



CNSC COMPLIANCE INSPECTION REPORT

Inspection No.: SRBT-2020-01

Inspection Title: Type II Personnel Training Inspection

Prepared by: Lester Posada, Lead Inspector
Nuclear Processing Facilities Division
Directorate of Nuclear Cycle and Facilities Regulation

Report Date: March 26, 2020



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**CANADIAN NUCLEAR SAFETY COMMISSION
COMPLIANCE INSPECTION**

Inspection No.: SRBT-2020-01

Licensee: SRB Technologies (Canada) Inc.

Licence No.: NSPFOL-13.00/2022

Facility / Site Inspected: SRBT

Inspection Date(s): January 27, 2020 – January 28, 2020

Inspector:



Lester Posada,
Lead Inspector, NPFDD

Approved by:

Caroline Ducros
Director, NPFDD

Safety and Control Area: Human Performance Management

Inspector Accompanied by: Brenda Duhaime-Training Program Evaluation Officer
Martin Vesely-Senior Training Program Evaluation Officer

EXECUTIVE SUMMARY

Pursuant to subsection 30(1) of the *Nuclear Safety and Control Act* (NSCA), Canadian Nuclear Safety Commission (CNSC) staff conducted a Type II inspection at SRB Technologies (Canada) Inc. (SRBT) from January 27, 2020 to January 28, 2020. The purpose of this inspection was to verify SRBT's processes and performances related to the Safety and Control Area (SCA) of Human Performance Management as per the NSCA, its associated regulations, SRBT's operating licence NSPFOL-13.00/2022, and the Licence Conditions Handbook (LCH).

The scope of the inspection was focused on the Safety and Control Area Human Performance Management, specifically the implementation of SRBT's personnel training program.

CNSC inspectors' preliminary inspection facts and findings were discussed with licensee staff. A Preliminary Inspection Facts and Findings Report was tabled during the closing meeting held on January 28, 2020.

During the inspection, CNSC staff identified the effective implementation of programmatic requirements and good operating practices. Following the analysis of all inspection facts and findings, CNSC staff found areas of non-compliance, and therefore three (3) enforcement actions have been raised for SRBT to address. In addition, two (2) recommendations were made. The identified enforcement actions do not pose an immediate or unreasonable risk to the health and safety of persons or the environment, but improvements are required to address the identified issues.

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Type II Personnel Training Inspection

1. INTRODUCTION

A Type II Personnel Training Inspection at SRB Technologies (Canada) Inc. (SRBT) was conducted from January 27, 2020 to January 28, 2020.

The licensee was assessed against provisions of the NSCA and its associated regulations, the conditions of the licence NSPFOL-13.00/2022 [1] and the LCH for SRBT [2], as well as applicable facility-specific and programmatic governing documentation.

Criteria for this inspection were derived directly from the set of documents described in the notification letter and compiled into a compliance matrix, which had been provided to licensee staff prior to the inspection [3]. Observations, interviews and a review of records were undertaken to assess compliance with regulatory expectations.

This report documents the findings and conclusions of the inspection, along with any enforcement actions and recommendations arising from these findings. The results of this inspection activity will form part of CNSC staff's evaluation of the licensee's performance.

2. PURPOSE AND SCOPE

The purpose of the inspection was to verify SRBT's processes and performances related to the Safety and Control Area (SCA) of Human Performance Management-Personnel Training as per the NSCA, its associated Regulations, SRBT's operating licence NSPFOL-13.00/2022, and the Licence Conditions Handbook.

The scope of the inspection was focused on the Safety and Control Area Human Performance Management, specifically the implementation of SRBT's personnel training program.

3. DESCRIPTION OF INSPECTION METHODS

The NSCA, CNSC regulations, NSPFOL-13.00/2022 licence conditions, and governing documents were reviewed as part of the preparation for the inspection. Various items were selected for verification and compiled into a compliance matrix. The inspection also included field observations and information provided by licensee staff.

The following methods of assessment were used during the inspection:

A. Documentation and record review

- Records were verified to be maintained as required by many of the outlined criteria, and a review of selected documents was performed to ensure their accuracy and completeness.

B. Visual assessment and verification

- A physical inspection of the facility with licensee staff was conducted. Observations based on identified compliance criteria were made for verification purposes.

C. Interviews and discussions with licensee staff

- Interviews and discussions with various licensee staff were conducted during the inspection. Questions were posed based on compliance criteria and responses documented for verification purposes.

Selected documentation and records were reviewed during the field verification component of the inspection. These were reviewed in order to determine whether the various records associated with the areas of the inspection are in compliance with associated regulatory and programmatic requirements.

As per the CNSC process, at the conclusion of the field verification portion of the inspection, a Preliminary Inspection Facts and Findings Report [4] was provided to SRBT representatives. This report was provided for the purpose of outlining observations made by the inspection team at an overall level, based on a preliminary review of the criteria set identified in the compliance matrix.

Based on criteria identified in the compliance matrix, regulatory requirements and compliance expectations were determined to be met or not met, and reported as inspection findings. CNSC staff may identify enforcement actions and recommendations in relation to an inspection finding. Appendix A outlines definitions of enforcement action categories.

