



## SRTC Laboratory Operations

### Shielded Cells Operations

### Training Plan

SC000000 – Rev. 10

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## 1.0 PURPOSE

This training plan establishes the training processes and requirements for training of Shielded Cell Operations (SCO) laboratory personnel within the Laboratory Services Department (LSD) of the Savannah River Technology Center (SRTC).

## 2.0 SCOPE

This training plan applies to individuals training and maintaining trained status as:

- Shielded Cell Technicians
- Shielded Cell First Line Manager (FLM)/Lead

## 3.0 GENERAL

### 3.1 Responsibilities

- 3.1.1 Line Management - identifying training needs, establishing frequency with which training is conducted; approving instructional materials; establishing Training Review Committee (TRC); selecting personnel for and approving training of Laboratory Technicians, approving remediation programs for trainees and monitoring the remediation progress of trainees.
- 3.1.2 Division Training Manager / Training Program Manager – ensuring compliance with the Instructional Staff Training and Qualification Program Description; approving the qualifications of instructional staff; approving the technical qualifications of instructional staff with applicable facility management; approving instructional materials; approving exceptions from training.
- 3.1.3 Training Program Owner – initiating and maintaining the Training Plan; conducting program evaluations, self-assessments, and recommending/implementing corrective actions.
- 3.1.4 Instructor/Developers – analyzing, designing, developing, implementing, and evaluating initial and continuing training for SCO personnel; obtaining and maintaining instructional and technical qualifications.
- 3.1.5 Division Training Registrar / Training Coordinator – developing and maintaining the Automated Qualification Matrix (AQM); tracking training requirements; acting as a liaison with facility personnel to schedule training.
- 3.1.6 Instructional Development Coordinator – tracking instructional qualifications.
- 3.1.7 Candidate – complying with the requirements and standards of the training program.

### **3.2 Examinations/Evaluations**

Written and performance examinations shall be administered to document and demonstrate attainment of required knowledge and skills. Unsatisfactory performance on examinations /evaluations, subsequent remediation, academic review boards, and any re-examination will be completed as described in WSRC Manual 4B.

3.2.1 Written examinations - must be completed with an 80 percent or greater proficiency. Written examinations may be given at the conclusion of each course or at the conclusion of a block of training, as appropriate.

3.2.2 Performance Examinations - A performance examination (OJT guide/JPM) is used to evaluate a single task as it relates to a specific portion/section of training. Performance examinations must be completed with 100 percent proficiency. An examinee's inability to meet a "critical" process standard constitutes immediate failure, and the performance evaluation shall be terminated.

### **3.3 Exceptions/Extensions**

3.3.1 Extensions of Training – An extension of training may be granted to SCO personnel on a case-by-case basis to support operational and schedule commitments, according to extension criteria established in WSRC 4B.

3.3.2 Exceptions to Shielded Cell Operations Training Requirements - The SCO personnel training plans are developed for individuals with entry-level knowledge and skills. Some candidates may already possess the necessary knowledge and skills for the job and may be excepted from areas of the Training Plan on the basis of prior education, experience, and training.

The exception will be documented as required by WSRC Manual 4B. Excepted training will be recommended by line management and approved in accordance with WSRC 4B.

### **3.4 Schedule**

3.4.1 Initial Training - The initial training program for SCO Technicians uses a systematic approach to training to ensure that SCO trainees are trained to the performance requirements of the job. Completion of initial training for the SCO Technician consists of three areas of training which may be completed concurrently:

- Site and Regulatory
- Facility Specific Training
- Job Specific Training

3.4.2 Laboratory Technician Position-Specific Tasks – The SCO Technician's breadth and depth of knowledge shall be enhanced through Continuing Training. This training consists of briefings, OJT/JPMs, read and sign assignments, and other training as determined by management. This on-going training is tracked through an AQM Training Summary.

