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## SRB Technologies (Canada) Inc.

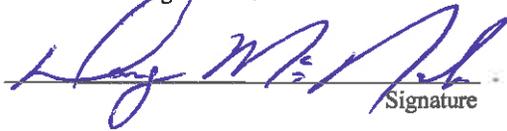
### Emergency Exercise One

### Report

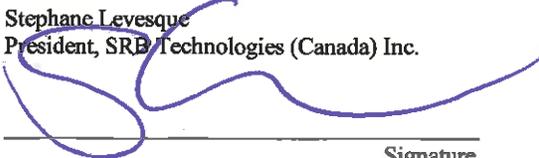
Submission Date: April 8, 2015

Submitted to: Jennifer Campbell  
Project Officer, Canadian Nuclear Safety Commission

Prepared by: Doug McNab  
D & J Consulting Services

  
Signature

Reviewed approved by: Stephane Levesque  
President, SRB Technologies (Canada) Inc.

  
Signature

## Executive Summary

SRB Technologies (Canada) Incorporated possesses a Nuclear Substance Processing Facility Operating Licence issued under the Canadian Nuclear Safety Commission (CNSC). Condition number 11.1 of the licence states that the *licensee shall implement and maintain a program for emergency preparedness to address on-site and off-site events which can affect the facility.*

In order to meet this licence condition, SRB Technologies (SRBT) is required to conduct a full-scale emergency exercise at the SRBT facility located in Pembroke Ontario on a scheduled frequency.

A full scale emergency exercise was conducted on February 9<sup>th</sup>, 2015, at the Pembroke location. The exercise was based on a realistic emergency scenario and was designed to practice an integrated response from on-site personnel and off-site emergency responders.

Overall, the emergency exercise demonstrated that SRBT meets the following requirements:

- CNSC Regulatory Document RD-353 “Testing the Implementation of Emergency Measures ”
- SRBT Emergency Plan; and
- SRBT Fire Protection Program

One key component of the emergency exercise was that two evaluators were used to assess the entire exercise. One evaluator was the City of Pembroke, Community Emergency Management Coordinator and the other was the SRBT Compliance Manager.

The evaluators used pre-established checklists which covered specific regulatory requirements that had to be met based on the above noted CNSC document and SRBT programs.

Copies and the completed Emergency Exercise Evaluator Checklists are included in Appendices A and B of this report.

The evaluations concluded that all specified requirements were met.

Following the completion of the emergency exercise, comments and feedback were received and documented during two de-briefing sessions that were held.

Personnel involved in these sessions were as follows :

- CNSC staff;
- Members of the Pembroke Fire Department (including the Fire Chief);
- Emergency Exercise Evaluators;
- SRBT Management; and
- SRBT staff

Based on the information received during the emergency exercise de-briefing sessions, SRBT Management has identified 38 items /areas where improvements and corrective actions can be made.

The specific items /areas where corrective actions and improvements will be made are documented in Table 1: SRBT Emergency Exercise Corrective Actions (see page 6 of this report).

In accordance with the SRBT Quality Manual Corrective Action Process, a Non-Conformance Report (NCR # 442) has been raised to encompass all items/ areas where corrective actions and improvements will be addressed.

Note: The identified items/areas where corrective actions are specified are not deemed as non-compliant with any regulatory requirements, but are improvements that will enhance the SRBT Emergency Plan and future emergency exercises.

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## **1. Background**

SRBT is a Class 1B Nuclear Facility licensed under the Canadian Nuclear Safety Commission. The SRBT facility is located in Pembroke Ontario.

Operations at the facility are based on the production of tritium filled gas tubes, which are placed in various types of device housings such as safety signs, special services lightings and markers. These devices are marketed on a national and an international level and are used in commercial, aerospace and military applications.

Approximately 45 personnel are employed at the SRBT facility.

## **2. Introduction**

SRBT conducted a full scale, real time emergency exercise to practice emergency response to an incident involving on-site personnel and off-site responders (Pembroke Fire Department). The exercise was designed to practice an integrated response in dealing with a realistic emergency event that could possibly take place at the facility. The emergency exercise was conducted on February 9th, 2015, and lasted approximately three (3) hours.

## **3. Objectives**

The objectives of the emergency exercise were 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 4.9.1.4 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 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 and other key SRBT staff
- Practice unified command at SRBT facility
- Practice effective size-up of the emergency with SRBT's Incident Commander

#### **4. Scope and Scenarios**

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

In addition, SRBT planned this emergency exercise based on the requirements of the Canadian Nuclear Safety Commission (CNSC) Regulatory Document 353 "*Testing the Implementation of Emergency Measures*". The checklists used by the evaluators during the emergency exercise are based on the requirements as specified in the above mentioned documents (See appendix A and B for Evaluator Checklists).

The simulated exercise was designed such that a smoldering fire was detected in the rear section of the Zone 2 Assembly Area in the SRBT facility. This area is used for painting sign components and performing silk screening. There are Gaseous Tritium Light Sources (GTLS) in the front section of this Zone 2 area where tritium filled lights are assembled into various sign components and devices.

The initial response to the smoldering fire included an SRBT staff member attempting to extinguish the fire with a portable fire extinguisher while a second SRBT staff member pulled the closest fire alarm when it was determined that the fire had not been fully extinguished.

This activation of the fire alarm pull station resulted in evacuation of the facility and a physical response by the off-site responders, the Pembroke Fire Department.

Upon further assessment of the SRBT Incident Commander, it was determined that the situation was now a state of emergency as defined in the Emergency Plan.

The SRBT Communications Officer played a key role in the emergency exercise and made the necessary contacts with the appropriate stakeholders (as per the SRBT Emergency Plan).

## **5. Participants**

The following personnel were involved in the emergency exercise:

### **SRBT Personnel**

- Incident Commander
- Emergency Exercise Controller
- Communications Officer
- Exercise Evaluator
- Health Physicist
- Exercise Safety Officer

### **Pembroke Fire Department**

- Fire Chief
- Three firefighters

### **City of Pembroke**

- Exercise Evaluator (Community Emergency Management Coordinator)

### **Canadian Nuclear Safety Commission**

- Five staff members

### **D and J Consulting**

- One staff member

## **6. Planning Process**

The initial planning for the emergency exercise commenced in November 2014. The SRBT Emergency Exercise Planning Team outlined and structured the emergency exercise based on a realistic scenario as specified in SRBT's Emergency Plan and Safety Analysis Report.

A subsequent meeting was also held with the Chief of the Pembroke Fire Department to discuss certain aspects of the emergency exercise with emphasize on the Pembroke Fire Department's roles and responsibilities in the emergency exercise.

A follow-up planning meeting was held with the SRBT Emergency Exercise Planning Team in early January 2015 to finalize the details of the emergency exercise.

Following these meetings, the Emergency Exercise Planning Team developed an exercise package (binder) which included the following documentation:

- Administrative Instructions
- General Outline
- Controller Instructions
- Evaluator Checklists
- SRBT Emergency Plan
- SRBT Fire Protection Program
- SRBT Radiation Safety Program
- SRBT Public Information Program
- SRBT Safety Analysis Report

Copies of the emergency exercise package were provided to all participants as well as CNSC staff in advance of the emergency exercise.

## **7. De-briefing Sessions and Follow-up Actions**

Two exercise de-briefing sessions were conducted following the completion of the emergency exercise. One de-briefing session was held at Pem Ice II in the afternoon of February 9<sup>th</sup>, 2015, and the other at SRBT in the morning of February 10<sup>th</sup>, 2015. The purpose of each session was to discuss all aspects of the emergency exercise and receive feedback from all personnel involved and document the information received.

Session one included the following personnel:

- SRBT Management;
- SRBT staff;
- City of Pembroke - Exercise Evaluator;
- City of Pembroke - Fire chief;
- City of Pembroke firefighters that participated in the emergency exercise; and
- CNSC staff that observed the emergency exercise.
- D and J Consulting

Session two included the following personnel:

- SRBT Management; and
- SRBT staff.

The de-briefing sessions were very beneficial and personnel provided positive and constructive feedback. It was concluded that the emergency exercise was very successful and the key goals and requirements as laid out in advance of the exercise were achieved. It was also noted that this was the first emergency exercise conducted at the SRBT facility and based on the lessons learned, revisions will be implemented for future emergency exercises.

The de-briefing sessions also identified where areas for improvement can be made. A total of thirty eight items/areas were raised and documented.

As per SRBT's Quality Manual Procedure, a Non-Conformance Report (NCR #442) was developed to address each of the items/areas for improvement.

In order to document, track and address each of the thirty eight items/areas, an Emergency Exercise Corrective Actions Table has been developed (see Table 1 on page 6 of this report).

The table lists each issue and/or topic, along with comments and corrective follow-up actions to be taken including completion date(s).

Based on the assessment of the emergency exercise, SRBT Management has decided it will revise the Emergency Plan and address each of the item/areas as specified in Table 1 in this report.

Revisions to the Emergency Plan will be coordinated and implemented in conjunction with the gap analysis (SRBT Emergency Plan versus CNSC REGDOC-2.10.1) which has been submitted to the CNSC.

SRBT Management has committed to revise the Emergency Plan and submit to the CNSC by September 30, 2015.

## **8. Conclusion**

Overall, the emergency exercise demonstrated that SRBT meets the following requirements:

- CNSC Regulatory Document RD-353 "Testing the Implementation of Emergency Measures "
- SRBT Emergency Plan; and
- SRBT Fire Protection Program

The two evaluations concluded that all specified requirements were met.

Based on the information received during the emergency exercise de-briefing sessions, SRBT Management has identified 38 items /areas where improvements and corrective actions can be made.

The specific items/areas where corrective actions and improvements will be made are documented in Table 1: SRBT Emergency Exercise Corrective Actions (see page 6 of this report).

In accordance with the SRBT Quality Manual Corrective Action Process, a Non-Conformance Report (NCR # 442) has been raised to encompass all items/areas where corrective actions and improvements will be addressed.

The identified items/areas where corrective actions are specified are not deemed as non - compliant with any regulatory requirements, but are improvements that will enhance the SRBT Emergency Plan and future emergency exercises.

