WP 12-HP1325

Revision 5

Station B Canberra iCAM Alpha Continuous Air Monitor

Technical Procedure

EFFECTIVE DATE: <u>02/15/16</u>

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APPROVED FOR USE

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
0	04/22/14	• This is a new document.
1	04/29/14	• Added note above Performance heading declaring that sections can be performed in any order as necessary. • Clarified in Introduction and substeps 4.11.3 and 6.25.2 that section 8.0 is to be implemented within one hour when CAM is declared out-of-service/fails operability or functional tests. • Added substeps 4.12.6, 6.27.2 [F], and 6.30.6 directing RCT to secure CAM as directed by RCE/RCM. • Added step 6.9 directing RCM to section 7.0 if alarm set points are UNSAT. • Added in Introduction and steps 4.17 and 6.29 instruction for RCE/RCM to provide a copy of applicable attachment to FSM upon completion. • Added step 8.2 directing RCT to fill in instrument information on attachment 4. • Added in steps 8.3, 8.12, and 8.13 "/reference reading" to "background."
2	05/01/14	• Added in step 4.9 and attachment 1 LPM equivalents to CFM readings. • Added substep 5.8.2 [F] directing RCT to secure CAM as directed by RCE/RCM. • Deleted in attachment 1 note regarding change from multi-CAM to single Station B CAM data sheet. • Changed alpha alarm Level 2 and Level 3 set points from 40 DAC-h to 50,000 DAC-h in all instances in document.
3	05/02/14	• Revised 1.8 to 1.73 and 51 to 49 in step 4.9, bullet 3 and attachment 1. • Add new step 8.2 to have RCT record initials, date and time on attachment 4.

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
4	07/08/15	• Removed reference to 12-ER4903, Radiological Event Response. • Added reference to 12-ER4925, Incident Recognition and Initial Response. • Added a note above step 4.9 regarding time allowance for spectrum stabilization.
5	02/15/16	Complete rewrite to include: • Formatted the procedure to meet the requirements of WP 15-PS.2. • Converted the procedure from "Reference Use" to "Continuous Use" • Developed separate attachments for each section of the procedure, to document step "sign-offs". • Document ESS requirement denotations. • Added step to address low flow at Serra Control valve • Added Hearing Protection as a requirement for accessing the Station B Filter Housing Building, as a Precaution and Limitation. • Deleted NS-SBS-2014-02, *Station B Continuous Air Monitor (CAM) Installation and Use* as a reference, per Nuclear Safety. • Revised Section 8.0 to reflect the action level of 1500 DPM. • Revised attachment 4 to reflect the changes made in Section 8.0.

INTRODUCTION

This procedure implements the Safety Basis Supplement, ESS-2015-01 "*Post Panel/Room Closure*", which allows a real time prompt notification of abnormal radiological conditions, enabling timely execution of personnel protective measures.

This procedure provides instruction for the Operation, Operability Check, Filter Change, Functional Check, and compensatory actions to be taken when the iCAM is out of service.

Performance of this procedure generates the following record(s), as applicable. Any records generated are handled in accordance with departmental Records Inventory and Disposition Schedules.

> Attachment 1, Station B Canberra iCAM Alpha Continuous Air Monitor Operability Check Sheet

> Attachment 2, Station B Canberra iCAM Alpha Continuous Air Monitor Functional Check Sheet

> Attachment 4, Direct Frisk of Station B Filter Data Sheet

> Attachment 5, Securing Power to the CAM

> Attachment 6, Restoring Power to the CAM

> Attachment 7, Filter Change

> Attachment 8, Changing Alpha Alarm Setpoints

A copy of attachments 1 and 2 shall be provided to the FSM upon completion.

REFERENCES			
DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
Title 10 *Code of Federal Regulations* (CFR) Part 835, "Occupational Radiation Protection"	✓		
Canberra iCAM Alpha Continuous Air Monitor User Guide	✓		
Position Paper 2002-06, *Alarm Set Points for the Radiation Monitoring Instrumentation in the Remote-Handled Facility at WIPP*	✓		
Position Paper 2007-002, *Underground Continuous Air Monitor Alarm Set Points*	✓		
WP 12-HP2001, *Abnormal Radiological Conditions*		✓	
WP 12-HP1305, *Air Sampling Equipment*		✓	

REFERENCES			
DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
WP 12-HP1307, *Portable Instrument Operability Checks*		✓	
WP 12-HP4000, *Emergency Radiological Control Responses*		✓	
WP 04-EM4200, Radiological Monitoring System Alarm Response	✓		
WP 12-ER4925, *Incident Recognition and Initial Response*	✓		
JHA PROD-817, *Radiation Safety*	✓		
ESS-2015-01 *Post Panel/Room Closure*		✓	$

EQUIPMENT LIST

Model 2360/4393 Probe Dual Alpha/Beta contamination survey instrument

PRECAUTIONS AND LIMITATIONS

Only Technicians who completed the applicable Job Performance Measures (JPM's) are qualified to perform this procedure.

Hearing Protection is required when stay-time in the Station B Filter Building exceeds 15 minutes, or two hours per day.

Calibration and operability check (radioactive) sources must be registered with the iCAM instrument.

Operability checks are to be performed daily, and are valid for 24 hours. [ESS-2015-01, 4 SR 1]

The monitor is to be calibrated annually, and again after required maintenance/repair, followed by a functional test.

Functional checks are to be performed monthly. In the event a functional check is not performed as scheduled: **[ESS-2015-01, 4 SR 2]**

Documentation of the cause (e.g., power outage, not in service) shall be recorded in the Radiological Control (RC) Logbook, along with approval by the RCM/designee and FSM.

The functional check is then to be performed as soon as possible.

The iCAM monitor has a 30-minute backup battery for power interruptions.

The Station B iCAM "beta and gamma" alarm setpoints are not used.
The iCAM filter change frequency will be defined in the facility routine program.

PRE-REQUISITE ACTIONS

None

PERFORMANCE

NOTE

1. Sections of this procedure may be performed in any order.

2. Sections of this procedure are performed in conjunction with procedure WP 12-HP1305.

3. Reference Attachment 3, *iCAM Alpha Continuous Air Monitor*, for a graphic display of the unit.

4. The instrument functions are displayed along the bottom of the display screen, and are activated by depressing soft keys directly below the display.