4. INSPECTION RESULTS

The following findings and subsequent enforcement actions and recommendations are the results of the CNSC staff's inspection at SRBT. This section of the report has been structured to show the link from the initial inspection finding to the resulting enforcement action and/or recommendation as shown below:

- Compliance verification criteria used to identify the deficiency;
- A description of the observed deficiency;

- An analysis linking the compliance verification criteria or regulatory requirement to the observed deficiency; and
- Detailed enforcement action requiring the licensee to address the deficiency.

The order in which findings are presented in the report does not indicate a ranking of their safety significance.

The findings documented in this report were arrived at by assessing the facts and observations, gathered by CNSC staff during the inspection activities, with the related compliance criteria and regulatory requirements, as detailed in the compliance matrix. Where improvements are necessary, enforcement actions and recommendations have been issued as detailed in this section of the inspection report.

Compliance criteria that were met during the inspection are also listed in the compliance matrix. Follow-up activities were also performed on actions issued in previous inspections, the results of which are listed at the end of the compliance matrix.

4.1 SCA: Human Performance Management

4.1.1 Use of a Training System

Finding 1: Activities to which a systematic approach to training (SAT) applies are not defined within SRBT training governing documentation.

Criteria

Nuclear Substance Processing Facility Operating Licence: NSPFOL-13.00/2022:

Licence Condition 3.1: The licensee shall implement and maintain a training program

Licence Conditions Handbook (LCH-SRBT-R02):

Section 3.1 – Human Performance Management – Compliance Verification Criteria: The licensee shall implement and maintain training programs for workers in accordance with REGDOC 2.2.2, *Personnel Training*.

SRBT's Relevant Documentation:

SRBT Training Program Manual, Revision D

REGDOC 2.2.2 Section 1.2, states:

This regulatory document applies to workers engaged in licensed activities in nuclear facilities or where nuclear substances or prescribed equipment are produced, used, possessed, packaged or disposed. This includes workers in positions where the consequence of human error poses a risk to the environment, the health and safety of persons, or to the security of the nuclear facilities and of nuclear substances. The licensees shall define these positions in their training system governing documents.

Fact(s):

- An organizational analysis was completed to determine which positions are in scope for a SAT; however, the Training Program Manual does not document the further analysis that was conducted by SRBT to determine those activities to which a SAT applies by the noted positions.
- The position of Human Protection Coordinator was removed following a company reorganization in 2019; however, this position is still referenced as a SAT-applicable position in the Training Program Manual.

Analysis/Finding(s)

The Training Program Manual states that SRBT staff performed an organizational analysis in 2014 that identified six (6) positions to which SAT is applicable. During discussions, SRBT staff clarified that the scope of SAT implementation had evolved since the original organizational analysis from positions to further analysis of the activities which these positions undertake. In addition, SRBT staff stated that the position of the Human Protection Coordinator was removed following a company reorganization. CNSC staff concluded that the Training Program Manual does not reflect the current status of SAT applicability at SRBT.

This forms the basis for the following action notice.

Action Notice

SRBT-2020-01-AN01: SRBT shall implement a corrective action plan to ensure that training governing documentation clearly defines the positions and activities to which a systematic approach to training (SAT) is applicable.

4.1.2 Training Analysis

Finding 2: Analysis-phase documentation for the initial seven (7) SAT-based activities has not been updated/revalidated since 2014.

Criteria:

SRBT's Relevant Documentation:

SRBT Training Program Manual, Revision D

SRBT Training Program Development Project, Phase 1 Project Plan: Analysis, Revision 5, dated October 24, 2014

REGDOC 2.2.2 Section 3, requirement 1 states:

Licenses shall identify all performance requirements of a job or duty area relating to licensed activities by conducting a job analysis to determine all of the tasks involved.

Fact(s):

- Analysis phase documentation for the initial seven (7) SAT-based activities has not been updated/revalidated since 2014.

Analysis/Finding(s)

The analysis phase for the initial seven (7) SAT-based activities is detailed and documented in “*SRBT Training Program Development Project, Phase 1 Project Plan: Analysis*”, Revision 5, dated October 24, 2014. During discussions with SRBT staff, CNSC staff confirmed that the analysis phase documentation had not been reviewed, updated or revalidated since the document was originally created in 2014.

This forms the basis for the following recommendation.

Recommendation

SRBT-2020-01-R01: CNSC staff recommends that SRBT consider implementing a periodic review of analysis phase documentation to ensure the information remains valid and accurate.

4.1.3 Training Implementation

Finding 3: There is no refresher training for infrequent, abnormal and emergency operations tasks for the Rig Room.

Criteria:

SRBT’s Relevant Documentation:

SRBT Training Program Manual, Revision D

REGDOC 2.2.2 Section 3, requirement 10 states:

Licenses shall ensure that workers have a level of training related to nuclear safety corresponding to the duties of their position and employment, including but not limited to radiation safety, fire safety, onsite emergency arrangements, and conventional health and safety.

Fact(s):

- There is no refresher training for infrequent, abnormal and emergency operations tasks for the Rig Room.
- The Rig Room procedure binder, which contains operations and abnormal/emergency procedures was not labelled.

Analysis/Finding(s)

During discussions with SRBT staff, CNSC staff identified that there is no refresher training for infrequent, abnormal and emergency operations tasks for the Rig Room. Task difficulty, importance and frequency (DIF) should be taken into consideration to determine which tasks require refresher training.

