

# E P chamber bleed up checklist

Revised 12/16/98

Date \_\_/\_\_/\_\_

Name of persons doing checklist \_\_\_\_\_

## **NOTE: ITEMS IN RED REPRESENT A POSSIBLE HAZARD TO EQUIPMENT**

Prior to beginning this checklist you should

- 1: Record the vacuum in the EP chamber in Beam line vacuum rack \_\_\_\_\_
- 2: Record the vacuum in the Moeller Beam line in Beam line vacuum rack \_\_\_\_\_
- 3: Record the vacuum in the Target chamber in Beam line vacuum rack \_\_\_\_\_
- 4: Record the vacuum in the Exit beam pipe in Beam line vacuum rack \_\_\_\_\_
- 5: Record the Vacuum in the Compton Beam line in Beam line vacuum rack \_\_\_\_\_

### **To bleed up EP vacuum chamber**

\_\_\_ Call MCC and inform them that you are taking the Hall A beam line valves to the maintenance mode in order to bleed up the E P chamber. Ask them to enter this in the E-log, and be sure to get the controller's name that took the call.

operator's name \_\_\_\_\_

\_\_\_ **Insure that all of the manual switches on the Hall A beam line Vacuum Valve control chassis located in Beam line vacuum rack \_\_\_\_\_ are in the closed position**

\_\_\_ **Turn the key to maintenance, then remove and tag the key.**

\_\_\_ Visually verify that all Hall A beam line valves are closed

\_\_\_ Close the gate valve between the EP chamber and it's turbo pump

\_\_\_ Turn off turbo pump

\_\_\_ Turn off backing pump and automatic valve

\_\_\_ **If only shutting EP system down stop here**

\_\_\_ Using dry N2 bleed up EP chamber through K F-16 VAT valve being careful not to over pressurize the chamber

## To pump down EP vacuum Chamber

- \_\_\_ Turn on backing pump and automatic valve
- \_\_\_ Open vacuum valve between EP and roughing pump
- \_\_\_ Pump EP chamber down to  $< 10$  mtorr
- \_\_\_ Verify that turbo is functioning normally
- \_\_\_ Open EP to turbo isolation valve
- \_\_\_ Close vacuum valve between EP and roughing pump
- \_\_\_ allow vacuum in the EP chamber to reach  $5 \times 10^{-4}$
- \_\_\_ verify that vacuum in the Moeller beam line is  $< 1 \times 10^{-4}$
- \_\_\_ Using the manual switch, open the beam line valve between the EP chamber and the Moeller turbo.
- \_\_\_ Using the manual switch, open the beam line valve between the EP chamber and the raster.
- \_\_\_ verify that vacuum in the EP chamber is  $\sim 1 \times 10^{-4}$
- \_\_\_ Using the manual switch, open the beam line valve between the EP chamber and the downstream end of the differential pumping station.
- \_\_\_ If the Cryo target is installed, verify that the target chamber vacuum is  $< 1 \times 10^{-4}$
- \_\_\_ If the Cryo target is installed. using the manual switch, open the beam line valves on both ends of the target chamber.
- \_\_\_ Recheck all of the Hall A vacuum systems and insure that all beam line vacuums are at least  $1 \times 10^{-4}$ .
- \_\_\_ Call MCC and inform them that you are taking the Hall A beam line valves back to the operational mode. Ask them to enter this in the E-log, and be sure to get the controller's name that took the call.  

operator's name \_\_\_\_\_
- \_\_\_ Untag and insert the key, then turn it to the operational position
- \_\_\_ Visually verify that all Hall A beam line valves are open