5. A flashing green beacon, accompanied by an intermittent single-tone sound, indicates an instrument fault condition.

6. A flashing red beacon, accompanied by a two-tone sound, indicates a high radioactivity measurement alarm by the instrument.

1.0   OPERATION CONTROLS

   1.1   Local Controls

        1.1.1   **PRESS** the RESET key to:

- CLEAR an alarm condition. The alarm will reactivate if the initial alarm condition is not corrected.

- RESTART a counting measurement.

- Install a new filter.

        1.1.2   **PRESS** BACKLIGHT key to:

- ADJUST screen brightness.
- RETURN to the main display.

2.0   SECURING POWER

NOTE

Completion of steps 2.1 through 2.9 are to be recorded on attachment 5.

ESS   2.1   **($) NOTIFY** the Central Monitoring Room Operator (CMRO) prior to securing power to the CAM. **[ESS-2015-01, 4]**

2.2   **UNLOCK AND OPEN** the cabinet door using the attached key.

2.3   **SET** the battery toggle switch to the OFF position**.**

2.4   **CLOSE AND LOCK** the cabinet door.

2.5   **SET** the monitor power switch to the OFF position.

2.6   **ENSURE** monitor screen is OFF**.**

2.7   **ENSURE** the AC power indicator is not illuminated.

2.8   **GO TO** procedure WP 12-HP1305 **AND**:

   2.8.1   **PERFORM** steps 1.3.1 through 1.3.7 and SECURE power to Skid B-2.

   2.8.2   **RETURN TO** step 2.9.

2.9   **ENSURE** the following isolation valves are CLOSED:

   • EM-365-V-040
   • EM-365-V-041
   • EM-365-V-042

3.0   RESTORING POWER

NOTE

Completion of steps 3.1 through 3.8 are to be recorded on Attachment 6.

ESS   3.1   **($) NOTIFY CMRO** prior to restoring power to CAM.
[ESS-2015-01, 4]

3.2   **ENSURE** the following isolation valves are **OPEN**:

   • EM-365-V-040
   • EM-365-V-041
   • EM-365-V-042

3.3 **GO TO** procedure WP 12-HP1305 **AND**:

    3.3.1 **PERFORM** steps 1.4.1 through 1.4.11 and RESTORE power to Skid B-2.

    3.3.2 **RETURN** to step 3.4.

3.4 **UNLOCK AND OPEN** the cabinet door using the attached key.

3.5 **SET** the battery toggle switch to the ON position.

3.6 **CLOSE AND LOCK** the cabinet door.

3.7 **SET** the monitor power switch to the ON position.

3.8 **ENSURE** the green AC power light is illuminated.

ESS   3.9 **($) IF** the CAM fails to energize, **[ESS-2015-01, 4 SAC 1.B]**
THEN:

    3.9.1 **NOTIFY** the CMR.

    3.9.2 **PERFORM** SECTION 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. [ESS-2015-01, 4 SAC 1.B.1)

    3.9.3 **INITIATE** an Action Request.

    3.9.4 **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.0 OPERABILITY CHECK

NOTE

It takes at least 20 to 30 minutes for a spectrum to develop and the count to stabilize.

Completion of steps 4.1 through 4.26 are to be recorded on Attachment 1.

ESS   4.1 **($) NOTIFY** the CMRO of the operability check. **[ESS-2015-01, 4 SR 1]**

4.2 **USING** Attachment 1, *Station B Canberra iCAM Alpha Continuous Air Monitor Operability Check Sheet*, RECORD the following:

- Name of the CMRO notified, along with Date and Time of notification.

- Name of the RCT performing the notification.

- Date and Start Time of the Operability Check.

- The iCAM number.

- The iCAM calibration due date.

4.3 **IF** the CAM has been monitoring while out of calibration,
THEN:

    4.3.1 **CONTACT** the CMRO and Radiological Control Engineer (RCE)/RCM or designee,

    4.3.2 **GO TO** WP 12-HP2001 and PERFORM steps 1.1 through 1.9.

    4.3.3 **RETURN TO** section 8.0 and PERFORM steps 8.1 through 8.16. DOCUMENT results on attachment 4.

    4.3.4 **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.4 **PERFORM** a visual inspection for damage.

4.5 **IF** damage to the CAM is discovered,
THEN:

    4.5.1 **NOTIFY** the CMRO and RCE/RCM or designee.

    4.5.2 **RECORD** the damage in the comments section of Attachment 1.

    4.5.3 **VERIFY** the instrument is OPERABLE.

ESS   4.6 **($) IF** the damage has rendered the instrument INOPERABLE,
THEN: **[ESS-2015-01, 4 SR 1]**

ESS   4.6.1 **($) NOTIFY** CMRO and RCE/RCM or designee.
[ESS-2015-01, 4 SR 1]

    4.6.2 **SECURE** the CAM as directed by the RCE/RCM.

    4.6.3 **USING** Attachment 1, RECORD the following:

- OOC in the "Status Block"
- Cause of the operability failure, and corrective action(s) taken in the "Comments Section"

    4.6.4 **TAG** the instruments as "Out of Commission".

ESS   4.6.5   **($) PERFORM S**ection 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

4.6.6   **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.6.7   **INITIATE** an Action Request.

4.6.8   **EXIT** the procedure.

4.7   **VERIFY** the Monitoring Indicator light is illuminated.

ESS   4.8   **($) IF** the Monitoring Indicator light is NOT illuminated, **THEN**: **[ESS-2015-01, 4 SR 1]**

ESS   4.8.1   **($) NOTIFY** CMRO and RCE/RCM or designee. **[ESS-2015-01, 4 SR 1]**

4.8.2   **SECURE** the CAM as directed by the RCE/RCM.

4.8.3   **USING** Attachment 1, RECORD the following:

- OOC in the "Status Block"
- Cause of the operability failure, and corrective action(s) taken in the "Comments Section"

4.8.4   **TAG** the instruments as "Out of Commission".

ESS   4.8.5   **($) PERFORM S**ection 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

4.8.6   **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.8.7   **INITIATE** an Action Request.

4.8.8   **EXIT** the procedure.

