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 available by contacting the ESSHQ Procedures Coordinator, Bldg. 911A

C-A OPERATIONS PROCEDURES MANUAL

15.3.1.6 AGS Sextupole Magnet Test Procedure

(Booster/AGS Ring Power Supply Systems Group Procedure EPS-A-006)

Text Pages 3 through 3

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.

Hand Processed Changes

HPC No.	Date	Page Nos.	Initials

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

M. Bannon

Booster/AGS Ring Power Supply Systems
Group Procedure EPS-A-006
Revision 00

15.3.1.6 AGS SEXTUPOLE MAGNET TEST PROCEDURE

EQUIPMENT REQUIRED: ***BIDDLE*** **500VDC MEGGER**
AGS PSG **RINGER- #2**
TEKTRONIX **ISOLATION PROBES-MODEL #P5200**
LECROY **OSCILLISCOPE W/PRINTER**
GROUNDING STICK
HIGH VOLTAGE RUBBER GLOVES
SAFETY GLASSES

NOTE: HIGH VOLTAGE RUBBER GLOVES MUST BE WORN FOR MEGGER

A) MEGGER TEST

Separate magnet under test from the magnet string by disconnecting dc cables.
Short both ends of magnet coils where the dc cables were attached to each other.
Connect the **POSITIVE** lead of the **MEGGER** to one end of the magnet coil.
Connect the **NEGATIVE** lead of the **MEGGER** to ground.
Turn **MEGGER** on for 30 seconds and record the resistance on the **MAGNET EVALUATION SHEET.**

B) PULSE CHECK (COIL RINGING)

NOTE: USE A LECROY SCOPE WITH A TEKTRONIX ISOLATION PROBE AND PRINT A COPY TO INCLUDE WITH THE MAGNET EVALUATION SHEET.

Set up the **DC POWER SUPPLY** for **500VDC.**
Connect the **POSITIVE** lead of the **RINGER AND ISOLATION PROBE** to one end of the magnet.
Connect the **NEGATIVE** lead of the **RINGER AND ISOLATION PROBE** to the other end of the magnet.
Turn on the **DC POWER SUPPLY.**
Turn on the **RINGER.**
Push the **RED TRIGGER BUTTON** on the **RINGER** to ring the coil, and capture it on the **SCOPE.**
Print out the result and attach it to the **MAGNET EVALUATION SHEET.**

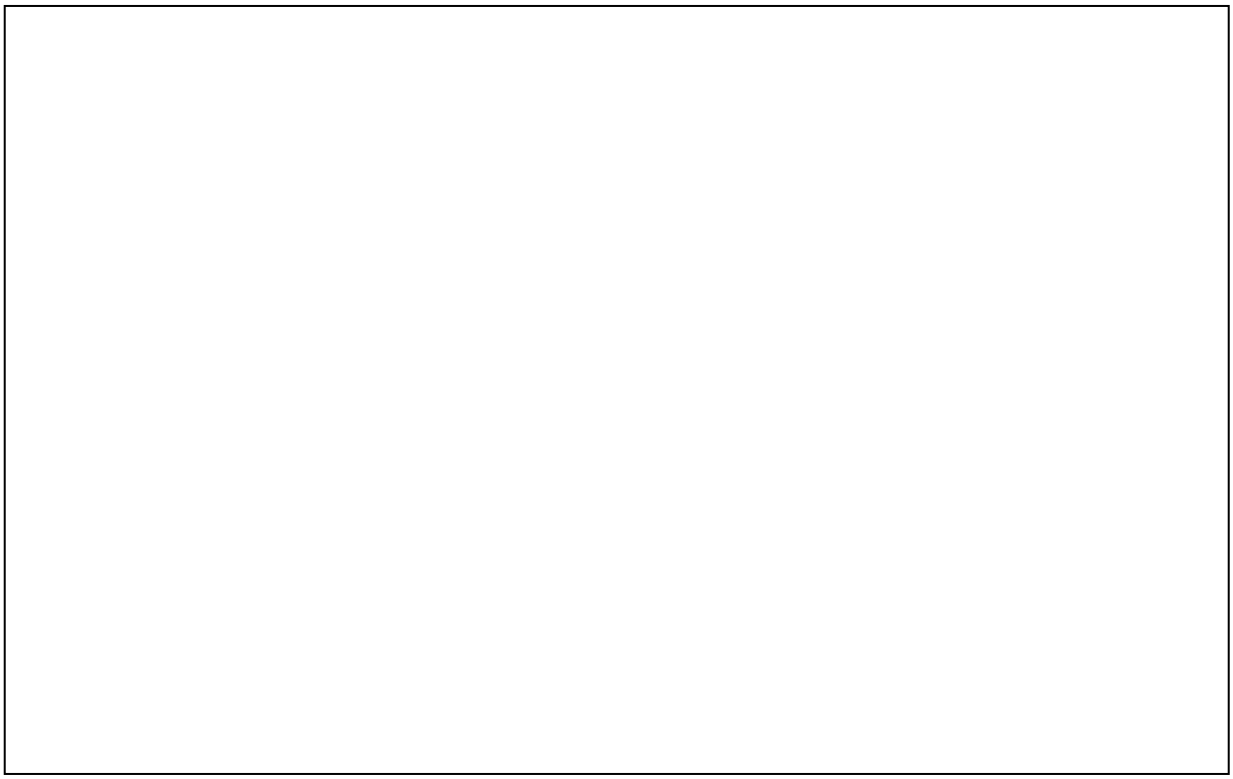
MAGNET LOCATION:_____

MEGGER TEST RESULTS _____OHMS

PASS [ ] FAIL [ ]

PULSE CHECK:

TAPE SCOPE PICTURE TO THIS SHEET



AGS SEXTUPOLE MAGNET EVALUATION SHEET

DATE OF TEST:_____

PERFORMED BY:_____

SEXTUPOLE LOCATION:_____

MEGGER TEST @500VDC:_____

BIDDLE RESISTANCE TEST:_____MILLIOHMS

KLIXON INSTALLED: YES [ ] NO [ ]

KLIXON CONTINUITY TEST TO TERMINAL STRIP: PASSED [ ] FAILED [ ]

RING TEST AFTER IT IS ON GIRDER
Attach picture to this form.

Info from pump room on flow per magnet
(note: if individual flow is done by pump room ask them for data)