During the facility walk down and tour of the Rig Room, CNSC staff observed that the procedure binder, which contains operational and abnormal/emergency procedures was not labelled.

The above analysis forms the basis for the following action notice and recommendation.

Action Notice

SRBT-2020-01-AN02: SRBT shall implement a corrective action plan to ensure that refresher training is implemented based on the difficulty, importance and frequency (DIF) rating for infrequent, abnormal and emergency tasks.

Recommendation

SRBT-2020-01-R02: CNSC staff recommend that SRBT ensure that procedure binders containing operations and abnormal/emergency procedures are appropriately labelled.

4.1.4 Training Change Management

Finding 4: A systematic and objective method (i.e. Training Needs Analysis) for assessing skills and knowledge gaps created by procedural and equipment changes, changes in job descriptions, and operating experience feedback (including facility and industry-wide events) and modifications to regulatory requirements, has not been developed or implemented.

Criteria:

SRBT's Relevant Documentation:

SRBT Training Program Manual, Revision D

REGDOC 2.2.2 Section 3, requirement 6 states:

Licenseses shall implement a training change-management process that will systematically analyze procedural and equipment changes, changes in job descriptions, and operating experience feedback (including facility and industry-wide events), in order to identify changes to the tasks and task lists and to assess potential training implications leading to training modifications.

Fact(s):

- A systematic and objective method (i.e. Training Needs Analysis) for assessing skills and knowledge gaps created by procedural and equipment changes, changes in job descriptions, operating experience feedback (including facility and industry-wide events) and modifications to regulatory requirements, has not been developed or implemented.

Analysis/Finding(s)

CNSC staff noted that the Training Program Manual documents a training change management process. However a systematic and objective method (i.e. Training Needs Analysis) for assessing skills and knowledge gaps created by procedural and equipment changes, changes in job descriptions, operating experience feedback (including facility and industry-wide events) and modifications to regulatory requirements, has not been developed or implemented as per REGDOC 2.2.2.

This forms the basis for the following action notice.

Action Notice

SRBT-2020-01-AN03: SRBT shall implement a corrective action plan to ensure that a systematic and objective method (i.e. Training Needs Analysis) for assessing skills and knowledge gaps created by procedural and equipment changes, changes in job descriptions, operating experience feedback (including facility and industry-wide events) and modifications to regulatory requirements, is developed and implemented.

5. SUMMARY OF ENFORCEMENT ACTIONS AND RECOMMENDATIONS ISSUED

The following three (3) enforcement actions are a result of the analysis presented in Section 4 of this report:

- **SRBT-2020-01-AN01:** SRBT shall implement a corrective action plan to ensure that training governing documentation clearly defines the positions and activities to which a systematic approach to training (SAT) is applicable.
- **SRBT-2020-01-AN02:** SRBT shall implement a corrective action plan to ensure that refresher training is implemented based on the difficulty, importance and frequency (DIF) rating for infrequent, abnormal and emergency tasks.
- **SRBT-2020-01-AN03:** SRBT shall implement a corrective action plan to ensure that a systematic and objective method (i.e. Training Needs Analysis) for assessing skills and knowledge gaps created by procedural and equipment changes, changes in job descriptions, operating experience feedback (including facility and industry-wide events) and modifications to regulatory requirements, is developed and implemented.

The following two (2) recommendations are a result of the analysis presented in Section 4 of this report:

- **SRBT-2020-01-R01:** CNSC staff recommends that SRBT consider implementing a periodic review of analysis phase documentation to ensure the information remains valid and accurate.
- **SRBT-2020-01-R02:** CNSC staff recommends that SRBT ensure that procedure binders containing operations and abnormal/emergency procedures are appropriately labelled.

6. CONCLUDING STATEMENTS

CNSC staff performed an inspection at SRBT in order to verify compliance with the NSCA, its associated regulations, the conditions of the licence and the LCH.

The scope of the inspection was focused on the Human Performance Management SCA, specifically the implementation of SRBT's Personnel Training program.

During the inspection, CNSC staff identified the effective implementation of programmatic requirements and good operating practices. Following the analysis of all inspection facts and findings, CNSC staff found areas of non-compliance, and therefore three (3) enforcement actions and two (2) recommendations have been raised. The identified enforcement actions do not pose an immediate or unreasonable risk to the health and safety of persons or the environment, but improvements are required to address the identified issues.

SRBT is requested to submit a response **60** days from the date the report was issued. The response must include corrective measures and proposed completion dates, including the date by which the corrective measure will be documented (if required), implemented, and verified for adequacy and effectiveness. SRBT is also requested to acknowledge the recommendations.

CNSC staff extend their appreciation to SRBT for their assistance in conducting this inspection.

7. REFERENCES

- [1] SRB Technologies (Canada) Inc. Nuclear Substance Processing Facility Operating Licence, NSPFOL-13.00/2022, (e-Doc 4522207).
- [2] SRB Technologies (Canada) Inc. Licence Conditions Handbook, (e-Doc 5040052).
- [3] E-mail from L. Posada (CNSC) to J. MacDonald (SRBT), SRBT Training Inspection – Compliance Matrix, January 24, 2020, (e-Doc 6115547).
- [4] SRBT-2020-01 Preliminary Inspection Facts and Findings Report, January 28, 2020, (e-Doc 6072621).

