Checklist for TPC after long shutdown: valid 7/14/2009

All tasks to be performed BEFORE pole tips are inserted.

CABLES

1. Check all cable connections on TPC face that were uncabled for maintenance work:
   - Check labels ____
   - Check ground sleeves ____

ANODES

1. Both VME processors boot and ARCNET OK ____
2. Both serial sessions OK ____
3. Ramp HV to 100 V (N2 in chamber) ____
4. All channels draw ~500 nA on ramp up? ____
5. No channels trip ____
6. Check DC current at 100 V – any new high currents? ____
7. Check hardware trip limit for all cards:
   - Inner = 1210 V ____
   - Outer = 1500 V ____
8. Test interlock from PLC

CATHODE & FIELD CAGE

1. Field cage current and voltage read out by Kiethley? ____
2. Remote power switch turns Glassman on/off? ____
3. Glassman turns on remotely? Slow controls) ____
4. Ramp Glassman to 1000V (N2 in chamber) ____
5. Check field cage currents and voltages. ____
6. Test interlock from PLC

GATED GRID

1. Both crates (control & driver) OK? ____
2. Check capacitance for each cable/sector – pin to pin & pins to ground ____

2A. Check cable ground braid to platform ground ____

3. Turn on GG – download setpoints ____
4. Pulse GG with pulser – check monitor out for all sectors ____
5. Calibrate outputs if needed. ____
6. Check that ground sleeves in back of rack are in place. ____
7. When done, ensure trigger cable from TCD is plugged in ____
8. Test interlock from PLC ____

GROUND PLANE PULSER

1. Wavetek on and downloaded pulse selected? ____
2. Downloaded pulse looks ok? (Parameters stored correctly?) ____
3. Rate limiter plugged in? ____

4. Check that rate limiter is working before plugging into fanouts ____
5. Trigger Wavetek with pulser – check all outputs from fanouts ____
6. Replace bad fanout modules. ____
7. Make sure trigger cable from TCD plugged into Wavetek ____
8. Check PLC interlock ____

FEES & MWC FEES

1. Check that all blowers in rack row 2B are running ____
2. Turn on VME crate and boot processor ____
3. Make sure all manual switches on LVPS are in remote position ____
4. Turn on all FEEs and MWC FEEs remotely. ____
5. Turn off TPC water skid – do all FEEs go off? ____
6. TPCTEMP computer running and updating? ____

LASER

1. Power on both lasers – locally ____
2. Beams aligned? ____
3. Photodiode signal ok to TCD and cathode TDC? ____
4. Check remote on/off of lasers (slow controls) ____
5. Check remote viewing of lasers ____
6. Test PLC interlock ____

TPC & GLOBAL INTERLOCKS

1. Check inner field cage air blower – on & flow switch ok? ____
2. Wet, in turn, east and west TPC Tracetek – alarm & skid stops? ____
3. Platform methane sniffer ok? Contact CAS if not ____

GAS SYSTEM

1. Close SV18 and do leak rate test with N2 ____
2. Calibrate and test trips of Pioneer methane system ____
3. Calibrate and test trip of gap methane detector ____
4. Calibrate CAI methane analyzers ____
5. Check limits and test hardware & PC alarms. ____
6. Bake out dryer & purifier ____
7. Check two big compressors ____
8. Test all gas pipe clamps and tighten ____

ELECTRONICS

1. Do a geometry run – compare to baseline ____
2.Do a pulser run – compare to baseline ____
3. Do a full pedestal run – check RMS offline ____