4.9   **OBSERVE** the Main Display Screen. USING Attachment 1, VERIFY and RECORD the following:

- Current Main Display Screen time and date
- Instrument status reads "NORMAL"
- Air flow is within 1.73 and 2.20 cfm (49 and 60 lpm), with a nominal flow of 1.9 cfm (53.8 lpm)

4.10 **IF** the instrument status DOES NOT indicate "NORMAL",
THEN PERFORM the following:

ESS 4.10.1 **($) NOTIFY** CMRO and RCE/RCM or designee.
[ESS-2015-01, 4 SR 1]

4.10.2 **SECURE** the CAM as directed by the RCE/RCM.

4.10.3 **USING** Attachment 1, RECORD the following:

- OOC in the "Status Block"
- Cause of the operability failure, and corrective action(s) taken in the "Comments Section"

4.10.4 **TAG** the instruments as "Out of Commission".

ESS 4.10.5 **($) PERFORM S**ection 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

4.10.6 **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.10.7 **INITIATE** an Action Request.

4.10.8 **EXIT** the procedure.

4.11 **IF** flow rate cannot be established and/or maintained within the range of 1.73 – 2.20 cfm (49 and 60 lpm),
THEN:

4.11.1 **TAG** the instruments as "Out of Commission".

ESS 4.11.2 **($) PERFORM S**ection 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

4.11.3 **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.11.4 **INITIATE** an Action Request.

4.11.5 **EXIT** the procedure.

NOTE

Occasional negative alpha DAC-hour readings are normal. Continuous negative readings however are indicative of an operating problem (dusty conditions, wrong configuration settings) that shall be investigated, resolved, and documented in the RC Logbook.

4.12   **RECORD** the current alpha DAC-hour (DAC-h) reading.

NOTE
1. PRESS F1 twice to access the alarm set points.
2. PRESS F4 twice to return to normal screen.

4.13   **VERIFY** and RECORD the following Alpha alarm set points on Attachment 1.

Alpha alarm	Level 1	40 DAC-h
	Level 2	50,000 DAC-h
	Level 3	50,000 DAC-h

4.14   **IF** the alarm setpoints are incorrect,
THEN PERFORM steps 7.1 through 7.12 to adjust the setpoints.

4.15   **PRESS** F2 then F3 to access the Radium C' (RaC') peak on the monitor screen.

    4.15.1   **USE** the left or right arrows (<<< >>>) to move the cursor to locate the peak channel. Peak channel will be displayed in the upper right corner of the display.

    4.15.2   **VERIFY** Radium C' peak is between channels 178 to 188.

    4.15.3   **RECORD** Radium C' peak on Attachment 1.

    4.15.4   **PRESS** F4 twice to return to normal screen.

ESS   4.16   **($) IF** the Radium C' peak is NOT within channels 178 to 188,
THEN: **[ESS-2015-01, 4 SR 1]**

ESS   4.16.1   **($) NOTIFY** CMRO and RCE/RCM or designee.
[ESS-2015-01, 4 SR 1]

    4.16.2   **SECURE** the CAM as directed by the RCE/RCM.

4.16.3 **USING** Attachment 1, RECORD the following:

- OOC in the "Status Block"
- Cause of the operability failure, and corrective action(s) taken in the "Comments Section"

4.16.4 **TAG** the instruments as "Out of Commission".

ESS   4.16.5 **($) PERFORM S**ection 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

4.16.6 **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.16.7 **INITIATE** an Action Request.

4.16.8 **EXIT** the procedure.

4.17 **VERIFY** the following local indications:

- Instrument status reads "Normal"
- "Alarm" light is off
- "Fault" light is off
- "Muted" light is off
- "A/C power" light is on
- "Monitoring" light is on

4.18 **CONTACT** the CMRO and VERIFY:

- CAM is being monitored in the CMR.
- There is no CAM "Malfunction Indication" in the CMR.

4.19 **IF** all the local and CMR CAM indications are satisfactory, **THEN** RECORD "OK" in the status box on Attachment 1.

ESS   4.20 **($) IF** the operability check is unsatisfactory, **THEN** PERFORM the following: **[ESS-2015-01, 4 SR 1]**

ESS   4.20.1 **($) NOTIFY** CMRO and RCE/RCM or designee. **[ESS-2015-01, 4 SR 1]**

4.20.2 **SECURE** the CAM as directed by the RCE/RCM.

4.20.3 **USING** Attachment 1, RECORD the following:

- OOC in the "Status Block"
- Cause of the operability failure, and corrective action(s) taken in the "Comments Section"

4.20.4 **TAG** the instruments as "Out of Commission".

ESS 4.20.5 **($) PERFORM S**ection 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

4.20.6 **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

4.20.7 **INITIATE** an Action Request.

4.20.8 **EXIT** the procedure.

4.21 **RECORD** the stop time on Attachment 1 when all operability checks are complete.

4.22 **NOTIFY** the CMRO that the operability check is complete, and "Operable".

4.23 **RECORD** the following on Attachment 1:

- Name of the CMRO notified, along with Date and Time of notification.

- Name of the RCT performing the notification.

4.24 **GO TO** Section 5.0 and REPLACE the sample filter. **RETURN TO** step 4.25.

4.25 **COMPLETE** Attachment 1 and SUBMIT to RCE/RCM or designee for review and approval.

4.26 RCE/RCM/RCT or designee, **PERFORM** the following:

4.26.1 **SUBMIT** a copy of the reviewed and approved Attachment 1 to the Facility Shift Manager.

4.26.2 **SUBMIT** the reviewed and approved Attachment 1 to the Records Coordinator.

5.0   FILTER CHANGE

NOTE

1. The filter paper will tear if the vacuum pump on Skid B2
   (41-G-102A for Pump 1 or 41-G-102B for pump 2) is not secured prior
   to the filter change.

2. Pressing the filter release lever has the following effects:

   - Normal operation is halted.
   - The red beacon flashes to indicate abnormal operating mode.
   - Alarms are disabled.
   - A display will appear with information.

   Completion of steps 5.1 through 5.11 are to be recorded on Attachment 7.

ESS   5.1   **($) NOTIFY** the CMRO prior to initiating filter change. **[ESS-2015-01, 4]**

          5.2   **PLACE** the vacuum pump control switch in the OFF position.