APPENDIX A: **Definitions**

Enforcement Action Categories:

Directive

A written request that the licensee or a person subject to enforcement action take action to correct:

- a non-compliance with the NSCA, the applicable regulations, licence conditions, codes, standards; or
- a general or sustained failure to adhere to approved documents, policies, procedures, instructions, programs, or processes that the licensee has established to meet licensing requirements.

Action Notice

A written request that the licensee or a person subject to enforcement action take action to correct a non-compliance that is not a direct contravention of the NSCA, the applicable regulations, licence conditions, codes or standards, but that can compromise the safety, security, or the environment and that may lead to a direct non-compliance if not corrected.

Such non-compliances include:

- a failure to satisfy one of the compliance criteria if the criteria are not directly referenced in the applicable regulations or licence conditions; and/or
- a significant but non-systemic failure to comply with the licensee's own policies, procedures, or instructions that have been established to meet licensing requirements (including programs and internal processes submitted in support of a licence application).

Recommendations:

Recommendation

A written suggestion to effect an improvement based on good industry practice.

A recommendation is not:

- an indication of non-compliance with regulatory requirements;
- subject to enforcement action;
- to be issued as a means of suggesting improvements to the licensee's programs outside the mandate of the CNSC.

Recommendations are not required to be implemented.

APPENDIX B: **Acronyms and Abbreviations**

CNSC	Canadian Nuclear Safety Commission
DIF	Difficulty, Importance and Frequency
LCH	Licence Conditions Handbook
GNSCR	<i>General Nuclear Safety and Control Regulations</i>
NSCA	<i>Nuclear Safety and Control Act</i>
OJT	On the Job Training
SAT	Systematic Approach to Training
SCA	Safety and Control Area
SRBT	SRB Technologies (Canada) Inc.
TLO	Terminal Learning Objectives

APPENDIX C: Attendance Record(s)



Canadian Nuclear Safety Commission
 Commission canadienne de sûreté nucléaire

Inspection Opening Meeting Attendance Record
 Directorate of Nuclear Cycle and Facilities Regulation
 Ref. Procedure How to Conduct DNCFR inspections

Unclassified

6090178

e-Doc
 Number

Licensee Name: SRB Technologies (Canada) Inc.
 Licence Number: NSPFOL-13.00/2022
 Licensed Site: SRB Tritium Processing Facility (Pembroke, ON)
 Title of Inspection: Type II Training Inspection
 Inspection Number: SRBT-2020-01
 Inspection Date(s): January 27, 2020 to January 28, 2020
 Lead Inspector: Lester Posada, NPF

Meeting Type: Opening

Name (print)	Role or Job Title	Signature
Martin Vesely	5 th Training Program Evaluation Officer	<i>[Signature]</i>
Brenda Duhaime	Training Program Evaluation Officer	<i>[Signature]</i>
LESTER POSADA	Lead Inspector, CNSC	<i>[Signature]</i>
Katie Levesque	Executive Assistant, SRB	<i>[Signature]</i>
ROSS FITZPATRICK	Vice-President, SRBT	<i>[Signature]</i>
STEPHANIE LEBLANC	PRESIDENT, SRBT	<i>[Signature]</i>
JAMIE MACDONALD	MANAGER - HEALTH, SAFETY & ENVIRONMENTAL AFFAIRS	<i>[Signature]</i>



Canadian Nuclear Safety Commission
 Commission canadienne de sûreté nucléaire

Inspection Closing Meeting Attendance Record
 Directorate of Nuclear Cycle and Facilities Regulation
 Ref. Procedure How to Conduct DNCFR Inspections

Unclassified

6090178

e-Doc
 Number

Licensee Name: SRB Technologies (Canada) Inc.
 Licence Number: NSPFOL-13.00/2022
 Licensed Site: SRB Trisium Processing Facility (Pembroke, ON)
 Title of Inspection: Type II Training Inspection
 Inspection Number: SRBT-2020-01
 Inspection Date(s): January 27, 2020 to January 28, 2020
 Lead Inspector: Lester Posada, NPF

Meeting Type: Closing

Name (print)	Role or Job Title	Signature
Martin Vesely	Senior Training Program Evaluation Officer - CNSC	
Brenda Duhaime	Training Program Evaluation Officer	
LESTER POSADA	Lead Inspector, CNSC	
Katie Levesque	Executive Assistant, SRBT	
ROSS FITZPATRICK	Vice-President, SRBT	
JAMIE MACDONALD	MANAGER, H.P. & R.A., SRBT	
SEANNE O'NEILL	PRESIDENT	

APPENDIX D: Compliance Matrix

Licensee Name: SRB Technologies (Canada) Inc.
Licence Number: NSPFOL-13.00/2022
Licensed Site: SRB Tritium Processing Facility (Pembroke, ON)
Facility / Program / Site: SRB Technologies Tritium Processing Facility
Title of Inspection: Type II Training Inspection
Inspection Number: SRBT-2020-01
Inspection Date(s): January 27, 2020 to January 28, 2020
Lead Inspector: Lester Posada, NPFD

Inspection Safety and Control Area(s) and/or Other Matters of Regulatory Interest

Select all appropriate Safety and Control Area(s) for this Compliance Inspection here. If inspecting other matters of regulatory interest, select "Other," and specify.