**Table 1: SRBT Emergency Exercise Corrective Actions**

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
1	<p><b>Accessibility to Pem Ice II:</b></p> <p>A staff member inquired as to whether accessibility to Pem Ice II would be available during an actual emergency situation.</p>	<p>City of Pembroke officials noted stated the Pembroke Fire Department (PFD) carries a set of keys for the facility with them and the City of Pembroke Community Emergency Management Coordinator (CS) has access as well. Other city officials can also be contacted to obtain access.</p>	<p><b>Action # 1:</b></p> <p>Additional city contact standby number(s) will be provided to the SRBT Communications Officer.</p> <p>SRBT's Emergency Plan will be revised to include this additional contact information.</p> <p><b>Target completion date:</b> 2015/09/30</p>
2	<p><b>Staff accountability Pem Ice II:</b></p> <p>A staff member inquired as to whether staff could leave Pem Ice II during an actual emergency situation.</p>	<p>SRBT Management responded in stating that only after staff accountability has been confirmed at Pem Ice II</p>	<p><b>Action # 2:</b></p> <p>SRBT's Emergency Plan will be revised to include more detail on accountability and designate an additional staff member as an alternate to confirm accountability.</p> <p><b>Target completion date:</b> 2015/09/30</p>
3	<p><b>SRBT staff accountability:</b></p> <p>A staff member noted that the responsibility to verify staff accountability is not clearly defined or documented.</p>	<p>SRBT's Emergency Plan does not clearly define the roles and responsibilities of the individual performing staff accountability verification checks.</p>	<p><b>Action # 3:</b></p> <p>SRBT's Emergency Plan will be revised to include more detail on staff accountability process including roles and responsibilities.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
4	<p><b>Communications:</b></p> <p>A staff member noted that it would be beneficial to provide ongoing up-dates on the status of the emergency to personnel who are situated at Pem Ice II (lack of updates during the emergency exercise).</p>	<p>SRBT's Emergency Plan does not clearly define the responsibility and process to process to follow with regards to providing updates to staff.</p>	<p><b>Action # 4:</b></p> <p>SRBT's Emergency Plan will be revised to include the roles and responsibilities of the SRBT Communications Officer including how and when updates will be provided to staff at the Pem Ice II .</p> <p><b>Target completion date:</b> 2015/09/30</p>
5	<p><b>Glass Shop Door:</b></p> <p>A staff member stated that the exit door in the glass shop door did not automatically self - lock when it was closed after the room had been evacuated. It had to be manually locked from outside of the building.</p>	<p>SRBT Management stated that the glass shop door will be modified to ensure it is self- locking after being closed.</p>	<p><b>Action # 5:</b></p> <p>The door will be modified to ensure it is self-locking.</p> <p><b>Target completion date:</b> Completed</p>
6	<p><b>SRBT's Facility Floor Plan:</b></p> <p>The Pembroke Fire Department suggested that a copy of the SRBT facility floor plan should be available at the main exits doors of the facility.</p>	<p>SRBT Management have copies of the Emergency Plan plan in their vehicles and on their cell phones. Copies of the floor plan will also be placed at exit doors.</p>	<p><b>Action # 6:</b></p> <p>Copies of the SRBT's floor plan will be placed at exit doors.</p> <p><b>Target completion date:</b> Completed</p>
7	<p><b>Emergency Contacts:</b></p> <p>PFD response time to arrive at the SRBT was discussed with SRBT Management including the initial phone calls that were made by the Incident Commander.</p>	<p>The IC stated that 911 was called and the alarm company . He also called directly to the PFD. He stressed how important it is to call FPD directly to ensure the emergency information has been directly received by off-site responders.</p>	<p><b>Action # 7:</b></p> <p>SRBT's Emergency Plan and Fire Protection program will revised to include the key point of contacting the PFD directly in the case of an emergency.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
8	<p>Notification to CNSC:</p> <p>Notification process to contact the Canadian Nuclear Safety Commission (CNSC) was discussed.</p>	<p>SRBT Management stated that CNSC back-up contact names and numbers need to be provided and not just the Duty- Officer.</p>	<p><b>Action # 8:</b></p> <p>SRBT's Emergency Plan will be revised to include the additional CNSC contact information.</p> <p><b>Target completion date:</b> 2015/09/30</p>
9	<p>Contact Names, Emergency Responders:</p> <p>SRBT's Health Physicist documented the names and contact details of each off-site responder that participated in the exercise.</p>	<p>SRBT Management inquired as to whether there was an official form used when filling out this contact information. It was determined there is no standard form used.</p>	<p><b>Action # 9:</b></p> <p>SRBT's Emergency Plan will be revised to include a emergency responder contact details form and be place at each exit door of the facility.</p> <p><b>Target completion date:</b> 2015/09/30</p>
10	<p>Bioassay results from emergency responders:</p> <p>Bioassay results for emergency responders and notification process was brought up by the SRBT Health Physicist.</p>	<p>SRBT's Health Physicist will verify if Health Canada must be notified of emergency responder bioassay results as they are not classified as Nuclear Energy Workers.</p>	<p><b>Action # 10:</b></p> <p>SRBT's Health Physicist will verify if Health Canada requires bioassay results. SRBT's Emergency Plan will be revised accordingly following the response from Health Canada.</p> <p><b>Target completion date:</b> 2015/09/30</p>
11	<p>Memorandum of Understanding (MOU):</p> <p>The issue of FPD bunker gear and equipment becoming contaminated during an emergency was discussed between PFD and SRBT Management.</p>	<p>SRBT Management stated that an MOU has been prepared which states that SRBT would have all gear and equipment decontaminated or replaced should this occur (SRBT would cover the full cost).</p>	<p><b>Action # 11:</b></p> <p>City Of Pembroke officials and PFD have received the MOU and are currently reviewing it.</p> <p><b>Target completion date:</b> 2015/08/31</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
12	<p>Off-Site Responders:</p> <p>The topic of contacting the Ontario Provincial Police (OPP) during an emergency was discussed.</p>	<p>SRBT Management stated that the scenario used during the February 9<sup>th</sup> emergency exercise did not require contact and assistance from the OPP, however their involvement may be required in an actual emergency.</p>	<p><b>Action # 12:</b></p> <p>SRBT's Emergency Plan will be revised to include the requirement to contact the OPP in the event of an emergency. Contact telephone(s) number will be included in the Emergency Plan.</p> <p><b>Target completion date:</b> 2015/09/30</p>
13	<p>Off-Site Responders:</p> <p>The topic of contact the local paramedic team during an emergency was discussed.</p>	<p>SRBT Management stated that the scenario used during the emergency exercise did not require contact and assistance from the local paramedic team; however their involvement may be required in an actual emergency.</p>	<p><b>Action # 13:</b></p> <p>SRBT's Emergency Plan will be revised to include the requirement to contact the local paramedic team in the event of an emergency. Contact telephone(s) number will be included in the Emergency Plan.</p> <p><b>Target completion date:</b> 2015/09/30</p>
14	<p>Medical First Aids Kits:</p> <p>A staff member stated that first aid kits were not readily available during the emergency exercise and in an actual emergency someone could be injured and require medical attention.</p>	<p>SRBT Management advised the Health and Safety Officer to purchase two medical kits.</p>	<p><b>Action # 14:</b></p> <p>Two first aids kits will be purchased and placed at the two main exit doors at the facility</p> <p><b>Target completion date:</b> Completed</p>
15	<p>Timers:</p> <p>A staff member stated that there was some minor discrepancies with the start and stop time of events.</p>	<p>SRBT Management advised the Health and Safety Officer to purchase timers to be used during emergency exercises.</p>	<p><b>Action # 15:</b></p> <p>Timers will be purchased and made available to key players during an emergency exercise.</p> <p><b>Target completion date:</b> Completed</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
16	<p><b>Staff Accountability Process:</b></p> <p>It was noted that during the staff accountability process at the Marshalling Area more than one person was speaking on behalf of the work groups.</p>	<p>SRBT Management stated that a staff meeting will be held to address specific roles and responsibilities during the staff accountability process.</p>	<p><b>Action # 16:</b></p> <p>A staff meeting was held to address the staff accountability process during an emergency. The roles and responsibilities of key players involving staff accountability will be revised in SRBT's Emergency Plan.</p> <p><b>Target completion date:</b> 2015/09/30</p>
17	<p><b>Access Passes:</b></p> <p>The issue of having the ability to monitor or track staff while in the facility was raised as this is an important for health and safety reasons as well as locating personnel during an emergency.</p>	<p>SRBT Management stated that the Health and Safety representative has already commenced work activities to implement a badge access system for usage by staff.</p>	<p><b>Action #17</b></p> <p>A new badge access monitoring system has been ordered and will begin testing in the very near future.</p> <p><b>Target completion date:</b> 2015/05/30</p>
18	<p><b>Marshalling Area:</b></p> <p>One exercise evaluator stated that staff did not leave the marshalling area until the fire trucks arrived and that this is an important point as there could be a situation where an alternate route to Pem Ice II may be necessary depending on the type and situation of the emergency.</p>	<p>SRBT Management has discussed this matter in more detail.</p>	<p><b>Action # 18</b></p> <p>SRBT's Emergency Plan will be revised to address movement from the marshalling area and routes to take to Pem Ice II.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
19	<p>Notification and communication process to follow in the event of an emergency being declared:</p> <p>The SRBT Communications Officer stated that she was aware that an emergency was to be declared in this emergency exercise; however the declaration of the emergency did not go directly to her from the staff member involved.</p>	<p>SRBT Management did discuss the proper process to follow in an emergency with the staff member involved.</p> <p>Management also stated that the notification process will be more clearly defined in the Emergency Plan</p>	<p><b>Action # 19</b></p> <p>SRBT's Emergency Plan will be revised to more clearly define the process and steps to follow in notifying all appropriate stakeholders when an emergency is declared.</p> <p><b>Target completion date:</b> 2015/09/30</p>
20	<p>Communications with the media:</p> <p>A staff member suggested that the SRBT Communications Officer should have the assigned role and responsibility to deal with the media in the event of a real emergency.</p>	<p>SRBT Management stated that dealing with the media will be more clearly defined including who has the responsibility for this activity. Management also stated that the next emergency exercise will include an additional scenario component where which the will be involved.</p>	<p><b>Action # 20</b></p> <p>SRBT's Emergency Plan will be revised to include details on the roles and responsibilities of SRBT personnel in dealing with the media.</p> <p><b>Target completion date:</b> 2015/09/30</p>
21	<p>Staff communication with the media:</p> <p>A staff member stated that during a real emergency staff could be approached from the media to make comments and /or answer questions.</p>	<p>SRBT Management agreed that this is an important factor and staff should have some training in this area and information on this topic needs to be included in the SRBT Emergency Plan.</p>	<p><b>Action # 21</b></p> <p>SRBT's Emergency Plan will be revised to include information on staff communication with the media. In addition, a training session will be arranged for staff on this matter as well.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
22	<p><b>Communications:</b> Facebook</p> <p>It was noted that SRBT had set up a new Facebook account to provide updates to the public and media.</p>	<p>SRBT Management will designate the Communication Officer to maintain and update Facebook and also assign a back - up person for this responsibility.</p>	<p><b>Action # 22</b></p> <p>SRBT's Emergency Plan will be revised to reflect the roles and responsibilities to maintain the Facebook account.</p> <p><b>Target completion date:</b> 2015/09/30</p>
23	<p><b>Termination of Emergency Exercise:</b></p> <p>One exercise evaluator stated that there appeared to be some minor issues as to when and how the IC actually terminated the emergency exercise.</p>	<p>The IC said he clearly stated when the emergency exercise was terminated, but noted it would be defined more clearly defined who and how this is conducted in the Emergency Plan.</p>	<p><b>Action # 23</b></p> <p>SRBT's Emergency Plan will be revised to clearly specify who and how an emergency will be terminated.</p> <p><b>Target completion date:</b> 2015/09/30</p>
24	<p><b>Evaluator Checklist:</b></p> <p>One exercise evaluator stated that the checklists used during the emergency exercise were very detailed/ comprehensive and therefore difficult to fill out during the actual event.</p>	<p>SRBT Management stated the evaluator checklists will be revised accordingly and be easier to use during the next emergency exercise.</p>	<p><b>Action # 24</b></p> <p>The SRBT Emergency Exercise Evaluator Checklist will be revised to reflect key requirements to be met and also be easier to use during the exercise.</p> <p>A copy of the revised evaluator checklist will be included in the SRBT Emergency Plan.</p> <p><b>Target completion date:</b> 2015/09/30</p>
25	<p><b>Emergency Response Procedure Form:</b></p> <p>One evaluator noted that the SRBT Emergency Plan states the Emergency Response Form should be filled out by the IC during the emergency exercise and this was not done.</p>	<p>The IC stated that filling out the form should be completed following the exercise and not during it. The IC is fully aware of what information is required and it is therefore more practical and logical to fill out the form following termination of an emergency or emergency exercise.</p>	<p><b>Action # 25</b></p> <p>SRBT's Emergency Plan will be revised to state that the noted form will be completed by the IC following the termination of the emergency.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
26	<p>SRBT facility tours for Pembroke Fire Department (PFD):</p> <p>A member of the PFD stated that tours of the SRBT facility are very beneficial for full time as well as volunteer fire fighters.</p>	<p>SRBT Management stated that routine tours are provided to full time fire fighters however yearly tours will be scheduled for volunteer fire fighters as well.</p>	<p><b>Action # 26</b></p> <p>SRBT's Emergency Plan and Fire Protection Program will be revised to include the requirement of providing yearly tours for full time members of the PFD as well as volunteers.</p> <p><b>Target completion date:</b> 2015/09/30</p>
27	<p>Communications with Fire Fighters :</p> <p>A member of the PFD stated that during an emergency it is of key importance to have someone from SRBT to be able to maintain constant communications with PFD personnel inside the facility (to provide advice and information).</p>	<p>SRBT Management stated that a designated staff member (such as IC) familiar with the facility will be assigned to stay with the PFD official outside of the facility during an emergency.</p>	<p><b>Action # 27</b></p> <p>SRBT's Emergency Plan will be revised to include the requirement to have a designated SRBT staff member stay with a PFD official outside of the facility at all times during an emergency to provide advice and information as required.</p> <p><b>Target completion date:</b> 2015/09/30</p>
28	<p>PFD Response Actions: Emergency exercise versus real emergency.</p> <p>A member of the PFD stated that actions taken during a real emergency would be very direct which could result in more tritium lights being damaged or broken.</p>	<p>SRBT Management agreed and stated that two actions be taken to reduce the possibly of signs in zones 2 and 3 being damaged or broken.</p>	<p><b>Action # 28</b></p> <p>SRBT staff will be provided with training as to how to reduce or eliminate hazards (such as removal of booties and lab coats) when exiting zones 2 and 3.</p> <p>SRBT's Emergency Plan will be revised to include the steps to take to reduce hazards when exiting an area in an emergency situation.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
29	<p>PFD Response Actions: Emergency Exercise versus real emergency.</p> <p>As above.</p>	As above.	<p><b>Action # 29</b></p> <p>SRBT will purchase new containers to hold tritium filled glass tubes that are currently stored on shelves in zone 2 assembly area.</p> <p><b>Target completion date:</b> 2015/06/30</p>
30	<p>Assessment of Contamination :</p> <p>CNSC staff noted during an emergency it would be beneficial to have someone available to provide assistance to the SRBT Health Physicist. This could include taking swipes and analyzing them via the liquid This would be a time saving factor and help with the assessment process.</p>	SRBT Management stated that an adequately trained staff member will be assigned the role to assist the Health Physicist in an emergency.	<p><b>Action # 30</b></p> <p>SRBT's Emergency Plan will be revised to include the name and /or staff position that would provide assistance during an emergency.</p> <p><b>Target completion date:</b> 2015/09/30</p>
31	<p>Announcement of Emergency :</p> <p>A staff member noted that during the emergency exercise a fellow staff member yelled there was a "fire in assembly" while exiting the room and that this would be the proper statement for staff to make in a real emergency situation.</p>	SRBT Management stated that all staff would be trained to communicate with direct statements such as " fire in assembly " in a real emergency situation.	<p><b>Action # 31</b></p> <p>SRBT's Emergency Plan will be revised to include information or statement staff should make in an emergency situation.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
32	<p>Movement to Marshalling Area:</p> <p>A staff member stated that some individuals seemed to be slow in their actions upon exiting the SRBT facility and walking to the actual designated marshalling area following activation of the fire alarm.</p>	<p>SRBT Management stated it is very important for staff to move to the Marshalling Area in a safe and expedient manner.</p>	<p><b>Action # 32</b></p> <p>A staff meeting was held in which SRBT Management informed staff of the importance of moving to the marshalling area in order to complete the staff accountability process.</p> <p>SRBT's Emergency Plan will be revised to include a statement regarding the importance of staff moving to the Marshalling Area in a safe and expedient manner in order to conduct staff accountability checks.</p> <p><b>Target completion date:</b> 2015/09/30</p>
33	<p>Exiting and Entering the SRBT Facility :</p> <p>CNSC staff noted that some individuals did enter and exit the SRBT facility after the emergency had commenced.</p>	<p>SRBT Management and PFD officials stated that no one should be allowed to re-enter the facility during an emergency unless approved to do so by the PFD on site.</p>	<p><b>Action # 33</b></p> <p>A staff meeting was held in which SRBT Management informed staff that in an emergency situation no one shall re-enter the facility unless approved to do so by PFD officials on-site.</p> <p>SRBT's Emergency Plan will be revised to include a statement that staff members are not allowed to re-enter the facility after an emergency has been announced unless approved to do so by the PFD officials on site.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
34	<p>Emergency Exercise Roles and Responsibilities:</p> <p>CNSC staff suggested that key roles and responsibilities be rotated during the next emergency exercise (training purposes).</p>	<p>SRBT Management stated that the next emergency exercise will involve a different scenario and roles, and the responsibilities of key personnel will change as well.</p>	<p><b>Action # 34</b></p> <p>SRBT Management acknowledges and commits to implement this feedback during future emergency exercises.</p>
35	<p>Time to walk to marshalling area:</p> <p>A staff member stated that during the next scheduled fire drill, it would be beneficial to verify the time it takes for all staff to exit the facility and meet at the marshalling area.</p>	<p>SRBT Management stated that timing the walk to the marshalling area will be an added component to the next scheduled fire drill.</p>	<p><b>Action # 35</b></p> <p><b>Target completion date:</b> Completed</p>
36	<p>Staff interaction with media:</p> <p>The president of SRBT stated that in a real emergency situation, media may be on-site and could try to interact with staff.</p>	<p>SRBT Management stated that staff is not to deal directly with the media or post comments on social media regarding an emergency situation. SRBT will designate an individual to communicate in all aspects with the media and otherwise. It is very important to have one spokesperson in order to ensure that accurate and correct information is provided.</p>	<p><b>Action # 36</b></p> <p>SRBT's Emergency Plan will be revised to include information on dealing with the media and define who has that role and responsibility.</p> <p><b>Target completion date:</b> 2015/09/30</p>

Item #	Issue/Topic/Description	Comment(s)	Follow-up Action(s) to be taken
37	<p>Closing of Internal Doors:</p> <p>A staff member asked if all internal doors in the facility should be closed when exiting the facility during an emergency</p>	<p>SRBT Management stated that staff should try and close door in their respective work areas upon exiting , but only if this can be achieved in a safe manner</p>	<p><b>Action # 37</b></p> <p>SRBT's Emergency Plan will be revised to include a statement regarding closing of all internal doors upon exiting the facility in an emergency (only if this can achieved in a safe manner).</p> <p><b>Target completion date:</b> 2015/09/30</p>
38	<p>Raise a Non-Conformance Report (NCR):</p> <p>In accordance with SRBT Quality Manual Corrective Action Process, one NCR will be raised to encompass all of the identified corrective actions.</p>	<p>SRBT Management requested that the SRBT Quality Manager prepare the NCR and submit to the SRBT president for approval and signature.</p>	<p><b>Action # 38</b></p> <p>A NCR was been completed and approved by the SRBT President. The NCR number is 442.</p> <p><b>Target completion date:</b> Completed</p>

