - Re-iterated the good communication. Well organized.
- Riley Poirier, Firefighter, Pembroke Fire Department
 - Same comments as the others. Went well.
- Julian Amalraj, CNSC Staff, Inspector
 - Will provide comments at a later time but noted the exercise was well executed and excellent coordination between SRBT and the Pembroke Fire Department.
 - MAD noted at one-point Lester Posada was no longer at Pemlce II and didn't notify anyone he was leaving. Also suggested changing how the head count is done, individually instead of in groups. **New Action.**
- SL once again stated if anyone thinks of something at a later time not to hesitate let him, RF or EG know.
- SL noted a report will be completed and sent to CNSC Staff within 60 days.
- SL stated the following was noted as possible improvements:
 - Use a code word, i.e. NO DUFF when there is a need to notify of a real emergency instead of "THIS IS A REAL EMERGENCY".
 - Improve head count sheet to include more columns for multiple times i.e. at marshalling area and at Pemlce II.
 - Use cell phones as primary form of communication and have the radios as a back-up.
 - A procedure with the proper lingo and how to use the 2-way radios.
 - The 2-way radios should be labeled with Incident Commander (IC) etc. for clarity.
 - Changing how the head count is done, individually instead of in groups.
 - Having a small clock or timer would be a good addition when evaluating.
- The ERO's will have a separate meeting to discuss the possible improvements listed above.

Actions

-N/A

Minutes taken by:

-Katie Levesque



Attachment 1



Attendance

De-briefing (hot wash) meeting

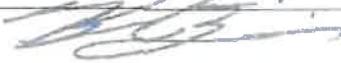
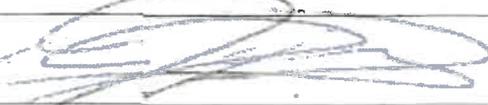
October 26, 2021

Print Name	Signature
Katie Levesque	Katie Levesque
Chris Mitchell	Chris Mitchell
Mary Ann Demers	MA Demers
Darci Gaudette	D. Gaudette
JULIAN AMALDAO	A. Julia Lopez
LESTER ROSADA	Lester Rosada
David Szonzi	David Szonzi
Nathalie Belleau	N. Belleau
Tanya Sennett	T. Sennett
Brenda St Pierre	B. St Pierre
Phil Hoffman	Phil Hoffman
Bennett Robinson	Bennett Robinson
Paul Laigne	Paul Laigne
Joshua Bell	Joshua Bell
Eric Gaudette	Eric Gaudette

Attachment 1

Print Name	Signature
Paula Biesenthal	Paula Biesenthal
Mandy Gorr	Mandy Gorr
Darryl Myr	Darryl Myr
Christina Kutschka	Christina Kutschka
PETER DORDA	Peter Dorda
Open Egan	Open Egan
Amber Buske	Amber Buske
Sarah St Pierre	Sarah St Pierre
TINA MARKUS	Tina Markus
Dannia McElroy	Dannia McElroy
Sandra Brennan	Sandra Brennan
Laura Charles	Laura Charles
Danna Budig	Danna Budig
Keith Visutski	Keith Visutski
TERRY KLENTZ	Terry Klentz
Evon Wott	Evon Wott
Matthew Bergen	Matthew Bergen
Faith Fitzpatrick	Faith
Cody Chapin	Cody Chapin
Darwin Thang	Darwin Thang
JAMIE MACOSNAGO	Jamie Macosnago

Attachment 1

Print Name	Signature
ROSS FITZPATRICK	
Ed Beempre PFD	Ed Beempre
Kyle Zimmerman PFD	
Tom Watkins PFD	
Riley Poirer PFD	RPK

Attachment 2

EMERGENCY RESPONSE PROCEDURE FORM

1. EMERGENCY RESPONSE INITIATION

Indicate when the emergency response was initiated:

Time: _____
Day: _____
Month: _____
Year: _____

2. NOTIFICATION OF COMPANY STAFF (8.1)

Note how the notification was made:

- Personally became aware
- Notified by other staff
- Notified by Alarm Monitoring Company

3. NOTIFICATION OF RESPONDERS (8.2)

Indicate which responders that have been contacted:

- Pembroke Fire Department
- Ontario Provincial Police

4. ASSESSMENT OF EMERGENCIES (8.3)

Determine emergency scenario that best resembles current emergency:

- Impact of a large rogue vehicle (8.3.1.1)
- Tornado accident (8.3.1.1)
- Smoldering fire (8.3.1.1)
- Breach in security (8.3.1.1)
- Other natural disaster (8.3.1.1)
- Offsite releases (8.3.1.1)

5. ASSISTING EMERGENCY RESPONDERS (8.4)

Briefly list the expected effects of the emergency on:

The environment: _____
The health and safety of persons: _____
The maintenance of security: _____

6. MITIGATE RADIATION EXPOSURE (8.5)

- Confirm evacuation of area (8.5.1)
- Confirm that Self Contained Breathing Apparatus are used (8.5.2)
- Confirm that full protective clothing are worn (gloves, boots, helmets, pant, coats) (8.5.2)
- Ensure that protective clothing and equipment are quarantined after use (8.5.3)

7. MITIGATE THE EFFECTS ON THE ENVIRONMENT (5.6)

Provide advice to responders: _____

Rationale for advice: _____

Attachment 2

8. FORMAL NOTIFICATION OF EMERGENCY (8.7)

Formally notify the following stakeholders of the emergency:

- Canadian Nuclear Safety Commission (8.7.1)
- City of Pembroke (8.7.2)
- Provincial member of parliament (8.7.3)
- Federal Member of Parliament (8.7.4)
- Public (8.7.5)

9. ASSESS RADIATION EXPOSURE (8.8)

Develop a list of names and contact details of all emergency response personnel:

- List completed

Ensure emergency response personnel provide urine samples :

- Shortly after incident is under control.
- 1 week after incident.
- 2 weeks after incident.
- 3 weeks after incident.
- 4 weeks after incident.
- 5 weeks after incident.

Provide a report of bioassay level and dose to:

- Each emergency response personnel of their personal bioassay level and dose.
- Emergency response officials for all emergency response personnel.
- CNSC officials for all emergency response personnel.
- Health Canada officials for all emergency response personnel.

10. ASSESS SPATIAL EXTENT AND LEVEL OF SURFACE CONTAMINATION (8.9)

Assess spatial extent and level of surface contamination of:

- Protective clothing (8.9.1)
- Equipment (8.9.2)
- Facility (8.9.3)
- Environment (8.9.4)

11. DECONTAMINATION (8.5.3)

Decontaminate surfaces to reduce radiation exposure:

- Protective clothing (8.5.3.1)
- Equipment (8.5.3.2)

12. TERMINATION OF EMERGENCY RESPONSE (8.10)

Discuss with emergency response personnel officials termination of emergency response

- Define steps that must be taken to terminate emergency response
- Define steps that must be taken after termination of emergency response

13. DEVELOP CORRECTIVE ACTION (10.0)

Develop corrective action to best remediate the effects from an incident:

- Attached.

Attachment 2

14. CONTINUOUS ASSESSMENT OF EMERGENCY PLAN (11.0)

Review the effectiveness of the emergency response procedure that was performed:

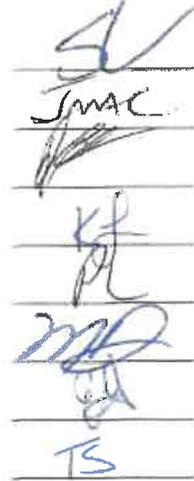
- Attached.
- Was an update made to the Emergency Plan as a result of the review.
- If an update to the Emergency Plan was made as a result of the review have copies been provided to the Pembroke Fire Department and CNSC.

Meeting Minutes dated November 17, 2021

MEETING MINUTES

Committee: -Other
Meeting date: -October 28, 2021
Next meeting date: -N/A

Attendees: -Stephane Levesque (SL) Incident Commander
-Jamie MacDonald (JM) Manager Health Physics & Regulatory Affairs
-Ross Fitzpatrick (RF) In Training with SL
-Katie Levesque (KL) Communications Officer
-Paul Lavigne (PL) Manager Safety & Security
-Mary-Ann Demers (MAD) Production Control Manager
-Eric Gaudette (EG) Exercise Controller
-Tanya Sennett (TS) Evaluator



Subject:
-Meeting with ERO staff

Supporting documentation:
1 - Notes on Emergency Exercise – October 26, 2021
2 - CNSC preliminary inspection facts and findings report

Last meeting minutes
-N/A

Old Business
-N/A

New Business

- Discussed the following two actions stemming from the de-briefing meeting:
 - Improve head count sheet to include more columns for multiple times i.e. at marshalling area and at Pemlce II.
 - Raise ECR to make the following changes to the head count sheet: **New Action**
 - Add a time column to record times
 - Add a second head count column to be used during an emergency
 - Change header "Absent" to "Present"
 - Only the ERO members are to review the ECR.
 - Changing how the head count is done, individually instead of in groups.
 - Discussed and agreed due to the size and number of employees at the facility performing the head count by naming individuals instead of groups would be more efficient. **New Action**
 - KL is now responsible to make the employee changes to the head count sheets as she performs the payroll. **New Action**