- | | | |
|--|--|---|
| <input type="checkbox"/> Management System | <input type="checkbox"/> Environmental Protection | <input type="checkbox"/> Waste Management |
| <input type="checkbox"/> Fitness for Service | <input type="checkbox"/> Radiation Protection | <input type="checkbox"/> Security |
| <input type="checkbox"/> Operating Performance | <input type="checkbox"/> Conventional Health and Safety | <input type="checkbox"/> Safeguards and Non-Proliferation |
| <input type="checkbox"/> Safety Analysis | <input checked="" type="checkbox"/> Human Performance Management | <input type="checkbox"/> Packaging and Transport |
| <input type="checkbox"/> Physical Design | <input type="checkbox"/> Emergency Management & Fire Protection | <input type="checkbox"/> Other, |
- specify below

[Click here to enter text.](#)

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
Safety and Control Area: Human Performance Management-Training Program			
<p>Source: LCH REGDOC-2.2.2 Section 1.2 The licensee shall define positions in their training system governing documents to which REGDOC-2.2.2 and a SAT apply.</p>	<p><u>Documentation Review</u>: Verify that the positions are defined in SRBT training system governing documentation</p>	<p>Finding: Activities to which a SAT applies are not defined within SRBT training governing documentation.</p> <p>Section 2 of SRBT governing document: SRBT Training Program Manual, revision D, provides a history of the SRBT Training Program Manual. Within this section, a list of (6) organizational positions applicable to SAT are defined. SRBT staff clarified that they have since revamped the applicability of SAT from positions to the SAT based activities. However; SRBT governing documentation was not updated to reflect the current process. Furthermore, the applicable SAT based activities are not defined within the governing documentation.</p>	<p>Not Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3 Paragraph 1 Licensees shall ensure workers who carry on licensed activities are qualified to do the work assigned to them through the use of a training system to systematically analyze, design, develop, implement, evaluate, document and manage new training and the revision of existing training, including continuing training. It shall be used whether the training is defined, designed, developed, implemented, evaluated, recorded and managed internally by licensees or externally through vendors or contractors.</p>	<p><u>Documentation Review:</u> Verify that, at a high level, training system outputs are documented, defined, designed and developed in accordance with the licensee’s training system processes and procedures.</p> <p><u>Trainee Qualification Record Check:</u></p> <ul style="list-style-type: none"> – Verify qualification status of a sample of SAT based qualified workers – Verify use of SAT-010-F-02, Quarterly Staff Qualification Review 	<p>CNSC verified the training system output documents for the following SAT based activities:</p> <ul style="list-style-type: none"> • SAT-HP-01: Advanced Health Physics Instrumentation • SAT-HP-04: Bioassay and Dosimetry • SAT-OP-02: Bulk Splitter Operations • SAT-OP-03: Handling Putts • SAT-SHP-01: Import and Export Processes <p>CNSC staff concluded that at a high level, the training system outputs for the above SAT based activities are documented, defined, designed and developed in accordance with the licensee’s training system processes and procedures.</p> <p>CNSC staff verified that in 2018 and 2019 SRBT performed quarterly staff qualification reviews. The review of each individual staff member with SAT qualification was documented. Actions necessary to support qualification maintenance was also documented in the reviews.</p>	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 1 Licensees shall: identify all performance requirements of a job or duty area relating to licensed activities by conducting a job analysis to determine all of the tasks involved</p>	<p><u>Documentation review:</u> Verify that job analysis documents (e.g., JTAs) are:</p> <ul style="list-style-type: none"> - Identify all of the tasks performed by each position reviewed - Completed by qualified training staff and subject matter experts - Approved by SMEs - Signed by the training manager - Signed by the line manager (as applicable) - Refreshed or revalidated within an appropriate timespan 	<p>The Training Committee reviewed and accepted analysis phase documentation.</p> <p>The analysis phase for the initial seven (7) SAT based activities is detailed and documented in “<i>SRBT Training Program Development Project, Phase 1 Project Plan: Analysis</i>”, Revision 5, dated October 24, 2014. The analysis phase documentation has not been reviewed, updated or revalidated since the document was originally created in 2014.</p>	<p>Met</p>
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 2 Licensees shall define and document the necessary general worker training, initial job training and continuing training requirements for workers, based on a task analysis of the knowledge, and skills.</p>	<p><u>Document Review:</u> Verify that reviewed documentation defines:</p> <ul style="list-style-type: none"> - Entry-level qualification requirements for workers - Prerequisite qualifications for training 	<p>CNSC verified that a target audience analysis identifying entry level qualifications and prerequisite qualification has been completed for the following SAT based training activities:</p> <ul style="list-style-type: none"> • SAT-HP-01: Advanced Health Physics Instrumentation • SAT-HP-04: Bioassay and Dosimetry • SAT-OP-02: Bulk Splitter Operations • SAT-OP-03: Handling Putts • SAT-SHP-01: Import and Export Processes 	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3 Paragraph 2 Requirements of Section 3 are applied in a manner commensurate with risk: All requirements shall apply but the associated training-related processes and procedures may vary depending upon the safety significance and complexity of the work being performed. In considering safety, factors to be examined include the relative importance to safeguards and security; the magnitude of any hazard involved; the lifecycle stage of the facility; the type of facility or licensed activity; the particular characteristics of the facility or licensed activity (e.g., remote location, densely populated areas with easy access to qualified workers); and any other relevant factors.</p>	<p><u>Document Review:</u> Verify that training has been appropriately implemented in a manner commensurate with risk</p> <p><u>Training Categorization/Document Review:</u></p> <p>Verify via document review the following:</p> <ul style="list-style-type: none"> – The categorization of training documentation by the training committee in the form of meeting minutes 	<p>SRBT have implemented the use of a rating system based on the complexity and importance of enabling objectives. The enabling objectives deemed to be a safety critical activity are proportionally incorporated into performance assessment materials.</p> <p>SRBT Training Program Manual Section 5.1 SAT-001, Categorization states that categorization of the training has been assessed and documented by the training committee. Results of the categorization are identified in the training committee meeting minutes as well as on form SAT-001-F01, “Recommended Training List for Committee Categorization”.</p> <p>CNSC staff reviewed training committee meeting minutes from 2016, 2018 and 2019 and confirmed the documentation of the categorization of training. In addition, CNSC staff verified the use of form SAT-001-F01, “Recommended Training List for Committee Categorization”.</p>	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 3 Licensees shall: ensure that appropriate training is designed, developed and implemented to meet the qualification requirements</p>	<p><u>Document Review:</u> Verify that:</p> <ul style="list-style-type: none"> - Training objectives are developed to establish the training content - Training objectives are linked to job performance requirements and state the standards of satisfactory trainee performance along with any relevant conditions - Training objectives are sequenced, grouped and organized according to the required progression of learning - Training objectives are included in the training material - Task-to-Training Matrices link the learning objectives and subsequently to the learning activities - Training materials are current and support the training objectives and test items 	<p>Terminal Learning Objectives (TLO's) are required as per SRBT Training Program Manual Revision D, Section 5.2, SAT- 002 "Analysis".</p> <p>CNSC staff confirmed that TLO's have been developed for the following SAT based activities:</p> <ul style="list-style-type: none"> • SAT-HP-01: Advanced Health Physics Instrumentation • SAT-HP-04: Bioassay and Dosimetry • SAT-OP-02: Bulk Splitter Operations • SAT-OP-03: Handling Putts • SAT-SHP-01: Import and Export Processes 	<p>Met</p>