3.4.3 Time Requirements – SRTC Shielded Cell Operations management shall designate time requirements for completion of position training requirements and track these via the LSD Facility Training Schedule.

## **4.0 ENTRY LEVEL REQUIREMENTS**

The candidates shall meet the applicable job description requirements and the WSRC Manual 5B recruitment requirements. Prior to the start of the training program, candidates shall have completed the following additional requirements:

### **4.1 Medical**

The candidates shall meet the minimum WSRC health requirements, in accordance with WSRC Medical Department Manual Q3.1, Procedure 1004, by passing employment medical physical. Personnel must meet the health requirements identified in WSRC 4B, Training and Qualification Program Manual, as well as any additional health requirements to perform the job to which the employee is assigned. Personnel shall also adhere to fitness for duty policies and practices, including pre-employment drug testing, for-cause drug testing, and random drug testing.

### **4.2 Security Clearance**

Personnel must be able to obtain and hold appropriate security clearance for the position, as applicable.

### **4.3 Experience/Education**

Candidates selected for the SCO Technician training program shall meet the following requirements:

Experience:       None

HR Entrance Examinations: The successful candidate must satisfy all requirements on the HR entrance tests for the Laboratory Technician seniority unit.

**AND**

Education:       The successful candidate must have earned a high school diploma or equivalent, plus an Industrial Process Technology Certificate from a local technical college that included a curriculum of core fundamentals such as math and chemistry.

**AND**

Perform specific job functions/tasks, as identified on the Essential Functions List for the assigned position.

#### **4.4 Screening Examination**

Those candidates who have a high school diploma or equivalent, but have not completed an Industrial Process Technology Certificate from a local technical college may pass challenge exams in the Laboratory Technician Core Fundamentals Program to prove proficiency in basic mathematics and chemistry. These examinations may be substituted for the Industrial Process Technology Certificate.

#### **4.5 Alternatives to Education and Experience Requirements**

Alternatives to educational requirements shall be evaluated on a case-by-case basis, approved by the Shielded Cells line management, and documented. The following equivalent may be used, as a minimum, in making the evaluation of an acceptable alternative to educational requirements:

General Education Development (GED) test for a high school diploma

### **5.0 INITIAL TASK TRAINING**

The initial task-training process begins only after completion of entry requirements as described in section 4. Task-training standards via AQM are used to document the satisfactory completion of each portion of the program.

**5.1 Prerequisite Training** – See Fundamentals Training 5.2

#### **5.2 Fundamentals Training**

The contents and training requirements of the laboratory technician fundamentals training program are described in the document, SF000000 – Laboratory Technician Core Fundamentals Training Program Description.

**5.3 Systems or Equipment Training** – N/A

#### **5.4 On-the-Job Training**

On-the-Job Training is position-specific training and may be part of Initial, Specialized Task Training, or Continuing Training for the SCO Technician Program. See Section 6.1.

SCO Technicians may independently perform only those specific SCO Technician tasks for which the OJT/JPMs have been completed. SCO Technicians shall not independently perform tasks for which task training is not completed. Likewise, SCO Technicians shall not conduct OJT/JPM training/evaluation on tasks unless they are trained on that task **AND** are trained as OJT Trainer/Evaluators.

**5.5 Facility Drill Program** – N/A

**5.6 Simulator Training and Control Manipulations** – N/A

**5.7 Qualification Examination/Evaluation Requirements** – N/A

**5.8 Certification Requirements** – N/A

## 6.0 CONTINUING TRAINING

Continuing training maintains and enhances the knowledge and skills of the Laboratory Technician. Evidence of participation in job specific continuing training is the continued satisfactory performance of assigned duties, which may be documented, in the Personal Assessment and Development Process (PADP) or other performance documents.

Continuing training includes training to build on prior fundamental knowledge and skills. The continuing training program maintains and enhances proficiency, broadens the Laboratory Technician's understanding of his / her job, and provides insight into industry events. Continuing training may be documented in the AQM system or through Required Reading.