          5.3   **CLOSE** isolation valve EM-365-V-041.

          5.4   **LABEL** the new filter card with the current Date and Time.

          5.5   **PRESS** the filter release lever.

          5.6   **PERFORM** the following:

                 5.6.1   **REMOVE** the spent filter card.

                 5.6.2   **ENSURE** the beveled edge of the new filter card is on the left.

                 5.6.3   **LOAD** the new filter card.

          5.7   **OPEN** isolation valve EM-365-V-041.

          5.8   **PLACE** the vacuum pump control switch to the "Pump 1" position.

          5.9   **IF** "Pump 1" does not start,
                 THEN PLACE the vacuum pump control switch to the "Pump 2" position.

5.10   **IF** "Pump 2" does not start,
THEN PERFORM the following:

5.10.1   **RECORD** the following on Attachment 1:

- OOC in the status block.
- Cause of the operability failure, and corrective action(s) taken in the "Comments" section.

ESS   5.10.2   **($) NOTIFY** the CMRO and RCE/RCM or designee.
[ESS-2015-01, 4]

5.10.3   **SECURE** the CAM as directed by RCE/RCM.

5.10.4   **TAG** the instrument as "Out of Commission".

ESS   5.10.5   **($) PERFORM** Section 8.0.   DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

5.10.6   **INITIATE** an Action Request.

5.10.7   **RECORD** the instrument inoperability and corrective actions take in the RC Logbook.

5.11   **PRESS** the RESET button.

6.0   STATION B iCAM FUNCTIONAL CHECK [Background and Efficiency]

NOTE

1. The MUTE & BACKLIGHT button may be pressed to silence any alarms.

2. The following steps require a card-mounted Americium-241 (Am-^{241}) source.

3. "CHAMPS" is the Computerized History and Maintenance Planning System.

Completion of steps 6.1 through 6.48 are to be recorded on Attachment 2.

6.1   **IF** the functional check is being performed as part of a CHAMPS work order,
THEN PERFORM the following:

6.1.1   **RECORD** the Preventative Maintenance or Action Request Number on Attachment 2, *Station B Canberra iCAM Alpha Continuous Air Monitor Functional Check Sheet*.

6.1.2   **ENSURE** the following signatures are OBTAINED and RECORDED on the CHAMPS cover sheet prior to beginning work:

- Cognizant Organization Manager (COM) Release
- Zone Maintenance Manager (ZMM) Release
- FSM Work Authorization

ESS   6.2   **($) NOTIFY** the CMRO of the functional check. **[ESS-2015-01, 4 SR 2]**

6.3   Using Attachment 2, RECORD the following:

- Name of the CMRO notified, along with Date and Time of notification.

- Name of the RCT performing the notification.

- Date and Start Time of the Functional Check.

- The CAM number.

- The CAM calibration due date.

ESS   6.4   **($) PERFORM** Section 8.0 DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

6.5   **USING** the normal display screen, PRESS the "F1" key twice.

6.6   **VERIFY** the following alarm set points.

Alpha alarm	Level 1	40 DAC-h
	Level 2 and 3	50,000 DAC-h

6.7   **IF** the alarm setpoints are SAT, **THEN:**

     6.7.1   **RECORD** "SAT" on Attachment 2.

     6.7.2   **GO TO** step 6.9.

6.8   **IF** the alarm setpoints are UNSAT, **THEN**:

     6.8.1   **RECORD** "UNSAT" on Attachment 2.

     6.8.2   **GO TO** section 7.0 and PERFORM steps 7.1 through 7.12.

     6.8.3   **RECORD** the change in alarm setpoints in the "Comments" section of Attachment 2.

     6.8.4   **RETURN TO** step 6.9.

NOTE

1. Secured Skid B-2 will result in a low flow alarm every time the iCAM is reset.

2. The sources used for this test should be placed facing up with the beveled edge to the left.

3. Down-time for Skid B-2 air sample filters should be documented on attachment 1 of WP 12-HP1305.

6.9   **PLACE** the vacuum pump control switch in the OFF position.

6.10   **ENSURE** valve EM-365-V-041 is closed.

6.11   **PRESS** the filter release lever.

6.12 **REMOVE** the filter card AND INSERT the Am^{241} source card, with the beveled edge to the left.

6.13 **PRESS** the RESET button.

NOTE

A "low flow" and quick (acute) alarm will occur at first. Acknowledge the alarm and then wait for the instrument to alarm at the normal set point.

6.14 **VERIFY** the following:

- local strobe light activates
- audio alarm activates
- CMR "High" alarm activates

6.15 **IF** the alarm functions are SAT,
THEN:

    6.15.1 **RECORD** "SAT" on Attachment 2.

    6.15.2 **CONTINUE TO** step 6.17.

6.16 **IF** the alarm functions are UNSAT,
THEN:

ESS   6.16.1 **($) NOTIFY** CMRO and RCE/RCM or designee.
              [ESS-2015-01, 4 SR 2]

    6.16.2 **SECURE** the CAM as directed by the RCE/RCM.

    6.16.3 **USING** Attachment 2, RECORD the following:

- UNSAT on the "Functional Check Results" block
- Cause of the functional failure, and corrective action(s) taken in the "Comments Section"

    6.16.4 **TAG** the instrument as "Out of Commission".

ESS   6.16.5 **($) PERFORM** Section 8.0 DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**.

    6.16.6 **RECORD** the instrument inoperability and corrective actions take in the RC Logbook.

    6.16.7 **INITIATE** an Action Request.

    6.16.8 **EXIT** the procedure.

6.17　**PRESS** the filter release lever.

6.18　**REMOVE** the Am^{241} source AND INSERT a new filter card, with the beveled edge to the left.

6.19　**PRESS** the RESET key.

6.20　**USING** the Normal Display screen:

　　6.20.1　**PRESS** F4 "CHECK".

　　6.20.2　**PRESS** CODE.

6.21　**ENTER**　password 5555.

6.22　**PRESS** the arrow keys (<<< >>>) AND SELECT "Counting/source/gamma balance".

6.23　**SELECT** the "Fixed Check" (10 minutes).