<p>Source: LCH REGDOC-2.2.2 Section 4, Paragraph 1 Licensees shall develop and manage documentation related to all phases of their training including analysis, design, development, implementation and evaluation.</p>	<p><u>Documentation Review:</u></p> <p>Verify that, at a high level, training system outputs are documented, defined, designed and developed in accordance with the licensee's training system processes and procedures.</p>	<p>CNSC verified the training system output documents for the following SAT based activities:</p> <ul style="list-style-type: none"> • SAT-HP-01: Advanced Health Physics Instrumentation • SAT-HP-04: Bioassay and Dosimetry • SAT-OP-02: Bulk Splitter Operations • SAT-OP-03: Handling Putts • SAT-SHP-01: Import and Export Processes 	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 4 Licensees shall ensure that trainers meet and maintain documented qualification requirements, particularly in the areas of subject matter expertise and instructional skills</p>	<p><u>Document Review:</u> Verify that the licensee documentation contains the minimum qualifications for trainers and personnel who conduct and evaluate training. At a minimum the documentation addresses the following subject areas, as applicable:</p> <ul style="list-style-type: none"> - Initial and continuing training - Experience - Subject matter expertise - Instructional skills - Policies, practices, methods and standards for delivering and assessing performance of OJT and OJE - Policies, practices, methods and standards for developing initial training, continuing training and/or refresher training <p><u>Records Check:</u></p> <ul style="list-style-type: none"> - Review a sample of SAT-010-F-01, “Trainer Qualification Recommendation and Review”, for a sample of trainers. 	<p>SRBT governing document: SRBT Training Program Manual, revision D, Section 5.10 SAT-010, “Qualification Management” states: “Qualified Trainers” are those individuals who possess sufficient competency, subject matter expertise and instructional skills in order to successfully facilitate learning by trainees to an acceptable level of competence and safety, and have been deemed qualified by the President.”</p> <p>CNSC verified that the qualification of all qualified trainers is reviewed by the training committee at least annually (verified via training committee meeting minutes).</p> <p>CNSC verified the use of SAT-010-F-01, “Trainer Qualification Recommendation and Review”, for the two current trainers at SRBT.</p>	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 5 Licensees shall: ensure that formal evaluations are used to confirm and document that all trained workers are qualified to perform their duties</p>	<p><u>Document Review:</u> Review a sample of evaluation materials such as tests, On-the-Job Training (OJT) evaluations, marking guides, answer keys and verify the following:</p> <ul style="list-style-type: none"> - There is a clear link between the test items or job performance measures and the front end analysis of the job performance requirements. - Answers expected during written or oral examinations or actions expected during performance-based tests, are defined in advance in appropriate marking guides that are consistent with current facility configuration and work practice. - Test items identified as critical to safety are assessed appropriately - Exemptions are completed in accordance with the licensees exemption process - Exemptions are based on objective evidence that demonstrates that the trainee has attained the requisite knowledge, skills, and attributes. <p><u>Database Review/Field Work:</u></p> <ul style="list-style-type: none"> - Request and review a sample of completed tests and examinations and verify that marking was done in accordance with marking guides and answer keys. <p><u>Interview Verification:</u></p> <ul style="list-style-type: none"> - Verify that tests are adequately secured both pre and post completion - Copies of the exams are retrieved promptly upon completion - Limited electronic access to files and/or directories where tests are stored. 	<p>CNSC staff verified that test items identified as critical to safety are incorporated into training material and tested appropriately.</p> <p>CNSC staff reviewed a sample of completed tests for SAT-HP-01, Advanced Health Physics Instrumentation and verified that marking was done in accordance with marking guides and answer keys.</p> <p>CNSC staff verified that answers expected in written and OJT evaluations are defined in advance.</p> <p>CNSC staff verified that tests are adequately secured both pre and post completion with limited electronic access to files where tests/answer keys are stored. In addition, copies of exams are retrieved promptly upon completion.</p>	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3 Requirement 6 Licensees shall: implement a training change-management process that will systematically analyze procedural and equipment changes, changes in job descriptions, and operating experience feedback (including facility and industry-wide events), in order to identify changes to the tasks and task lists and to assess potential training implications leading to training modifications.</p>	<p><u>Document Review:</u> Verify that a training-change management process has been implemented.</p> <p>Request and review a sample of Engineering Change Request (ECR) forms. Ensure that the training impact has been assessed.</p> <p>Review a sample of ECR’s specific to changes to training material.</p> <p><u>Revision to Training Material/Document Review/Interview:</u></p> <ul style="list-style-type: none"> – Verify version control process – Ensure old revisions shall be kept on file and identified as obsolete 	<p>Finding: A systematic and objective method (i.e. Training Needs Analysis) for assessing skills and knowledge gaps created by procedural and equipment changes, changes in job descriptions, and operating experience feedback (including facility and industry-wide events) and modifications to regulatory requirements, has not been developed or implemented.</p> <p>CNSC staff verified that the Training Program Manual documents a training change management process as per section 5.9, SAT-009, “Training Change Management”.</p> <p>CNSC verified that a version control process is in place at SRBT and that old revisions are kept on file and identified as obsolete.</p>	<p>Not Met</p>
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 7 Licensees shall: ensure continuing training is provided to workers as deemed necessary through the job and task analyses processes, and that it includes updates to training programs stemming from the change-management process as identified through the training needs analysis process</p>	<p><u>Document Review:</u> Verify that licensee documentation describe the continuing training as applicable.</p> <p>Request and review continuing training materials. Verify that applicable training was implemented in alignment with the licensee’s continuing training procedures and training change control outputs (e.g., training needs analysis forms)</p>	<p>Finding: There is no refresher training for infrequent, abnormal and emergency operations tasks for the Rig Room.</p> <p>CNSC staff verified that overtraining (formally designed and developed training, supported by retraining) has been identified for SAT-SHP-01: Import and Export Processes. However; this program is still in development and has not been implemented to date. SRBT staff confirmed that refresher training will be implemented for two of the tasks if performance frequencies are not met. CNSC staff confirmed that this is documented on the design phase documentation, SAT-003-F-01.</p>	<p>Not Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 8 Licensees shall: evaluate training regularly and incorporate the results of the evaluations into a training improvement process</p>	<p><u>Documentation Review</u> Request and review documentation used for evaluating the effectiveness of the training program. For example:</p> <ul style="list-style-type: none"> - Training committee meeting minutes - Verify that the results of evaluation of the training are incorporated into a training improvement process - Verify that training improvements and changes are proposed, initiated, tracked and incorporated in the training in a timely manner - Review a sample of training feedback forms <p><u>Training Committee Requirements/Document Review:</u> Verify via document review the following:</p> <ul style="list-style-type: none"> - Training Committee shall be comprised of at least: The President, The Vice-President and the Manager designated as holding the responsibility to maintain the SAT program - Training Committee shall meet at least twice per year - Annual self-assessment of the effectiveness of the training program - Controlled “Recommended Training List” , discussed at Training Committee Meetings, incorporated into the agenda 	<p>CNSC staff reviewed a sample of training committee minutes from 2016, 2018 and 2019.</p> <p>As per sampled training committee meeting minutes reviewed, training committee members consist of the President, the Vice-President and the Manager designated as holding the responsibility of the SAT program.</p> <p>CNSC staff confirmed via training committee meeting minutes that the training committee meets at least twice per year as required.</p> <p>CNSC staff confirmed that the “Recommended Training List” is discussed at training committee meetings as verified through a review of meeting agendas as well as meeting minutes.</p> <p>CNSC staff reviewed and verified that annual self-assessments of the effectiveness of the training program have been satisfactorily completed by the training committee.</p>	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 9 Licensees shall: ensure that workers' records in support of training and qualifications are established and maintained</p> <p>REGDOC-2.2.2 Section 4, Paragraph 2 Licensees shall maintain records on the training and qualifications of all workers.</p>	<p><u>Database review / Field check:</u></p> <p>Verify a sample of training records for trainees, qualified workers, and contractors (if applicable) and verify that they hold the necessary qualifications as specified in the respective document.</p> <p>Ensure that expiration dates are included for time-sensitive qualifications</p> <p>Verify a sample of personnel records to verify job analysis SME qualifications. Verify that:</p> <p>The licensee uses experienced personnel, who are currently occupying positions for which training is being developed, to participate in the analysis of the jobs that they perform to provide subject matter expertise.</p> <p>Verify a sample of contractor or temporary workers' records to verify compliance with internal procedures (e.g., completed contractor qualification checklists/forms or signed declarations of qualification).</p>	<p>CNSC staff reviewed the SAT Qualification Tracking spreadsheet which details status of qualification of workers for the various SAT based activities. The tracking spreadsheet also includes qualification expiration dates for time-sensitive qualifications.</p> <p>CNSC staff verified that in 2018 and 2019 SRBT performed quarterly staff qualification reviews. The review of each individual staff member with SAT qualification was documented. Actions necessary to support qualification maintenance was also documented in the reviews.</p>	<p>Met</p>