Continuing training may be delivered by any of the following methods:

- classroom / web-based training
- on-the-job training, seminars, briefings, or discussions led by management, subject matter experts (SMEs), or cognizant technical function personnel (CTFs)
- required reading as selected by management.

### 6.1 Subject Matter

To maintain and enhance the performance of facility personnel, a continuing training program with a fixed and a flexible component is used.

- The fixed component consists of regulatory compliance training, general employee training {Consolidated Annual Training (CAT)}, and facility specific regulatory training. This training must be taken within the required frequency cycle.
- The flexible component is a continual process used to correct actual or potential weaknesses, and to train on recent industry or in-house operating experiences, modifications to facility processes, and procedure changes.

Program content determination for the flexible component of the continuing training program is an ongoing effort. The Facility Training Review Committee meets on a regular basis to identify emergent topics, which are placed in the continuing training programs. This includes topics such as changes to analytical methods, Safety Analysis Reports, Technical Safety Requirements, and operating procedures and emergent items, such as Occurrence Reports and Lessons Learned.

### 6.2 Systems Training and Simulator Training – N/A

### 6.3 Training Frequency

### 6.4 Examination Requirements

Written and performance examinations may be administered to satisfactorily document and demonstrate attainment of required knowledge and skills. Performance evaluations (JPMs) must be passed for task training in order to independently perform the task or to conduct OJT/JPMs on that task.

### **6.5 Consequence of Examination Failure**

Unsatisfactory performance on examinations/evaluations, subsequent remediation, academic review boards, and any re-examination will be completed as described in WSRC Manual 4B. Examination failure may result in the technician not performing the task, as deemed prudent by management.

## **7.0 REQUALIFICATION/RECERTIFICATION**

### **7.1 Requalification Frequency – N/A**

## **8.0 REGULATIONS**

5480.20A, Chapter I, General Requirements 7.g. Technician and Maintenance Personnel Training Requirements

## **9.0 REFERENCES**

WSRC Manual 4B, Training and Qualification Manual

## **10.0 ATTACHMENTS**

- A. Qualification Card 214Q0100, LSD Shielded Cells Technician
- B. Qualification Card 214AQ0100, LSD Shielded Cells Technician Specialized Tasks & Continuing Training
- C. Qualification Card 215Q0100, LSD Shielded Cells Operations FLM/Lead
- D. Qualification Card 211Q0100, LSD Shielded Cells Manager

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**I. PREREQUISITES**

Entry Level Requirements Satisfied per the SCO Training Plan

**II. TRAINING REQUIREMENTS**

	<u>Course Number</u>	<u>Date</u>
<b>Facility Specific Training (608)</b>		
1Y EOM - Lab Standard Refresher	LSLST003 SP	_____
INTN/A - SRTC Drains	LSMTD001 SP	_____
INTN/A - SUMMARY OF CHANGES TO SRTC DRAIN SYSTEM TRAINING	LSMTD002 SP	_____
<b>Job Specific Training (611)</b>		
INTN/A - SHIELDED CELLS OVERVIEW	SC010100 SE	_____
INTN/A - Replace Light Bulb Inside Shielded Cells	SC010103 OJT	_____
INTN/A - Move Samples and Supplies Into & Out of Cells	SC010301 OJT	_____
INTN/A - Remove/Replace The Master Slave Manipulator	SC010302 OJT	_____
INTN/A - Replace Gripping Fingers on Master Slave Manipulator	SC010303 OJT	_____
INTN/A - Operate The Master Slave Manipulator	SC010304 OJT	_____
INTN/A - Install/Remove Samples and Supplies Via Cell Roof	SC010401 OJT	_____
INTN/A - Receive Samples at E-055	SC010501 OJT	_____
INTN/A - Decon Shielded Cells Manipulator	SC010601 OJT	_____
INTN/A - Removal of Radioactive Waste From Shielded Cells	SC010607 OJT	_____
INTN/A - Install Knolls Atomic Power Lab Plug (KAPL)	SC010712 OJT	_____
<b>Site and Regulatory Training (621)</b>		
1Y EOM - Consolidated Annual Training	CAT00000 QQ	_____
2Y YTD - Rad Worker Level II Qualified	QHRG0000 QQ	_____
1Y YTD - Negative Pressure Respirator (Qual)	QRRP1000 QQ	_____
1Y YTD - Gen. Respiratory Prot. Qual (TRPG4001)	QRRP4000 QQ	_____
2Y EOM - Respiratory Protection Issuance	QRRP7000 CR	_____
INTN/A - OSHA Lab Standard Initial (WEB Based)	SE010304 SC	_____