**APPENDIX A - SRBT Emergency Exercise Evaluator Checklist  
(City of Pembroke)**

**Evaluator: Colleen Sauriol**

**Title: City of Pembroke, Community Emergency Management Coordinator**

**Emergency Exercise Date: February 9, 2015**

<b>Description</b>	<b>Regulatory Requirements</b>	<b>Compliance Expectations</b>	<b>Comments</b>	<b>Met/Not Met</b>
Staging	CNSC Regulatory Document RD-353	An exercise evaluator in position to observe the response.	Colleen and Doug initial position was the designated Marshalling Area. Tanya was positioned with the Incident Commander (IC). Both evaluators moved to different areas as the emergency exercise unfolded.	Met
Notification to Company Staff	SRBT Emergency Plan	Notification of the emergency has been noted by the Incident Commander (IC).	Emergency exercise commenced at 9:45 a.m. Notification was completed as required.	Met
Notification to Company Staff	CNSC Regulatory Document RD-353	The IC has taken prompt and effective actions to limit the consequences of the emergency exercise inside the facility.	The IC (Stéphane) actions taken were prompt, direct and effective.	Met
Notification to Off-Site Responders	SRBT Emergency Plan	Off-site responder has been contacted by the IC.	IC called 911 and the alarm company (on contract with SRBT) made a call as well.	Met
Assessment Of Emergency	SRBT Emergency Plan	The emergency response actions taken by the IC are appropriate for the scenario.	The IC took appropriate response actions after being informed and verifying a fire was detected in the Assembly Area and a SRBT staff member had tried to put it out using a fire extinguisher.	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Assessment Of Emergency	CNSC Regulatory Document RD-353	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.	The IC declared the fire incident as an emergency within two to three minutes of being notified by a SRBT staff member.	Met
Assessment Of Emergency	CNSC Regulatory Document RD-353	The IC quickly evaluates the consequences of the emergency and takes appropriate actions.	The IC quickly declared the incident was an emergency and staff evacuated the facility to the designated Marshalling Area. Staff accountability was confirmed. Staff was then directed to transfer to the local arena, Pem Ice II (a five minute walk).	Met
Overall Command	CNSC Regulatory Document RD-353	Command structure and conduct of key players with key roles and responsibilities are maintained throughout the emergency exercise.	Based on what was witnessed, command structure and interactions with key personnel (including off -site responders) was well maintained throughout the entire emergency exercise.	Met
Staff Accounting	CNSC Regulatory Document RD-353	The IC ensures staff accountability is clearly addressed, confirmed and reported during the emergency exercise.	Staff accountability was clearly addressed and confirmed by SRBT Production Control Manager (Mary Ann) and this information was conveyed to the IC. Staff was segregated into work groups at the Marshalling Area, which resulted in an efficient accountability process.	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Assisting Emergency Responders	SRBT Emergency Plan	The IC has listed/documented the expected effects of the emergency.	This topic was addressed at the de-briefing session at Pem Ice II.	Met
Assisting Emergency Responders	CNSC Regulatory Document RD-353	The IC has provided expertise and resources to support off-site authorities and conversely the off-site authorities to support on -site response.	<p>SRBT Health Physicist (Jamie) provided expertise and resources to support the Fire Department responders.</p> <p>The IC assigned this role to Jamie during the exercise and as the scenarios changed to include a radiological component.</p>	Met
Assisting Emergency Responders	CNSC Regulatory Document RD-353	Actions were taken to protect emergency responders including external organizations providing on site response.	The IC ensured that Fire Department responders were wearing appropriate bunker gear and independent breathing air packs before entering the building.	Met
Communications	CNSC Regulatory Document RD-353	Communications with internal and external personnel, agencies have been addressed and completed.	<p>The SRBT Communications Officer (Katie) provided the communications to the external agencies including the CNSC Duty Officer.</p> <p>The IC also maintained ongoing interaction with the SRBT Communications Officer.</p>	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Emergency Response Resources	CNSC Regulatory Document RD-353	Emergency response facilities, equipment and documentation are adequate to support the emergency exercise.	Emergency response facilities and equipment were adequate for the emergency exercise. Checklists used by the evaluators and IC could be reduced in content and less comprehensive. Key points could be documented as a guide to follow during this type of emergency exercise. A SRBT facility floor plan could be provided to Fire Department personnel.	Met See notes provided
Emergency Response	CNSC Regulatory Document RD-353	The IC and off-site responders are capable of maintaining a response for an extended period of time.	The IC does have a backup person if required and the Fire Department has a policy and program in place to bring in additional resources as needed. This was explained during the de-briefing session.	Met
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed the evacuation of personnel from the facility.	The IC confirmed evacuation had taken place with the SRBT Production Control Manager (Mary Ann).	Met
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed that self-contained breathing apparatus are being used by firefighters.	The IC confirmed this.	Met
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed that full protective clothing is worn (gloves, booths, helmets, pant and coats).	The IC confirmed this.	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Mitigation Radiation Exposure	SRBT Emergency Plan	Protective clothing and equipment is quarantined after use (if required).	The emergency exercise scenario included a component which involved contamination which resulted in clothing and equipment being removed and quarantined. The process followed during the emergency exercise clearly addressed and demonstrated that the SRBT Health Physicist had complete control on how to handle this type of situation.	Met
Mitigate the Effects on the Environment	SRBT Emergency Plan	The IC has provided advice and rational to emergency response personnel on mitigation effects on the environment.	The mitigation events on the environment were not an issue or factor for the scenarios used in this emergency exercise. No impact on the environment.	Met
Mitigate the Effects on the Environment	CNSC Regulatory Document RD-353	The IC has assessed and characterized the magnitude and nature of the release (if applicable).	See notes in above column. This is not applicable (N/A).	N/A
Formal Notification of Emergency	SRBT Emergency Plan CNSC Regulatory Document RD-353	All stakeholders have been formally notified of the emergency.	The SRBT Communications Officer (Katie) made contact with the outside agencies in a timely fashion. Communications included initial notification that an emergency exercise was taken place as well as formal notification when the emergency exercise had ended.	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Formal Notification of Emergency	CNSC Regulatory Document RD-353	The IC correctly classified the emergency and promptly notified the off-site authorities and agencies (including notification to outside agencies, province and the CNSC).	The IC correctly classified the emergency and ensured that notifications were made with the appropriate agencies, province including the CNSC Duty Officer.	Met
Assess Radiation Exposure	SRBT Emergency Plan	A list of names and contact details of all off-site emergency responders has been documented.	The SRBT Health Physicist obtained names, contact details, and addresses of each off- site emergency responder. This was well communicated and explained to each individual involved.	Met
Assess Radiation Exposure*	SRBT Emergency Plan	All off-site emergency responders have provided urine samples.	The SRBT Health Physicist clearly explained why and how this activity would be conducted.	Met
Assess Radiation Exposure*	SRBT Emergency Plan	Results of bioassay samples have been provided to all off-site emergency responders.	The SRBT Health Physicist outlined how this would be handled in a real situation where bioassay sampling would be required and how bioassay sample results would be provided to each individual.	Met
Level of Surface Contamination*	SRBT Emergency Plan	The level of surface contamination has been assessed.	The SRBT Health Physicist outlined how this would be addressed including the process to be followed.	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Decontamination*	SRBT Emergency Plan	All surfaces have been decontaminated to reduce radiation exposure.	The SRBT Health Physicist outlined how this would be addressed including the process followed.	Met
Termination of Emergency Response	SRBT Emergency Plan	The IC discussed the termination of the emergency response activities with off-site responders.	The IC did discuss the termination of the emergency exercise with the Fire Chief and Fire Department IC.	Met
Termination of Emergency Response	CNSC Regulatory Document RD-353	The IC adequately assessed the situation and conditions to terminate the emergency exercise.	Following discussions with key personnel involved with the exercise the IC was very comfortable in making the decision to terminate the emergency exercise.	Met
Return to Work	CNSC Regulatory Document RD-353	The IC has assessed the hazards for return to work and communicated this to all staff.	The IC did assess the situation and clearly informed staff (who were at Pem Ice II) that they could return to work.	Met
Conduct of Emergency Exercise	CNSC Regulatory Document RD-353	The conduct of the emergency exercise demonstrated sound organizational and professional execution.	The emergency exercise was well organized and executed in a professional manner. It was also noted that this was the first full scale emergency exercise conducted at the SRBT facility. Fire drills are conducted on a regular basis.	Met
Safety of Emergency Exercise Players	CNSC Regulatory Document RD-353	The safety of the controller and evaluators was not jeopardized during the emergency exercise.	Safety was not jeopardized at all during the emergency exercise.	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Emergency Exercise De-briefings	CNSC Regulatory Document RD-353	De-briefings of the emergency exercise were conducted with all participants.	The de-briefing exercise was conducted at Pem Ice II following completion of the emergency exercise. Attendees included, off-site responders, Pembroke Fire Chief, all key SRBT participants in the emergency exercise as well as SRBT staff and CNSC observers. De-briefing session was well done.	Met
Follow-up Actions	CNSC Regulatory Document RD-353	The IC notified off-site organizations of the end of the emergency exercise and provided instructions and recommendations for follow-up.	The SRBT Communications Officer (Katie) notified the off-site agencies and officials (including CNSC Duty Officer) that the exercise had ended. The IC was in full communications with the SRBT Communications Officer during this process. This was also discussed during the de-briefing session.	Met

Notes:

- CNSC RD-353 is the Canadian Nuclear Safety Commission regulatory document titled “Testing the Implementation of Emergency Measures”.
- SRBT Emergency Plan is the internal company program document that the CNSC had approved as part of the SRBT licensing process.

**APPENDIX B - SRBT Emergency Exercise Evaluator Checklist (SRBT)**

**Evaluator: Tanya Sennett**

**Title: SRBT Compliance Manager**

**Emergency Exercise Date: February 9, 2015**

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Staging	CNSC Regulatory Document RD-353	An exercise evaluator in position to observe the response.	Yes. There were 2 evaluators in position to observe the response. <ul style="list-style-type: none"><li>• Colleen Sauriol (City of Pembroke) in Marshalling area (to monitor staff accountability process); and</li><li>• Tanya Sennett (SRBT) in front office area near IC (monitor Stéphane's actions).</li></ul>	Met
Notification to Company Staff	SRBT Emergency Plan	Notification of the emergency has been noted by the Incident Commander (IC).	Yes. Staff that were evacuating the Assembly area notified the IC of the fire.	Met
Notification to Company Staff	CNSC Regulatory Document RD-353	The IC has taken prompt and effective actions to limit the consequences of the emergency exercise inside the facility and in the environment	Monitor actions taken by IC. <ul style="list-style-type: none"><li>• Evacuation of staff;</li><li>• Communications with Pembroke Fire Department ( 911); and</li><li>• Communications with SRB key players</li></ul> The Staff evacuated as per the Emergency Evacuation Procedures. Staff notified the on-site personnel (IC) by verbally	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			<p>telling him as they evacuated.</p> <p>The IC correctly and promptly recognized and classified the abnormal event</p> <p>The IC ensured that the evacuated staff were made aware that this was an emergency situation. This prompts the staff with key roles to initiate actions.</p> <p>The IC notified the Pembroke Fire Department.</p> <p>The on-site personnel initially responding the emergency were kept to a minimum so as to avoid unnecessary distractions. Initially there was only the IC on-site.</p> <p>All non-essential staff evacuated the area.</p>	
Notification to Off-Site Responders	SRBT Emergency Plan	Off-site responder has been contacted by the IC.	Yes. The IC called the Pembroke Fire Department. As well as the fire alarm was	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			pulled. This prompted the alarm company to be notified and the alarm company also alerted the Fire Department.	
Assessment Of Emergency	SRBT Emergency Plan	The emergency response actions taken by the IC are appropriate for the scenario.	<p>This scenario is outlined in section 5.3.1.3 of the SRB Emergency Plan. The SRB Fire Safety Plan in the Fire Protection Program describes the procedures to be conducted as a result of this type of scenario.</p> <p>Monitor actions taken by IC</p> <ul style="list-style-type: none"> <li>• Ensure evacuation is/has taken place;</li> <li>• Communications have been established with off-site responders;</li> <li>• Communications have been established with key on – site personnel; and</li> <li>• Communications have been established with off –site agencies, departments</li> </ul> <p>Yes, all of these actions were taken by the IC.</p>	Met
Assessment Of Emergency	CNSC Regulatory Document RD-353	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	<p>Monitor actions taken by IC</p> <ul style="list-style-type: none"> <li>• Verification fire has been detected in zone 2 Assembly Area (how was</li> </ul>	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
		members is initiated.	<p>this communicated to IC);</p> <ul style="list-style-type: none"> <li>• Evacuation will commence after fire alarm is pulled; and</li> <li>• IC will communicate with key on-site personnel (Mary -Ann, Katie, Jamie).</li> </ul> <p>The Staff evacuated as per the Emergency Evacuation Procedures.</p> <p>Staff notified the on-site personnel (IC) by verbally telling him as they evacuated.</p> <p>The IC correctly and promptly recognized and classified the abnormal event</p> <p>The IC ensured that the evacuated staff were made aware that this was an emergency situation. This prompts the staff with key roles to initiate actions.</p> <p>The IC notified the Pembroke Fire Department.</p> <p>The on-site personnel initially</p>	