- TS reviewed and discussed the evaluator checklist
 - Page 4, Notification to Company Staff, Production Control Assistant (PCM) and Executive Assistant (EA) to ensure access to Pem Ice II for the gathering of staff.
 - Noted the issue with SRBT staff entering PemIce II as we were unaware we would be asked to provide proof of vaccination. The issue was quickly resolved by KL calling Colleen Sauriol Manager of Planning, Building & By-Law Enforcement for the City of Pembroke.
 - Page 5, Emergency Response Resources, Emergency response facilities, equipment and documentation are adequate to support the emergency exercise.
 - Overall the facilities, equipment and documentation were adequate but the following was noted:
 - The 2-way radios were a bit distorted with static.
 - Evaluator checklists are too comprehensive
 - Delayed access to PemIce II.
 - All sections of the checklist were met.
- Discussed the following two actions stemming from the de-briefing meeting:
 - SL noted that although we all did well on the two-way radios it would be beneficial to have a procedure with specific wording such as "NO DUFF" as recommended by the paramedics. **New Action.** PL noted as a former auxiliary for the OPP he is unfamiliar with the term NO DUFF. PL will review the procedure.
 - SL suggested to label the 2-way radios with Incident Commander (IC) etc. for clarity. **New Action.**
- Also noted to help improve the skills on the 2-way radios they should be used during the fire drills. **New Action**
- TS provided the notes she took during the exercise (**see attached 1 for details**) and noted an improvement would be to have a timer/clock readily available to note the times more efficiently. **New Action.**
- JM stated it would be beneficial to have additional cameras on the tritium-in-air monitors to determine if there is a release without entering the building. **New Action.**
- JM reviewed the Preliminary Inspection Facts and Findings Report (**see attached 2 for details**)
 - Exercise Design/Control and Testing of Emergency Measures
 1. To review the condition of entry for SRBT personnel and PPE requirement for re-entry to the facility.
 - Will now have PPE (gloves, coats, shoe covers) at two exit points to be taken during all fire drills/alarms. **New Action.**
 2. Recommend having another controller.
 - Will evaluate the use of an additional controller based on emergency and design.
 3. Recommend using a different code word i.e.NO DUFF. See above for details.
 5. Recommend keeping radios as the primary communication tool with cell phones as the backup.
 - Even though SL suggested using the cell phones as primary form of communication and have the radios as a back-up we will follow the recommendation of the CNSC and continue using the radios as primary.
 6. Evaluators noted checklist could use improvement. See above for details.
 - Exercise Evaluation
 6. No official scribe, evaluator was scribing event for IC.
 - Discussed and agreed TS will now be the scribe during the emergency training exercises and will be added to the ERO. **New Action.**
 9. Recommend having a worksheet for Recovery activities as a memory jog.
 - Discussed and agreed to establish a worksheet for recovery activities such as, reactivate fire alarm, security system, etc. **New Action.**
- Discussed the current ERO members and noted the following change:
 - JM the Manager Health Physics & Regulatory Affairs has a vital role during the emergency exercise and therefore, will no longer be the third backup for the Incident Commander. EG will now be added as the third backup for the Incident Commander. **New Action.**
- SL noted the emergency contacts in the Emergency Plan, the Fire Protection Program and the Fire Safety Plan should all be removed and put into a separate document that can be routinely updated as well as any other information that need to be routinely updated from the above three documents. **New Action.** KL will be responsible to update the document once completed.
- SL asked JM to write a letter to the paramedics to thank them for the cooperation and to offer training/ tour of the facility for the paramedics. JM to look at a computer-based training that can be done at their leisure. **New Action.**

-In closing SL noted that overall the emergency training exercise went remarkably well.

Actions

- Perform the head count by naming individuals instead of groups would be more efficient.
- Raise ECR to make the following changes to the head count sheet:
 - Add a time column to record times
 - Add a second head count column to be used during an emergency
 - Change header "Absent" to "Present"
- KL is now responsible to make the employee changes to the head count sheets as she performs the payroll.
- Develop a procedure with specific wording such as "NO DUFF" as recommended by the paramedics.
- Label the 2-way radios with Incident Commander (IC) etc. for clarity.
- Also noted to help improve the skills on the 2-way radios they should be used during the fire drills.
- An improvement would be to have a timer/clock readily available to note the times more efficiently
- Add additional cameras on the tritium-in-air monitors to determine if there is a release without entering the building.
- Have PPE (gloves, coats, shoe covers) at two exit points to be taken during all fire drills/alarms.
- TS will now be the scribe during the emergency training exercises and will be added to the ERO.
- Establish a worksheet for recovery activities such as, reactivate fire alarm, security system, etc.
- JM will no longer be the third backup for the Incident Commander. EG will now be added as the third backup for the Incident Commander.
- The emergency contacts in the Emergency Plan, the Fire Protection Program and the Fire Safety Plan should all be removed and put into a separate document that can be routinely updated as well as any other information that need to be routinely updated from the above three documents. KL will be responsible to update the document once completed.
- JM to write a letter to the paramedics to thank them for the cooperation and to offer training/ tour of the facility for the paramedics. JM to look at a computer-based training that can be done at their leisure.

Minutes taken by:

-Katie Levesque



Attachment 1

Notes on Emergency Exercise – October 26, 2021

- alarm sounded at 9:31
- SL & RF got the radios
- staff evacuated
- SL met BS in front of the building outside
- BS told SL there was a small fire in the Assembly Department on the table by some exit signs. Said there were no bare lights involved. Some completed signs fell on the floor. BS attempted to put out the fire but she isn't sure its out. Still some smoke. Unsure of damages.
- SL told BS to head to the marshalling area
- SL called PFD @9:33
- SL said "Emergency Exercise" to the PFD
- SL did a radio check – everyone copied
- SL said there was a fire in the Assy
- KL to start making calls
- SL asked for the headcount
- MAD confirmed who was missing from the headcount (RF, EG, TS, SL missing). SL confirmed the missing staff was accounted for up front.
- 9:36 SL asked everyone to assemble at PEM-ICE 2
- 9:37 PFD confirmed with Steph (phone)
- MAD reported that Phil isn't feeling well
- SL asked about the ambulance
- 9:37 PFD arrived
- SL told the staff to go to PEM-ICE 2
- SL informed the PFD of the location of the fire (was showing them a map on the phone and gave clear directions)
- Visually saw the staff heading over to PEM-ICE 2
- SL ensured that the fire fighters had their SCBA and full gear (pants, boots, helmets etc)
- PFD set up a command center near the fire truck – the information board was used to makes notes
- PFD asked about a head count
- JM and SL discussed the emergency and potential radiological hazards

Attachment 1

- SL said "Emergency Exercise" again and asked for the headcount at PEM-ICE 2
- JM & JB will not be at PEM-ICE 2, JM already informed MAD and SL further confirmed that with MAD
- Paul informed SL about Phil's chest pains and confirmed that the ambulance was called and on the way. SL passed this information onto the PFD
- 9:42 ambulance arrived
- SL requested the headcount from MAD again
- PFD informed SL of a tornado to the west of Pembroke
- MAD gave headcount form PEM-ICE 2 @9:46
- JM & SL discussed the radiological issues (numbers on the monitors)
- JM discussed contamination with SL
- Head "Emergency Exercise" spoken at 9:46
- Chief updated the group on the activities inside – what the firefighters were doing
- Chief did an air check with the firefighters inside. The firefighters confirmed the numbers on the TIA monitor (readings haven't changed)
- JM gave instructions for the firefighters to keep their gear on
- KL radioed SL and let him know that all the calls were made. SL reminded KL to contact Lester @ 9:48
- Chief announced that the fire was knocked down
- JM discussed going into the facility to silence the fire alarm so that better communications could be made
- SL verified that the fire alarm can be silenced
- SL updated the chief about the alarm
- Alarm silenced at 9:50
- SL and Chief discussed the other emergency (tornado) again. Also discussed tha the fire is extinguished and that they were checking damages
- Confirmed that the fire is out and got update on radiological situation
- SL checked on the status of Phil
- PL confirmed that PL, BJ and Phil were on their way to PEM-ICE 2
- Paramedics and PFD conversed
- SL updated the PFD about the status of Phil
- "Emergency Exercise" announced again

Attachment 1

- JM updated SL on the radiological situation
- JM took care of the broken signs/contamination
- TIA monitor is at 5 (low) No hazard, PFD are safe and protected
- SL updated the PFD and discussed their gear
- PFD asked if the facility should be ventilated. Not recommended. The facility ventilation should be sufficient
- KL confirmed that she contacted Lester
- Paramedics and PFD discussed the situation and the health of the firefighters
- Observed drone above the facility at 10:00
- SL and PFD discussed assessing and testing of the PFD equipment and gear
- PFD checked their air supply on the SCBAs
- Assessing contamination of the firefighters
- Firefighters were at about half on their air supply @ 10:03
- Chief noted that they had extra air on hand if required
- SL and JM discussed their air supply (Why couldn't the firefighters take off their masks? Jamie was in there)
- SL confirmed again with MAD that all Staff are accounted for @ PEM-ICE 2
- SL confirmed again with KL that contacts were made and if she got Lester. KL confirmed that she did and that she left a message with Lester
- 10:06 SL called for battery checks on the radios – all good
- PFD was constantly in communication with each other
- JM confirmed that no contamination spread on the firefighter's gear. They still have SCBA on.
- PFD command board is impressive
- SL and PFD updated each other
- SL requested KL send Lester an email
- 10:09 JM informed SL that there was no contamination concerns and no affects to the environment are expected
- SL and PFD will go into make a final check on the situation
- SL asked JM if it was safe to go in the building. JM said wait 60 seconds
- KL confirmed that Lester got the email

Attachment 1

- SL updated the ERO of the overall situation
- Firefighters released from building @ 10:12 and JM said that SL and Chief could go in now
- Firefighters checked in with the Chief
- SL and Chief are going in @ 10:14 (SL confirmed again with JM first)
- Noted that there was hazard tape near the door of Assembly.
- SL and Chief observed the fire scene from behind the tape
- JM updated SL and Chief
- Chief checked for hotspots with a camera. Said there were none
- SL and Chief discussed terminating the emergency
- SL asked EG, JM and Chief about terminating the emergency. All agreed
- SL announced the termination of the emergency at 10:17 (the radio was staticy at this point – perhaps because everyone was inside of buildings – texted their affirmations)
- JM doing swipes at the Zone 2 barrier
- SL and JM confirmed that the PFD was good to go.
- JM discussed urine samples and hose contamination
- SL updated the Chief
- Paramedics checked with SL if they were good to go. SL asked for their feedback first. Commander suggested the use of the phrase “NO DUFF” to announce a real emergency.
- JM asked firefighters to provide a urine sample in about an hour – provided specimen containers – and provided them with a general update (all good)
- SL updated the ERO on the current situation
- Heard “Emergency Exercise” again
- Noted that there was roadwork being done at the same time as the Emergency Exercise
- SL confirmed that he got KL’s email
- 10:27 KL spoke to the 24-hour duty officer and all others on the contact list and confirmed this with SL
- JM updated SL on swipe samples of hose. Gave an ETA
- SL confirmed with the PFD that the hose is all clear
- Updated ERO of the all clear on the contamination @ 10:32
- RF and EG reset the fire panel @ 10:33
- SL and JM discussed assessing contamination further

Attachment 1

- Noted that JM had on full PPE and an extra set of booties
- JM informed SL that contamination assessment was good
- SL and JM discussed terminating the exercise
- SL and PFD discussed and agreed to terminate the exercise @ 10:46
- SL radioed the ERO and announced the termination of the exercise – all confirmed
- RF ensured that the building was secured
- SL asked BJ/PL to call the Alarm Company and let them know the exercise is over
- SL informed ERO that the radios could be shut off @ 10:49

Attachment 2



Canadian Nuclear Safety Commission
Commission canadienne de sûreté nucléaire

Preliminary Inspection Facts and Findings Report

Unclassified

Directorate of Nuclear Cycle and Facilities Regulation.

