

Prepared by: A. Drees A. Drees
 Date: 09/20/2012
 Reviewed by: John Beavis D. Beavis
 Date: 09/20/12
 Approved by: E. Lessard for T. Roser T. Roser
E. LESSARD FOR T. ROSER Date: 9-20-12

RHIC RS Check-off List for RF cavity operation without beam in preparation for the FY2013 run

LOTO

Locks can be removed when RS check-off list is complete.

1. AD (LP) RF cavity LOTO.
 lock# 0498 tag# 7988 date 9/20/12 person P. Sampson & A. Drees

PREREQUISITES

1. _____ (ACG) Access control systems functional testing completed.
2. _____ (ACG) Any outstanding bypass has been examined, i.e. if any are left in the system they have been approved to remain.
3. _____ (ACG) Interlocks are functionally checked and satisfactory for the Landau cavities.

SHIELDING

4. _____ (LE) 4 o'clock shielding (roll-up doors covered) in place and complete.
5. _____ (LE) 4 o'clock shield wall has no vertical cracks which exceed 3/8". (Exception permitted by RSC Chair or designee.)

RADIATION MONITORING AND POSTINGS

Sign-A	Tunnel Gates: Caution, Radioactive Materials Area, Controlled Area, Entry Requirements: TLD, Exit Requirements: Activation Check
Sign-C	Fence Posting: Caution, Controlled Area, Entry Requirements Posted at Gate
Sign-D	Fence Gates: Contact RF control room for entry
Sign-G	Roof Ladder Access: Controlled Area, TLD required. Contact Building Manager for Access
Sign-H	Radiation Barriers (Patio Blocks): Caution, Facility Boundary, Contact Liaison Engineer Before Removal

6. _____ (RCD) shielding blocks erected in front of 4 o'clock roll-up doors and are posted with Sign-H.
7. _____ (RCD) 4 o'clock area RHIC tunnel access gates posted with Sign-A.
8. _____ (RCD) Fences at 4 o'clock IR posted with Sign-C. Gates posted with Sign-D. (Signs have to be permanently up.)
9. _____ (RCD) Ladder cover on 4 o'clock support building posted with Sign-G.
10. _____ (ACG) NMON250 (RF chipmunk in tunnel) is in alarm and interlocking mode while RHIC is operated without beam. It is in a mode to interlock RF critical devices when zone 4Z2 is accessible and RF enabled.
11. _____ (IG) Verify that chipmunks have been successfully tested and alarm levels are set (see table 1).

TABLE 1. Chipmunks required for RF operation in RHIC without beam.

Name	Location	Alarm Level
NMON250	At 4GI1 near rf gate for x-rays (in tunnel), no-beam only	2.5
NMON251	At gate 4GE3 (1005-S labyrinth)	2.5
NMON252	At gate 4GE2 (1004-A labyrinth)	2.5

READINESS FOR BEAM IN RHIC:

12. _____ (LP) RHIC ready for RF operation without beam.
13. _____ (MSGL) Checklist complete.

When this Check-Off List is complete RHIC RF cavities can be operated without beam.

TABLE 2. KEY

ACG	Access Controls Group: J. Reich or designee
IG	Instrumentation Group: D. Gassner or designee
LE	Liaison Engineer, Gary McIntyre, Al Pendzick or designee
LP	Liaison Physicist, A. Drees or designee
MSGL	Maintenance Support Group Leader: P. Sampson
RCD	Radiological Control Division