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ERL RSC Check-Off List for Cold Emission Testing of the ECX 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. _____(IG) Chipmunk operation verified.

3. _____(ERLGL) Procedures for operation of the cavity and sweeping the area for operations.

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

5. _____(RSCC) The items missing from the final intended ERL configuration have been reviewed and approved for the cold emission test..

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

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

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

9. _____(CEE) Access control system prints acceptable for cold cavity test.

10. _____(RSCC) State tables approved.

- 11.____(RSCC) Access control system tests reviewed and approved.
- 12.____(RCD) Post area between west wall of the ERL and building wall as access prohibited without an RCT..
- 13.____(ACG) Chipmunks required cold emission testing have interlock function checked. (See attached list).
- 14.____(ACG) Verify fault detection of the 480 contactors will be area alarms and alarms to MCR and CAS.
- 15.____(ACG) PASS tests complete for ERL..
16. ____ (CEE) Review of the critical devices has been completed.
- 17.____(LE) Barrier in place for 1 MW waveguide hole and posted.
- 18.____(RCD) Entrance gates to the ERL block house posted.
- 19.____(RCD) Areas around the entrance gates roped off and posted not to enter without HP for the cavity tests.
- 20.____(RCD) The support building against ERL shielding is posted as no entry without an RCT during the cavity tests.
- 21.____(RGDC) The cavity has been registered as a radiation generating device (RGD).
- 22.____(LE) Area surrounding ERL posted as no ladders/no climbing.
- 23.____(LP) The items listed above have been completed.
- 24.____(RSCC) The list and closure of items has been reviewed with the LP.
25. ____ (OC) List completion verified by on-duty operations coordinator.

When the list above is complete then cold emission testing of the ECX 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 designate)
 LE: D. Phillips
 LP: Dmitry Kayran or designate
 MCRGL: MCR Group Leader: Peter Ingrassia (or designate)
 RSCC: Radiation Safety Committee Chairperson: D. Beavis or designate
 OC: Operations Coordinator
 ACG Access Control Group (J. Reich or designate)
 RCT Radiation Control Technician
 IG Instrumentation Group (R. Atkins or designate).
 CEE Chief Electrical Engineer (J. Sandberg or designate)
 RGDC CA RGD custodian (A. Etkin or designate)
 ERLGL ERL Group Leader
 RCD Rad. Control Div. Representative (P. Bergh or designate)

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	-	-