

Prepared By:
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**ERL RSC Check-Off List for Cold Emission Testing of the SRF gun
ERL and 5-cell Cavity**

Completion of this ERL RSC Check-Off List is a prerequisite for cold emission testing of 5-cell cavity, SRF gun, 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 and 1 MW klystron 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. ____ (RCD) Post area between West wall of the ERL and building wall with posting 'B'
7. ____ (RCD) Sweep and secure the west isle way.
8. ____ (ACG) Chipmunks required for cold emission testing have interlock function checked. (See attached list).
9. ____ (ACG) PASS tests complete for ERL.
10. ____ (RCD) The entrances to Building 912 NEBA are posted with sign 'A'.
11. ____ (RCD) The second floor access hatch to the cable ports is locked and posted with sign 'B'.

12. ____ (LP) New sweep procedure has been reviewed and approved.
13. ____ (LE) Area surrounding ERL posted as no ladders/no climbing.
14. ____ (ACG) All bypasses or temporary jumpers in place have been discussed with the RSCC.
- 15 ____ (RCD) The roof access ladder is locked and posted with sign 'C'.
16. ____ (ACG) ODH interlocks certified.
17. ____ (LP) The items listed above have been completed.
18. ____ (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: D. Kayran 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)

Radiological Postings

A→ Controlled Area, TLD Required for entry

B→ HP Escort required when ERL is operating. Contact ERL control room at ext. 3135 for ERL operating status.

C→ No roof access when ERL is operating. Contact ERL control room at ext. 3135 for ERL operating status.

CHIPMUNKS

Name	Location	Interlock [mrem/hr]	Alarm [mrem/hr]
NMO170	North Labyrinth	20	10
NMO171	North Gate	2.5	1
NMO172	1 MW Waveguide port	2.5	1
NMO173	50 kW Waveguide area	2.5	1
NMO174	West cryo pipe exit	2.5	1
NMO175	South Gate	2.5	1
NMO176	South Labyrinth	50	20
NMO177	Internal to ERL1	-	-
NMO178	Internal to ERL 2	-	-
NMO181	Gun power limit	20	10
NMO182	Power limit gun and dump	20	10