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			<p>responding the emergency were kept to a minimum so as to avoid unnecessary distractions. Initially there was only the IC on-site.</p> <p>All non-essential staff evacuated the area.</p>	
Assessment Of Emergency	CNSC Regulatory Document RD-353	The IC quickly evaluates the consequences of the emergency and takes appropriate actions.	<p>Monitored actions taken by IC.</p> <p>The IC assessed the hazard of fire in the Assembly area as an emergency as this area contains tritium.</p> <p>The IC confirmed that all staff were safely evacuated and accounted for within a 30 minute time frame.</p>	Met
Overall Command	CNSC Regulatory Document RD-353	Command structure and conduct of key players with key roles and responsibilities are maintained throughout the emergency exercise.	<p>The conduct of key players was appropriate and maintained throughout the emergency exercise.</p> <p>Communication with both on-site and off-site responders was timely and clear.</p> <p>The IC gave and received periodic update briefing from all key players.</p>	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			<p>During the exercise decisions were not documented in event logs. This was completed after the emergency exercise and included as part of the briefing.</p> <p>The facility was restricted to only emergency responders and non-essential personnel were not granted access.</p>	
Staff Accounting	CNSC Regulatory Document RD-353	The IC ensures staff accountability is clearly addressed, confirmed and reported during the emergency exercise.	<p>The staff accounting was the responsibility of Mary-Ann. The second evaluator confirmed that this was completed properly and in a timely fashion.</p> <p>When Mark evacuated to the marshalling area he notified Mary-Ann that the IC stated that this was an emergency which prompted the action of re-locating non-essential staff to the Pem Ice II evacuation area.</p> <p>This also prompted the other key players into their actions.</p> <p>Jamie to assist IC with health</p>	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			physics related advice and Katie to begin notifications to stakeholders.	
Assisting Emergency Responders	SRBT Emergency Plan	The IC has listed/documentated the expected effects of the emergency.	Yes. The IC discussed with the fire responders that the fire was in the Assembly area in an active zone. He explained that there were no lights in the area where the fire was (silk screening area) and that there would be no exposure unless light sources were broken. The IC also informed the responders to keep their SCBAs on to avoid any uptake of tritium.	Met
Assisting Emergency Responders	CNSC Regulatory Document RD-353	The IC has provided expertise and resources to support off-site authorities and conversely the off-site authorities to support on -site response.	Yes. The IC provided his expertise and advice as well as the resource of the additional advises of the Manager of Regulatory Affairs and Health Physics concerning radiological releases and action to be taken.	Met
Assisting Emergency Responders	CNSC Regulatory Document RD-353	Actions were taken to protect emergency responders including external organizations providing on site response.	Yes. Actions were taken to ensure that emergency responders were protected.  IC ensured that the fire department wore all their protective clothing (bunker	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			<p>gear) as well as their SCBAs.</p> <p>The fire department was also provided with radiological protection after tritium light sources were broken during the emergency exercise to ensure that their gear was assessed for contamination.</p>	
Communications	CNSC Regulatory Document RD-353	Communications with internal and external personnel, agencies have been addressed and completed.	<p>Communication with internal and external personnel was adequate and maintained.</p> <p>The fire department communicated via radio while SRB personnel communicated either in person or by cell phone.</p> <p>*It was noted during de-briefing that the fire department personnel were temporarily unable to communicate while their radios were being assessed for contamination.</p> <p>The actual emergency was already addressed at this point, but the PFD requested that they should always have communication.</p>	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
Emergency Response Resources	CNSC Regulatory Document RD-353	Emergency response facilities, equipment and documentation are adequate to support the emergency exercise.	<p>Yes. The emergency response facilities, equipment and documentation used during the emergency exercise includes:</p> <ul style="list-style-type: none"> <li>• Marshalling area at SRB;</li> <li>• Pem Ice II facility for staff being evacuated;</li> <li>• equipment used by the Fire Department personnel (radios, bunker gear, contained breathing air packs , imaging camera);</li> <li>• SRB radiological monitoring equipment (portable tritium monitors, swipes, liquid scintillation counters, containment bags; and</li> <li>• Documentation includes - staff accountability list, Emergency Plan, Fire Protection Program, checklists, etc. used by SRB.</li> </ul> <p>Staff evacuation areas did not interfere with any response teams.</p> <p>All equipment used was operational and available. This</p>	<p>Met See notes provided</p>

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			<p>equipment was appropriate for an extended response. Documentation used was current and generally used by personnel performing emergency tasks.</p> <p>The IC was very familiar with the emergency response list and did not require the use of checklists during the exercise.</p> <p>It was noted that the evaluators found their checklists too comprehensive to be useful during the exercise and felt that an abbreviated and simple check list would have been more helpful.</p>	
Emergency Response	CNSC Regulatory Document RD-353	The IC and off-site responders are capable of maintaining a response for an extended period of time.	During the de-brief it was noted that the IC and the Pembroke Fire Department were capable of maintaining a response for an extended period of time.	Met
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed the evacuation of personnel from the facility.	<p>Yes. The IC confirmed staff have been:</p> <ul style="list-style-type: none"> <li>• Evacuated to Marshalling Area;</li> <li>• Staff accountability was confirmed via communications with Mary</li> </ul>	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			<p>–Ann; and</p> <ul style="list-style-type: none"> <li>Relocation of staff to Pem. Ice as this is the emergency evacuation area as listed in the Emergency Plan.</li> </ul> <p>Note: It had been pre-determined that the neighboring businesses within a 200 meter radius would not be evacuated as required by the Emergency Plan so as not to interrupt their businesses.</p>	
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed that self-contained breathing apparatus are being used by firefighters.	Yes	Met
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed that full protective clothing is worn (gloves, booths, helmets, pant and coats).	Yes	Met
Mitigation Radiation Exposure	SRBT Emergency Plan	Protective clothing and equipment is quarantined after use (if required).	Yes. After the Fire Department confirmed that the emergency threat was contained, SRB ensured that the responders remained in a safe area to assess the gear (bunker gear, radios, imaging camera etc.) and ensure no cross	Met

Description	Regulatory Requirements	Compliance Expectations	Comments	Met/Not Met
			<p>contamination of the facility.</p> <p>Swipe samples were taken and assessed before the equipment was released to the Fire Department.</p> <p>Also, the fire responders were asked for their contact info and provided a specimen container for a urine sample (asked to be given in a few hours).</p> <p>The Manager of Regulatory Affairs and Health Physics provided extensive advice and explained the actions he was taking, including explaining that he would require additional urine samples over the next few weeks to continue to assess any possible uptakes of tritium.</p>	

**APPENDIX C – SRBT EMERGENCY EXERCISE PHOTOGRAPHS**

## **Table of Figures**

Figure 1: Pembroke Fire Department arrival and initial set-up

Figure 2: SRBT staff assembled at marshalling area

Figure 3: Firefighters preparing to enter the SRBT facility

Figure 4: Discussion between SRBT management, CNSC staff, and Pembroke Fire Department

Figure 5: CNSC monitoring SRBT Health Physicist's actions

Figure 6: CNSC Observer, Exercise Evaluator, Incident Commander, and Pembroke Fire Chief  
Discussion

Figure 7: Pembroke Fire Department Commander bringing gear into SRBT facility

Figure 8: SRBT staff transferring from marshalling area to Pem Ice 2

Figure 9: Exercise terminated, Pembroke Fire Department, Incident Commander, and CNSC staff

Figure 10: Pembroke Fire Department bunker gear & equipment to be assessed for contamination

Figure 11: SRBT staff assembled at Pem Ice 2



Figure 1: Pembroke Fire Department arrival and initial set-up.



Figure 2: SRBT staff assembles at marshalling area.



Figure 3: Firefighters preparing to enter the SRBT facility.



Figure 4: Discussion between SRBT management, CNSC staff, and Pembroke Fire Department.



Figure 5: CNSC monitoring SRBT Health Physicist's actions.



Figure 6: CNSC Observer, Exercise Evaluator, Incident Commander, and Pembroke Fire Chief discussions.



Figure 7: Pembroke Fire Department Incident Commander bringing gear into SRBT facility.



Figure 8: SRBT staff transferring from marshalling area to Pem Ice 2.



Figure 9: Exercise terminated, discussion between Pembroke Fire Department, Incident Commander, and CNSC staff

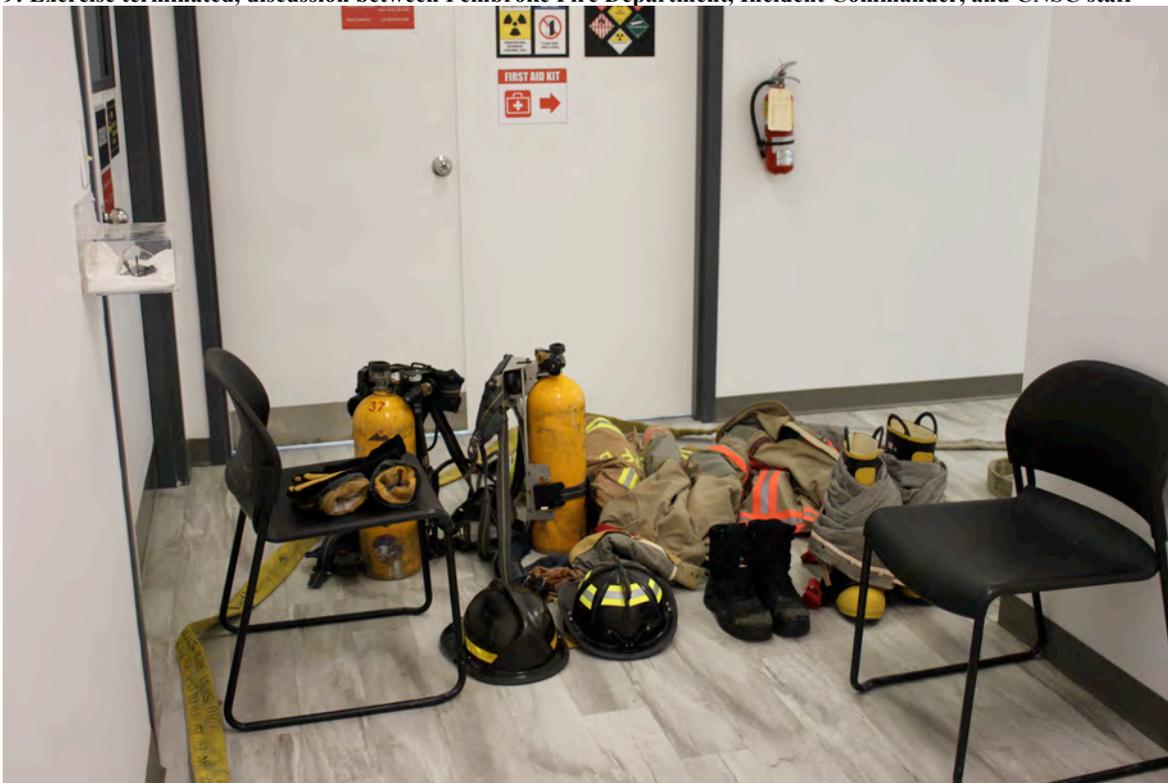


Figure 10: Pembroke Fire Department bunker gear and equipment waiting to be assessed for contamination.



Figure 11: SRBT staff assembled at Pem Ice 2.

**APPENDIX D – SRBT Meeting Minutes**

## MEETING MINUTES

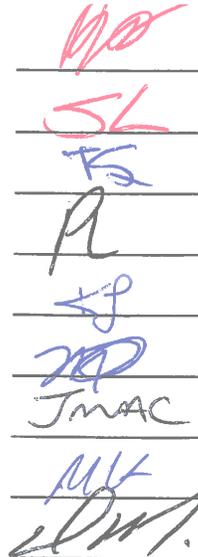
**Committee:** -Other

**Meeting date:** -February 10, 2015

**Next meeting date:** -N/A

**Attendees:**

- Ross Fitzpatrick (RF)
- Stephane Levesque (SL)
- Tanya Sennett (TS)
- Paul Lavigne (PL)
- Katie Levesque (KL)
- Mary-Ann Foster (MAF)
- Jamie MacDonald (JM)
- Mark Hoffman (MH)
- Doug McNab (DM) D&J Consulting
- All SRBT Staff



### **Subject:**

-Emergency Training Exercise

### **Supporting documentation:**

1 - Meeting minutes dated February 9, 2015 - 4

### **Last meeting minutes**

-Review of meeting minutes dated February 9, 2015 - 4 (**see attached 1 for details**).

### **Old Business**

-N/A

### **New Business**

-Reviewed meeting minutes taken during the de-brief held at Pem Ice 2 (**see attached 1 for details**), the meeting with the evaluators (**see attached 2 for details**) and the de-brief meeting with CNSC staff (**see attached 3 for details**). The following are the issues that were identified:

-SRBT staff inquired if Pem Ice 2 would be available during an actual emergency. The City of Pembroke assured them it would be since the Pembroke Fire Department (PFD) carries a key with them and Colleen Sauriol (CS) from the City of Pembroke could get access as well if necessary. If CS is not available at the time of the emergency there are alternate contacts including the Operations stand by number which KL noted she does not have.

**Issue #1 - CS to give KL the Operations stand by number to add to the call list.**

-SRBT staff inquired if during an actual emergency they would be allowed to leave Pem Ice 2. SL made clear that only after the head count is performed and only once they notify MAF or the person designated to perform the head count can they then leave.

**Issue #2 - Appoint Darci Gaudette (DG) as the alternate to perform head counts.**

**Issue #3 - To better define the role of the person that performs head counts and clearly include that they are responsible for accountability of staff while at Pem Ice 2.**

-SRBT staff also noted they would like to be updated on arrival at Pem Ice 2 as well as more often throughout of the status of the emergency as much as possible.

**Issue #4 – To better define the role of SRBT Communications Officer to include communication with SRBT staff at Pem Ice 2.**

-The maintenance of security was discussed. Initially noted all doors were locked other than the main entrance door which needed to remain unlock while the PFD brought their hose through it but throughout discussions identified the door used by the staff in the Glass Shop to exit the building doesn't self-lock and had to be manually locked from the outside.

**Issue #5 – Modify the door used by staff in the Glass Shop to self-lock after exiting the building.**

-The PFD noted during the discussions regarding providing advice to responders, the tours that have been provided to them helped in knowing the layout of the facility but suggested having a floor plan available on site in case of uncertainty. SL had noted that he and RF have copies of SRBT's Emergency Plan which has the floor plan in their vehicles and also in their cell phones but will also have copies available at the main exits that can be taken while exiting the building.

**Issue #6 – Provide copies of the facility floor plan available at the main exits.**

-Discussed the length of time for the PFD to respond which was approximately 10 minutes from the time the fire alarm was activated. SL stated he called the PFD to verify they received the call notifying them of the alarm but was told they had not yet been notified by the 911 call center. In further discussions it was noted that it took 4 mins and 20 secs for the 911 call center to dispatch the PFD. SL re-iterated the importance of calling the PFD and not relying solely on the alarm company.

**Issue #7 – More clearly define the importance of calling the PFD direct in the Fire Safety Plan, the Emergency Plan and any other associated programs and procedures.**

-While discussing the notification of stakeholder, SL noted he received Mike Callighen phone number as an alternate contact for CNSC staff.

**Issue #8 – KL to add Mike Callighen to call list.**

-As required JM took contact names and details of all the emergency responders. SL inquired if there was a form made to fill out this information. JM stated there was not a form made specifically for this purpose and simply used a blank piece of paper. It was then discussed if there should be a form made and determined a form would be helpful.

**Issue #9 – Develop a form to gather contact details of emergency responders and have copies available at the main exits.**

-The reporting of bioassay levels and dose of the emergency responders were discussed. Several organizations are to be provided the results and explanation of the results. JM questioned whether it was a requirement to provide Health Canada of the emergency responders dose since they are not considered Nuclear Energy Workers.

**Issue #10 – Research the requirements of reporting bioassay results and dose of none Nuclear Energy Workers to Health Canada.**

-During the decontamination process of protective clothing and equipment if it was determined they could be not fully decontaminated they would then become radioactive waste in which SRBT would then properly dispose of and would then take responsibility in replacing the protective clothing and/or equipment through the Memorandum of Understanding (MOU) between SRBT and the PFD. The PFD noted that the MOU is under review by the City of Pembroke and the PFD.