Ref. Procedure *How to Conduct DNCFR Inspections*

6661945

e-Doc
Number

Licensee Name: SRB Technologies (Canada) Inc.
Licence Number: NSPFOL-13.00/2022
Licensed Site: SRB Tritium Processing Facility (Pembroke, ON)
Inspection Number: SRBT-2021-02
Inspection Date(s): October 25, 2021 to October 27, 2021
Lead Inspector: Lester Posada, NPF

Licensee Authority: Jamie MacDonald
Preliminary Summary Date: October 27, 2021

Disclaimer:

The observations described in this report are **preliminary** in nature, and are intended to describe the overall observations of inspectors in the field. The observations detailed in this report are not in any way final observations, and are subject to change pending additional analysis.

This report is furnished to the licensee responsible authority for information purposes only. Any compliance actions that result from the final analysis of inspection data will be tabled in the final inspection report.

Inspection Scope:

This Compliance Inspection formed a component of the CNSC compliance verification program. The purpose of the inspection was to provide an overall assessment of compliance with specific clauses of the *Nuclear Safety and Control Act* and its regulations, the operating licence NSPFOL-13.00/2022 and its associated Licence Conditions Handbook (LCH), as well as SRBT's programs and procedures as necessary. The inspection was conducted onsite with remote support through video conference using Microsoft Teams.

The scope of the inspection focused on the Emergency Management and Fire Protection Safety and Control Area, specifically the conduct of a full scale emergency exercise.

Inspection Methodology:

The Inspection consisted of a walkdown of the facility, review of records and photographs, as well as observation of the emergency exercise and discussions between PFD and SRBT staff.



Preliminary Inspection Facts and Findings Report

Directorate of Nuclear Cycle and Facilities Regulation
Ref. Procedure How to Conduct DNCFR Inspections

Unclassified

Summary of Facts and Findings:

For the sample set, as defined in the provided *Compliance Matrix*, and assessed at the time of the inspection, the following general comments are tabled:

Safety and Control Area: Emergency Management and Fire Protection – Overall Comments

1. CNSC staff observed that the implementation of the Memorandum of Understanding (MOU) between SRBT and PFD was effective
2. Training Records for exercise participants were provided
3. Instrument maintenance records for radiation detection equipment were provided
4. COVID-19 Protocols were observed and were adhered to during the exercise

Exercise Design /Control and Testing of Emergency Measures

1. Pre-emergency briefing was well executed, considered all aspects including PPE, safety, communications, and real emergency situations
2. One controller was assigned for exercise, recommend having another controller as an opportunity for improvement
3. For this emergency exercise, the code word for a real emergency is “This is a real emergency”. Recommend using a different code word for future exercises/drills. This was identified by the Paramedics who suggested their preferred code word was “No Duff”
4. Use of “This is an exercise” at the start of all radio communications was well executed by IC and all personnel involved
5. Use of 3 way communication using radio was well done, noted that SRBT prefers to use cell phones as primary mode of communication with radios as backup. Recommend keeping radios as the primary communication tool with cell phones as the backup.
6. Evaluator checklist was not used for its purposes. Evaluators noted checklist could use improvement
7. Communication and handoff for the patient and paramedic went well
8. Communication and Incident Command (IC) coordination between SRBT and Pembroke Fire Department (PFD) staff were effective. Noted that PFD was a part of the exercise design and planning as well.
9. Notification of external stakeholders was done promptly

Exercise Evaluation

1. Design of exercise met overall objectives for testing emergency measures with an adequate response to a fire event at SRBT
2. IC set up and notification of responders was timely
3. Preliminary event information available at IC was adequate
4. IC had map of facility in his phone as well as documents.
5. Communication and coordination between PFD and IC was excellent and well coordinated
6. No official scribe, evaluator was scribing event for IC

Attachment 2



Canadian Nuclear Safety Commission
Commission canadienne de sûreté nucléaire

Preliminary Inspection Facts and Findings Report
Directorate of Nuclear Cycle and Facilities Regulation
Ref. Procedure *How to Conduct DNCFR Inspections*

Unclassified

7. HP Manager recommended PFD keep SCBA on but HP Manager walked in without PPE, recommend to review conditions of entry for SRBT personnel and PPE requirements for re-entering facility.
8. Radiological assessment was done extremely well
 - a. Hot/cold set up at entrance of Zone 2 was well delineated for contamination control
9. Recommend having a worksheet for Recovery activities as a memory jog.

Requests for Further Information:

In order to complete the document review component of this inspection, SRBT is requested to provide the following further documentation:

1. Final Exercise Evaluation Report

The inspection team wishes to thank all licensee staff who were involved in the preparation and execution of this inspection.

Lester Posada, Lead Inspector
Project Officer, NPF

October 27, 2021

Date

The licensee is requested to countersign this record and return it to the attention of the Lead Inspector. The signing of this record by the licensee is an acknowledgment of receipt only, and does not signify an acceptance of its contents.

Jamie MacDonald, Manager – Health Physics
and Regulatory Affairs

OCT. 27 / 2021

Date

APPENDIX B
ADMINISTRATIVE INSTRUCTIONS

WWW.BETALIGHT.COM



SRB Technologies (Canada) Inc.

Emergency Exercise One

Administrative Instructions

1. Introduction

SRB Technologies (Canada) Inc. located in Pembroke Ontario will be conducting a full scale, real time exercise to practice emergency response to an incident involving all site personnel, and the off-site responders Pembroke Fire Department and the County of Renfrew Paramedic Service. This exercise will also take place on the same day, just following the City of Pembroke's own emergency exercise.

The exercise will be designed to practice an integrated response from local agencies in dealing with a realistic emergency event that could take place in the facility. The full scale exercise is not meant to be a venue to coach responders but to allow SRB Technologies (Canada) Inc. (SRBT) and off-site responders to respond as if it was a real emergency.

The exercise will be conducted on October 26, 2021 beginning at 09:30 hours and will last approximately two hours. There is no alternate date scheduled for the exercise.

The purpose of this document is to provide the SRBT Staff with the overview of the activities that will lead to and take place on the day of the exercise. The following supporting documents will be utilized to support the execution of the emergency exercise.

Document Name	Audience
Synopsis for the Emergency Exercise	SRBT Staff City of Pembroke Pembroke Fire Department (PFD) County of Renfrew Paramedic Service Canadian Nuclear Safety Commission (CNSC) Staff
Administrative Instructions	SRBT Staff
Exercise Controller Instructions	SRBT Staff
Exercise Evaluator Checklist	SRBT Staff CNSC Staff

2. Exercise Objectives

The objectives of the exercise are as follows:

SRBT

- Demonstrate the ability to plan and conduct a full scale exercise, meeting the objectives of SRBT's Emergency Plan - refer to section of 7.10.1.4 of the Emergency Plan.
- Practice staff accountability and confirmation process.
- Practice managing and coordination of an emergency with off-site emergency responders.
- Practice unified command with the Pembroke Fire Department.
- Practice a concurrent medical emergency to a SRBT Staff member during the emergency exercise which will require response by the County of Renfrew Paramedic Service.
- Practice SRBT staff overall response to emergency exercise scenario.
- Practice appropriate communication protocols and procedures.
- Practice appropriate contamination protocols and procedures.
- Practice the notification to regulatory agencies.
- Demonstrate the capability to collect feedback, identify any areas of improvement and identify corrective measures to improve SRBT's Emergency Plan.

Pembroke Fire Department

- Gain knowledge and confirm the ability to work together with SRBT Incident Commander, Emergency Response Organization (ERO) Members and other key SRBT staff.
- Practice unified command at SRBT facility.
- Practice a concurrent emergency exercise with the City of Pembroke.

City of Pembroke

- Gain knowledge and confirm the ability to work together with SRBT Incident Commander and ERO Members and other key SRBT staff.
- Practice a concurrent emergency exercise.

County of Renfrew Paramedic Service

- Gain knowledge and confirm the ability to work together with SRBT Incident Commander, ERO Members and other key SRBT staff.
- Practice a response to a medical emergency to a SRBT Staff member during an emergency exercise.

3. Attendance

The following is a list of agencies actively participating in the exercise. Observers from other organizations may also participate in a passive role.

- Pembroke Fire Department
- City of Pembroke (to share notes after concurrent exercise)
- County of Renfrew Paramedic Service
- Canadian Nuclear Safety Commission Staff

4. Exercise Planning Time Table

Date	Activity
August 25, 2021	SRBT meeting with City of Pembroke and Pembroke Fire Department to discuss: <ul style="list-style-type: none"> • Possible exercise timelines. • Emergency exercise objectives. • Preliminary scenario details.
September 1, 2021	SRBT meeting with County of Renfrew Paramedic Service to discuss: <ul style="list-style-type: none"> • Possible exercise timelines. • Emergency exercise objectives. • Preliminary scenario details.
September 9, 2021	SRBT meeting with all ERO Members and their back-ups to discuss: <ul style="list-style-type: none"> • Exercise timelines. • Emergency exercise objectives. • Preliminary scenario details. • Discussed roles and responsibilities of ERO members. • Discussed importance of training for back-ups.
September 9, 2021	SRBT meeting with City of Pembroke, Pembroke Fire Department and County of Renfrew Paramedic Service to discuss: <ul style="list-style-type: none"> • Review and finalize emergency exercise synopsis.
September 13, 2021	Prepare exercise documentation: <ul style="list-style-type: none"> • Synopsis.
September 13, 2021	Prepare exercise documentation: <ul style="list-style-type: none"> • Administrative Instructions. • Controller Instructions. • Evaluator Checklist. • Public Notice.
October 22, 2021	Review of scripting and exercise field documentation <ul style="list-style-type: none"> • Make any changes as required. • Inform immediate neighbors and direct mail Public Notice to Residences and businesses located within 500 m of SRBT.
October 25, 2021	Post Public Notice on Web site and Social Media Outlets.
October 26, 2021	Pre-exercise preparations: <ul style="list-style-type: none"> • Brief controllers. • Brief evaluators. • Brief participants. • Perform equipment checks.
October 26, 2021	Exercise Setup: <ul style="list-style-type: none"> • Setting stage. • Operational checks. • Positioning Controller. • Positioning Evaluators. • Exercise start. • Exercise stop. • Exercise de-brief (hot wash).
October 27, 2021	Post exercise: <ul style="list-style-type: none"> • Final exercise de-brief.
December 24, 2021	Complete exercise final report.