Criteria	Inspection Methods	Comments / Observations	Met / Not Met
<p>Source: LCH REGDOC-2.2.2 Section 3, Requirement 10 Licensees shall: ensure that workers have a level of training related to nuclear safety corresponding to the duties of their position and employment, including but not limited to radiation safety, fire safety, onsite emergency arrangements, and conventional health and safety.</p>	<p><u>Documentation review:</u></p> <p>Verify that documents define:</p> <ul style="list-style-type: none"> • Entry-level qualification requirements for workers • Prerequisite qualifications for training or phases of training. <p>Review the job analysis (e.g., JTA, Master Task List) and task-to-training matrices (TTM) or equivalent documents to verify that:</p> <ul style="list-style-type: none"> • Difficulty, Importance, Frequency (DIF) rating is assigned to each task. • Analysis identifies the knowledge, skills and safety-related attributes needed for the tasks or job functions selected for training and is of sufficient detail to enable the development of suitable training objectives, training material, test items and job performance measures. • The tasks or job functions requiring initial training, continuing training, or just-in-time training are identified. 	<p>Finding: There is no refresher training for infrequent, abnormal and emergency operations tasks for the Rig Room.</p> <p>The Rig Room procedure binder, which contains operations and abnormal/emergency procedures was not labelled.</p> <p>CNSC verified that a target audience analysis identifying entry level qualifications and prerequisite qualification has been completed for SAT based training activities.</p> <p>In addition, CNSC staff verified that job analysis with DIF ratings and training decisions has been completed for the following sampled SAT based activities:</p> <ul style="list-style-type: none"> • SAT-HP-01: Advanced Health Physics Instrumentation • SAT-HP-04: Bioassay and Dosimetry • SAT-OP-02: Bulk Splitter Operations • SAT-OP-03: Handling Putts • SAT-SHP-01: Import and Export Processes 	<p>Not Met</p>

