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C-A OPERATIONS PROCEDURES MANUAL

4.30 Operating Directive for Resetting a Primary Area Gate on Which One Reset Circuit Has “Dropped Out”

Text Pages 2 through 5

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

4.30 Operating Directive for Resetting a Primary Area Gate on Which One “Reset Circuit” Has Dropped Out

1. Purpose

To determine whether a primary beam enclosure gate requires repair by an Access Control System Specialist after a gate reset is spontaneously lost or after a redundant door switch indicated that the gate was opened and it was not opened using a simultaneous release from the MCR.

This procedure is not applicable for gates monitored by the Particle Accelerator Safety System (PASS)

2. Responsibilities

2.1 The Coordinator shall oversee the investigation and log the results.

2.2 Shift Operations Personnel shall go to the Gate in question, and investigate the problem.

3. Prerequisites

3.1 While work is underway and an abnormal condition arises, re-review the job against criteria in applicable SBMS Subject Areas, and/or work planning requirements. If unsure of further actions, discuss situation with supervisor.

3.2 The Area has been Fully Secured (enclosure swept, and all gates reset, and “redundant resets” are reset), and a gate reset or redundant door switch drops out or the area is opened during a controlled access and a second gate loses its reset or its redundant door switch indicates that it was opened.

3.3 Qualified and trained Shift Operations Personnel.

4. Precautions

4.1 Before the area is re-swept, if so required, Shift Operations personnel must determine whether the problem gate must be repaired.

4.2 The "safest" response would be to re-sweep the area, but this would incur added radiation exposure for the sweep team. The Coordinator, working with the Shift Operations Personnel, must determine if a re-sweep is required. Below are the minimal sweep responses for this situation.

4.3 THESE DIRECTIVES INVOLVE PERSONAL SAFETY AND MUST BE FOLLOWED.

5. Procedure

Note:

Use this procedure when an area that has been Fully Secured (as defined in paragraph 3.1), loses a gate reset or a redundant door switch drops out, or when an area is opened for a controlled access entry and a second gate loses its reset or its redundant door switch indicates that it was opened.

5.1 The OC shall record the loss of the gate reset or redundant door switch AND what was done about it in the Operations Coordinators Log.

5.2 The OC shall send Shift Operations Personnel to the gate in question to determine whether anyone entered the gate and to determine whether the gate requires repair.

5.2.1 Shift Operations Personnel shall prevent entry/exit from the problem gate.

5.2.2 Shift Operations Personnel shall try to determine whether anyone tried to open the gate and why.

5.2.3 An MCR Operator shall use the Security PC at MCR_2 to determine whether the gate with the “lost reset” was opened

5.3. Clear the enclosure of workers (if any) as soon as practical.

5.4 Before starting a re-sweep, the OC shall direct Shift Operations Personnel to confirm that the gate can be reset by doing the following:

Warning:

Operation of the Redundant Reset in the following procedure steps requires that the AGS or SEB enclosure be Fully Secured AND POSSIBLY HAVE AN INVALID SWEEP because the integrity of ANY sweep cannot be guaranteed until the problem gate is operating properly.

5.4.1 Shift Operations Person (SOP) shall go to the affected gate with the appropriate gate keys and make note (Bolt Home Light) whether the slide bolt is home. See [C-A-OPM-ATT 4.1.c](#) for those gates that have a slide bolt.

5.4.2 SOP resets the affected gate,

5.4.3 MCR Operator resets the Redundant Reset (AGS and SEB gates),

5.4.4 SOP opens the gate after getting a simultaneous release from an Operator in the MCR,

5.4.5 Operator in the MCR shall look at the Security PC at MCR_2-0 and observe

5.4.5.1 Gate NOT Reset AND

5.4.5.2 Gate OPEN (RDS) indications.

5.4.6 SOP closes and RESETS the affected gate.

- 5.4.7 Operator in the MCR resets Redundant Reset (AGS and SEB gates)
- 5.4.8 Operator in the MCR shall look at the Security PC at MCR_2-0 and observe
 - 5.4.8.1 Gate Reset AND
 - 5.4.8.2 Gate CLOSED (RDS) indications.
- 5.5 IF any problems are observed during the execution of the steps in paragraph 5.3, THEN the OC shall contact an Access Control Group System Specialist for assistance.
- 5.6 Determining whether a re-sweep is required.
 - 5.6.1.1 IF the gate reset OR redundant reset has dropped out for a gate that has:
 - 5.6.1.2 A BOLT (Linac, or SEB) THAT IS HOME, THEN the Coordinator will decide that a sweep is not necessary.
 - 5.6.1.3 A BOLT (Linac, or SEB) THAT IS NOT HOME, THEN a full sweep is necessary.
 - 5.6.1.4 AN ELECTRIC STRIKE (Booster, AGS & SEB), a sweep may be REQUIRED.
 - 5.6.1.4.1 IF the Security PC shows that an AGS gate was not opened after the reset was lost then the sweep of the AGS is not necessary
 - 5.6.1.4.2 IF the Security PC shows that the gate was opened or that the state of the gate cannot be determined, THEN a sweep is necessary.
 - 5.6.1.5 IF the gate reset and the redundant reset drops out, then a full sweep is required.
- 5.7 The OC shall instruct Shift Operations Personnel to perform the appropriate re-sweep.

Note:
 Only the AGS has a Cursory Sweep Procedure ([C-A-OPM-ATT 4.56.b](#)). See [C-A-OPM-ATT 4.56.index](#) to find appropriate checklist. All other sweeps shall follow the appropriate [OPM 4.56](#) sweep checklist.

6. Documentation

- 6.1 Gate problems, the results of checks, and resultant actions will be logged in the Operations Coordinators Log.

7. References

- 7.1 Draft memo November 20, 1989 to Operations Coordinators and MCR Operators from J.W. Glenn on Guides for Responding to a "Crashed" Gate.
- 7.2 Memo December 7, 1988 to AGS Department Personnel from D. Lowenstein, "Radiation Interlock System".

7.3 [C-A-OPM-ATT 4.1.c](#) "Keys Required to Access Primary Beam Enclosures".

7.4 [C-A-OPM-ATT 4.56.index](#) "Procedure Checklist Information"

8. Attachments

None