5. Conduct of the Exercise

SRBT's Emergency Plan will be used as a guide for this exercise.

Time	Activity
October 26, 2021	
08:30 - 9:30	Brief Exercise Controller, Evaluators, and participants
09:30 - 10:30	Set up exercise and conduct equipment checks
10:30	Exercise start
11:30	Exercise stop
11:30 - 13:00	<p>Overall emergency exercise de-brief (hot-wash) at Pem Ice II:</p> <p>Planned Participants:</p> <p>SRBT Staff – ERO Members:</p> <ul style="list-style-type: none"> • SRBT Incident Commander (President) – Stephane Levesque • SRBT Manager Health Physics Regulatory Affairs – Jamie MacDonald • SRBT Communication Officer (Executive Assistant) – Katie Levesque • SRBT Production Control Manager – Mary-Ann Demers • SRBT Manager Health Safety Security – Paul Lavigne <p>SRBT Staff -Active role in Exercise:</p> <ul style="list-style-type: none"> • SRBT Exercise Controller (Fire Protection Specialist) – Eric Gaudette • SRBT Assembly Supervisor – Brenda St-Pierre • SRBT Production Technician – Phil Hoffman • SRBT Evaluator (Compliance Manager) – Tanya Sennett • SRBT Evaluator (Quality Manager) – Nathalie Belleau <p>SRBT Staff ERO Members In Training:</p> <ul style="list-style-type: none"> • SRBT Incident Commander (Vice President) – Ross Fitzpatrick • SRBT Manager Health Physics Regulatory Affairs – Josh Bull • SRBT Communication Officer (Executive Assistant) – Chris Mitchell • SRBT Production Control Manager – Darci Gaudette • SRBT Manager Health Safety Security – Bennett Robinson <p>Pembroke Fire Department Staff:</p> <ul style="list-style-type: none"> • Captain – Ed Beaupre • Firefighter – Tom Watkins • Firefighter – Kyle Zimmerman <p>Paramedic County of Renfrew:</p> <ul style="list-style-type: none"> • Commander - Gordon Perolli <p>CNSC Staff:</p> <ul style="list-style-type: none"> • Lead Inspector – Lester Posada • Inspector – Julian Amalraj • Inspector EMPD (remote) – Laurent Nicolai • Technical Co-op Student – David Szonyi

Time	Activity
October 27, 2021	
13:30 - 15:00	Final exercise de-brief at SRBT: Planned Participants: SRBT Staff – ERO Members: <ul style="list-style-type: none"> • SRBT Incident Commander (President) – Stephane Levesque • SRBT Vice President – Ross Fitzpatrick • SRBT Manager Health Physics Regulatory Affairs – Jamie MacDonald • SRBT Communication Officer (Executive Assistant) – Katie Levesque • SRBT Production Control Manager – Mary-Ann Demers • SRBT Manager Health Safety Security – Paul Lavigne SRBT Staff -Active role in Exercise: <ul style="list-style-type: none"> • SRBT Exercise Controller (Fire Protection Specialist) – Eric Gaudette

6. Requirements

SRBT Incident Commander will:

- In advance of the exercise, assign the following personnel:
 - One Exercise Controller
 - Two Emergency Exercise Evaluators
- Work with the exercise ERO Members and Exercise Controller to develop and validate the scenario against the objectives and develop documentation.
- Work with ERO Members and Exercise Controller to prepare supporting documentation which includes exercise instructions/checklist for assigned roles.

SRBT Exercise Controller will also:

- Participate in planning of the emergency exercise.
- On the day of the exercise, the Exercise Controller will perform the following tasks in preparation for the exercise:
 - Set up field scenario for the facility
 - Issue the emergency exercise injects to key players

Note: An inject is information or data given in a form of a card to key participants during the execution of the emergency exercise. Injects are used to create realistic changes during an emergency exercise and to monitor response actions. The Exercise Controller (Fire Protection Specialist) has the role and responsibility to issue injects during different phases of the emergency exercise.

SRBT's ERO Members will provide the following:

- Information required by the Exercise Controller for the development of the exercise scenario
- Review of Exercise Controller's documentation as required
- Provide technical expertise as required
- Participate in the exercise as required

7. Communications

All participating agencies will use the normal communications equipment and procedures available to them for the emergency exercise. SRBT staff will use their standard communications equipment (LAN line, cell phones and two-way portable radios) that is separate from those used by the Emergency Responders. This will allow SRBT staff to facilitate communications during the exercise without interfering with the abilities of the off-site Emergency Responders.

8. Exercise Staffing

SRBT Staff – ERO Members:

- SRBT Incident Commander (President) – Stephane Levesque
- SRBT Manager Health Physics Regulatory Affairs – Jamie MacDonald
- SRBT Communication Officer (Executive Assistant) – Katie Levesque
- SRBT Production Control Manager – Mary-Ann Demers
- SRBT Manager Health Safety Security – Paul Lavigne

SRBT Staff -Active role in Exercise:

- SRBT Exercise Controller (Fire Protection Specialist) – Eric Gaudette
- SRBT Assembly Supervisor – Brenda St-Pierre
- SRBT Production Technician – Phil Hoffman
- SRBT Evaluator (Compliance Manager) – Tanya Sennett
- SRBT Evaluator (Quality Manager) – Nathalie Belleau

SRBT Staff ERO Members In Training:

- SRBT Vice President – Ross Fitzpatrick
- SRBT Manager Health Physics Regulatory Affairs – Josh Bull
- SRBT Communication Officer (Executive Assistant) – Chris Mitchell
- SRBT Production Control Manager – Darci Gaudette
- SRBT Manager Health Safety Security – Bennett Robinson

Pembroke Fire Department Staff:

- Captain – Ed Beaupre
- Firefighter – Tom Watkins
- Firefighter – Kyle Zimmerman

Paramedic County of Renfrew:

- Commander - Gordon Perolli
- Paramedic - Name not yet known
- Paramedic - Name not yet known

CNSC Staff (as observers only):

- Lead Inspector – Lester Posada
- Inspector – Julian Amalraj
- Inspector EMPD (remote) – Laurent Nicolai
- Technical Co-op Student – David Szonyi

Note: All Staff involved will be provided individual name badges which will clearly reflect their organization, name and function. ERO Members in training will be identified as such on their badges. Table (tent) cards will also be provided with the same information for use during the de-briefing at Pem Ice II.

9. Termination

The Exercise Controller, upon discussion and agreement with the SRBT Incident Commander and Pembroke Fire Department may terminate the emergency exercise. The exercise may be terminated at any time but will end no later than 13:00 hours.

The exercise is a real time full scale event. Should a real emergency occur during the conduct of the exercise, the exercise will be terminated immediately. Any news of a real emergency occurring is to be forwarded immediately to the exercise controller.

This will be done by using this phrase "**THIS IS A REAL EMERGENCY**". This phrase will signify that a real emergency is in progress and the exercise shall terminate immediately.

10. Special Considerations

The exercise will be conducted within the SRBT facility. There will be a smoke machine used during the course of the exercise.

A fire alarm will initiate the exercise and will require all site personnel and visitors to evacuate the facility and to meet at the assigned marshalling area behind the facility. Once a personnel count has been completed all personnel and visitors will gather at Pem Ice II for further instructions.

11. De-briefings

Immediately following the exercise, a de-briefing (hot wash) of the response will be conducted, facilitated by the Incident Commander and Exercise Controller. The de-brief will be held at Pem Ice II.

A complete final de-briefing with all ERO Members and Exercise Controller will be held the following day at 13:30 hours to discuss the exercise, as well as any concerns raised during the exercise. Feedback from all participants will be recorded in order to identify areas of improvement in SRBT's Emergency Plan and operating procedures. The following questions will be asked during the session:

- What worked well?
- What did not work?
- What lessons can we identify for improvement?

The information collected at the de-briefings will be used by the ERO Members and Exercise Controller in conjunction with other SRBT staff to prepare a post exercise report which will describe the lessons learned and any corrective actions for improving the various agencies' ability to respond to an emergency at the plant.

APPENDIX C
EXERCISE CONTROLLER INSTRUCTIONS

WWW.BETALIGHT.COM



SRB Technologies (Canada) Inc.

Emergency Exercise

Exercise Controller Instructions

1. Roles and Responsibilities:

The Exercise Controller (Fire Protection Specialist) has the responsibility to coordinate and to provide oversight during the emergency exercise. During the emergency exercise, a controller provides, as appropriate, data and injects to the emergency responders.

Note: An inject is information or data given in a form of a card to key participants during the execution of the emergency exercise. Injects are used to create realistic changes during an emergency exercise and to monitor response actions. The Exercise Controller (Fire Protection Specialist) has the role and responsibility to issue injects during different phases of the emergency exercise.

2. Exercise Scope:

The scope of the emergency exercise is to test and evaluate response actions taken by SRBT Staff and off-site first responders during the exercise and is in accordance with SRBT's Emergency Plan.

The exercise will last for approximately 2 hours.

3. Exercise Objectives:

The emergency exercise objectives are identified in section 2 of SRBT's Emergency Exercise One - Administrative Instruction document.

4. Outline of Exercise Scenario:

The exercise will be based on a smoldering fire that is detected on the main table in the front section of the Zone 2 Assembly Area of SRBT facility at approximately 09:30 hours.

This area is primarily used for assembling signs. There is a limited amount of Gaseous Tritium Light Sources (GTLS) on the table but there are however substantial amounts of GTLS in the steel cabinets also in the front section of the Zone 2.

A smoke generator will be used to create a realistic scenario. The initial response to the smoldering fire will have a SRBT Staff member (Assembly Supervisor) attempt to extinguish the fire in the room with portable fire extinguisher. The SRBT Staff member (Assembly Supervisor) will not be convinced that the fire has been extinguished and will follow-up by pulling the fire alarm located closest to the assembly room.

This action will activate a response from the Pembroke Fire Department (PFD).

The President of SRBT is the Incident Commander and will therefore have the key role with the entire scenario and response actions. He has the role to assign responsibilities to staff as per the Emergency Plan.

As specified in the SRBT Emergency Plan, the PFD is the key responder.

