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**UED RSC Check-Off for Conditioning the Klystron and Gun without
Laser pulses to the gun.**

Completion of this UED check-off list allows the UED Klystron and gun to be conditioned with RF. It does NOT allow any users to operate the machine and only qualified system experts can operate the RF.

Upon completion of this check-off list in the MCR the RF systems experts can condition the Klystron and the gun without laser beam.

1. DB (RSCC) The signal for the Klystron tube is RS LOTOed off.
2. ____ (RFE) The UED area is swept of personnel and locked.
3. ____ (IG) Chipmunk installed with quality factor 1, readout verified, Calibration date okay, and no alarm level.
4. ____ (LE) UED bulk shielding and barriers inspected and acceptable for RF conditioning of Klystron and UED gun.
5. DB (RSCC) Concurs that shielding and barriers sufficient for test.
6. DB (RSCC) Spool piece shielding installed on Klystron and labeled.
7. DB (RSCC) HVPS and gate key mechanically attached.
8. ____ (RCD) Access gate to UED area posted as high radiation Area with UED operating.
9. ____ (RCD) Monitor TLDs (4) in place.
10. ____ (RCD) Area around UED posted as Controlled Area TLD required.
11. ____ (RSCC) Sweep procedure modified.
12. ____ (ACG) The modulator HVPS Kirk key and ODH alarm have been functionally tested and are ready for use.
13. ____ (ATFD) Laser prevented from exciting the cathode.

14. ____ (RFE) RFE acknowledges any unexpected radiation issues should be reported to the RSCC.
15. ____ (RFE) RFE acknowledges that radiation surveys will be requested when voltage above 20 kV is achieved for the Klystron. Waveguide and Klystron will have surveys for radiation.
16. ____ (RFE) RFE acknowledges that radiation surveys around the UED Area will be requested when the gun has RF voltages allow 200 kV in the gun.
17. ____ (RFE) Klystron and UED gun are ready for conditioning.
18. ____ (OC) List completion verified by on-duty operations coordinator.

When this list is complete the Kirk key can be used to start conditioning of the Klystron.

The signal for the RF tube can be unlocked and connected when this list is complete and the Analysis and Requirements Division Head notifies the RSCC that his RS LOTO can be removed. This is to ensure coordination of work plans.

Note: The Klystron HVPS key must be kept controlled. The key can only be placed into the Kirk key switch for the modulator HVPS after the UED area has been swept of personnel and the gate locked.

Access into the UED area with the Klystron can only be done under an RWP.

RCD	Radiological Control Division: P. Bergh or designee
LE	Liaison Engineer: C. Folz or designee
RSCC	Radiation Safety Committee Chairperson: D. Beavis or designee
OC	Operations Coordinator
RCT	Radiation Control Technician
IG	Instrumentation Group: M. Minty or designee
RFE	RF system expert: Mike Fulkerson or designee
ATFD	ATF Director: Mark Palmer or designee
ACG	Access Control Group: J. Reich or designee