



Collider Accelerator Support Group  
Procedure A.6.0  
Original Issue Date: 02/10/04  
Revision 00

## FES PROCEDURES AND INSTRUCTIONS

DATE: February 10, 2004

ISSUED BY: W. Anderson

SUBJECT: F&ES Beam Set-up Sheet Requirements

### 1. **Purpose**

- 1.1 To provide guidelines for developing and completing an F&ES Beam Setup Sheet.

### 2. **Responsibilities**

- 2.1 The applicable Liaison Engineer provides the required information.
- 2.2 The CAS Group Supervisor develops a database with this information and issues an authorized Beam Set-up Sheet which is used by the CAS Watch. When required, an Experimental Beam Computer Setup Sheet is Attached (File 20).
- 2.3 During the normal workweek, the F&ES Electrical Services Supervisor is responsible for polarity changes that require cable reversal.
- 2.4 The CAS Watch is responsible for completing the Beam Setup Sheet.

### 3. **Prerequisites**

None

### 4. **Precautions**

None

### 5. **Procedure: (Completing a Beam Setup Sheet)**

- 5.1 The person making the request signs the Beam Setup Sheet.

**Note:**

Copies of the blank authorized Beam Setup Sheets can be printed for use from the cadcas1 operations computer

**Note:**

Certain experiments do not require a F&ES Beam Setup Sheet. Instead, special instructions for polarity and tap changes are covered by the CAD-OPM or in Section C of the F&ES Procedures and Instructions Operations manual.

- 5.2 Set all reversing, transfer, and tap switch positions to conform to the information indicated and initial the sheet confirmation box.

- 5.2.1 When required, reverse the DC cables for magnets which do not have a reversing switch.

**Warning:**

Check the F&ES Security Equipment Memos Book when reversing cables on equipment which are part of the CAD Access Control System.

**Caution:**

When reversing DC cables for magnets which have a DC transfer switch as part of the system, reverse the cables at the load side of the transfer switch.

**Note:**

When reversing cables, be sure to simulate the correct polarity status by using the PS polarity indicator switch or moving the polarity status jumper wire.

- 5.3 Reset the P.S. DCOL and Instant-on Circuits to the new operating current for all magnets which have a DC transfer switch.
- 5.4 When applicable, complete the F&ES File 20 Sheet.
- 5.5 When required, sign off the CAD-OPM Beam Line Readiness Check-off sheet.
- 5.6 The CAS Coordinator reviews, signs, and files the completed sheet into the F&ES Beam Setup Sheet Book.

**6. Documentation**

- 6.1 The F&ES Beam Setup Sheet Book
- 6.2 CAS Work Control Log

**7. References**

- 7.1 F&ES Security Equipment Memos Book
- 7.2 F&ES Procedures and Instructions Manual
- 7.3 CAD-OPM
- 7.4 CAS Group Files
- Instant-on Circuit/DCOL Setup

**8. Attachment**

- 8.1 16.4.6.a, FES Beam Set-Up Sheets (Sample F&ES Beam Setup form and F&ES Experimental Beam Computer Setup form)