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INTN/A - SRTC Technical Area TRU Waste Handler	SE010401	CL
INTN/A - SRTC Waste Generator- CBT	SE010402	SP
1Y YTD - RCRA Training for SRTC Technical Area	SE010419	SP
INTN/A - Waste Packaging for Approved Waste Generators	SG152903	OJT
2Y EOM - SRTC Nuclear Material Handler	SG152951	CR
2Y EOM - SRTC Nuclear Criticality Safety Training	SG152952	CR
INTN/A - SRTC/TNX/AL RCRA Satellite Area(s)	SL090606	SP
INTN/A - Rw-0333p qa req. and description req. read	STGN0022	RS
3Y EOM - HAZMAT-Transportation (49 CFR)	TMAMHAZ1	QQ

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**I. PREREQUISITES**

None . . .

**II. TRAINING REQUIREMENTS**

	<u>Course Number</u>		<u>Date</u>
<b>Specialized Training (614)</b>			
INTN/A - Replace Plexiglass Inside Cell Window	SC010101	OJ	_____
INTN/A - Perform Aqua Regia Dissolutions	SC010107	OJT	_____
INTN/A - Repair/Replace Gloves On Glove Boxes	SC010602	OJ	_____
INTN/A - Operate the Caves Unit Filter	SC010612	OJT	_____
INTN/A - Operate SRAT and SME	SC010701	OJT	_____
INTN/A - Perform PCT On Radioactive Glass Samples	SC010708	OJT	_____
INTN/A - Perform Peroxide Fusion Dissolutions	SC010714	OJT	_____
INTN/A - Calibrate the Gas Chromatograph	SC010726	OJT	_____
INTN/A - Load Hardigg Case Shipping Assembly	SC010735	OJT	_____
INTN/A - Verify The Calibration of Thermocouples	SC010809	OJ	_____
INTN/A - Verify Calibration of Thermometers	SC010810	OJ	_____
INTN/A - Verify The Calibration of Balances	SC010811	OJ	_____
INTN/A - Changeout In-Cell HEPA Filters in "A" and "B" Cell Blocks	SC010909	OJ	_____
3Y EOM - Incidental Rigging (22001)	TMAR0600	CL	_____
INTN/A - Full Body Safety Harness Training	TMAR2500	LW	_____
INTN/A - Scaffolding And Fall Protection	TMAR4400	CR	_____
INTN/A - OJT Trainer/Evaluator Qualification	TOJTQUAL	QQ	_____