**Issue #11 – Review of the MOU by the City of Pembroke and the PFD.**

-This emergency exercise did not need the assistance of the Ontario Provincial Police (OPP) or the local Paramedics but their involvements will possibly be needed in the future and possibly during an actual emergency.

**Issue #12 – Make contact with OPP.**

**Issue #13 – Make contact with local Paramedics.**

During this discussion the issue of an injury occurring during an emergency came to light and the need of having First Aid Kits readily available.

**Issue #14 – Purchase two new First Aid Kits to have available at the main exits.**

-In discussions regarding start and stop times during the exercise several different times had been noted therefore to more clearly define times it was suggested purchasing timers for those who have a role during an emergency exercise.

**Issue #15 – Purchase timers to have times better match during an emergency exercise.**

-The head count was performed in an efficient and structured manner. CS noted she liked the idea of separating in groups during the head count. MAF stated the leaders of some of those groups failed to notify her of some absences when asked and also she thought too many people were talking during the head count, she would prefer if only the leader of the group being talked to speak at that moment for clarity.

**Issue #16 – Have a meeting with all SRBT staff to more clearly discuss their roles and responsibilities during the head count.**

During this discussion the issue of tracking SRBT staff and knowing their whereabouts at all times while at the facility, such as during breaks and lunches as well as attendance came to light. Suggested looking into acquiring a system to better track staff.

**Issue #17 – Look into acquiring a system to better track staff while at the facility.**

-CS also liked the idea of waiting for the fire trucks to arrive before leaving the marshalling area since the route requires SRBT staff to cross the parking lot and Boundary Rd which brought to light the possibility of needing to discuss on alternate route to get to Pem Ice 2 if a situation impedes the use of the current route.

**Issue #18 – Discuss alternate route to get to Pem Ice 2 from marshalling area.**

-KL the SRBT Communication Officer noted also that her responsibility of notifying stakeholders of an emergency is only required if an emergency is declared. During this emergency training exercise KL was aware that once Mark Hoffman (MH) came to the marshalling area he would notify us that SL declared an emergency which would then prompt the notification of stakeholders. KL observed MH arrive at the marshalling area but he informed MAF only of the declared emergency.

**Issue #19 – Better define process of notifying all appropriate individuals of a declared emergency.**

-CS suggested the SRBT Communications Officer be responsible for handling any media at the facility that may come from having an actual emergency and simulating press during the next emergency exercise. Media could try contacting staff at Pem Ice 2 as well.

**Issue #20 – Better define the process of communications with media.**

**Issue #21 – Train staff on handling media during an emergency.**

SL stated a new Facebook account was initiated to provide updates to the public and media. KL is responsible for the updates as well as Chris Mitchell (CM) will be added as the backup.

**Issue #22 – Add Chris Mitchell (CM) as the backup for the Facebook updates.**

-It was unclear to TS when the exercise was determined as being terminated. Felt there was some confusion on the exact moment the exercise was deemed complete. SL stated he clearly stated when the exercise was terminated and informed every one of the termination but noted perhaps it needs to be better defined.

**Issue #23 – Better define the process of terminating the emergency exercise.**

-TS also felt the checklist that was developed for the evaluators was too detailed and therefore it was hard to fill out during the emergency when things are being done in a quick manner.

**Issue #24 – Amend checklist used by evaluators to be more useable during an exercise.** The Emergency Plan also states the "Emergency Response Procedure Form" needs to be filled out during the emergency training exercise by the Incident Commander but SL noted filling out any form should be done immediately following the termination of the exercise.

**Issue #25 – During the next revision of the Emergency Plan state forms are to be filled out immediately after the termination of the exercise.**

-SL asked the PFD if they felt comfortable with their knowledge of the layout of the facility and perhaps performing yearly tours of the facility for the PFD may help even volunteer fire fighters to become familiar as well. The PFD confirmed they felt comfortable with the layout but yearly tours would be great to further their knowledge of every aspect of the facility for the full time and volunteer fire fighters.

**Issue #26 – Provide yearly tours of the facility for the PFD.**

-The PFD re-iterated the importance of constant communication with the fire fighters inside the facility. Having someone familiar with the facility such as the Incident Commander or designate stay with the fire fighter outside the facility to give advice and answer questions would be helpful.

**Issue #27 – Designate an individual with thorough knowledge of the facility to stay with the PFD at all times during an emergency.**

-The PFD stated they would not be as gentle during an actual emergency as they were during the emergency training exercise and therefore if any tritium filled lights are around the area at that time they could very well get broken. In discussing this issue all agreed on two issues to take to help eliminate the possibility of lights breaking.

**Issue #28 – Train staff exiting from zones 2 and 3 on eliminating hazards for responders such as leaving booties on the floor.**

**Issue #29 – Look into purchasing steel cabinets to house tritium filled lights that are being assembled instead of shelving.**

These two issues will help mitigate the changes of breaking lights as well as injury to responders.

-JM requested additional help would be useful during the assessment of contamination of equipment and protective clothing of the responders as well as the decontamination process.

**Issue #30 – Designate an individual to help JM during the decontamination process.**

-PL noted some staff from the assembly room was yelling “fire in assembly” while exiting the assembly room. All staff should be trained to yell “fire” during an actual fire to better differentiate between a drill and an actual fire.

**Issue #31 – Train staff to yell “fire” during an actual fire to differentiate from a fire drill.**

-MH noted once his role during the exercise was complete he was the last person to leave the facility other than the individuals that were meant to stay in the facility but during the walk to the marshalling area he passed a few staff members still on their way to the marshalling area. Staff should try to get to the marshalling area as fast as possible so the head count can be performed ASAP.

**Issue #32 – Re-iterate to staff the importance of getting to the marshalling area as fast as possible so the head count be performed ASAP.**

-Issue raised regarding entering and leaving building during the exercise. CNSC staff commented that during an actual emergency no one should be entering the building without permission from the PFD.

**Issue #33 – Define process of “essential personnel” having access to the facility.**

-CNSC requested to see roles and responsibilities be rotated during the next emergency training exercise so different individuals can be familiar with other roles.

**Issue #34 – Rotate roles and responsibilities during the next emergency training exercise.**

-All other SRBT staff was now asked to join the meeting to discuss issues that have so far been identified. SL thanked everyone for their participation in the exercise. During discussions of the identified issues additional comments and issues were raised, they are as follows:

-MH re-stated the issue of getting to the marshalling area as fast as possible. SL then stated that even though it was a training exercise getting to the marshalling area as fast but as safe as possible is essential for the head count. A staff member asked if using the side walk close to the building was safe or if walking in the park lot was better to do in order to get safely to the marshalling area. RF then commented that common sense should be used when determining where to walk safely to get to the marshalling area for example, RF explained if fire can be seen from a window that’s close to the side then the parking lot could be the safest path. Another staff member commented that timing the walk to the marshalling area during a scheduled fire drills could be beneficial in determining the length of time deemed appropriate for all staff to reach the marshalling area.

**Issue #35 – Time the walk to the marshalling area during a scheduled fire drill.**

-Explained the importance of continually saying “fire” during an actual fire to better differentiate between a drill and an actual fire.

-MAF re-stated the issues raised during the head count. A few staff members commented that it was difficult to hear MAF during the head count since the groups were separated. MAF stated that she will try to be louder when speak during the head count.

-SL stated that a system for better tracking staff at the facility specifically during lunches and breaks is being looked into.

-Staff working in zones 2 and 3 are asked to help mitigate injury and breakage of lights during an emergency by eliminating hazards such as leaving booties on the floor. JM then added by saying that during an emergency expected radiological contamination isn't as important as fire safety, therefore if removing the protective clothing puts them in harm's way staff can leave zones 2 and 3 wearing the protective clothing.

-SL stated that media being at the facility during an actual emergency could become an issue because they may try to ask questions of staff while at Pem Ice 2. SL made clear no one is to comment to media and no comments should be posted on social media regarding the emergency. SL stated a designate person will be appointed to comment on behalf of SRBT.

**Issue #36 – Appoint a designate person to comment to media on behalf of SRBT.**

-The route taken today to get to Pem Ice 2 may not be the route taken during the next emergency training exercise. An alternate route will be looked into.

-JM stated this emergency training exercise was an important factor to complete before re-licensing and believed it went well.

-The door to the glass shop will be modified to self-lock after exiting the building.

-Several items will be added to the front and back door to take during an emergency or an impending emergency. If any staff sees any of the items there they should take them while exiting the building.

-SL notified staff that SRBT now has a Facebook page and kindly asked anyone who has Facebook to look at the page.

-A staff member asked if the doors to the laser room and trit lab should be closed before exiting zone 3. RF stated all doors should be closed if it is safe to do so. It may not stop the fire but it could slow it down. Another staff member asked about the doors separating the front office and the hallway. RF stated preferably all doors should be closed but since that doorway is part of the fire route for exiting the building closing the doors too soon may not be good. RF will bring this issue up during a Fire Committee Meeting to discuss further.

**Issue #37 – Raise issue of closing doors in the front office before exiting the building.**

-A performance report will be written by SRBT and given to CNSC Staff within 40 days. The PFD and CS will be asked to provide comments on the report before the final version is submitted. The report will also be posted on our website.

-SL asked that a non-conformance report (NCR) be raised that addresses all issues.

**Issue #38 – Raise NCR that addresses all issues.**

## **Issues**

Overall 38 minor issues were identified which can easily be addressed relatively quickly.

- 1 - CS to give KL the Operations stand by number to add to the call list.
- 2 - Appoint Darci Gaudette (DG) as the alternate to perform head counts.
- 3 - To better define the role of the person to perform head counts to clearly include accountability of staff while at Pem Ice 2.
- 4 - To better define the role of SRBT Communications Officer to include communication with SRBT staff at Pem Ice 2.
- 5 - Modify the door used by staff in the Glass Shop to self-lock after exiting the building.
- 6 - Provide copies of the facility floor plan available at the main exits.
- 7 - More clearly define the importance of calling the PFD direct in the Fire Safety Plan, the Emergency Plan and any other associated programs and procedures.
- 8 - KL to add Mike Callighen to call list.
- 9 - Develop a form to gather contact details of emergency responders and have copies available at the main exits.
- 10 - Research the requirements of reporting bioassay results and dose of none Nuclear Energy Workers to Health Canada.
- 11 - Review of the MOU by the City of Pembroke and the PFD.
- 12 - Make contact with OPP.
- 13 - Make contact with local Paramedics.
- 14 - Purchase two new First Aid Kits to have available at the main exits.
- 15 - Purchase timers to have times better match during an emergency exercise.
- 16 - Have a meeting with all SRBT staff to more clearly discuss their roles and responsibilities during the head count.

- 17 - Look into acquiring a system to better track staff while at the facility.
- 18 - Discuss alternate route to get to Pem Ice 2 from marshalling area.
- 19 - Better define process of notifying all appropriate individuals of a declared emergency.
- 20 - Better define the process of communications with media.
- 21 - Train staff on handling media during an emergency
- 22 - Add Chris Mitchell (CM) as the backup for the Facebook updates.
- 23 - Better define the process of terminating the emergency exercise.
- 24 - Amend checklist used by evaluators to be more useable during an exercise.
- 25 - During the next revision of the Emergency Plan state forms are to be filled out immediately after the termination of the exercise.
- 26 - Provide yearly tours of the facility for the PFD.
- 27 - Designate an individual with thorough knowledge of the facility to stay with the PFD at all times during an emergency.
- 28 - Train staff exiting from zones 2 and 3 on eliminating hazards for responders such as leaving booties on the floor.
- 29 - Look into purchasing steel cabinets to store tritium filled lights instead of shelving.
- 30 - Designate an individual to help JM during the decontamination process.
- 31 - Train staff to yell "fire" during an actual fire to differentiate from a fire drill.
- 32 - Re-iterate to staff the importance of getting to the marshalling area as fast as possible so the head count be performed ASAP
- 33 - Define process of "essential personnel" having access to the facility.
- 34 - Rotate roles and responsibilities during the next emergency training exercise.
- 35 - Time the walk to the marshalling area during a scheduled fire drill.
- 36 - Appoint a designate person to comment to media on behalf of SRBT.
- 37 - Raise issue of closing doors in the front office before exiting the building.
- 38 - Raise NCR that addresses all issues.

**Minutes taken by:**

-Katie Levesque



Attachment 1  
Meeting minutes dated February 9, 2015 - 4

## MEETING MINUTES

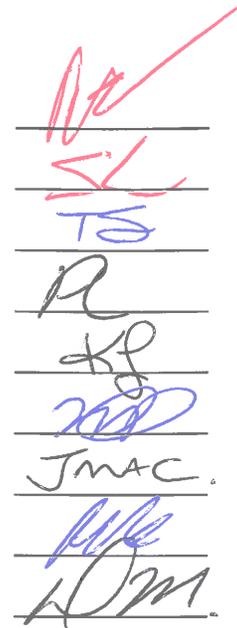
**Committee:** -Other

**Meeting date:** -February 9, 2015 - 4

**Next meeting date:** -February 10, 2015

**Attendees:**

- Ross Fitzpatrick (RF)
- Stephane Levesque (SL)
- Tanya Sennett (TS)
- Paul Lavigne (PL)
- Katie Levesque (KL)
- Mary-Ann Foster (MAF)
- Jamie MacDonald (JM)
- Mark Hoffman (MH)
- Doug McNab (DM) D&J Consulting
- Jennifer Campbell (JC) CNSC
- Michael Callighen (MC) CNSC
- Julian Amalraj (JA) CNSC
- Milena Kostova (MK) CNSC
- Devon Carr (DC) CNSC



Handwritten signatures of attendees on a list of names. The signatures are written in red and blue ink. The names and their corresponding signatures are: Ross Fitzpatrick (RF) in red, Stephane Levesque (SL) in red, Tanya Sennett (TS) in blue, Paul Lavigne (PL) in blue, Katie Levesque (KL) in blue, Mary-Ann Foster (MAF) in blue, Jamie MacDonald (JM) in blue, Mark Hoffman (MH) in blue, and Doug McNab (DM) in blue. The names Jennifer Campbell (JC), Michael Callighen (MC), Julian Amalraj (JA), Milena Kostova (MK), and Devon Carr (DC) do not have signatures next to them.

### **Subject:**

-Emergency Training Exercise – de-brief with CNSC

### **Supporting documentation:**

1 - Meeting minutes dated February 9, 2015 - 3

### **Last meeting minutes**

-Review of meeting minutes dated February 9, 2015 - 3 (**see attached 1 for details**).