Once the fire alarm is pulled, this will initiate staff evacuation of the facility as per procedure in Fire Safety Plan. Staff will initially gather to the marshalling area (as per SRBT's Fire Safety Plan). Staff accountability will have to be verified and reported to the Incident Commander.

A SRBT Staff member (Production Technician) will experience severe chest pains a few minutes after arriving in the Marshalling area at the back of the facility as the staff count is being performed. This will necessitate an action that will activate a response from the County of Renfrew Paramedic Service.

Once SRBT staff accountability has been verified, staff will then be directed to walk to and enter the Pembroke Community Centre (Pem Ice II) facility located approximately 200 meters from the SRBT facility. The PFD (who will be fully aware that this is an exercise) will arrive at SRBT and will make initial contact with the Incident Commander.

PFD will set up their pumper truck and "simulate" the connection of fire hose lines with the local fire hydrant. Fire fighters will set up in full gear and commence movement inside the facility following verification that all SRBT Staff has all been accounted for.

PFD (two members) will enter into Zone 2 Assembly Area of SRBT's facility to assess the fire situation in the room. The PFD personnel will take the appropriate actions to extinguish the fire (the PFD's fire hoses are not going to be charged).

The fire will be extinguished in a limited period time, however upon exit of the assembly area firefighters will note that some signs that were being assembled on the main table in the front section of the Zone 2 Assembly Area were damaged and are lying on the floor broken (perhaps with GTLS's broken inside the signs).

As a result of the potential broken GTLS's, tritium radiological releases and contamination issues will need to be addressed. Qualified SRBT personnel will assess the extent of the broken GTLS and take appropriate actions. This will include removal of the firefighters gear, conducting radiological surveys, taking swipe samples and bioassay samples will be required from firefighters.

Following confirmation that all SRBT staff have been accounted for, the smoldering fire has been extinguished, radiological issues have been addressed, communications to all internal and external personnel and agencies have been completed, and the exercise will be terminated by the Incident Commander and confirmed by the Exercise Controller.

This exercise will also take place on the same day, just following the City of Pembroke's own emergency exercise.

5. Controller Instructions:

The Emergency Exercise Controller shall perform the following actions:

1. Take part in emergency exercise pre-briefing with CNSC Staff

- October 26, 2021 at approximately 08:30 hours at SRBT.

2. Setup Scenario Equipment

- Setup the smoke machine in the assembly room.

3. Provide exercise injects (cards)

- Inject 1, provided to an SRBT staff member in Zone 2 Assembly room:
"You detect a smoldering fire on the main table in the front section of the Zone 2 Assembly Area."
- Inject 2, provided to the SRBT staff member attempting to extinguish the smoldering fire:
"You are not convinced that the fire has been fully extinguished."
- Inject 3, provided to an SRBT staff member to simulate a medical emergency:
"You will experience severe chest pains a few minutes after you arrive in the Marshalling area at the back of the facility and the staff count is being performed."
- Inject 4, provided to PFD while in the Zone 2 Assembly room:
"You have extinguished the fire but have broken tritium filled tubes (radioactive) and therefore your equipment could be contaminated."
- Inject 5, provided to the SRBT Manager Health Physics Regulatory Affairs:
"Your radiological assessment has determined that the firefighters clothing and equipment has NOT been contaminated."

4. Terminate the Emergency Exercise

- The Exercise Controller, upon discussion and agreement with the SRBT Incident Commander and Pembroke Fire Department may terminate the emergency exercise.

5. Participate in Emergency Exercise De-briefing (hot wash)

- October 26, 2021 at approximately 11:30 hours at Pem Ice II.

6. Participate in Emergency Exercise Final De-briefing

- October 27, 2021 at approximately 13:30 hours at SRBT.

APPENDIX D
PUBLIC NOTICE



SRB TECHNOLOGIES (CANADA) INC.

320-140 Boundary Road
Pembroke, Ontario, Canada, K8A 6W5
Tel.: (613) 732-0055
Fax: (613) 732-0056
E-Mail: sales@betalight.com
Web: www.betalight.com

PUBLIC NOTICE

Emergency Training Exercise

Tuesday October 26, 2021 at 9:30 am

SRB Technologies (Canada) Inc. (SRBT), in collaboration with the Pembroke Fire Department, the County of Renfrew Paramedic Service and the City of Pembroke, will be performing an Emergency **Training Exercise** on Tuesday October 26, 2021 from 9:30 am until approximately noon.

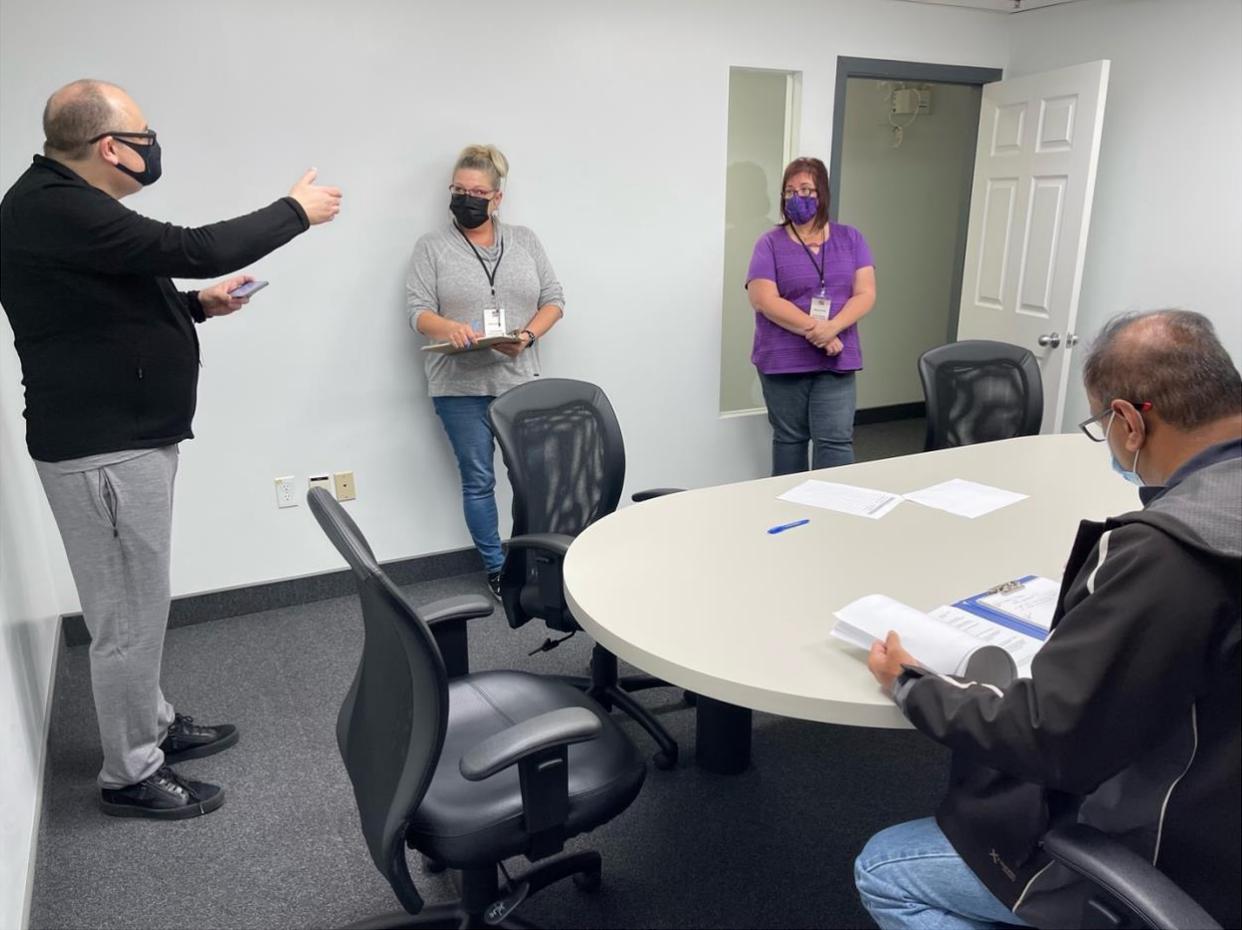
During the exercise, a smoldering fire in an area of the facility will be simulated. SRBT staff will enact all emergency procedures and evacuate the building. The Pembroke Fire Department will respond to a simulated 911 call and enter the building and SRBT will notify all appropriate agencies. During the evacuation of the building a staff member will require medical assistance from the County of Renfrew Paramedic Services.

This is a **Training Exercise** only. Staff for the Pembroke Fire Department, the County of Renfrew Paramedic Service and for our regulatory body the Canadian Nuclear Safety Commission (CNSC) will be on site to monitor the exercise and provide us with valuable feedback. A report will be completed by SRBT and submitted to CNSC Staff and posted on our website no later than 60 days after the completion of the exercise. The report will provide the results of the exercise and will identify any areas for improvement.

We would like to assure our neighbors and other members of the public that there will be no fire nor any hazard posed to the public or the environment during this **Training Exercise**. If you have any questions do not hesitate to contact SRBT's President Stephane Levesque by e-mail at stephane@betalight.com or by phone at (613) 732-0055, Ext 111.

