

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.*

C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

4.56.1 SEB "A3" Primary Cave Sweep Checklist

C-A-OPM Procedures in which this Attachment is used.		
4.56		

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ *Signature on File* _____
 Collider-Accelerator Department Chairman Date

P. Ingrassia

SEB "A3" PRIMARY CAVE SWEEP CHECKLIST

Team Leader (TL) _____ Operator 2 (O2) _____

Time: _____ Date: _____

Warning:

If any personnel are encountered during the sweep, **then** they will remain with the sweeper or the sweep shall be aborted. If the sweep is aborted **then** the person(s) must be escorted out of the cave by unlocking and opening the "A3" Primary Cave Gate.

Prerequisites

- Two Sweep Operators to perform the sweep.
- BNL keys, Nos. 693, 683, 6.
- "A3" PRIMARY BEAM SWEEP CHECKLIST (1 page).
- Controlled Access enabled by simultaneous operation of BNL 6 keyswitch & MCR_2-1S2 push-button.
- TLD Badge and Alarming (chirping) Self-Reading Dosimeter.
- A3 Primary toggle switch is set to CA in (Terminal Room 215 Bldg. 911B).
- Select Heavy Ion Mode using 693 key at MCR_2-1Z to run Ions in A1.
- Select PROTON Mode using 693 key at MCR_2-1Z to run protons in A3.
- A3 Primary Gate must be closed.

PERFORM EITHER THE SWEEP FOR PROTON (A3) OR ION (A1) OPERATION

Sweep for Proton Operation

Check

- 1 TL and O2 enter "A3" Primary Gate (683 key and MCR simultaneous release required) and close gate behind.
- 2 TL and O2 proceed down the labyrinth, turn right, and go to the A3 Interior U/S Gate.
- 3 If A3 Interior U/S Gate is reset, THEN go to step 17.
- 4 IF A3 Interior U.S Gate is closed THEN TL turns 683 key in keyswitch on gatebox and opens A3 Interior U/S Gate.
- 5 Sweep team proceeds through the A3 Interior U/S Gate, TL turns right and walks to upstream end of the cave.
- 6 O2 stands static watch inside A3 Interior U/S Gate.
- 7 TL enters NASA specimen room at upstream end of the A3 Primary Cave.
- 8 TL searches specimen room, then resets check station on inside (beam left) wall of cave using 683 key
- 9 TL observes reset lamp light on sweep reset station.
- 10 TL sweeps out of NASA specimen room.
- 11 TL sweeps downstream to A3 Interior U/S Gate.
- 12 TL sweeps downstream on outside (beam right) of A3 Primary Cave.
- 13 TL reaches fence separating NASA and A3 area THEN sweeps upstream on inside (beam left) of A3 Primary Cave and re-joins O2 at A3 Interior U/S Gate.
- 14 Sweep team sweeps out A3 Interior U/S Gate.
- 15 TL resets A3 Interior U/S Gate by turning 683 key in key switch.
- 16 TL observes Gate Secured Light lights.
- 17 Sweep team walks through labyrinth to A3 Interior D/S Gate.
- 18 IF A3 Interior D/S Gate is closed THEN TL turns 683 key in keyswitch on gatebox and opens A3 Interior D/S Gate.
- 19 Sweep team walks through A3 Interior D/S Gate, O2 stands static watch, and TL turns right and walks to fence at upstream end of the cave.
- 20 TL goes to the outside (beam right) of A3Q6.
- 21 TL sweeps downstream.
- 22 TL resets check station on outside (beam right) wall of cave using 683 key
- 23 TL observes reset lamp light on sweep reset station.
- 24 TL sweeps downstream to the end of the cave.
- 25 TL reverses direction and sweeps back towards A3 Interior D/S Gate.
- 26 TL resets check station on inside (beam left) wall of cave
- 27 TL observes reset lamp light on sweep reset station.
- 28 TL sweeps upstream to A3 Interior D/S Gate and joins O2.
- 29 Sweep team sweeps out A3 Interior D/S Gate.
- 30 A3 Interior D/S Gate is **NOT RESET** and should remain open.
- 31 Sweep team sweeps up labyrinth to A3 Primary Gate.
- 32 TL contacts MCR for simultaneous release (MCR_7-5) BEFORE opening A3 Primary Gate.
- 33 After simultaneous release, Sweep Team sweeps out A3 Primary Gate.
- 34 TL locks and resets (683 key) the A3 Primary Gate, making certain that the "Bolt Switch" light (clear) and the "Gate Reset" light (amber) are lit.
- 35 TL verifies with MCR that A3 Primary Gate is reset by viewing the indicator at MCR_2-1S8.
- 36 TL files the checklists in the section of the Sweep Log Binder for completed sweep checklists.

SEB "A3" PRIMARY CAVE SWEEP CHECKLIST

Team Leader (TL) _____ Operator 2 (O2) _____

Time: _____ Date: _____

Warning:

If any personnel are encountered during the sweep, **then** they will remain with the sweeper or the sweep shall be aborted. **If** the sweep is aborted, **then** the person(s) must be escorted out of the cave by unlocking and opening the "A3" Primary Cave Gate.

Prerequisites

- Two Sweep Operators to perform the sweep
- BNL keys, Nos. 693, 683, 6
- "A3" PRIMARY BEAM SWEEP CHECKLIST (1 page)
- Controlled Access enabled by simultaneous operation of BNL 6 keyswitch & MCR_2-1S2 push-button
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- A3 Primary toggle switch is set to CA in (Terminal Room 215 Bldg. 911B)
- Select Heavy Ion Mode using 693 key at MCR_2-1Z to run Ions in A1
- Select PROTON Mode using 693 key at MCR_2-1Z to run protons in A3
- A3 Primary Gate must be closed

PERFORM EITHER THE SWEEP FOR PROTON (A3) OR ION (A1) OPERATION

Sweep for Ion Operation

Check

- 1 TL and O2 enter "A3" Primary Gate (683 key and MCR simultaneous release required) and close gate behind.
- 2 TL and O2 proceed down the labyrinth, turn left, and go to the A3 Interior D/S Gate.
- 3 IF A3 Interior D/S Gate is reset, THEN go to step 18.
- 4 IF A3 Interior D/S Gate is closed, THEN TL turns 683 key in keyswitch on gatebox and opens A3 Interior D/S Gate.
- 5 Sweep team walks through A3 Interior D/S Gate, O2 stands static watch, and TL turns right and walks to fence at upstream end of the cave.
- 6 TL goes to the outside (beam right) of A3Q6.
- 7 TL sweeps downstream.
- 8 TL resets check station on outside (beam right) wall of cave using 683 key.
- 9 TL observes reset lamp light on sweep reset station.
- 10 TL sweeps downstream to the end of the cave.
- 11 TL reverses direction and sweeps back towards A3 Interior D/S Gate.
- 12 TL resets check station on inside (beam left) wall of cave.
- 13 TL observes reset lamp light on sweep reset station.
- 14 TL sweeps upstream to A3 Interior D/S Gate and joins O2.
- 15 Sweep team sweeps out A3 Interior D/S Gate.
- 16 TL resets A3 Interior D/S Gate by turning 683 key in key switch.
- 17 TL observes Gate Secured Light lights.
- 18 Sweep team walks through labyrinth to A3 Interior U/S Gate.
- 19 IF A3 Interior U/S Gate is closed THEN TL turns 683 key in keyswitch on gatebox and opens A3 Interior U/S Gate.
- 20 Sweep team proceeds through the A3 Interior U/S Gate, TL turns right and walks to upstream end of the cave.
- 21 O2 stands static watch inside A3 Interior U/S Gate.
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