### **Old Business**

-N/A

### **New Business**

-The following are comments given from CNSC Staff on their observations during the emergency training exercise:

- Well done, good work
- SRBT staff left the facility quickly
- SRBT Exercise Controller (RF) did well, very realistic

- Good communication, SL personally informed the neighboring businesses
- Head count (MAF) was good
- Good communication with the Pembroke Fire Department (PFD)
- Good communication regarding bioassay samples
- Roles and responsibilities need to be better documented in plan.
- If cell phone service is not available (such as at Pem Ice 2) suggested purchasing portable radios.
- As the Fire Chief stated in the de-brief a person should always remain with the PFD outside the facility who has a good knowledge of the facility.
- The PFD was very wise to the layout of the facility complimentary to the tours given by SRBT. But stated having the Emergency Plan which includes the floor plan by the exits should be considered. SL stated copies of the Emergency Plan are in his and RF's vehicles as well as in their cell phones for easy access.
- CNSC Staff indicated that the Incident Commander or other individual must remain with the incident commander from outside agency at all times and not re-enter the facility. SL explained that during this specific exercise as only one individual was available for that role that SL had to re-enter the facility in order to provide the PFD with a thorough assessment of what is occurring inside the facility, something the addition of a second individual and portable radios could resolve.
- CNSC noted that SRB held a very honest de-brief and self-identified a number of issues which looks good on SRBT. The more issues SRBT has identified, the less CNSC Staff will have to raise.
- SL stated a meeting will take place tomorrow with staff and will send the meeting minutes and all actions identified to CNSC Staff once completed.
- SL asked CNSC Staff if they have any suggestions or thoughts of what the next emergency training exercise should encompass. CNSC staff responded they would like to see roles and responsibilities be rotated so different individuals can be familiar with other roles.

**Actions**

-N/A

**Minutes taken by:**

-Katie Levesque



Attachment 1  
Meeting minutes dated February 9, 2015 - 3

## MEETING MINUTES

**Committee:** -Other

**Meeting date:** -February 9, 2015 - 3

**Next meeting date:** -February 9, 2015 - 4

**Attendees:** -Doug McNab (DM) D&J Consulting   
-Tanya Sennett (TS)   
-Colleen Sauriol (CS) City of Pembroke

**Subject:**  
-Emergency Training Exercise

**Supporting documentation:**  
1 - Meeting minutes dated February 9, 2015 - 2  
2 - SRBT Emergency Exercise Evaluator Checklist  
3 - Emergency Response Procedure Form

**Last meeting minutes**  
-Review of meeting minutes dated February 9, 2015 - 2. (see attached 1 for details).

**Old Business**  
-N/A

**New Business**  
-Discussed the SRBT Emergency Exercise Evaluator Checklist (see attached 2 for details). The following was identified:  
-The checklist is too detailed and therefore it was hard to fill out during the emergency when things are being done in a quick manner. This was also discussed during the Emergency Training Exercise de-brief.  
-Since the checklist was too comprehensive to be useful during the exercise general notes were taken by TS and CS and will be used to fill out the checklist.+  
-As TS previously stated during the de-brief it was unclear to her when the exercise was determined as being terminated specifically when the "emergency" was terminated versus the termination of the "exercise".  
-The Emergency Plan states evaluator forms (see attached 2 for details) as well as the Emergency Response Procedure Form (see attached 3 for details) should be filled out during the exercise but all agreed filling these forms after the exercise would be more adequate. The Emergency Plan may need to be revised.  
-All agreed only minor issues were identified and nothing stands out as non-compliant.  
-The completed Emergency Exercise Evaluator Checklist will be included in the final report.

**Actions**  
-N/A

**Minutes taken by:** -Katie Levesque

  
\_\_\_\_\_

Attachment 1  
Meeting minutes dated February 9, 2015 - 2

## MEETING MINUTES

- Committee:** -Other
- Meeting date:** -February 9, 2015 - 2
- Next meeting date:** -February 9, 2015 - 3
- Attendees:**
- Ross Fitzpatrick (RF) 
  - Stephane Levesque (SL) 
  - Tanya Sennett (TS) 
  - Paul Lavigne (PL) 
  - Katie Levesque (KL) 
  - Mary-Ann Foster (MAF) 
  - Jamie MacDonald (JM) 
  - Mark Hoffman (MH) 
  - Doug McNab (DM) D&J Consulting 
  - All SRBT Staff
  - Colleen Sauriol (CS) City of Pembroke
  - Dan Herback (Pembroke Fire Department)
  - Gary Lowe (Pembroke Fire Department)
  - Shawn Morgan (Pembroke Fire Department)
  - Darrell Andrews (Pembroke Fire Department)
- Observers:**
- Jennifer Campbell (JC) CNSC
  - Michael Callighen (MC) CNSC
  - Julian Amalraj (JA) CNSC
  - Milena Kostova (MK) CNSC
  - Devon Carr (DC) CNSC

**Subject:**  
-Emergency Training Exercise de-brief

**Supporting documentation:**  
1 - Meeting minutes dated February 9, 2015 - 1  
2 - Emergency Response Procedure Form

## Last meeting minutes

-Review of meeting minutes dated February 9, 2015 - 1 (see attached 1 for details).

## Old Business

-N/A

## New Business

-SL thanked everyone for their support during the emergency training exercise.

-SL asked all SRBT staff if they have any questions or comments in regards to the exercise.

-Brenda St.Pierre (BSP) inquired if there was a real emergency would Pem Ice 2 be open for the staff. A member of the Pembroke Fire Department (PFD) stated they have a key with them at all times for Pem Ice 2 as well as CS stated that she can also get access to Pem Ice 2 if necessary.

-BSP also asked if during a real emergency if staff can leave Pem Ice 2. SL stated only once the head count has been complete the staff can leave but they must inform MAF or the person designated to perform the head count their whereabouts. But considering the fact that during a real emergency staff will not have their personal belongings and cannot take their vehicles leaving may not be an option.

-Staff felt that they were not initially updated on what was going on once they arrived at Pem Ice 2.

-SL now excused SRBT Staff who did not have a role during the exercise. CNSC staff were present but were observers only.

-SL discussed each step listed on the Emergency Response Procedure Form (see attached 2 for details).

1. Emergency response initiation

-On February 9, 2015 at 9:40 am the emergency response was initiated.

2. Notification of company staff

-Personally became aware of the emergency

3. Notification of responders

-The PFD was contacted.

4. Assessment of emergencies

-Smoldering fire in Silkscreen room

5. Assisting emergency responders

-The environment: with an expected release much below weekly action levels, little to no risk

-The health and safety of persons: dose is insignificant to PFD as they were wearing protective clothing and an 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 and the glass shop door had to be manually locked.

6. Mitigate radiation exposure

-Confirm evacuate of area: Complete

-Confirm that Self Contained Breathing Apparatus are used: Complete

-Confirm that full protective clothing are 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

The PFD commented that the information received from SL/JM was very good with all hazards identified which made them feel comfortable with their surroundings and knowledge their health was not compromised. The tours they have received of the facility also helped in knowing the layout and suggested perhaps having a floor plan of the facility readily available. Another suggestions was raised regarding providing tours for the volunteer fire fighters to be familiar with the facility as well. At this point a volunteer would most likely not enter the facility without being accompanied by a full time fire fighter. Also discussed the length of time for the PFD to respond which was approximately 10 minutes from the time the fire alarm was activated. SL stated he called the PFD to verify they received a call notifying them of the alarm but was told they had not yet been notified from the 911 call center. SL then noted the importance of not relying on the alarm company and re-iterated the importance of making the call direct.

## 8. Formal notification of emergency

- KL stated the notification of stakeholders started at approximately 9:46 am and was completed at approximately 10:12 am.
  - The Canadian Nuclear Safety Commission (CNSC) was contacted via their 24 hr duty officer and Jennifer Campbell, SRBT's Project Officer. A call center is used to notify the duty officer, a return call was received in approximately 10 minutes. SL requested we include MC on the list.
  - The City of Pembroke was contacted via CS who was taking part in the exercise.
  - The Provincial Member of Parliament was contacted through his office staff.
  - The Federal Member of Parliament office took several attempts to contact. SL suggested calling Malcolm Montgomery (MM), an assistant to the MP. MM was contacted and notified of the emergency.
  - 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. JM explained that urine samples would then be provided once a week for five weeks after the emergency in order to get a true representation.
- 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. PFD inquired if their dose was high would members of their family be at risk. JM explained that there would be no risk to their families and assured their dose would be fully explained to them.
  - 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 stated he is unsure if it's a requirement to provide Health Canada with emergency response personnel doses since they are not considered Nuclear Energy Workers. This will be looked into further.

## 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.

-SL submitted a draft Memorandum of Understanding (MOU) to the PFD and the City of Pembroke which is being reviewed.

12. Termination of Emergency Response

-Discussed termination of emergency response at 10:35 am. KL contacted all stakeholders between 10:40 am and 10:50 am to notify the end of the emergency (see 8. for more details). SL and RF notified Med-Eng and Linde in person.

-SL stated number 13 and 14 cannot be completed at this point. The evaluators CS and TS were asked to discuss their findings.

-The following are the findings from CS

-MAF did a great job performing the head count. She was efficient, commanding and structured. CS liked the idea of separating into groups for the head count. MAF was then asked if she could comment on the head count. MAF stated the grouping went well but the leaders of some groups failed to notify her of some absents when asked even though MAF was aware of the absents the group leaders should have verified it.

-It was very apparent that SRBT performs fire drills four times a year.

-Liked the idea of waiting for the fire trucks to arrive before leaving the marshalling area. Crossing the street in a single file was also well done.

-Received a call from KL to notify of emergency once the emergency was declared. During the call KL asked if Pem Ice 2 can be opened if needed. CS can co-ordinate the opening of Pem Ice 2 for SRBT Staff if the PFD cannot. Gary Lowe from the PFD inquired if SRBT has the Operations stand by number if there was an emergency after hours. CS stated SRBT has her cell phone and home phone number as well as the phone numbers of her back up which include the PFD Chief Dan Herback but will give the Operations stand by number as an additional means of contact.

-CS made a suggestion of having someone dedicated, such as the Communications Officer to handling any media at the facility that may come from having a real emergency. Suggested simulating press during the next emergency exercise. SL stated that a new Facebook account was initiated and update to provide information on the emergency exercise and notified the local radio station and newspaper. KL is responsible for providing and updating the information with Chris Mitchell as the backup.

-The following are the findings from TS

-Questioned why it took so long for JM to come into the facility once the simulated fire was extinguished. The PFD stated in a real emergency they would not let anyone into the building until they felt certain that smoke and/or carbon monoxide has been vented out of the building therefore the elapsed time was simulated.

-Felt the exercise went smoothly but it was unclear to TS when the exercise was determined as being terminated. Felt there was some confusion on the exact moment the exercise was deemed complete. JM and PFD on the other hand were very clear on when the exercise was terminated.

-Felt the checklist that was developed for the evaluators was too detailed and therefore it was hard to fill out during the emergency when things are being done in a quick manner.

-MH was asked to comments on his duties during the exercise. He felt from his position that everything went well and briefly described his actions during the exercise.

-RF then commented on his observations during the exercise. Noting the PFD did not put on booties or lab jackets when entering the assembly room but that is expected during an emergency and thought that MH, SRBT Staff and the PFD all did very well. Also noted the patience the PFD exhibited during the wait during the swipe assessments.

-SL then stated in his opinion all went very well. He felt stressed during the wait from when the fire alarm sounded to when the PFD finally entered the facility. The PFD confirmed that the response time would be three times faster if there was an actual emergency but knew this was only an emergency exercise. Also stated several actions need to be taken by the PFD before entering the facility such as 360 degree investigation of exterior of building using the thermal imaging camera to help determine location of fire, getting the proper information from Incident Commander or designate, stretch a line (hose) and charge it and get equipped. A minimum of two fire fighters would enter the building and one to remain outside.

-SL asked if the PFD feels comfortable with facility layout and perhaps to perform now yearly tours of the facility to familiarize all members of the PFD of the facility. The PFD Chief Dan Herback stated most fire fighters are familiar with the facility but having a floor plan available during an emergency would help as well as yearly tours.

- Chief Dan Herback also commented on the following
  - The importance of constant communication with the fire fighters inside the facility and also to have the Incident Commander or designate available to give advice and answer questions. Small radios might be useful for SRBT Staff to help with communications during the emergency as well as during the assessments of contamination.
  - The importance of accuracy of the head count is since it determines how thorough of a search of the facility will be necessary.
  - Appreciation for the communication between themselves and JM during the assessment of contamination on the protective clothing and equipment. JM gave good instructions and explanation which made them feel at ease.
  - Concern for the fire fighters safety due to the possibility of smoke and/or carbon monoxide inhalation since they were asked to wait in the hallway outside the assembly area awaiting assessment of contamination.
- The following are other comments and/or suggestions received
  - Darrell Andrews noted that they would not be as gentle during an actual emergency as they were today and therefore if any tritium filled lights around them at that time could very well be broken.
  - PL noted the assembly workers called out "fire in assembly" in addition to pulling the fire alarm.
  - SL noted the monitoring company called him once they notified the fire department.
  - JM stated during the assessment of contamination additional help would be helpful to provide additional communication and control of contamination.
- SL discussed the Emergency Exercise Objectives listed in the Emergency Plan
  1. Mitigation of the dose to the public, Emergency Responders and staff.
  2. Mitigation of releases to the environment.
  3. Mitigation of damage to equipment and the facility.
  4. Adequate notification of stakeholders (the public, Emergency Responders, staff, Regulatory Body and of elected officials).
  5. Adequate ongoing communication with stakeholders (the public, Emergency Responders, staff, Regulatory Body and of elected officials).
  6. Availability of off-site monitoring equipment and services.
  7. Adequate termination of emergency.
  8. Adequate reporting.
- Determined that all objectives listed above have been met.
- A performance report will be written by SRBT and given to CNSC Staff within 40 days. In 1.5 to 2 weeks the PFD and CS will be asked to provide comments on the report before the final version is submitted. The report will also be posted on our website.

## **Actions**

-N/A

**Minutes taken by:**

-Katie Levesque



Attachment 1  
Meeting minutes dated February 9, 2015 - 1

## MEETING MINUTES

**Committee:** -Other

**Meeting date:** -February 9, 2015 - 1

**Next meeting date:** -February 9, 2015 - 2 (emergency training exercise de-brief)

**Attendees:**

-Ross Fitzpatrick (RF)	
-Stephane Levesque (SL)	
-Chris Mitchell (CM)	
-Tanya Sennett (TS)	
-Paul Lavigne (PL)	
-Katie Levesque (KL)	
-Mary-Ann Foster (MAF)	
-Jamie MacDonald (JM)	
-Doug McNab (DM) D&J Consulting	
-Colleen Sauriol (CS) City of Pembroke	
-Jennifer Campbell (JC) CNSC	
-Michael Callighen (MC) CNSC	
-Julian Amalraj (JA) CNSC	
-Milena Kostova (MK) CNSC	
-Devon Carr (DC) CNSC	

**Subject:**

-Emergency Training Exercise

**Supporting documentation:**

1 - Meeting minutes dated February 6, 2015

2 - E-mail from Michele Roggie of Med-Eng to SL "Emergency Training Exercise" dated February 5, 2015.

**Last meeting minutes**

-Review of meeting minutes dated February 6, 2015 (**see attached 1 for details**).

**Old Business**

-N/A

**New Business**

-SL introduced SRBT Staff to CNSC Staff and gave a description of each of their roles.

-SL discussed the meetings we have had leading up to today since December 2014. The SRBT staff in attendance today are those who have participated in the past meetings.

