



**CDF CRYOGENIC SYSTEM
MVCP OPERATION
JHA/WORK PERMIT**

Job Name: Cryogenic System MVCP Operation

Location: CDF Assembly Hall Main Floor Cryo Area

Job Duration: One Hour **Date Work is Performed:** _____

Work to be performed by: CDF Cryo Systems Personnel

Supervisor: _____

Phone Extensions: x 3632 (Cryo Control Room)

DESCRIPTION OF WORK:

This procedure is for instances when it is necessary to open MVCP to reduce the contamination obstructions. In order to complete this work, the procedure below is completed while adhering to the hazard mitigation requirements. A minimum of two people are required for this work.

ASSOCIATED HAZARDS:

- (1) When opening this valve, extremely cold helium vapor and possibly liquid are released. The valve and piping surfaces will remain very cold for some period of time after it is opened. Exposure of the cold fluids or surfaces to one's flesh can cause serious burns.
- (2) Pressurized helium gas at 2 psig or less per procedure. Gas or particulate in gas could possibly harm exposed skin.

HAZARD MITIGATION:

- 1) Proper personal protective equipment must be worn. This includes a face shield and cryo gloves. In addition, open toe shoes and shorts are not to be worn.
- 2) The cryo platform and the immediate cryo area is to be monitored to prevent unauthorized personnel from entering this area.
- 3) In the event that the helium pressure exceeds 2 psig during the procedure and:
 - a) If the line pressure is high and the compressor is running, close EVXHP by hitting the red crash button on RR #2.
 - b) If the line pressure is high as a result of the compressor tripping, Open MV-2005-H or open MV-2009-H and PVLFF, then close MV-201-H.

WORK PROCEDURE:

- 1) Acquire the required PPE; cryo gloves and face shields. (have a heat gun handy)
- 2) Prepare cryo system:
 - a) Silence alarms
 - b) De-energize the Solenoid and wait until the current drops below 3000 amps.
 - c) Place PVXBY in manual closed
 - d) Place PVXJT in manual closed
 - e) Place PVMF in manual closed
 - f) Put Leads in Run Mode
 - g) Set the wet engine to manual and slow it to 100 RPM
 - h) Set the dry engine to manual and slow it to 300 RPM
 - i) Place PVQR in manual to 100% open
 - j) Lower PVHIDIS set point from 0.8 psig to 0.5 psig (suction pressure)
- 3) Watch line pressure at the gauge below MVCP. Also watch the temporary pressure gauge installed at the outlet of MV-257-H.
- 4) The second person involved is to observe and call for help if something unexpected happens
- 5) Open MVCP for 15 seconds maximum.
- 6) Cycle PVMF from 0 to 100% 3 times waiting 30 seconds with it closed each time.
- 7) Recover the cryo system noting actions taken in step 2 of this procedure.
- 8) Re-power the Solenoid

Prepared by: Bill Noe Date: 2-2-08

Approved by: _____ Date: _____
CDF Operations Head

