

## NSRL turn on/off

### Each Evening prior to turning off:

1. Record in NSRL elog MW profiles in TTB for sections 27-29.
2. Record in NSRL elog the Booster efficiencies (Input, Early and Late Numbers).
3. **Open collimators and remove wires upstream of D6.**
4. Record in NSRL elog Items listed in Item 12 below.
5. Apply CA LOTO to the Booster.
6. Apply RS LOTO to the TTB and LTB Beam stops.
7. Set the Pump Room Alarm key switch to 'To Site Supervisor'.
8. Inform CAS watch that the MCR will not be occupied for the remainder of the night.
9. Set the R line PASS system controls to CA mode.
10. Instruct Tandem Operations that there will be a need for beam in the morning.

### When starting up the NSRL in the morning:

1. Examine the PASS and Security P.C. logs from the previous night.
  - a. Re-sweep any areas in the Booster or NSRL line that were accessed.
2. Turn the Pump Room Alarm keys witch to 'MCR' and inform the CAS watch that the control room is occupied.
3. Remove CA LOTO from the Booster.
4. **Make sure Active Filter is turned on after LOTO is removed**
5. Remove RS LOTO from the TTB beam stop in 914.
6. Bring up all Booster supplies to their desired values.
7. Set the R line PASS system controls to NA.
8. Turn on the D6 septum.
9. Open the TTB beam stops.
10. Check section 29 and ensure that the steering and optics correct.
  - a. Look for documentation of the last good running conditions in the elog.
11. Check that both the D6 septum and the D6 correction coil are on and at set point.
12. Insert the 063 SWIC and ensure that there is extracted beam.
  - a. Utilize the program 'SwicDisplay'.
  - b. Use the spreadsheet page /Booster/iNstrumentation/R\_line to plunge SWICs, flags and Ion Chambers.
  - c. Record the Ion chamber readback and flag picture as well as the SWIC profile in the NSRL elog.
13. Record, in the NSRL elog, pictures of the Ion chambers, SWICs and Flags at 063, 092, 158, 188, 302 and the NSRL dump.
  - a. Compare images to desired ones.
  - b. Make any steering adjustments necessary with the trim (th and tv) supplies.
    - i. Use the pet page /BOOSTER/Extraction/baF to control R line magnets.