APPENDIX E
PHOTOGRAPHS

Photograph 1: Pre-Exercise Briefing of Evaluators



Photograph 2: Pre-Exercise Set Up and Equipment Checks by Exercise Controller (EC)



Photograph 3: SRBT's Two-Way Portable Radios



Photograph 4: Signage by Roadway



Photograph 5: Smoke Machine is Initiated by EC to Simulate a Smoldering Fire



Photograph 6: The Assembly Supervisor Attempts to Extinguish the Fire



Photograph 7: Not Convinced the Fire is Extinguished the Room is Evacuated



Photograph 8: The Fire Alarm is Pulled



Photograph 9: The Pembroke Fire Department (PFD) Arrives on Site



Photograph 10: The IC Greet PFD Staff on Arrival



Photograph 11: SRBT Staff Gather in the Marshalling Area for Head Count



Photograph 12: Upon Emergency Being Declared, SRBT Staff are Directed to Pem Ice II



Photograph 13: SRBT Staff Walking to Pem Ice II



Photograph 14: SRBT Staff Arrive at Pem Ice II for Secondary Head Count



Photograph 15: Secondary Head Count Reported to IC



Photograph 16: Firefighters Enter the Facility



Photograph 17: Firefighters Make Their Way to the Assembly Area



Photograph 18: Once in Assembly Area, Firefighters Find the Location of the Smoldering Fire



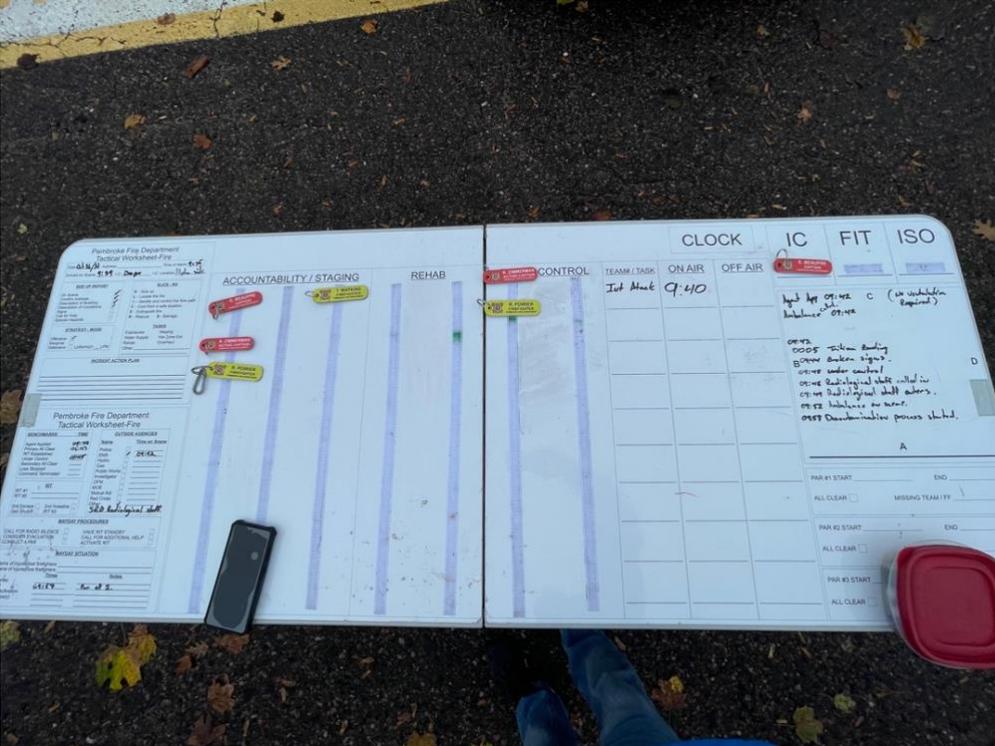
Photograph 19: Firefighters Extinguish the Smoldering Fire with their Hose



Photograph 20: PFD Captain in Discussion with IC



Photograph 21: PFD Tactical Worksheet Being Used by Firefighters



Photograph 22: County of Renfrew Paramedic Service Ambulance Arrives on Site



Photograph 23: Ambulance at Location of SRBT Staff member Experiencing Chest Pains



Photograph 24: Paramedics Load the SRBT Staff Member in the Ambulance



Photograph 25: PFD Captain Advises IC that Fire is Extinguished



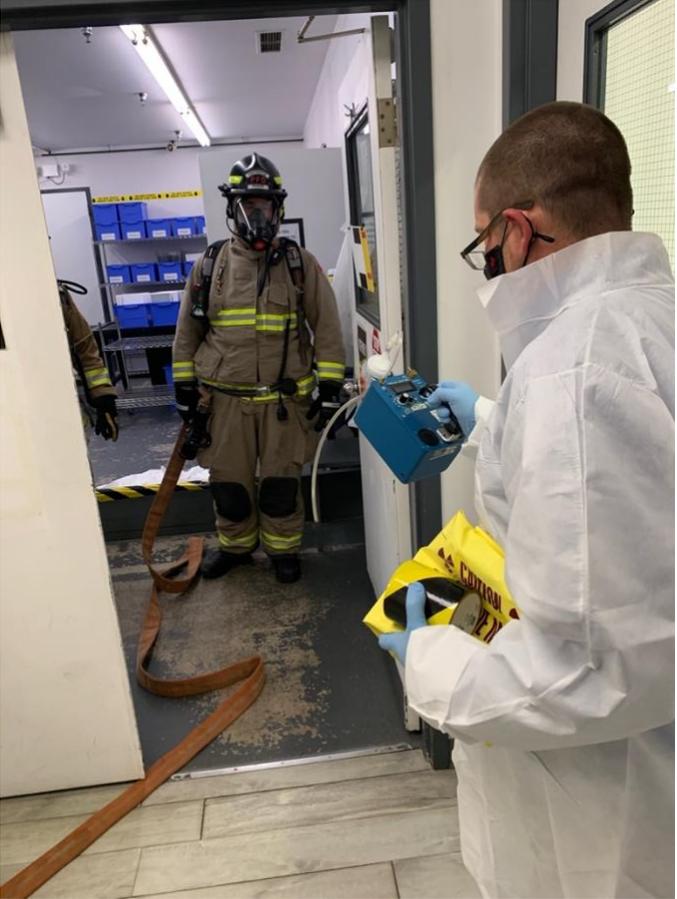
Photograph 26: Manager of Health Physics Regulatory Affairs (MHPRA) Asked to Assess Radiological Impacts



Photograph 27: MHPRA Putting on Protective Clothing



Photograph 28: MHPRA Assessing Airborne Contamination with Tritium-In-Air Monitor



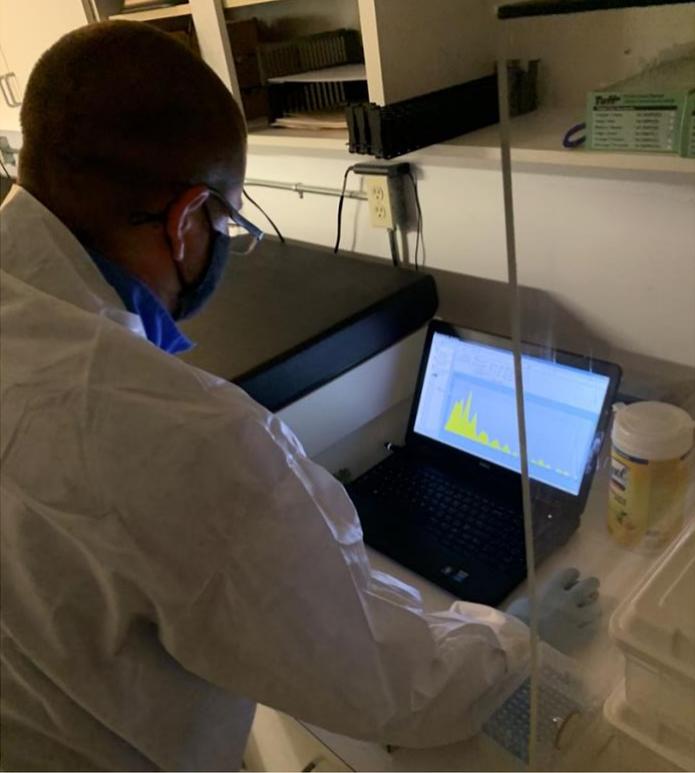
Photograph 29: MHPRA Taking a Swipe of the PFD Protective Clothing



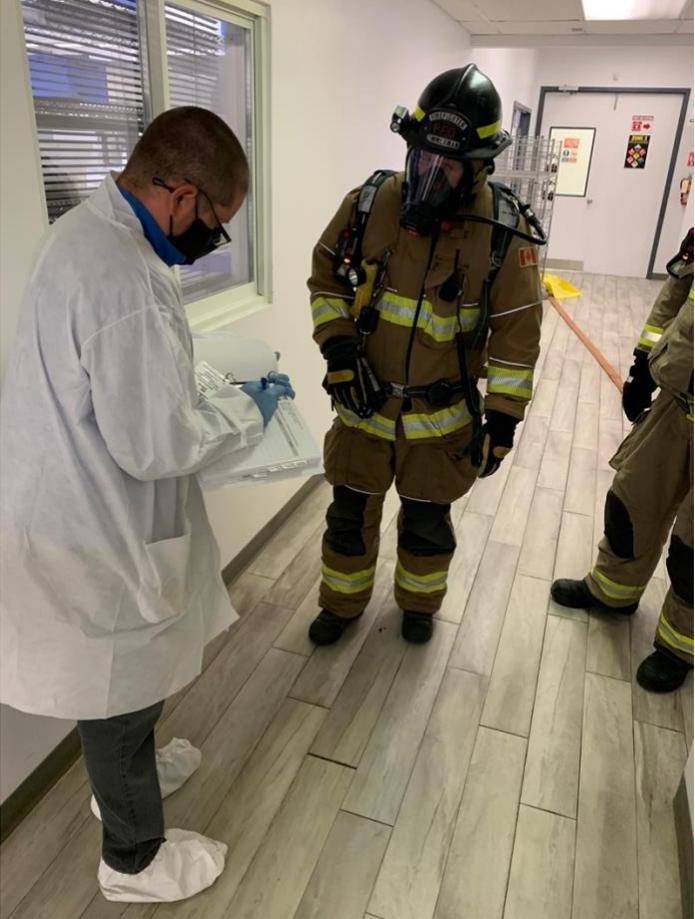
Photograph 30: MHPRA Taking a Swipe of a Boot Worn by the PFD



Photograph 31: MHPRA Performing Analysis of the Swipes



Photograph 32: MHPRA Advising PFD that Protective Clothing is Free of Contamination



