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C-A OPERATIONS PROCEDURES MANUAL

16.4.4 Requirements for the FES Maintenance and Operational Check-off of Beam Elements (White Sheet)

(Collider Accelerator Support Group Procedure A.4.0)

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

<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

F. Kobasiuk

Collider Accelerator Support Group
Procedure A.4.0
Original Issue Date: 10/25/06
Revision 00

FES PROCEDURES AND INSTRUCTIONS

DATE: October 25,2006

ISSUED BY: F. Kobasiuk

SUBJECT: Requirements for the FES Maintenance and Operational Check-off of Beam Elements (White Sheet)

1. Purpose

1.1 To provide guidelines for the maintenance and operational testing of FES Equipment which are the components of a beam line element.

1.1.1 ex: power supplies, magnets, magnet monitoring systems etc.

1.2 To control the start-up of this equipment following an extended CAD Shutdown or period of construction.

1.3 To comply with the requirements of the CAD-OPM and Maintenance Program.

2. Responsibilities

2.1 The *Beam Line Liaison Engineer* is responsible for requesting the maintenance and operational testing of equipment for their respective beam-line.

2.2 The *Collider Accelerator Support Group Supervisor* /Designate is responsible for issuing the FES Maintenance and Operational Check-off of Beam Elements, related documentations and reviewing their completeness.

2.3 The CAS assigned FES Technicians are responsible for the completing the check-off.

2.3.1 The frequency for maintenance and testing is based upon the departments Operating Schedule or a request for selective element testing.

3. Prerequisites

None

4. Precautions

4.1 A check-off shall be completed *each time* that a commissioned beam line element is scheduled to run following an extended CAD shutdown or when major construction is completed in the close proximity of the equipment.

4.2 *Do not use this procedure for testing a new beam line element.* Testing of new beam line elements is accomplished thru the FES Power Supply Installation Sheet (Run and Test Sheet).

- 4.3 Do not turnover the control of any commissioned beam line element to another group prior to the completion of this check-off
- 4.4 Check with the CAD Maintenance Coordinator / Designate or operations coordinator for power limitation before testing magnets and power supplies.
- 4.5 Work assigned to another group, and unrelated to maintenance, shall be completed before assigning a check-off to maintenance personnel.

5. Procedure

- 5.1 Inspect the equipment for proper access, lighting, obstructions, ventilation, available testing power, and general cleanliness.
- 5.2 Complete the requirements of the FES Maintenance and Operational Check-off of Beam Elements by referencing the check-off notes and the procedures listed in the Reference Section below.
- 5.3 File the completed check-off with the CAS Group Supervisor and complete all additional CAS Group work progress documentations.

6. Documentation

- 6.1 The filing of the completed check-off and related documentations.

7. References

None

8. Attachments

None

FES MAINTENANCE AND OPERATIONAL CHECK-OFF OF BEAM ELEMENTS (White Sheet)

Element I.D. _____ P.S. _____ Magnet _____ Cluster _____
 C.T. _____ ADD. _____ T.S. _____ Setpoint _____ Max. _____

	Note	Checked	Date	By
P.S. Cubical	1			
External D.C. Switches	2			
Royal or Disconnect Switch	3			
Module P.S.	4			
P.S. Annunciate	5			
Hall System	6			
Magnet Inspection	7			
Water Cooling System	8			
Cover Boxes	9			
Magnet Monitor	10			
PLC/BTM	11			
I.D. Tags	12			
Magnet O.T. Interlock	13			
Ground Fault	14			
Magnet Flow Device	15			
Water Mat	16			
Magnet Warning Signs	17			
P.S. Flow Device	18			
Auto D.C. Switch	19			
Regulation	20			
Calibrate Device Card	21			
D.C.O.L. / Instant-On Set-up	22			
Circuit Breaker Trip	23			
Spec. Maint. / Instr. Complete				
Maintenance Work Orders Complete				
Copy of Maintenance to ESG Files				
Maintenance / Inspection Completed				
Element Ready for Service	24			

Special Maintenance and Instructions / Technicians Comments
 (Document Repairs and Issued Work Orders below)
