C-A OPERATIONS PROCEDURE MANUAL

C-A TPL 05-09 TEMPORARY PROCEDURE FOR CONTROLLED AGS ACCESS DURING COOLDOWN AND OPERATION OF THE A20 COLD SNAKE

Text Pages 2 through 4

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Assoc. Chairman for ESHQ Date

P. Ingrassia

C-A TPL 05-09 TEMPORARY PROCEDURE FOR AGS CONTROLLED ACCESS DURING COOLDOWN AND OPERATION OF THE A20 COLD SNAKE

1. Purpose

1.1 The purpose of this procedure is to provide instructions to MCR staff and the CAS technicians in order to confirm that an Oxygen Deficiency Hazard (ODH) does not exist prior to allowing workers into the AGS ring. This procedure is valid while the AGS cold snake at A20 is being cooled to liquid nitrogen (LN) temperature, and while it is at operating temperature.

2. Responsibilities

2.1 The Operations Coordinator is responsible for the execution of this procedure.
2.2 The MCR operators or the CAS watch are responsible for determining whether an ODH exists in the AGS ring.

3. Prerequisites

3.1 Persons who determine whether an ODH hazard exists will be trained in the use of the Personal Oxygen Monitor (POM)
3.2 The operator and Radiological Control Technician who enter the AGS shall both carry a portable radio.
3.3 The target group for this procedure is the MCR Operators, Operations Coordinators (OC), and the CAS watch.
3.4 The training requirement for this procedure is read and sign.
3.5 The minimum number of staff members that need to be trained in order for this procedure to be effective is two, one operator or one CAS technician and one OC.

4. Precautions

4.1 Workers in the AGS will comply with all postings, including the new postings that define a potential ODH class 0 hazard in the region that extends 30 feet upstream and downstream from the A20 straight section.

4.2 The section of the AGS ring between ~B3 and ~A17 will be posted as an ODH0 area – POM required for access. Only workers trained in the use of the POM may work in that section or traverse that section of the ring .

4.3 ODH0 training requires that IF a worker observes a cloud around A20 or hears a loud noise coming from A20, THEN they must evacuate the area immediately and inform the on-duty Operations Coordinator (X4662)

4.4 The Access Controls System will continue to keep personnel out of the AGS in the event of a power outage.

5. Procedure

> Caution:
> Until a LOCAL ODH monitor is installed in the AGS tunnel -- Only Controlled Access will be permitted into the AGS during the period when the A20 snake is being cooled or is at operating tempeature.

5.1 IF an access is required to the AGS ring during the period when the Siberian snake at A20 is being cooled or is at operating temperature, THEN do the following:

5.1.1 The OC shall permit access to the AGS in the Controlled Access state only.

5.1.2 The OC shall contact the RHIC Cryogenic Control Room (X3837, X5308) and ask if their instrumentation shows any abnormal operation of the cooling process of the AGS Cold Snake.

5.1.3 The OC shall select two people to enter the AGS ring, one MCR operator OR one CAS technician (who must be POM trained), AND one Radiological Control Technician (RCT).

5.1.4 The OC will instruct the "operator" (MCR or CAS) to execute C-A OPM 4.47 "AGS Access during HEBT Operation"

5.1.5 The gate watch will tell entrants that they may not work or traverse the section from ~A17 to ~B3 without a POM.

5.1.6 The operator and the RCT will enter the AGS and go to A20.

> **Note:**
> While the operator samples the air at A20, the RCT will stand clear of the area (around the B3 main magnet) in order to provide a safety watch.

5.1.7 The operator will use the POM to sample the air at A20.

5.1.7.1 IF the POM reports the percent Oxygen content of the air is less than 19.5% THEN leave the area, and report the condition to the OC. The OC will not permit access to the AGS until a proper work plan is developed to determine the source of the ODH condition

5.1.7.2 IF the POM reports the percent Oxygen content of the air is greater than 19.5% THEN, place the chipmunk as required by OPM 4.47, allow the RCT to survey the workplaces in the ring, and report to the OC that conditions are clear for personnel access.

5.1.7.2.1 Workers must have a POM to work or traverse the section between ~B3 and ~A17 in the AGS

6. Documentation

6.1 None

7. References:

7.1 C-A OPM 4.47 AGS Access During HEBT Operation

8. Attachments:

8.1 POM operation Checklist

C-A TPL 05-09 Attachment 8.1

POM Operation Instructions

- Check the calibration date to determine if the unit may be used.
- Hold the power button to turn the unit on -- the unit will read very approximately 20.9 when it is ready.
- if not 20.9 than go outdoors and hold the AIR button until the unit reads ADJ
- Exhale a number of breaths on the sensor (right side). Observe the reading decrease.
- IF the unit alarms (19.5 and below) then silence the alarm by pressing the POWER button after it reads greater than 19.5.
- Turn the unit off when not in use by holding the power button
- Store the POMs in the drawer in the center console in MCR