- SL noted he contacted on fire officials Dan Herback and Gary Lowe by phone on February 8, 2015 to discuss discontinuation of use of smoke machine and final exercise details.
- SL stated as previously discussed with CNSC staff there will be no evacuation of 200 meters for the other tenants of the building. SL and RF spoke with Med-Eng, Linde Canada as well as the other businesses around SRBT to notify them of the exercise. As per e-mail (**see attached 2 for details**) Michele Roggie from Med-Eng had a meeting with their employees to discuss the emergency training exercise.
- SL also stated that the public notice has been posted on the SRBT website as well as hand delivered to 189 residences and 28 businesses closest to SRBT. A new Facebook page has been created for SRB Technologies Canada Inc which also has the public notice posted. The Pembroke Daily Observer was also sent the public notice by e-mail. The report is due in 40 days and once complete will be posted on the website.
- SL stated no e-mails or phone calls with concerns or questions have been received from any members of the public or stakeholders.
- All delivery carriers have been informed not to deliver today.
- Discussed which CNSC Staff member will be with which SRB Staff member during the exercise in order to observe all aspects of the exercise.

### **Actions**

-N/A

**Minutes taken by:**

-Katie Levesque

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

Attachment 1  
Meeting minutes dated February 6, 2015

## MEETING MINUTES

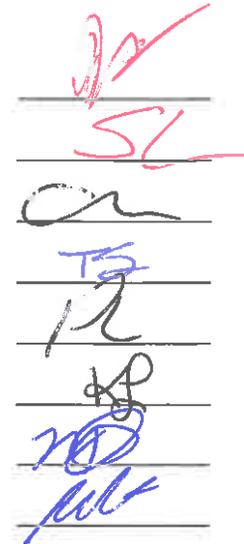
**Committee:** -Other

**Meeting date:** -February 6, 2015

**Next meeting date:** -February 9, 2015

**Attendees:**

- Ross Fitzpatrick (RF)
- Stephane Levesque (SL)
- Chris Mitchell (CM)
- Tanya Sennett (TS)
- Paul Lavigne (PL)
- Katie Levesque (KL)
- Mary-Ann Foster (MAF)
- Mark Hoffman (MH)



Handwritten signatures on a list of names: RF (red), SL (red), CM (black), TS (blue), PL (black), KL (black), MAF (blue), MH (blue).

### **Subject:**

-Emergency Training Exercise

### **Supporting documentation:**

- 1 - Meeting minutes February 3, 2015
- 2 - SRB Staff Emergency Head Count
- 3 - Emergency Contact List
- 4 - Letter from CNSC staff to SL "CNSC staff observations of Emergency Exercise at SRB Technologies February 9, 2015" dated February 4, 2015.

### **Last meeting minutes**

-Review of meeting minutes dated February 3, 2015 (**see attached 1 for details**).

### **Old Business**

-The Public Notice was hand delivered to neighboring home and businesses on February 5, 2015. In addition on February 4<sup>th</sup> and 5<sup>th</sup>, SL and RF met officials of adjacent businesses and explained details of the exercise. Action closed.

### **New Business**

-Discussed roles of certain individuals in more detail.

- PL's role as the SRBT Exercise Safety Officer is to make certain that all staff needing to go to Pem Ice 2 crosses the road in a safe manner. He will bring a reflective vest to wear during the exercise.
- CM's role as SRBT Photographer is to take pictures during the exercise. SL requested pictures be taken of SRBT Staff, the Pembroke Fire Department and CNSC Staff. Pictures will then be posted on the SRBT website and Facebook page.
- MAF's role in performing the head count (**see attached 2 for details**) will be done as soon as SRBT staff is in the marshalling area. MAF is to assume SL, RF and TS are accounted for since they will not be present during the head count.

- KL's role as SRBT Communications Officer is to make sure the public is notified of the exercise (by posting public notice on the website) and informing stakeholders (**see attached 3 for details**) of the beginning and termination of the exercise. SL requested Med-Eng and Linde Canada, the two companies also located in the building, be contacted as well.
- Most staff work at Med-Eng. Plant Manager Michel Roggie agreed to meet with staff to inform them of the exercise.
- On February 4, 2015 CNSC staff sent a letter (**see attached 4 for details**) with an enclosed observation plan and agenda as well a list of the CNSC staff who will be in attendance during the exercise.

### **Actions**

- Post pictures of the exercise on the SRBT website and Facebook.

**Minutes taken by:**

-Katie Levesque



Attachment 1  
Meeting minutes dated February 3, 2015

## MEETING MINUTES

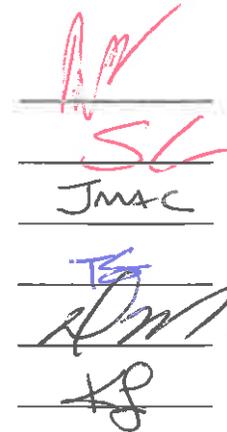
**Committee:** -Other

**Meeting date:** -February 3, 2015

**Next meeting date:** -February 6, 2015

**Attendees:**

- Ross Fitzpatrick (RF)
- Stephane Levesque (SL)
- Jamie MacDonald (JM)
- Tanya Sennett (TS)
- Doug McNab (DM)
- Katie Levesque (KL)
- Colleen Sauriol (CS) (City of Pembroke)



Handwritten signatures of attendees: Ross Fitzpatrick (RF), Stephane Levesque (SL), Jamie MacDonald (JM), Tanya Sennett (TS), Doug McNab (DM), and Katie Levesque (KL). Each signature is written in red or blue ink over a horizontal line.

**Subject:**  
-Emergency Training Exercise

### **Supporting documentation:**

- 1 - Meeting minutes February 2, 2015 - 2
- 2 - Public Notice

### **Last meeting minutes**

-Review of meeting minutes dated February 2, 2015 - 2 (see attached 1 for details).

### **Old Business**

- The Public Notice (see attached 2 for details) has now been posted on our website under the "Public Notifications" tab. Action closed.
- The Public Notice will be hand delivered to neighboring home and businesses before the end of the week. Action ongoing.

### **New Business**

- In the evening of February 2, 2015, SL, RF, DM and JM met with the Pembroke Fire Department to go over details of the exercise.
- Gave a brief overview to CS of the events that will take place during the emergency exercise.
- Discussed and reviewed the SRBT Emergency Exercise Evaluator Checklist which is based on the CNSC Regulatory document RD-353 and the SRBT Emergency Plan.
- Also discussed where the evaluators will be situated during the exercise.
- It was decided that CS will mainly be outside in the marshalling area where the head count will take place then once the staff have moved to Pem Ice 2 CS will stay and view the exercise from outside at the front of the building.
- TS will remain mostly inside during the exercise mainly viewing the roles of SL and RF.
- Discussed the calling of stakeholders being done by KL. It was identified that two sets of phone calls need to take place. One to notify stakeholders that the exercise has started and the next to notify them that the exercise has been terminated.

- Discussed the de-briefing that will take place once the exercise has terminated. It will take place at Pem Ice 2 with CNSC staff present. SRBT staff will be asked if they have any comments or questions and then they will be asked to go back to the facility. CNSC Staff, Pembroke Fire Department, Colleen Sauriol and SRB Staff involved in the exercise will remain to discuss the exercise in further detail. Meeting minutes will be taken during the de-brief.
- Once the de-brief has been completed DM, TS and CS will meet back at SRBT to discuss their findings. Meeting minutes will also be taken during this meeting.

**Actions**

- Public Notice to be hand delivered to neighboring home and businesses before the end of the week.

**Minutes taken by:**

-Katie Levesque



Attachment 1  
Meeting Minutes dated February 2, 2015 - 2

## MEETING MINUTES

**Committee:** -Other

**Meeting date:** -February 2, 2015 - 2

**Next meeting date:** -February 3, 2015

**Attendees:**

- Ross Fitzpatrick (RF)
- Stephane Levesque (SL)
- Jamie MacDonald (JM)
- Mark Hoffman (MH)
- Mary-Ann Foster (MAF)
- Doug McNab (DM)

  
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**Subject:**

-Emergency Training Exercise

**Supporting documentation:**

1 - Meeting minutes February 2, 2015 - 1

**Last meeting minutes**

-Review of meeting minutes dated February 2, 2015 - 1 (see attached 1 for details).

**Old Business**

- Made note of some changes since the December 16, 2014 meeting (see attached 1 for details).
  - Tanya Sennett and Colleen Sauriol (from the City of Pembroke) are the Evaluators.
  - Paul Lavigne is now the SRBT Exercise Safety Officer (will help ensure staff cross the road safely)
  - We were informed that the CNSC will now be having 5 or 6 people on hand for the exercise.

**New Business**

- The following are roles of other SRBT Staff during the exercise in addition to who is stated above. All will be wearing badges for identification.
  - Stephane Levesque – SRBT Incident Commander
  - Ross Fitzpatrick – SRBT Exercise Controller
  - Katie Levesque – SRBT Communication Officer
  - Jamie MacDonald – SRBT Health Physicist
  - Mary-Ann Foster – performing head count
  - Chris Mitchell – SRBT Photographer
  - Doug McNab – Consultant
- Discussed in more detail the roles and steps that will be taken during the exercise.
  - RF will be controlling the exercise by giving “injects” to the appropriate individuals.
  - MH, the assembly supervisor, will be given an inject to say there is a fire in silk screening, he will instruct all to leave assembly room and will try to extinguish the “fire” with an extinguisher.
  - Brenda St.Pierre (BSP) who works in assembly, is responsible for pulling the fire alarm on her way out of the assembly room.
  - Another inject will inform MH that the fire cannot be extinguished and will therefore will leave the building.
  - SL will inform MH that an emergency has now been declared and to notify necessary staff outside.

- MAF will be outside in the marshalling area performing the head counts. Once all staff has been accounted for will then proceed to Pem Ice 2.
- KL will start making phone calls to stakeholders once emergency is declared.
- In addition to the alarm monitoring company contacting 911, SL will also call 911.
- The Pembroke Fire Department (PFD) will arrive on scene, SL to give update on emergency.
- While PFD extinguishes fire they will be given an "inject" stating they knocked over and broke a tray of tritium filled lights . The tritium in air monitor will be alarmed.
- The PFD will notify SL of the broken lights in which JM will then be called in to assess the situation.
- JM will set up a rubber barrier in the hallway outside the assembly room in order to decrease the spread of contamination. The PFD will then be "swiped" for assessment of contamination. JM will then be given an "inject" stating the equipment is contaminated. JM then asked the PFD to remove the equipment for decontamination.
- Once the PFD declares the fire is extinguished, SL can then determine when to declare the emergency as complete.
- Public Notice will be posted on our website and hand delivered to neighboring home and businesses before the end of the week.

### **Actions**

- Public Notice to be posted on our website and hand delivered to neighboring home and businesses before the end of the week.

**Minutes taken by:**

-Katie Levesque



Attachment 1  
Meeting Minutes dated February 2, 2015 - 1

## MEETING MINUTES

**Committee:** -Other

**Meeting date:** -February 2, 2015 - 1

**Next meeting date:** -Afternoon of February 2, 2015

**Attendees:** -Ross Fitzpatrick (RF)  
-Stephane Levesque (SL)  
-All Staff


**Subject:**  
- Emergency Training Exercise

**Supporting documentation:**  
-Meeting minutes dated December 16, 2014

**Last meeting minutes**  
-No comments or questions were identified

**Old Business**  
-N/A

**New Business**  
-As a follow up to the December 16, 2014 meeting (**see attached 1 for details**), SL and RF discussed the role of all staff during the Emergency Training Exercise scheduled for February 9, 2015. All staff is to evacuate the building as per the Fire Safety Plan in order for Mary-Ann Foster (MAF) to perform a head count. Once all staff have been accounted for and is notified that it is now an emergency they are to walk over to Pem Ice 2 until the Emergency Training Exercise has been completed.  
-Some staff are performing roles during the exercise and may need to stay at the facility during the exercise. MAF has been informed of those staff members.

**Actions**  
-N/A

**Minutes taken by:** -Katie Levesque



Attachment 1  
Meeting Minutes dated December 16, 2014

## MEETING MINUTES

**Committee:** -Other

**Meeting date:** -December 16, 2014

**Next meeting date:** -January 6, 2014

**Attendees:**

- Ross Fitzpatrick (RF)
- Stephane Levesque (SL)
- Jamie MacDonald (JM)
- Doug McNab (DM)
- Eric Gaudette (EG)
- Katie Levesque (KL)
- Paul Lavigne (PL)

absent  
  
JM  
  
DM  
  
EG  
  
KL  
  
PL  


**Subject:**  
-Emergency Plan and Emergency Exercise

**Supporting documentation:**  
-N/A

**Last meeting minutes**  
-N/A

**Old Business**  
N/A

### **New Business**

- DM and EG completed the gap analysis on SRBT's Emergency Plan which has been approved by the CNSC
- Tentative date for the emergency exercise has been set for February 9, 2014.
- SL stated all attendees including RF who isn't in attendance at this meeting will be included in the Emergency Exercise. As well as Nathalie Belleau and Tanya Sennett who be evaluators during the exercise.
- SL stated that EG will be responsible for organizing the Fire Response, PL will be responsible for the police response, KL will be responsible for the communication with the public and their awareness and JM will be responsible for any aspects of radiation safety. A member of the City of Pembroke and/or the Pembroke Fire Department may also be one hand as evaluators.
- It was also stated that the CNSC will have three people on hand at the facility during the emergency exercise,
- The emergency exercise will need to be posted on our website.

**Actions**  
-N/A

**Minutes taken by:** -Katie Levesque

  
\_\_\_\_\_

Attachment 2  
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](mailto:sales@betalight.com)  
Web: [www.betalight.com](http://www.betalight.com)

# PUBLIC NOTICE

## Emergency Training Exercise Monday February 9, 2015 at 9:30 am

SRB Technologies (Canada) Inc. (SRBT), in collaboration with the Pembroke Fire Department and the City of Pembroke, will be performing an **Emergency Training Exercise** on Monday February 9, 2015 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.

This is a **Training Exercise** only. Emergency Preparedness and Fire Department Staff for the City of Pembroke as well as Staff 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 40 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](mailto:stephane@betalight.com) or by phone at (613) 732-0055, Ext 111.