Photograph 33: MHPRA Removing Potentially Broken Signs for Assessment



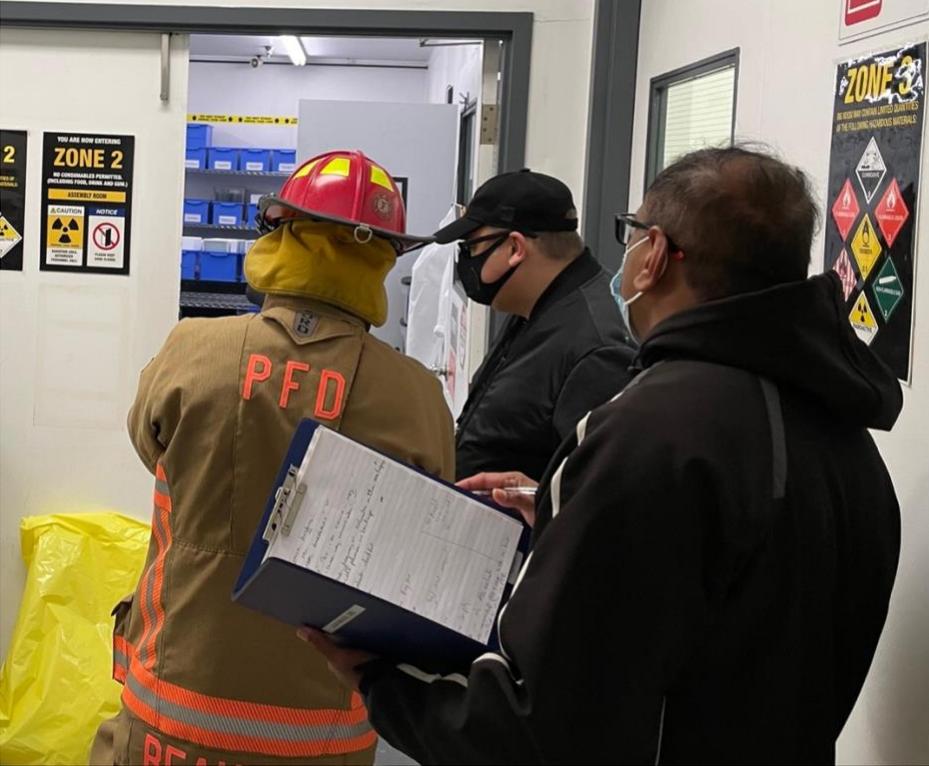
Photograph 34: Firefighters Exiting the Facility Once Protective Clothing is Deemed Clean



Photograph 35: Firefighters Discuss their Findings



Photograph 36: IC, EC and PFD Captain Discuss Termination of Exercise



Photograph 37: Emergency Exercise De-Brief (Hot Wash) at Pem-Ice II chaired by EC and IC.



Photograph 38: Emergency Exercise De-Brief (Hot Wash) with SRBT Emergency Response Organization (ERO) Members, SRBT Staff with an Active Role in the Exercise, SRBT ERO Members in Training, Pembroke Fire Department Staff and CNSC Staff.



APPENDIX F
EVALUATOR CHECKLISTS



SRB Technologies (Canada) Inc.

Emergency Exercise

Emergency Exercise Evaluator Checklist

Emergency Exercise Evaluator Checklist:

Company: SRB Technologies (Canada) Inc. (SRBT)
Emergency Response: County of Renfrew Paramedic Service
 Pembroke Fire Department
Location: 320 Boundary Road, Unit 140
Date: October 26, 2021
Time: 9:30 a.m.
Evaluator: Tanya Sennett & Nathalie Belleau (Consolidated)
Title: Compliance Manager & Quality Manager

Description	Expectation	Comments	Met/ Not Met
Staging	Both Exercise Evaluators in position to observe the response. One with the Incident Commander (IC) and one with the evacuated staff.	Two evaluators were in place to observe the response. -Tanya Sennett (TS) was in the front office to observe the IC's actions. -Nathalie Belleau (NB) was with the evacuated staff in the back of the facility.	Met
Notification to Company Staff	Based on conditions and information provided, the IC determines that there is an Emergency.	IC heard the fire alarm. Brenda informed the IC that there was a fire in the Assembly Department. She attempted to extinguish it but is not sure if its out. Described any nuclear material near the fire. Unsure of damages. IC calls the PFD and announces to SRBT staff that this is an emergency.	Met
Notification to Off-Site Responders	IC ensured that appropriate Off-site responders have been contacted.	IC called the PFD to respond to a fire. IC ensured that the Paramedics were called to assist with a medical emergency. (SRBT staff member with chest pains)	Met

Description	Expectation	Comments	Met/ Not Met
Assessment Of Emergency	The IC quickly detects and classifies the emergency in order to initiate the appropriate response actions. All on site personnel are alerted of the emergency exercise and activation of emergency response team members is initiated.	With the information provided the IC classified the fire as an emergency. IC calls the PFD and announces to SRBT staff that this is an emergency. The ERO initiates their duties.	Met
Assessment Of Emergency	The emergency response actions taken by the IC are appropriate for the scenario.	IC called the PFD to respond to a fire. IC ensured that the Paramedics were called to assist with a medical emergency. (SRBT staff member with chest pains)	Met
Overall Command	Command structure and conduct of key players with key roles and responsibilities are maintained throughout the emergency exercise.	A command structure was quickly established between the PFD and the IC. A table with a markerboard was utilized by the PFD to record important details. Observed all key players carry out their role appropriately and performed their responsibilities throughout the entire emergency exercise.	Met
Assisting Emergency Responders	The IC has provided expertise and resources to support off-site authorities and conversely the off-site authorities to support on-site response.	The IC provided appropriate expertise and resources to the PFD. He was able to provide the exact location of the fire using a facility map that was on his phone and gave clear directions to the firefighters. The IC provided updates to the PFD and ERO continuously throughout the exercise. The PFD and Paramedics were professional and organized. They provided excellent support. JM on site for radiological support.	Met
Staff Accounting	The IC ensures staff accountability is clearly addressed, confirmed and reported during the emergency exercise.	IC confirmed that all staff were accounted for multiple times at various stages of the exercise. (Marshalling area and PEM-ICE II)	Met

Description	Expectation	Comments	Met/ Not Met
Staff Accounting	Production Control Manager (PCM) took SRBT staff count at Marshalling Area.	PCM took the staff count at the Marshalling Area, calling out all areas as a group name. Responses were given for each group.	Met
Notification to Company Staff	PCM reported to [redacted] the SRBT staff count at Marshalling Area.	PCM communicated the staff count including those missing to IC over the radio. IC responded to the staff count.	Met
Notification to Company Staff	PCM ensured SRBT staff followed the designated route from the Marshalling Area to Pem Ice II.	PCM guided the staff from the Marshalling Area to PEM-ICE II. Noted that there was also road construction underway at the same time as the exercise.	Met
Staff Accounting	PCM took SRBT staff count at Pem Ice II.	PCM took another staff count at PEM-ICE II outside of the building before entering.	Met
Notification to Company Staff	PCM reported to [redacted] the SRBT staff count at Pem Ice II.	PCM reported to IC that all staff were accounted for at the PEM-ICE II location. NB noted that the radio reception was not very good once they arrived at PEM-ICE II. There was a lot of static and the PCM and EA has to continuously go outside or closer to the door to have better reception. IC also communicated important information to ERO by group text. This worked well. Responses were provided.	Met
Notification to Company Staff	PCM to track Emergency Exercise start and stop time and time to gather at Marshalling Area and at Pem Ice II.	Observed PCM had a stop watch with her and was recording times throughout the exercise.	
Notification to Company Staff	PCM and Executive Assistant (EA) to ensure access to Pem Ice II for the gathering of staff.	Observed a delay to access entry to PEM-ICE II. There was an attendant there and stated that proof of vaccination must be provided by everyone to enter the building. This was a concern, as there were instructions to stay indoors due to the tornado emergency (simulated) declared at the other end of town. The attendant called his supervisor for assistance on procedure. EA contacted City Hall to resolve the issue. Staff	Met / OFI

		were allowed to enter then and were required to sign the log sheet. One staff member remained outside as they were not vaccinated.	
--	--	--	--

Description	Expectation	Comments	Met/ Not Met
Emergency Response Resources	Emergency response facilities, equipment and documentation are adequate to support the emergency exercise.	Yes. Overall the facilities, equipment and documentation were adequate to support the emergency exercise. The following issues were noted during the exercise that could be improved: -The 3-way radios were a bit distorted at times during the exercise (usually when two radios were within a close proximity to each other or used inside of buildings) -Evaluator Checklists were too comprehensive to be completed during the exercise. Notes were taken instead. -Access to PEM-ICE II was delayed as proof of vaccination was required to enter (currently in a COVID pandemic).	Met / OFI
Emergency Response	The IC and off-site responders are capable of maintaining a response for an extended period of time.	Yes. -Evacuated staff were adequately sheltered at PEM-ICE II -Battery checks were done on the radios and cell phones were available as back up for communication. -The PFD had an extra supply of air for the firefighters if needed.	Met
Mitigation Radiation Exposure	The IC has confirmed the evacuation of personnel from the facility.	Yes. Evacuation of the staff from the facility was confirmed while they were gathered in the Marshalling area and again after they were relocated to PEM-ICE II. Additionally, staff accountability was confirmed repeatedly throughout the exercise including when any staff left to provide assistance for the emergency.	Met
Mitigation Radiation Exposure	The IC has confirmed that self-contained breathing apparatus are being used by firefighters.	Yes. The IC specifically asked and checked that the firefighters had and were using SCBA's.	Met
Mitigation Radiation Exposure	The IC has confirmed that full protective clothing is worn (gloves, boots, helmets, pants and coats).	Yes. The IC ensured that the firefighters were fully dressed in protective clothing.	Met

Mitigation Radiation Exposure	Protective clothing and equipment is quarantined after use.	Yes. JM ensured that the firefighters and gear remained in the facility until their clothing and equipment were tested for contamination.	Met
-------------------------------	---	---	-----

Description	Expectation	Comments	Met/ Not Met
Mitigate the Effects on the Environment	The IC has provided advice and rationale to emergency response personnel on mitigation effects on the environment.	Yes. JM confirmed to the IC that there was no release of tritium to the environment as a result of the fire and therefore no effects on the environment. The IC updated this information to the PFD Chief.	Met.
Mitigate the Effects on the Environment	The IC has performed a preliminary assessment and characterized the magnitude and nature of the release based on the conditions and information provided (if applicable).	NA	NA
Formal Notification of Emergency	The IC promptly notified the EA of the Emergency so that all stakeholders can be formally notified of the emergency.	Yes. All members of the ERO were promptly informed of the to initiate their duties. The IC verified with the EA several times throughout the exercise that all stakeholders were notified of the emergency.	Met.

