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C-A OPERATIONS PROCEDURES MANUAL

5.14 AGS High Field Sextupole Magnets Heat Check

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Hand Processed Changes

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Approved: \_\_\_\_\_ *Signature on File* \_\_\_\_\_  
Collider-Accelerator Department Chairman Date

R. Zapasek

## 5.14 AGS High Field Sextupole Magnets Heat Check

### 1. Purpose

To be used to insure that all high field sextupole magnets are operating at the proper temperature and that all connections and buss work are assembled in the proper fashion.

### 2. Responsibilities

2.1 System specialists are responsible for the execution of this procedure.

### 3. Prerequisites

3.1 The AGS ring must be on controlled access, locked, and all gates reset, except for the south gate, to allow test team to enter ring.

3.2 MMPS LOTO performed by C-A operators, as per [C-A-OPM 2.6.6](#).

3.3 VSEXT, HSEXT magnet power supply systems are ready for operation and unlocked.

3.4 Personnel shall maintain a clearance of 3 feet from energized equipment.

3.5 Personnel shall remain in main aisle. No one is permitted on the catwalk behind the girder or on the girder itself.

3.6 Power supplies to be set to a test function of 250A DC and turned ON by MCR operators.

3.7 Three people are to enter the AGS ring to conduct the test. One person shall act as safety watch and shall wear high voltage electrical gloves.

3.8 One person shall record data and one person shall operate the heat tracer gun.

3.9 Personnel shall wear safety glasses.

### 4. Precautions

4.1 The power supply system is rated at 700 amps at 170 volts dc.

4.2 High levels of radiation exists in the test area. Limit time and distance as per good ALARA procedure.

4.3 All other equipment shall be considered to be "on".

**5. Procedure**

5.1 The heat gun will be aimed at appropriate components of the high field sextupole magnets. All buss connections shall be checked for poor connections. All coils shall be checked for abnormal operating temperatures.

**6. Documentation**

6.1 A report of all findings shall be submitted to the Operations Coordinator, Maintenance Coordinator and the systems engineer.

**7. References**

7.1 [C-A-OPM 2.6.6, "Procedure for Lockout Tagout of The AGS \(Siemens\) Main Magnet Power Supply"](#).

**8. Attachments**

None