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C-A OPERATIONS PROCEDURES MANUAL

12.43 Vacuum Pumping MP7 - Air

Text Pages 2 through 4

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ ***Signature on File*** _____
Collider-Accelerator Department Chairman Date

C. Carlson

12.43 Vacuum Pumping MP7 - Air

1. Purpose

The purpose of this procedure is to define the sequence of activities required to vacuum pump MP-7 when it has been filled with air.

2. Responsibilities

It is the responsibility of the person or persons executing this procedure to observe all safety rules.

3. Prerequisites

The person or persons executing this procedure shall have all formal training required of a TVDG Operator.

4. Precautions

None

5. Procedure

5.1 Preliminary Activities:

5.1.1 Turn the Chart Recorders ON.

5.1.2 Record Both Tank Pressures and Storage Pressure on the Pumpout Log Sheet.

5.1.3 Set the Miran and Air Conditioning Systems to Normal.

5.1.4 In the gas house, OPEN the three EAST BANK isolation valves.

5.2 Close the Tank Doors and Vent Valve. Remove the Gas Panel Key from the LE Door.

5.3 In the Pit below MP-7, verify that All Hot and Cold Water Valves are Closed. (8 valves in all)

5.4 Insert the Radiation Source. Record Time on Pumpout Log Sheet

5.5 At the Gas Panel, Unlock V-60 with the key from the LE Door.

- 5.6 Verify that HCV-24, HCV-28 and FCV-2 are Closed.
- 5.7 Verify that HCV-54 is Open to Exhaust the Output of the Vacuum Pump to atmosphere.
- 5.8 Open HCV-2 and HCV-31.
- 5.9 Set PCV-33 to Valve and Manual and Wide Open.
- 5.10 Close Vent Valves V-45A and V-45B on the Vacuum Line.
- 5.11 Turn Both Blower Switches ON.
- 5.12 Turn Recirculator Motor OFF.
- 5.13 Start Vacuum Pump J- 105. Record Time, Tank, Pressure, LE Vac and HE Vac on Pumpout Log Sheet.
 - 5.13.1 Blower No. 1 will turn ON at 23" Vacuum. Record Time, Tank Pressure, LE Vac and HE Vac on Pumpout Log Sheet.
 - 5.13.2 Blower No. 2 will turn ON at 29" Vacuum. Record Time, Tank Pressure, LE Vac and HE Vac on Pumpout Log Sheet.
- 5.14 Continue pumping until the Tank Thermocouple Gauge reads below 300 microns.
- 5.15 When the Tank Thermocouple Gauge is below 300 microns, perform the following steps:
 - 5.15.1 Close HCV-2 and Turn Vacuum Pump OFF. Record Time, Tank Pressure, LE Vac and HE Vac on Pumpout Log Sheet.
 - 5.15.2 Check the Rate-Of -Rise on the Tank Thermocouple Gauge and enter it in the Pumpout Log. Record Time and Rate-of -Rise on Pumpout Log Sheet.
 - 5.15.2.1 If the Rate-Of-Rise is less than 25 microns per minute then proceed with step 5.15.3 below.
 - 5.15.2.2 If the Rate-Of-Rise is greater than 25 microns per minute then find and correct the source of the leak. If necessary, vent the Tank and start this procedure over from the beginning.

5.15.3 Open V-45A to vent the Vacuum Line and Pumps to Air.

5.15.4 Turn Both Blower Switches OFF and Close V-45A after venting.

5.16 Proceed to [C-A-OPM 12.40 "Filling MP-7 with SF6 Mix"](#).

6. Documentation

6.1 Complete Pumpout Log Sheet as required by this procedure.

7. References

7.1 [C-A-OPM 12.40 "Filling MP-7 with SF6 Mix"](#).

8. Attachments

None