

CDF Toroid Power On Access Procedure

(This is a Safety Procedure)

This procedure outlines the steps to be taken by the CDF Operations Electrical Group Leader for a power on access to the CDF Collision Hall for CDF Toroid tests.

Approvals:

(CDF Department Head)

(Date)

(Research Division Head)

(Date)

(Accelerator Division Head)

(Date)

1.0 Controlled Copies of this procedure.

Four controlled copies of this procedure will exist in the following locations:

1. CDF Operations Electrical Group Leader's office.
2. RD / CDF Department Office
3. Research Division Office
4. Accelerator Division Office

All other copies will be marked, " INFORMATIONAL COPY ONLY "

2.0 The Procedure.

The CDF Operations Electrical Group Leader (or trained designee) will execute the steps outlined below for a Toroid power on access to the CDF Collision Hall.

1. Prerequisite Conditions:

1.1. Fill out a CDF Toroid Power On Work Request Form.

A copy of the form appears in Section 3.0 of this procedure.

The request should explain why the work can't be done on a de-energized system, exactly what work will be done, which personnel will perform the work.

This form must be signed by the CDF Operations Manager and by the CDF Department Head (or designee).

The completed form must be placed in the CDF Department Office copy of this procedure.

Copies of the completed form should be placed in the SOD logbook in the CDF Control Room and attached to the Accelerator Division Safety System Power Supply Jumper Request form (see step 1.2.)

1.2. Fill out an **Accelerator Division Safety System Power Supply Jumper Request** form.

A copy of the form appears in Section 3.0 of this procedure.

The request form must be signed by the Research Division ES&H Group Senior Safety Officer.

The request form must be submitted to the Accelerator Division Safety Officer **at least 24 hours in advance of the planned access.**

1.3. Coordinate with the CDF Operations Manager.

If the CDF Collision Hall is not interlocked, have the CDF Operations Manager initiate the CDF Search and Secure Procedure with the SOD Operator in time for the planned Toroid test.

2. Once the CDF Collision Hall is interlocked, have the CDF Operations Manager initiate the request to the Accelerator Division Safety Officer (or designee) to jumper out the appropriate magnet power supply electrical permits.

3. Have the CDF Operations Manager initiate the CDF Controlled Access Procedure with the SOD Operator, **but do not start the access until step 4.**
 - 3.1. Check with the CDF Operations Manager that only people involved in the Toroid test will be allowed in the Collision Hall.

(The CDF Operations Manager controls the work lists for all accesses.)

 - 3.2. Have the CDF Operations Manager inform the SOD Operator of exceptions to the normal Controlled Access Procedure as follows:

Note: Deviations to the CDF Controlled Access Procedure are not normally allowed. This procedure and the signed **Accelerator Division Safety System Power Supply Jumper Request** form supercede the CDF Controlled Access Procedure as required.

- 3.2.1. The SOD Operator should not ask the Gas Tech to turn off the Toroids unless the specific Toroid test procedure requires that to be the initial state of the power supply.

- 3.2.2. The SOD Operator should not turn off the fan-coil recirculation units for the Collision Hall. This responsibility is transferred to the CDF Operations Electrical Group Leader (or trained designee) since some of the fans may be required in the ON state by the specific Toroid test procedure.

WARNING: If any of the fan-coil recirculation units are left ON during the Controlled Access, appropriate hearing protection is required for personnel making the access.

WARNING: Work not described on the CDF Toroid Power On Work Request Form may not be done during the access.

4. Make a Controlled Access into the CDF Collision Hall and perform the work as described on the CDF Toroid Power On Work Request Form.
5. When the Toroid Power On work is complete and the Controlled Access is complete, inform the Accelerator Division Safety Officer (or designee) and ask that the electrical permit jumper be restored for normal operations.
6. Assist the Accelerator Division Safety Officer in testing the interlocks.
 - 6.1. Ask the SOD Operator to have MCR provide the permit to the CDF Collision Hall electrical system.
 - 6.2. Turn the Toroid Power Supply On (but set at 0 current) following all appropriate procedures for the Toroids.
 - 6.3. Have the SOD Operator release the CDF Keytree door without the MCR disabling the electrical permit.
 - 6.4. Verify that the Toroid power supply tripped in step 6.3.
7. Log that the test was completed in CDF Procedure #17 (this procedure) on the checklist sheet on the front of the Toroid power supply.

8. Report that the test was completed to the SOD Operator in the CDF Control Room.
Ask the SOD Operator to inform the Accelerator MCR.

3.0 Checklist

The CDF Toroid Power On Work Request Form appears on the next page.

Copies can be found in the front pocket of the procedure binders.

The **Accelerator Division Safety System Power Supply Jumper Request** appears on the page after next.

Copies can be found in the front pocket of the procedure binders.

CDF Toroid Power On Work Request Form

1. Description of work to be performed.

Include relevant technical information.

Include relevant procedural information such as the use of guards or observers.

Include diagrams and maps if appropriate.

2. List of personnel who will do the work.

Include a statement of what each person's job will be during the access.

Specifically note which personnel will be making the Controlled Access.

Note that guards and observers may not have other responsibilities.

3. Reason(s) why this work can't be accomplished with the Toroids de-energized.

Submitted by: _____ Date: _____
(CDF Operations Electrical Group Leader or designee)

Approved by: _____ Date: _____
(CDF Operations Manager)

Approved for CDF by: _____ **Date:** _____
(CDF Department Head or designee)

Attach Pink **Accelerator Division Safety System Power Supply Jumper Request** form with completed "Requisitioner" portion.

4.0 Deviations from the Procedure

None are allowed.

5.0 Required Training and Authorized Training Personnel.

Authorized training personnel are listed below:

6.0 Training Materials.

A handout of section 2.0 should be used.

7.0 List of Trained People for this procedure.

The list of trained people for this procedure should exist in written form in the CDF Department copy of this procedure.

The list may eventually reside in a Lab-wide database as well.

8.0 References and Supporting Documentation.

None.