Attachment 2  
SRB Staff Emergency Head Count

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

## SRB STAFF EMERGENCY HEAD COUNT

GLASS SHOP	PRESENT	ABSENT	UNACCOUNTED FOR
Laura Charles			
DAMIEN MCELROY			
NATASHA KOSMACK			
<b>COATING ROOM</b>			
SHIRLEY KELLER			
CHRISTINA KUTSCHKE			
DEBBIE BRESSEAU			
PAULA BIESENTHAL			
PHILIP HOFFMAN			
PATRICE TRUDEL			
JESSENA GOVEIA			
MICHAEL MIRAULT			
<b>ASSEMBLY ROOM</b>			
MARK HOFFMAN			
BRENDA ST PIERRE			
AMBER GIESLER			
KEITH VISUTSKI			
ANDREW BROTTON			
BRYGHTON CRAWFORD			
<b>RIG ROOM</b>			
DONNA BUDER			
TERRY KLENTZ			
LAURA MACARTNEY			
KATHLEEN LEVEAN			
EVAN WATT			
JOSHUA BULL			
<b>SHIPPING / MILLING</b>			
SHANE PLEAU			
DARWIN THOMAS			
ERIC GAUDETTE			
SANDRA BRENNAN			
LYNN YOUNG			
PATRICA GAGNON			
<b>ADMIN FRONT</b>			
STEPHANE LEVESQUE			
KATIE LEVESQUE			
DARCI GAUDETTE			
DARRYL MYER			
MARY-ANN FOSTER			
PAUL LAVIGNE			
<b>ADMIN BACK</b>			
ROSS FITZPATRICK			
JAMIE MACDONALD			
NATHALIE BELLEAU			
PETER DORDA			
COURTNEY SINCLAIRE			
CHRIS MITCHELL			
TANYA SENNETTE			
<b>CONTRACTORS / VISITORS</b>			
DOUG MCNAB			

TOTAL PRESENT \_\_\_\_\_

COMMENTS:

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Attachment 3  
Emergency Contact List

# EMERGENCY CONTACT LIST

## SRB TECHNOLOGIES (CANADA) INC.

Name	Title		
Stephane Levesque	President	Home:	(613) 732-1349
		Cell:	(613) 639-1349
Ross Fitzpatrick	Vice President	Cell:	(613) 635-3454
Jamie MacDonald	Manager of Health Physics and Regulatory Affairs	Home:	(613) 732-8719
		Cell:	(613) 635-2495
Mary-Ann Foster	Production Control Manager	Cell:	(613) 639-1348
Peter Dorda	Account Manager	Home:	(613) 735-5114
		Cell:	(613) 639-3618
Chris Mitchell	Engineering Assistant	Home:	(613) 732-0994
		Cell:	(613) 639-0280

## ALARM MONITORING COMPANY

Rellance Protectron Security Company	Monitoring:	(800) 653-9111
	Monitoring:	(888) 526-8221
	Service:	(613) 312-0173
	Office:	(613) 732-9009

## RESPONDERS

Fire Department	Tel:	911
	Tel:	(613) 735-6821, ext 1201
Police Department	Tel:	911
Ambulance	Tel:	911

## CNSC CONTACTS

Jennifer Campbell 24 hour duty officer	Project Officer	Tel:	(613) 943-9445
		Tel:	(613) 995-0479

## CITY OF PEMBROKE

Colleen Sauriol	Emergency Management Co-ordinator	Tel:	(613) 735-6821, ext 1301
		Cell:	(613) 281-2158
Dan Herbeck	Fire Chief	Tel:	(613) 735-6821, ext 1201
		Cell:	(613) 281-2164
Doug Sitland	Manager of Operations	Tel:	(613) 735-6821, ext 1400
		Cell:	(613) 281-2146
Mike Lemay	Mayor	Tel:	(613) 735-6821, ext 1399
Terry Lapiere	Chief Administrative Officer	Tel:	(613) 735-6821, ext 1300

## PROVINCIAL MEMBER OF PARLIAMENT

John Yakabuski	Tel:	(613) 735-6627
	Tel:	(613) 735-2829

## FEDERAL MEMBER OF PARLIAMENT

Cheryl Gallant	Tel:	(613) 732-4404
	Tel:	(613) 732-3221

## MED-ENG

Michelle Roggle	Tel:	(613) 635-1116
	Tel:	(613) 401-3933

## LINDE CANADA INDUSTRIAL GASES

N/A	Tel:	(613) 732-3561
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Attachment 4

Letter from CNSC staff to SL "CNSC staff observations of Emergency Exercise at SRB Technologies February 9, 2015" dated February 4, 2015



Directorate of Nuclear Cycle  
and Facilities Regulation

file No.: 4.02.02  
e-Doc 4636506

February 4, 2015

Mr. Stephane Levesque,  
President SRB Technologies Canada Inc.  
320-140 Boundary Road  
Pembroke, ON. K8A 6W5

**Subject: CNSC Staff Observation of Emergency Exercise at SRB Technologies  
February 9, 2015.**

Dear Mr. Levesque:

Enclosed please find an Observation Plan and Agenda for the CNSC observation of SRB Technologies emergency exercise planned for February 9, 2015. Please note that the CNSC suggested agenda assumes that the exercise will complete at 14:30. The agenda only includes suggested timing after 14:30. The CNSC would like to request a meeting room from 14:30 until 15:30 for the CNSC team to discuss observations collected during the observation.

If you have any comments or questions please contact Jennifer Campbell at [jennifer.campbell@cnsccsn.gc.ca](mailto:jennifer.campbell@cnsccsn.gc.ca) or by calling 613 943 9445.

Yours sincerely,

Jennifer Campbell  
Project Officer  
Nuclear Processing Facilities Division

c.c.: M. Rinker, M. Callighen, L. Sigouin, J. Amalraj, M. Kostova, D. Carr, J. MacDonald,  
R. Fitzpatrick.



## Observation Plan & Agenda

<b>DATE:</b>	February 9 2015
<b>FACILITY:</b>	SRB Technologies
<b>CNSC STAFF:</b>	M. Callighen, Licensee Emergency Program Officer, Emergency Preparedness J. Amalraj, Project Officer/Inspector, Nuclear Processing Facilities J. Campbell, Project Officer, Nuclear Processing Facilities D. Carr, co-op Student, Nuclear Processing Facilities M. Kostova, Senior Project Officer, Waste Management and Decommissioning.
<b>Purpose</b>	The purpose and objective of this planned Emergency Exercise Observation
<b>Scope</b>	The CNSC will use RD 353 Testing the Implementation of Emergency Measures and the attached checklist for the basis of our observations for this Emergency Exercise Observation on February 9 2015. As this is an Observation and not an Inspection a report will be written but will only contain observations and recommendations.

### Observation schedule

As this observation is an emergency drill the CNSC will arrive at 8:30 a.m., at that point will follow the agenda provided by SRB Technologies.

The target completion time for the de-brief of all persons involved in the drill is 14:30, at this time the CNSC requests a room be available for CNSC staff to use to discuss preliminary observations.

At approximately 15:30 the CNSC requests an opportunity to present SRB Technologies staff with any preliminary observations.

Attachment 2  
E-mail from Michele Roggie of Med-Eng to SL "Emergency Training Exercise"  
dated February 5, 2015

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From: "Roggie, Michele" <Michele.Roggie@safariland.com>  
To: Stephane Levesque <stephane@betalight.com>  
Copies to: "ross@betalight.com" <ross@betalight.com>  
Subject: Emergency Training Exercise  
Date sent: Thu, 5 Feb 2015 18:54:21 +0000

Hi Stephane,

As discussed, please be advised I have informed all Staff regarding the planned Emergency Training Exercise your company will be undergoing Monday, February 9<sup>th</sup>.

Thank you for giving us notice in advance.

Much appreciated,

**Michele Roggie**  
**Med-Eng | A BRAND OF THE SAFARILAND GROUP**  
Plant Manager  
421 Upper Valley Drive  
Pembroke, ON., K8A 6W5  
Office: 1.613.635.1116  
Cell: 1.613.401.3933  
[michele.roggie@safariland.com](mailto:michele.roggie@safariland.com)  
[www.med-eng.com](http://www.med-eng.com)

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Attachment 2  
Emergency Response Procedure Form

# **EMERGENCY RESPONSE PROCEDURE FORM**

## **1. EMERGENCY RESPONSE INITIATION**

Indicate when the emergency response was initiated:

Time: \_\_\_\_\_  
Day: \_\_\_\_\_  
Month: \_\_\_\_\_  
Year: \_\_\_\_\_

## **2. NOTIFICATION OF COMPANY STAFF (5.1)**

Note how the notification was made:

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

## **3. NOTIFICATION OF RESPONDERS (5.2)**

Indicate which responders that have been contacted:

- Pembroke Fire Department
- Pembroke Police Department

## **4. ASSESSMENT OF EMERGENCIES (5.3)**

Determine emergency scenario that best resembles current emergency:

- Impact of a large rogue vehicle (5.3.1.1)
- Tornado accident (5.3.1.2)
- Smoldering fire (5.3.1.3)
- Breach in security (5.3.1.4)
- Other natural disaster (5.3.1.5)
- Offsite releases (5.3.1.6)
- Extreme weather events (5.3.1.7)

## **5. ASSISTING EMERGENCY RESPONDERS (5.4)**

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 (5.5)

- Confirm evacuation of area (5.5.1)
- Confirm that Self Contained Breathing Apparatus are used (5.5.2)
- Confirm that full protective clothing are worn (gloves, booths, helmets, pant, coats) (5.5.2)
- Ensure that protective clothing and equipment are quarantined after use (5.5.3)

## 7. MITIGATE THE EFFECTS ON THE ENVIRONMENT (5.6)

Provide advice to responders: \_\_\_\_\_

Rationale for advice: \_\_\_\_\_

## 8. FORMAL NOTIFICATION OF EMERGENCY (5.7)

Formally notify the following stakeholders of the emergency:

- Canadian Nuclear Safety Commission (5.7.1)
- City of Pembroke (5.7.2)
- Provincial member of parliament (5.7.3)
- Federal Member of Parliament (5.7.4)
- Public (5.7.5)

## 9. ASSESS RADIATION EXPOSURE (5.8)

Develop a list of with the 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 (5.9)**

Assess spatial extent and level of surface contamination of:

- Protective clothing (5.9.1)
- Equipment (5.9.2)
- Facility (5.9.3)
- Environment (5.9.4)

## **11. DECONTAMINATION (5.5.3)**

Decontaminate surfaces to reduce radiation exposure:

- Protective clothing (5.5.3.1)
- Equipment (5.5.3.2)

## **12. TERMINATION OF EMERGENCY RESPONSE (5.10)**

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 (6.0)**

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

- Attached.

## **14. CONTINUOUS ASSESSMENT OF EMERGENCY PLAN (7.0)**

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.

Attachment 2  
SRBT Emergency Exercise Evaluator Checklist

## SRBT Emergency Exercise Evaluator Checklist

Emergency Exercise					
Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Staging	CNSC RD-353	An exercise evaluator in position to observe the response.			SRBT and Colleen
Notification to Company Staff	SRBT Emergency Plan	Notification of the emergency has been noted by the Incident Commander (IC).			SRBT
Notification to Company Staff	CNSC RD-353	The IC has taken prompt and effective actions to limit the consequences of the emergency exercise inside the facility.			SRBT and Colleen
Notification to Off-Site Responders	SRBT Emergency Plan	Off-site responder has been contacted by the IC.			SRBT
Assessment Of Emergency	SRBT Emergency Plan	The emergency response actions taken by the IC are appropriate for the scenario.			SRBT and Colleen

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Assessment Of Emergency	CNSC RD-353	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.			SRBT
Assessment Of Emergency	CNSC RD-353	The IC quickly evaluates the consequences of the emergency and takes appropriate actions.			SRBT and Colleen
Overall Command	CNSC RD-353	Command structure and conduct of key players with key roles and responsibilities are maintained throughout the emergency exercise.			SRBT

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Staff Accounting	CNSC RD-353	The IC ensures staff accountability is clearly addressed, confirmed and reported during the emergency exercise.			Colleen
Assisting Emergency Responders	SRBT Emergency Plan	The IC has listed/documentated the expected effects of the emergency.			SRBT
Assisting Emergency Responders	CNSC RD-353	The IC has provided expertise and resources to support off-site authorities and conversely the off-site authorities to support on -site response.			SRBT and Colleen
Assisting Emergency Responders	CNSC RD-353	Actions were taken to protect emergency responders including external organizations providing on site response.			SRBT and Colleen

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Coms	CNSC RD-353	Communications with internal and external personnel, agencies have been addressed and completed.			SRBT and Colleen
Emergency Response Resources	CNSC RD-353	Emergency response facilities, equipment and documentation are adequate to support the emergency exercise.			SRBT and Colleen
Emergency Response	CNSC RD-353	The IC and off-site responders are capable of maintaining a response for an extended period of time.			SRBT
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed the evacuation of personnel from the facility.			SRBT

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed that Self Contained Breathing Apparatus are being used by firefighters.			SRBT
Mitigation Radiation Exposure	SRBT Emergency Plan	The IC has confirmed that full protective clothing is worn (gloves, booths, helmets, pant and coats).			SRBT
Mitigation Radiation Exposure	SRBT Emergency Plan	Protective clothing and equipment is quarantined after use (if required).			SRBT
Mitigate the Effects on the Environment	SRBT Emergency Plan	The IC has provided advice and rational to emergency response personnel on mitigation effects on the environment.			SRBT

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Mitigate the Effects on the Environment	CNSC RD-353	The IC has assessed and characterized the magnitude and nature of the release (if applicable).			SRBT
Formal Notification of Emergency	SRBT Emergency Plan CNSC RD-353	All stakeholders have been formally notified of the emergency.			SRBT and Colleen
Formal Notification of Emergency	CNSC RD-353	The IC correctly classified the emergency and promptly notified the off-site authorities and agencies (including notification to outside agencies, province and the CNSC).			SRBT and Colleen

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Assess Radiation Exposure	SRBT Emergency Plan	A list of names and contact details of all off-site emergency responders has been documented.			SRBT
*Assess Radiation Exposure	SRBT Emergency Plan	All off-site emergency responders have provided urine samples.			SRBT
*Assess Radiation Exposure	SRBT Emergency Plan	Results of bioassay samples have been provided to all off-site emergency responders.			SRBT
*Level of Surface Contamination	SRBT Emergency Plan	The level of surface contamination has been assessed.			SRBT
*Decontamination	SRBT Emergency Plan	All surfaces have been decontaminated to reduce radiation exposure.			SRBT

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

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Termination of Emergency Response	SRBT Emergency Plan	The IC discussed the termination of the emergency response activities with off-site responders.			SRBT and Colleen
Termination of Emergency Response	CNSC RD-353	The IC adequately assessed the situation and conditions to terminate the emergency exercise.			SRBT and Colleen
Return to Work	CNSC RD-353	The IC has assessed the hazards for return to work and communicated this to all staff.			SRBT and Colleen
Conduct of Emergency Exercise	CNSC RD-353	The conduct of the emergency exercise demonstrated sound organizational and professional execution.			SRBT and Colleen
Safety of Emergency Exercise Players	CNSC RD-353	The safety of the controller and evaluators was not jeopardized during the emergency exercise.			SRBT and Colleen

Description	Regulatory Requirement	Compliance Expectation	Comments	Met / Not Met	Evaluator
Emergency Exercise De-briefings	CNSC RD-353	De-briefings of the emergency exercise were conducted with all participants.			SRBT and Colleen
Follow-up Actions	CNSC RD-353	The IC notified off-site organizations of the end of the emergency exercise and provided instructions and recommendations for follow-up.			SRBT

Attachment 3  
Emergency Response Procedure Form

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