6.24　**RECORD** the alpha background on Attachment 2. PRESS EXIT twice.

6.25　**PRESS** the filter release lever.

6.26　**REMOVE** the filter card AND INSERT the Am^{241} source card, with the beveled edge to the left.

6.27　**PRESS** the arrow keys (<<< >>>), LOCATE "Alpha Calibration" AND PRESS SELECT.

6.28　**PRESS** the arrow keys (<<< >>>), LOCATE "Alpha Source", SELECT "Am^{241} Number 1" AND PRESS SELECT.

NOTE

1. The 120 second count time will have to be monitored manually by the user, for the instrument will only display at 15 second intervals.

2. The display will show "Calibration Not Verified" because the "Quick Check" does not update the efficiency.

6.29　**SELECT** "Quick Check" (15 seconds) AND STOP the source count after approximately 120 seconds has elapsed.

6.30　**RECORD** the alpha efficiency on Attachment 2, AND COMPARE it with the specified tolerance of > 25%.

6.31   **IF** the alpha efficiency is SAT,
THEN:

    6.31.1   **RECORD** "SAT" on Attachment 2.

    6.31.2   **CONTINUE** with step 6.31.

6.32   **IF** the efficiency check is UNSAT,
THEN:

ESS   6.32.1   **($) NOTIFY** CMRO and RCE/RCM or designee.
[ESS-2015-01, 4 SR 2]

    6.32.2   **SECURE** the CAM as directed by the RCE/RCM.

    6.32.3   **USING** Attachment 2, RECORD the following:

- UNSAT on the "Functional Check Results" block
- Cause of the functional failure, and corrective action(s) taken in the "Comments Section"

    6.32.4   **TAG** the instrument as "Out of Commission".

ESS   6.32.5   **($) PERFORM** Section 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

    6.32.6   **RECORD** the instrument inoperability and corrective actions take in the RC Logbook.

    6.32.7   **INITIATE** an Action Request.

    6.32.8   **EXIT** the procedure.

6.33   **PRESS** EXIT.

6.34   **PRESS** the filter release lever AND REMOVE the Am^{241} source.

6.35   **LABEL** a new filter card with the current Date and Time.

6.36   **INSERT** the new filter card, with the beveled edge to the left side.

6.37   **OPEN** isolation valve EM-365-V-041.

6.38   **PLACE** the vacuum pump control switch to the "Pump 1" position.

6.39   **IF** Pump 1 does not start,
THEN PLACE vacuum pump control switch to "Pump 2" position.

6.40 **IF** Pump 2 does not start,
THEN PERFORM the following:

ESS 6.40.1 **($) NOTIFY** CMRO and RCE/RCM or designee.
[ESS-2015-01, 4 SR 2]

6.40.2 **SECURE** the CAM as directed by the RCE/RCM.

6.40.3 **USING** Attachment 2, RECORD the following:

- UNSAT on the "Functional Check Results" block
- Cause of the functional failure, and corrective action(s) taken in the "Comments Section"

6.40.4 **TAG** the instrument as "Out of Commission".

ESS 6.40.5 **($) PERFORM** Section 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

6.40.6 **RECORD** the instrument inoperability and corrective actions take in the RC Logbook.

6.40.7 **INITIATE** an Action Request.

6.40.8 **EXIT** the procedure.

6.41 **PRESS** the EXIT and RESET keys.

6.42 **VERIFY** the instrument status on the main screen indicates "NORMAL" and RECORD "SAT" in the status block on Attachment 2.

6.43 **IF** the instrument status DOES NOT indicate "NORMAL",
THEN PERFORM the following:

ESS 6.43.1 **($) NOTIFY** CMRO and RCE/RCM or designee.
[ESS-2015-01, 4 SR 2]

6.43.2 **SECURE** the CAM as directed by the RCE/RCM.

6.43.3 **USING** Attachment 2, RECORD the following:

- UNSAT on the "Main Screen Indicates Normal" block
- UNSAT on the "Functional Check Results" block
- Cause of the functional failure, and corrective action(s) taken in the "Comments Section"

6.43.4 **TAG** the instrument as "Out of Commission".

CONTINUOUS USE

ESS   6.43.5   **($) PERFORM** Section 8.0. DOCUMENT results on Attachment 4, *Direct Frisk of Station B Filter Data Sheet,* with initial frisk within 1 hour. **[ESS-2015-01, 4 SAC 1.B.1]**

            6.43.6   **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook.

            6.43.7   **INITIATE** an Action Request.

            6.43.8   **EXIT** the procedure.

6.44   **IF** all functional checks are satisfactory,
THEN record functional check results as "SAT".

6.45   **RECORD** the "Stop Time" on Attachment 2.

6.46   **IF** unit passes functional check, **NOTIFY** CMRO that "Station "B" CAM functional check completed, unit is operational."

6.47   **RECORD** the following on Attachment 2:

- Name of the CMRO notified, along with Date and Time of notification.

- Name of the RCT performing the notification.

6.48   **COMPLETE** Attachment 2 AND SUBMIT to RCE/RCM/designee for review.

6.49   RCE/RCM/designee, **PERFORM** the following:

            6.49.1   **SUBMIT** a copy of the reviewed and approved Attachment 2 to the FSM.

            6.49.2   **SUBMIT** the original reviewed approved Attachment 2 to Records Coordinator

7.0   CHANGING ALPHA ALARM SETPOINTS

NOTE

The Alpha Alarm Setpoints are as follows:

- Level 1: 40 DAC-h
- Level 2 and 3: 50,000 DAC-h

Completion of steps 7.1 through 7.12 are to be recorded on Attachment 8.

7.1   **ENSURE** the ""Normal" screen is displayed.

7.2   **PRESS** F3 (SETUP).

7.3   **PRESS** "CODE".

7.4   **ENTER** the password 5555 as follows:

    7.4.1   **ENSURE** the pointer appears under the question (?) mark.

    7.4.2   **IF** the pointer is not under the (?),
    THEN:

- **PRESS** the arrow keys (<<< >>>) AND
- **MOVE** the pointer to the question mark to be replaced.

    7.4.3   **PRESS** EDIT to move the pointer to the number line.