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**I. PREREQUISITES**

Entry Level Requirements Satisfied per the SCO Training Plan

**II. TRAINING REQUIREMENTS**

	<u>Course Number</u>	<u>Date</u>
<b>Facility Specific Training (608)</b>		
1Y EOM - Lab Standard Refresher	LSLST003 SP	_____
INTN/A - SRTC Drains	LSMTD001 SP	_____
INTN/A - SUMMARY OF CHANGES TO SRTC DRAIN SYSTEM TRAINING	LSMTD002 SP	_____
INTN/A - SHIELDED CELLS OVERVIEW	SC010100 SE	_____
2Y EOM - SRTC Nuclear Criticality Material Custodian	SG152950 CR	_____
2Y EOM - SRTC Nuclear Material Handler	SG152951 CR	_____
2Y EOM - SRTC Nuclear Criticality Safety Training	SG152952 CR	_____
<b>Site and Regulatory Training (621)</b>		
1Y EOM - Consolidated Annual Training	CAT00000 QQ	_____
INTN/A - Fitness For Duty	HRD10101 CR	_____
INTN/A - FLM Leadership Development Program	HRD10400 CR	_____
2Y YTD - Rad Worker Level II Qualified	QHRG0000 QQ	_____
1Y YTD - Negative Pressure Respirator (Qual)	QRRP1000 QQ	_____
1Y YTD - Plastic Hood & Suit Qual (TRPG2001)	QRRP2000 QQ	_____
1Y YTD - Gen. Respiratory Prot. Qual (TRPG4001)	QRRP4000 QQ	_____
2Y EOM - Respiratory Protection Issuance	QRRP7000 CR	_____
INTN/A - OSHA Lab Standard Initial (WEB Based)	SE010304 SC	_____
INTN/A - SRTC Technical Area TRU Waste Handler	SE010401 CL	_____
INTN/A - SRTC Waste Generator- CBT	SE010402 SP	_____
INTN/A - Waste Packaging for Approved Waste Generators	SG152903 OJT	_____
INTN/A - SRTC Satellite Area Custodian	SL980013 BS	_____
INTN/A - Rw-0333p qa req. and description req. read	STGN0022 RS	_____
1Y EOM - Area Emergency Operations (AEO) For SRTC (Initial)	TERPSRTC CR	_____

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*LSD Shielded Cells Operations FLM / Lead* (215) *Card: 215Q0100*

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3Y EOM - HAZMAT-Transportation (49 CFR)	TMAMHAZI QQ	<hr/>

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**I. PREREQUISITES**

None . . .

**II. TRAINING REQUIREMENTS**

	<u>Course Number</u>	<u>Date</u>
<b>Facility Specific Training (608)</b>		
INTN/A - SRTC Drains	LSMTD001 SP	_____
INTN/A - SUMMARY OF CHANGES TO SRTC DRAIN SYSTEM TRAINING	LSMTD002 SP	_____
INTN/A - SRTC Waste Generator- CBT	SE010402 SP	_____
1Y YTD - RCRA Training for SRTC Technical Area	SE010419 SP	_____
2Y EOM - SRTC NUCLEAR MATERIAL CUSTODIAN	SG152950 SP	_____
2Y EOM - SRTC ACCOUNTABLE MATERIAL HANDLER	SG152951 SP	_____
2Y EOM - SRTC NUCLEAR CRITICALITY SAFETY TRAINING	SG152952 SP	_____
INTN/A - SRTC/TNX/AL RCRA Satellite Area(s)	SL090606 SP	_____
1Y EOM - Area Emergency Operations (AEO) For SRTC (Initial)	TERPSRTC CR	_____
<b>Site and Regulatory Training (621)</b>		
1Y EOM - Consolidated Annual Training	CAT00000 QQ	_____
INTN/A - Fitness For Duty	HRD10101 CR	_____
INTN/A - Job Hazard Analysis (Computer Based)	HRD11000 WB	_____
2Y YTD - Rad Worker Level II Qualified	QHRG0000 QQ	_____
1Y YTD - OSHA Lab Standard Training	QRIH1200 CR	_____
1Y YTD - Negative Pressure Respirator (Qual)	QRRP1000 QQ	_____
1Y YTD - Gen. Respiratory Prot. Qual (TRPG4001)	QRRP4000 QQ	_____
INTN/A - Rw-0333p qa req. and description req. read	STGN0022 RS	_____
3Y EOM - HAZMAT-Transportation (49 CFR)	TMAMHAZ1 QQ	_____
INTN/A - OJT Trainer/Evaluator Qualification	TOJTQUAL QQ	_____