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C-A OPERATIONS PROCEDURES MANUAL

15.3.3.26 Nitrogen and Transformer Yard Inspection

(Booster/AGS Ring Power Supply Systems Group Procedure EPS-S-026)

Note: This document was formerly a C-A Group Procedure. The content of the group procedure was reviewed by the Technical Supervisor. All approvals and/or issue dates of the original group procedure are maintained for present use.

Text Pages 3 through 4

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

M. Bannon

Group Procedure EPS-S-026
Revision 00

To: Siemens Operators

Subject: Transformer Yard Inspections and Nitrogen Monitoring also read new OPM 16.2.2 which is attached.

Read and sign that you have read and understand the following procedure and OPM 16.2.2

Name: _____ Date: _____

1. PURPOSE

- 1.1 To inspect the transformer yards at Bldg. 930A, 929,1000P & 1006 (STAR) for any sign of oil leakage, possible oil over-temperature problems and the proper nitrogen pressure placed on the top of the oil in transformer to prevent moisture from entering the tank.

2. SAFETY

- 2.1 Entrance into the transformer yard is strictly for inspection of the transformers for details which are covered in the following procedure section. Under no circumstances are you allowed to get close to any covered cable or expose bus or anywhere close to the tops of these transformers while they are energized. (Note: If they are not LOTO they are considered energized.)

3. PROCEDURE

- 3.1 Once a shift the transformer yards at the Booster Bldg. 930A, RF Yard @ Bldg 929, RHIC X-Y Arc @ Bldg 1006 and STAR Power Supply @ Bldg 1006 must be checked. Check for any oil leaks on cement slabs or gravel surrounding the transformers. Check the oil levels and temps of each transformer and compare them to each other and if any one either has a lower oil level or the temp seems to be running hotter than the rest notify the Siemens Operator supervisor for further investigations. Also check the amount of nitrogen is left in each bottle and record the amount on our inspection sheet. When levels get low bottles are to be swapped with full bottles and the old bottles are to be brought outside the cage area and store in the empty rack ready to be swapped when there are enough bottles ready to call in for an exchange.
 - a. Note 1, the bottle regulators are to coarse a regulator to use for regulating the 2-4 psi pressure we want to maintain on the transformers therefore after the bottle regulator we have a fine regulator where we have it set between 2-4 psi no matter what the input pressure is. Therefore we want the coarse regulator on the bottle set for approx. 10 psi which will be regulated down to 2-4 psi after our fine regulator.
 - b. Note 2, on very hot day during the summer running when the sun is beating down on the top of these transformers for hours it may be possible for the pressure to rise in the transformer tanks. We do have a pressure relief valve that will bleed slow rises in pressure in the transformers. You can also pull the head of the pressure relief valves located on the cross fitting of the stainless steel nitrogen gas plumbing located on the side of the transformer if you feel the gas pressure is to close to 5 psi and you want to bleed it down to 3-4psi.