    7.4.4   **IF** the pointer is not under the (5),
    THEN:

- **PRESS** the arrow keys (<<< >>>) AND
- **MOVE** the pointer to 5.

    7.4.5   **PRESS** "DONE" and an "x" will replace the question mark.

    7.4.6   **REPEAT** steps 7.4.1 through 7.4.6 until the password indicates "xxxx".

    7.4.7   **PRESS "**DONE".

7.5   **SELECT** Alarm Levels AND PRESS "EDIT".

7.6   **PRESS** the arrow keys <<< or >>> AND SELECT the desired alarm setpoint (LEVEL 1, 2, OR 3).

ESS   7.7   **($) SET** the alarm level as follows: **[ESS-2015-01, 4 SR 2]**

CONTINUOUS USE

        7.7.1   **PRESS** DIGIT.

        7.7.2   **USE** the EDIT and arrow (<<< >>>) keys to select the digit to be changed.

        7.7.3   **PRESS** EDIT.

        7.7.4   **USE** the DIGIT and arrow (<<< >>>) keys to raise or lower the selected digit.

7.8   **PRESS** DIGIT, and then press EXIT.

7.9   **REPEAT** steps 7.6 through 7.8 to change additional alarm setpoints.

7.10   **PRESS "**F1" twice to VERIFY the alarm settings.

7.11   **IF** Alarm set points are correct,
          THEN PRESS "F4" (EXIT) twice to return to the "Normal" display.

7.12   **IF** alarm the setpoints are incorrect,
          THEN:

        7.12.1   **REPEAT** steps 7.6 through 7.8.

        7.12.2   **PRESS** "F1" twice to VERIFY the alarm settings.

        7.12.3   **PRESS** "F4" (EXIT) twice to return to the "Normal" display screen

8.0 STATION B - PERFORMANCE OF INITIAL FRISK (within 1 hour) and SUBSEQUENT TWO-HOUR DIRECT FRISK

NOTE

ESS

($) The Station B CAM is monitored by, and will alarm in, the Central Monitoring Room (CMR). Any time the Station B CAM is in an alarm condition, the Radiological Control Technician (RCT) will perform Section 8.0 of this procedure within one hour of notification of the alarm if the alarm is not immediately cleared and continue to perform the actions specified in Section 8.0 until the CAM alarm condition has been "cleared", the instrument is returned to service and released for normal operation by the Facility Shift Manager (FSM) and Radiological Control Manager (RCM). **[ESS-2015-01, 4]**

Completion of steps 8.1 through 8.18 are to be recorded on attachment 4.

8.1 **ENSURE** that an operability check of the Model 2360 Portable Alpha/Beta Contamination Instrument that will be used for the following steps has been performed using WP 12-HP1307.

8.2 **USING** Attachment 4, *Direct Frisk of Station B Filter Data Sheet*, RECORD the following:

- Current Date and Time
- RCT Printed Name and Signature
- Model 2360 instrument number and calibration due data
- Model 2360 efficiencies for Alpha(α) and Beta (β)

NOTE

If the UVS is inoperable and Station B is inoperable than the initial frisk is not to be performed per ESS-2015-01, 4 SAC 1.B.2.

ESS

8.3 **($) VERIFY** with the CMRO that the UVS is operating prior to performing the following steps related to the FAS filter, and **RECORD** the time on Attachment 4,
AND IF the UVS is NOT operational the initial frisk (within 1 hour) **SHALL NOT** be performed **AND EXIT** this procedure.
[ESS-2015-01, 4 SAC 1.B.2]

8.4 On the designated skid leg, **TURN** the ball valve FULLY to the **OFF** position.

8.5 **REMOVE** the FAS collar.

ESS

8.6 **($) PERFORM** a direct frisk of the FAS filter, with Initial Frisk within 1 hour of Station B CAM becoming inoperable. **[ESS-2015-01, 4 SAC 1.B.1]**

8.7   **ENSURE** O-ring is in place.

8.8   **REPLACE** FAS collar.

8.9   **RECORD** the net counts CPM (alpha and beta) on Attachment 4.

8.10   **TURN** ball valve FULLY to **ON** position.

8.11   **VERIFY** that the flow for the designated skid leg is between 1.8 cfm and 2.2 cfm.

8.12   **IF** the flow is NOT within tolerance,
       THEN:

       8.12.1   **CONTACT** the RCE/RCM/designee

       8.12.2   **CHANGE** the filter as directed by the RCE/RCM/designee.

8.13   **CALCULATE** the disintegrations per minute (DPM), by dividing the NET counts per minute (CPM), by the corresponding 2360 instrument efficiency for each count (alpha and beta).

8.14   **RECORD** the corresponding DPM values on Attachment 4.

8.15   **IF** calculated results are LESS THAN OR EQUAL TO "1500 DPM/probe Alpha",
       THEN:

       8.15.1   **NOTIFY** CMRO of Station B direct frisk results.

       8.15.2   **SUBMIT** completed Attachment 4 to RCE/RCM/designee.

       8.15.3   **EXIT** this section of the procedure.

8.16   **IF** calculated results ARE GREATER THAN "1500 DPM/probe Alpha",
       THEN:

       8.16.1   **($) NOTIFY** RCE and FSM of potential radiological event.
                [ESS-2015-01, 4 SAC 1.C.1]

8.17   RCE, with FSM concurrence, **PERFORM** the following:

       8.17.1   **GO TO** emergency response procedure WP 12-HP4000.