<p>Source: LCH REGDOC-2.2.2 Section 4, Paragraph 1 Licensees shall develop and manage documentation related to all phases of their training including analysis, design, development, implementation, and evaluation.</p>	<p><u>Document Review/Interviews</u></p> <p>Confirm that the sample set of documentation used for producing the outputs observed during the inspection is controlled (for current use) by verifying:</p> <ul style="list-style-type: none"> • Documents are uniquely identified • Documents meet the defined format and presentation • Document status is identified • Documents are distributed by a controlled method • Documents are revised and reviewed according to procedure • The document version being used is not obsolete <p>If observing licensee staff in the field, record the document title, number and version and perform the above verifications.</p> <p><u>Verify the following Design Phase Records:</u></p> <ul style="list-style-type: none"> – Form SAT-003-F-01: The recommended training activity design package, including the acceptance from the Committee – Form SAT-003-F-02: A logical list of the enabling objectives relating to the design of the training – Form SAT-003-F-03 and -04: The learning assessment plan design – Records relating to the design for OJT, if applicable <p><u>Verify the following Development Phase Records:</u></p> <ul style="list-style-type: none"> – Version control of revisions with comments – Final version contains the signature of person who led the development as well as the signature of a member of the training committee (must be 2 different people) 	<p>CNSC staff reviewed the design phase documentation for the following SAT based activities:</p> <ul style="list-style-type: none"> • SAT-HP-01: Advanced Health Physics Instrumentation • SAT-HP-04: Bioassay and Dosimetry • SAT-OP-02: Bulk Splitter Operations • SAT-OP-03: Handling Putts • SAT-SHP-01: Import and Export Processes <p>CNSC staff verified the following forms/records:</p> <ul style="list-style-type: none"> • Form SAT-003-F-01: The recommended training activity design package, including the acceptance from the Committee • Form SAT-003-F-02: A logical list of the enabling objectives relating to the design of the training • Form SAT-003-F-03 and -04: The learning assessment plan design • Completed OJT checklists • Completed and graded tests administered • Completed evaluation forms, including a summary report of evaluations <p>CNSC staff concluded that the documentation was completed as required.</p>	<p>Met</p>
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Criteria	Inspection Methods	Comments / Observations	Met / Not Met
	<ul style="list-style-type: none"> - Tests, once finalized must be kept secure, including completed tests - Learning Assessment Plan shall be assessed and a “Development Matrix” documented to clearly outline how each part of the LAP is addressed by the developed training materials - Pilot course feedback and disposition record - Periodicity of retraining/refresher training must be documented and submitted for acceptance to the Committee, including associated training materials if different from the main activity - Training Committee must sign off on overall training package <p><u>Implementation Phase Records:</u></p> <ul style="list-style-type: none"> - Completed OJT checklists - Completed and graded tests administered - Re-training activities for trainees failing to meet acceptance criteria - Completed evaluation forms, including a summary report of evaluations 		