Prepared By:
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Reviewed by: Dana Beavis
Date: 1/25/13
Approved by: ~~1/25/13~~ Thomas Roser
T. Roser
Date: 1/25/13

ERL RSC Check-Off List for Cold Emission Testing of the ERL 5-cell Cavity

Completion of this ERL RSC Check-Off List is a prerequisite for cold emission testing and Fundamental Power Coupler (FPC) Conditioning.

Upon Completion of this check-off list and the completion of the ASSRC check-off list in the MCR the ERL cold emission testing may commence.

1. _____(LP) **RSC LOTO has been applied to prevent the 50 kW power supply from being energized. This or the equivalent must remain in place till the check-off list is complete.**

2. _____(ACIG) Chipmunk operation verified.

3. _____(RSCC) The shielding has been examined and found acceptable for the cold emission test.

4. _____(LE) ERL Block house shielding and barriers inspected and acceptable for CET and FPC conditioning operations.

5. _____(LE) The barriers are in place at both ends of the trench and posted.

6. _____(LE) The ladder at the power supply house has a locked barrier and is posted.

7. _____(RCD) Post area between West wall of the ERL and building wall as access prohibited without a RCT.

8. _____(ACG) Chipmunks required for cold emission testing have interlock function checked. (See attached list).

9. _____(ACG) PASS tests complete for ERL.

10. _____(LE) Waveguide is in place for 1MW system through penetration in second story of "condo"; the short plate on the end of waveguide is still in place, or the waveguide is connected to the SRF gun.

11. _____(RCD) Entrance gates to the ERL block house posted.

12. _____(RCD) Areas around the entrance gates roped off and posted not to enter without HP for the cavity tests.

13. _____(RCD) The support building against ERL shielding is posted as no entry without an RCT during the cavity tests.

14. _____(RCD) On the east side of ERL, the alley way between the ERL Control Room and the ERL support building must be posted .

15. _____(RCD) The door to the Klystron posted.

16. _____(LE) Area surrounding ERL posted as no ladders/no climbing.

17. _____(ACG) All bypasses or temporary jumpers in place have been discussed with the RSCC.

18. _____(ACG) ODH interlocks certified.

19. _____(LP) The items listed above have been completed.

20. _____(OC) List completion verified by on-duty operations coordinator.

When the list above is complete then cold emission testing of the ERL 5-cell cavity may begin.

When the cavity is ready to potentially generate x-rays the on-duty RCT needs to be in the area to conduct surveys of the shielding and penetrations. After the surveys have been reviewed the configuration of the area postings near the blockhouse will be determined.

RCD: Radiation Controlled Division: P. Bergh or designee. Ext:5992
LE: Liaison Engineer: D. Phillips or designee. Ext. 4671
LP: Liaison Physicist: Sergey Belomestnykh or designee. Ext: 8448
MCRGL: MCR Group Leader: Peter Ingrassia or designee. Ext. 4272
RSCC: Radiation Safety Committee Chairperson: D. Beavis or designee Ext: 7124
OC: Operations Coordinator Ext. 8061(Wencan Xu)
ACG: Access Control Group: J. Reich or designee. Ext: 5335
RCT: Radiation Control Technician
ACIG: Accelerator Components & Instrumentation Group: Tony Curcio (4659)/Joe Citro or designate.
CEE: Chief Electrical Engineer: J. Sandberg or designee. Ext: 4682
RGDC: CA RGD custodian: A. Etkin or designee. Ext: 4006
ERLGL: ERL Group Leader Ilan (5143) or Dmitry (5136)

CHIPMUNKS

Name	Location	Interlock [mrem/hr]	Alarm (mrem/hr)
NMO170	North Labyrinth	50	40
NMO171	North Gate	50	40
NMO172	1 MW Waveguide port	50	40
NMO173	50 KW waveguide area	50	40
NMO174	West cryo pipe exit	50	40
NMO175	South Gate	50	40
NMO176	South Labyrinth	50	40
NMO177	Internal to ERL 1	-	-
NMO178	Internal for ERL 2	-	-