Attachment 1 – **($)** Station B Canberra iCAM Alpha Continuous Air Monitor Operability Check Sheet
[ESS-2015-01, 4 SR 1]

Steps 4.1 & 4.2	CMRO Notified of the Operability Check [Name]			Date:	Time:	By (RCT):	
	OOC: ( ) Out-of-Commission OK: ( ) Operating properly			Flow rate – 1.73-2.2 CFM (49-60 LPM) with nominal reading of 1.9 CFM (53.8 LPM) RaC' peak channel - 178 to 188			
Steps 4.2 & 4.21	Date:			Start Time: Stop Time:			
	ID Number **Step 4.2**	Calibration Due **Step 4.2**	Time/ Date **Step 4.9**	Normal Condition **Step 4.9**	Air Flow **Step 4.9**	Current DAC-h **Step 4.12**	Alarm set points in DAC-h L1 / L2,L3 **Step 4.13**	RaC' Peak **Step 4.15**	Status of Step Performed or N/A **Step 4.19** **Step 4.6.3** **Step 4.8.3** **Step 4.10.3** **Step 4.16.3** **Step 4.20.3**
						α	α /		
Step 4.22 & 4.23	CMRO Notified of the Equipment Status (Name)			Date:	Time:	By (RCT):	

Attachment 1 – **($)** Station B Canberra iCAM Alpha Continuous Air Monitor Operability Check Sheet
[ESS-2015-01, 4 SR 1]

	Comments:
Step 4.25 **Step 4.26**	Performed by (Printed Name): Signature: Date/Time:
	Approved by (Printed Name): Signature: Date/Time:

CONTINUOUS USE

ISSUED

Attachment 2 – ($) Station B Canberra iCAM Alpha Continuous Air Monitor Functional Check Sheet [ESS-2015-01, 4 SR 2]

Step 6.1 PM or Action Request #:							

Steps 6.2 and 6.3 CMRO Notified of the Functional Check [Name]			Date:		Time:		By (RCT):

Step 6.3	Date:		Start Time:			Step 6.45 Stop Time:	
	CAM #:		Calibration Date:				

RADIOACTIVE SOURCE INFORMATION					
			Am-241 Source Serial #: OB315		

Step	**Parameter**	**Specification**		**SAT**	**UNSAT**
6.6, 6.7, 6.8	Alpha Alarm Set Point	Level 1 Level 2, 3	40 DAC-h 50,000 DAC-h		
6.14, 6.15, 6.16	Local Strobe Light and Audio alarm activates				
6.14, 6.15, 6.16	CMR "High" Alarm Activates				
6.24	Background	α			
6.30	Alpha Efficiency		>25%		
Step 6.44 Functional Check Results (Check One):			SAT:	UNSAT:	
Step 6.42 Verify the instrument status on the main screen indicates NORMAL			SAT:	UNSAT:	

Step 6.47 CMRO Notified of the Equipment Status [Name]	Date:		Time:		By (RCT):

Comments:

_____

_____

_____

_____

_____

Performed by (Printed Name):	Signature:	Date/Time:

Approved by (Printed Name):	Signature:	Date/Time:

Attachment 3 – iCAM Alpha Continuous Air Monitor

Red Beacon

Green Beacon

Air Outlet (2)
[behind beacon]

ALARM Indicator

FAULT Indicator

MUTED Indicator

MUTE & BACKLIGHT
and
RESET Control Keys

Serial Port

Air Outlet (1)

Air Inlet Nozzle

Filter Release Lever

Filter Card Slot

AC POWER Indicator

MONITORING Indicator

Softkeys 1-4

Door Lock

Alarm Sounder

Gland Plate

Graphics Display

*i*CAM

ALPHA/BETA AIR MONITOR

Introduction

Attachment 4 – **($)** Direct Frisk of Station B Filter Data Sheet **[ESS-2015-01, 4 SAC 1.B.1 and *4 SAC 1.B.2]**

Date / Time Step 8.2	RCT Name (Printed) and Signature Step 8.2	(2360) Instrument Number and Cal Due Date Step 8.2	2360 α eff Step 8.2	2360 β eff Step 8.2	CMR Contacted (Time) Step 8.3 If UVS is Inoperable DO NOT Frisk*	α FAS net cpm Step 8.9	β FAS net cpm Step 8.9	α FAS dpm Step 8.14	β FAS dpm Step 8.14

Reviewer: _____/_____/ _____

Printed Name   Signature   Date

CONTINUOUS USE

Attachment 5 – **($)** Securing Power to the CAM **[ESS-2015-01, 4]**

PERFORMANCE	Date/Time:	RCT Name (Printed) and Signature
Step 2.1 **($) NOTIFY** the Central Monitoring Room Operator (CMRO) prior to securing power to the CAM. **[ESS-2015-01, 4]**		
Step 2.2 **UNLOCK AND OPEN** the cabinet door using the attached key		
Step 2.3 **SET** the battery toggle switch to the OFF position**.**		
Step 2.4 **CLOSE AND LOCK** the cabinet door.		
Step 2.5 **SET** the monitor power switch to the OFF position.		
Step 2.6 **ENSURE** monitor screen is OFF**.**		
Step 2.7 **ENSURE** the AC power indicator is not illuminated.		
Step 2.8 **GO TO** procedure **WP 12-HP1305 AND**: **Step 2.8.1 PERFORM** steps 1.3.1 through 1.3.7 and SECURE power to Skid B-2. **Step 2.8.2 RETURN TO** step 2.9.		
Step 2.9 **ENSURE** the following isolation valves are **CLOSED**: • EM-365-V-040 • EM-365-V-041 • EM-365-V-042		

Reviewer: _____/_____/ _____

Printed Name Signature Date

CONTINUOUS USE

Attachment 6 – **($)** Restoring Power to the CAM **[ESS-2015-01, 4]**

PERFORMANCE	Date/Time:	RCT Name (Printed) and Signature
Step 3.1 **($) NOTIFY** the Central Monitoring Room Operator (CMRO) prior to restoring power to the CAM. **[ESS-2015-01, 4]**		
Step 3.2 **ENSURE** the following isolation valves are **OPEN**: • EM-365-V-040 • EM-365-V-041 • EM-365-V-042		
Step 3.3 **GO TO** procedure WP 12-HP1305 **AND**: **Step 3.3.1 PERFORM** steps 1.4.1 through 1.4.11 and RESTORE power to Skid B-2. **Step 3.3.2 RETURN** to step 3.4.		
Step 3.4 **UNLOCK AND OPEN** the cabinet door using the attached key		
Step 3.5 **SET** the battery toggle switch to the ON position.		
Step 3.6 **CLOSE AND LOCK** the cabinet door.		
Step 3.7 **SET** the monitor power switch to the ON position.		
Step 3.8 **ENSURE** the AC power indicator is illuminated.		