Description	Expectation	Comments	Met/ Not Met
Communications	EA notified CNSC Duty Officer of Emergency Exercise.	Observed that EA made the call to the 24-hour Duty Officer. Also called Lester, Project Officer. EA confirmed to the IC that a message was left for Lester. EA also confirmed to the IC that an email was sent to Lester. Further confirmed during the de-brief.	Met
Communications	EA notified City of Pembroke of Emergency Exercise.	Observed the EA make the call. Further confirmed during the de-brief.	Met
Communications	EA notified Provincial Member of Parliament of Emergency Exercise.	Observed the EA make the call. Further confirmed during the de-brief.	Met
Communications	EA notified Federal Member of Parliament of Emergency Exercise.	Observed the EA make the call. Further confirmed during the de-brief.	Met
Communications	EA notified Public of Emergency Exercise through social media outlets.	The EA confirmed this during the de-brief.	Met
Communications	EA provided ongoing updates to SRBT staff assembled at Pem Ice II.	Observed the EA provide verbal updates to all staff at PEM-ICE II on the situation of the emergency exercise.	Met
Communications	EA completed the Emergency Response Procedure Form (Appendix A of Emergency Plan).	Yes. The Emergency Response Procedure Form was completed during the de-brief.	Met

Description	Expectation	Comments	Met/ Not Met
*Assess Radiation Exposure	Manager of Health Physics and Regulatory Affairs (MHPRA) has documented a list of names and contact details of emergency responders.	Yes. This action took place inside the facility. JM verified this. The action is also captured on video.	Met.
*Assess Radiation Exposure	MHPRA acquired urine samples from emergency responders.	JM provided the firefighters with urine specimen containers and instructions to provide a sample in about an hour.	Met
*Assess Radiation Exposure	MHPRA provided emergency responders with results of bioassay samples.	The exercise was terminated before this action took place or was simulated. However, JM confirmed that the emergency responders would be provided with their bioassay results.	Met
*Level of Surface Contamination	MHPRA has assessed the level of surface contamination of protective clothing and equipment used by firefighters including, self-contained breathing apparatus, gloves, boots, helmets, pants and coats.	Yes. No contamination found.	Met
*Level of Surface Contamination	MHPRA has assessed the level of surface contamination in the facility.	Yes. Swipe samples were taken in several areas in the facility to ensure the possible spread of contamination was minimized.	Met
*Decontamination	MHPRA ensured all surfaces have been decontaminated to reduce radiation exposure.	Yes. Clean up instructions were provided to the staff for clean-up efforts.	Met

*Noted items above would be addressed following any emergency (activities as specified would be a follow-up to the emergency).

Description	Expectation	Comments	Met/ Not Met
Termination of Emergency Response	The IC discussed the termination of the emergency response activities with off-site responders.	Yes. The IC discussed the termination of the emergency response with the PFD Chief.	Met
Termination of Emergency Response	The IC adequately assessed the situation and conditions to terminate the emergency exercise.	Yes. The IC discussed the possible termination of the emergency exercise with several key people such as JM, EG and the PFD Chief.	Met
Return to Work	The IC has assessed the hazards for return to work and communicated this to all staff.	Yes. The IC assessed if there were any hazards remaining in the facility with the PFD Chief and JM. This was communicated to all staff.	Met
Conduct of Emergency Exercise	The conduct of the emergency exercise demonstrated sound organizational and professional execution.	Yes. The emergency exercise was well organized and carried out in a professional manner by all participants.	Met
Safety of Emergency Exercise Players	The safety of the controller and evaluators was not jeopardized during the emergency exercise.	Yes. All participants were kept safe during the emergency exercise. There were no radiological or conventional health and safety dangers identified during the exercise.	Met

Description	Expectation	Comments	Met/ Not Met
Emergency Exercise De-briefings	De-briefings of the emergency exercise were conducted with all participants.	Yes. The de-brief was held at the PEM-ICE II and included all exercise participants with the exception of the Paramedics, however the Commander was able to provide feedback before he left.	Met
Follow-up Actions	The EA notified off-site organizations of the end of the emergency exercise and provided instructions and recommendations for follow-up.	Yes. KL ensured that all stakeholders were informed of the end of the exercise.	Met



Incident Commander (IC), President



Production Control Manager (PCM)



Executive Assistant (EA), Communication Officer (CO)



Manager of Health Physics and Regulatory Affairs (MHPRA)

APPENDIX G
TABLE OF OPPORTUNITIES FOR IMPROVEMENT

TABLE OF OPPORTUNITIES FOR IMPROVEMENT

The following table lists the improvement actions identified during the planning and implementation of the 2021 SRBT Emergency Exercise:

#	Topic	Description and Comments	OFI / Actions
1	Declaration of a real emergency during an exercise	<p>Gord Perolli (Commander, County of Renfrew Paramedic Service) noted a possible improvement could be to use a code word / phrase i.e. "NO DUFF" when there is a need to notify of a real emergency situation during an exercise, in lieu of "THIS IS A REAL EMERGENCY".</p> <p>The use of "NO DUFF" was recommended as that is what the paramedics use.</p>	<p>The use of the code phrase "NO DUFF" should be incorporated into future emergency exercises, and captured in the Emergency Plan.</p> <p>RESPONSIBLE: President</p>
2	Head counting / marshalling	<p>Mary-Ann Demers (SRBT Production Control Manager) noted that the head count sheet could be improved to more effectively capture personnel accounting records during emergencies, fire drills and exercises.</p>	<p>The head count sheet should be revised to include columns for multiple times (i.e. at marshalling area and at Pem-Ice II).</p> <p>RESPONSIBLE: Production Control Manager</p>

3	Exercise evaluation	<p>Tanya Sennett (SRBT Compliance Manager) noted that since part of the evaluation includes assessing times between events (i.e. time between the alarm sounding and the arrival of the PFD), it would be helpful in the future to have a small clock or stopwatch / timer in order to accomplish this check.</p>	<p>Acquire stopwatches for use by evaluators during future exercises.</p> <p>RESPONSIBLE: Production Control Manager</p>
4	Use of two-way radios	<p>Several individuals noted challenges with the use of the two-way radios by members of the SRBT ERO.</p> <p>Although some may prefer the use of cell phones for communication, it was strongly recommended by other organizations that the use of radios be continued as the primary communication tool, supplemented by cell phones.</p>	<p>A procedure and training should be developed with best usage practices, including the proper 'lingo' when communicating between multiple parties, and using them during fire drills.</p> <p>RESPONSIBLE: Fire Protection Specialist</p>
5	Use of two-way radios	<p>Radios should be assigned to specific members of the ERO, and handed out each time there is a fire alarm (as part of drills or during a real alarm response).</p>	<p>Two-way radios should be labelled with ERO designations.</p> <p>RESPONSIBLE: Fire Protection Specialist</p>

6	Head counting / marshalling	<p>Mary-Ann Demers noted that the current practice of calling out specific groups when doing head counts can often lead to confusion when people may or may not know of other group members who are absent (i.e. vacation, lunch break, etc).</p>	<p>In the future, any head count should be done by naming individuals instead of groups of workers, to ensure accurate accounting and efficiency.</p> <p>RESPONSIBLE: Production Control Manager</p>
7	Head counting / marshalling	<p>The head count sheet should be updated every time there is a change in composition of the organization (i.e. new employees, retirements, resignations, terminations, maternity / paternity leave, etc.).</p>	<p>The head count sheet should be updated by the Executive Assistant as she performs payroll processing.</p> <p>RESPONSIBLE: Executive Assistant</p>
8	Radiological response	<p>Jamie MacDonald (SRBT Manager HP&RA) noted that in order to determine the concentration of tritium in the active ventilation systems at any time, currently an individual would need to be able to access the Ante Room or Zone 2 or 3, to assess the chart recorders or the stack monitors.</p> <p>If a camera were placed in the Ante Room, we could easily evaluate tritium releases at any time from our cell phones, both during normal operations or off production times, or during an emergency.</p>	<p>An internal camera should be set up in the Ante Room, focused on the chart recorders.</p> <p>RESPONSIBLE: IT Specialist</p>

9	Radiological response	CNSC staff noted as a preliminary finding that SRBT should review the conditions for facility re-entry, and ensure that appropriate PPE is available for any radiological response.	An emergency kit including gloves, lab coats and shoe covers should be placed at two exit points of the facility, and staff trained to take it with them when evacuating. The kit should be maintained by the Health Physics Team. RESPONSIBLE: Manager – HP&RA
10	Emergency record keeping	CNSC staff noted that there is no 'official scribe' designated as part of the emergency response; however, the Evaluator was acting as a scribe on behalf of the IC during certain parts of the exercise.	An official 'scribe' position should be considered to be added as part of the ERO in the Emergency Plan, for future emergency exercises and in case of a real emergency. RESPONSIBLE: President
11	Recovery stage	CNSC staff noted that a checklist or worksheet that describes the actions that need to be taken during the recovery phase of an emergency could be beneficial.	Develop a worksheet for emergency recovery activities. RESPONSIBLE: President

<p>12</p>	<p>Incident Commander Role</p>	<p>Currently, the IC role is assigned to the President. In case the President is not available, the Vice President assumes this role as the primary backup.</p> <p>The current version of the Emergency Plan notes that in the event that neither are available, the next person to take on that role is the Manager – HP&RA. As the MHPRA already plays such a vital and differentiated role, another ‘secondary backup’ for the role of IC should be defined in the Emergency Plan.</p>	<p>The Emergency Plan should be updated to assign the Fire Protection Specialist as the ‘secondary backup’ for the ERO role of IC in a real emergency.</p> <p>RESPONSIBLE: President</p>
<p>13</p>	<p>Contact Details in Management System documentation</p>	<p>Stephane Levesque (SRBT President) noted that with contact details being incorporated in top-level management system documents (specifically, the Emergency Plan, Fire Protection Program and Fire Safety Plan), any change to these results in the need to update major documentation.</p> <p>It would be easier to update this information if it were contained in an associated, lower-tier procedural document or other controlled record.</p>	<p>A separate controlled document should be developed that includes all key contact details for personnel (both internal and external) who are associated with SRBT Fire Protection or Emergency Preparedness. This document should be controlled by the Executive Assistant once implemented.</p> <p>RESPONSIBLE: President and Executive Assistant</p>

<p>14</p>	<p>Off-Site Response Force</p>	<p>It was identified that there are several dozen firefighters and paramedics who may be called upon at any time to respond to an emergency situation at SRBT.</p> <p>It may be helpful to provide both organizations with a simplified, computer-based training module that could be administered to any personnel in those organizations, at the discretion of the commanders/chiefs, in order to provide an easy familiarization opportunity for staff.</p>	<p>A computer-based training module / presentation should be developed and provided to the PFD and Paramedic Services, which provides an overview of the SRBT facility, and appropriate radiation safety information.</p> <p>RESPONSIBLE: Manager – HP&RA</p>
-----------	--------------------------------	--	---