

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 _____