Reviewer: _____/_____/ _____
                     Printed Name   Signature   Date

Attachment 6 – **($)** Restoring Power to the CAM **[ESS-2015-01, 4]**

PERFORMANCE	Date/Time:	RCT Name (Printed) and Signature
Step 3.9 **($) IF** the CAM fails to energize, **[ESS-2015-01, 4] THEN**: Step 3.9.1 **NOTIFY** the CMR. Step 3.9.2 ($) **PERFORM** steps 8.1 through 8.16. DOCUMENT results on attachment 4 **[ESS-2015-01, 4 SAC 1.B.1]** Step 3.9.3 **INITIATE** an Action Request. Step 3.9.4 **RECORD** the instrument inoperability and corrective actions taken in the RC Logbook. **(Record "NA" when "Not Applicable")**		

Reviewer: _____/_____/ _____
        Printed Name   Signature   Date

Attachment 7 – **($)** Filter Change **[ESS-2015-01, 4]**

PERFORMANCE	Date/Time:	RCT Name (Printed) and Signature
Step 5.1 **($) NOTIFY** the CMRO prior to initiating filter change. **[ESS-2015-01, 4]**		
Step 5.2 **PLACE** the vacuum pump control switch in the OFF position.		
Step 5.3 **CLOSE** isolation valve EM-365-V-041.		
Step 5.4 **LABEL** the new filter card with the current Date and Time.		
Step 5.5 **PRESS** the filter release lever.		
Step 5.6 **PERFORM** the following: Step 5.6.1 **REMOVE** the spent filter card. Step 5.6.2 **ENSURE** the beveled edge of the new filter card is on the left. Step 5.6.3 **LOAD** the new filter card.		
Step 5.7 **OPEN** isolation valve EM-365-V-041.		
Step 5.8 **PLACE** the vacuum pump control switch to the "Pump 1" position.		
Step 5.9 **IF** "Pump 1" does not start, **THEN** PLACE the vacuum pump control switch to the "Pump 2" position.		

Reviewer: _____/_____/ _____
   Printed Name   Signature   Date

CONTINUOUS USE

Attachment 7 – **($)** Filter Change **[ESS-2015-01, 4]**

PERFORMANCE	Date/Time:	RCT Name (Printed) and Signature

Step 5.10 **IF** "Pump 2" does not start, **THEN** PERFORM the following:
Step 5.10.1 **RECORD** the following on attachment 1:
    • OOC in the status block.
    • Cause of the operability failure, and corrective action(s) taken in the "Comments" section.
 	
Step 5.10.2 **($) NOTIFY** the CMRO and RCE/RCM or designee**.**
    [ESS-2015-01, 4]
 	
Step 5.10.3 **SECURE** the CAM as directed by RCE/RCM.
 	
Step 5.10.4 **TAG** the instrument as "Out of Commission".
 	
Step 5.10.5 **INITIATE** an Action Request.
 	
Step 5.10.6 **($) PERFORM** steps 8.1 through 8.16. DOCUMENT results on attachment 4. **[ESS-2015-01, 4 SAC 1.B.1]**
 	
Step 5.10.7 **RECORD** the instrument inoperability and corrective actions take in the RC Logbook.
(Record "NA" when "Not Applicable")		

Step 5.11 **PRESS** the RESET button		

Reviewer: _____/_____/ _____
                         Printed Name   Signature   Date

Attachment 8 – **($)** Changing Alpha Alarm Setpoints **[ESS-2015-01]**

PERFORMANCE	Date/Time:	RCT Name (Printed) and Signature
Step 7.1 **ENSURE** the ""Normal" screen is displayed.		
Step 7.2 **PRESS** F3 (SETUP).		
Step 7.3 **PRESS** "CODE".		

Step 7.4 **ENTER** the password 5555 as follows:
 	
Step 7.4.1 **ENSURE** the pointer appears under the question (?) mark.
Step 7.4.2 **IF** the pointer is not under the (?), **THEN**:
  • **PRESS** the arrow keys (<<< >>>) AND
  • **MOVE** the pointer to the question mark to be replaced.
 	
Step 7.4.3 **PRESS** EDIT to move the pointer to the number line.
Step 7.4.4 **IF** the pointer is not under the (5), **THEN**:
  •**PRESS** the arrow keys (<<< >>>) AND
  •**MOVE** the pointer to 5.
 	
Step 7.4.5 **PRESS** "DONE" and an "x" will replace the question mark.
 	
Step 7.4.6 **REPEAT** steps 7.4.1 through 7.4.6 until the password is "xxxx".
 	
Step 7.4.7 **PRESS** "DONE".		

Step 7.5 **SELECT** Alarm Levels AND PRESS "EDIT".		

Reviewer: _____/_____/ _____
                    Printed Name   Signature   Date

Attachment 8 – **($)** Changing Alpha Alarm Setpoints **[ESS-2015-01]**

PERFORMANCE	Date/Time:	RCT Name (Printed) and Signature
Step 7.6 **PRESS** the arrow keys <<< or >>> AND SELECT the desired alarm setpoint (LEVEL 1, 2, OR 3).		

Step 7.7 **($) SET** the alarm level as follows: **[ESS-2015-01, 4]**
    Step 7.7.1 **PRESS** DIGIT
    Step 7.7.2 **USE** the EDIT and arrow (<<< >>>) keys to select the digit to be changed.
    Step 7.7.3 **PRESS** EDIT.
    Step 7.7.4 **USE** the DIGIT and arrow (<<< >>>) keys to raise or lower the selected digit.		

Step 7.8 **PRESS** DIGIT, and then press EXIT.		
Step 7.9 **REPEAT** steps 7.6 through 7.8 to change additional alarm setpoints.		
Step 7.10 **PRESS** "F1" twice to VERIFY the alarm settings.		
Step 7.11 **IF** Alarm set points are correct, **THEN** PRESS "F4" (EXIT) twice to return to the "Normal" display.		

Step 7.12 **IF** alarm the setpoints are incorrect, **THEN:**
    Step 7.12.1 **REPEAT** steps 7.6 through 7.8.
    Step 7.12.2 **PRESS** "F1" twice to VERIFY the alarm settings.
    Step 7.12.3 **PRESS** "F4" (EXIT) twice to return to the "Normal" display screen.
 	
(Record "NA" when "Not Applicable")		

Reviewer: _____/_____/ _____
                          Printed Name   Signature   Date