

H2 meeting 8/6/17

CW, PH, KL, PF, MT, MC, JB, AK, PW,

Operations

Result of quench test

- 1.5l liquid neon for >1week, evacuated for data-taking. Re-filled with neon within 1 day.
- System is controllable with liquid - does requires some close attention, conflict between temp and pressure regulation requires examination.
- May be a leak on gas supply – 80 to 55 bar lost over weekend – requires investigation. **Action MT** to investigate gas supply leak .
- Vent line flow indicator always shows flow at 7 l/min. MT to investigate.
- **Action on PW.** to check is hydrogen detection system sensitive to neon.
- Quench of FC yesterday.
- 185A, above 165A system tips into cryogenic loss
- quench logger triggers at start **Action AK to follow through debugging.** 4000s window issue is fixed in software and push to hardware in progress J.Wilson.
- Picologger was OK. Spikes above 170A – movement.
- No effects seen in absorber during ramp.
- After quench pressure rose from 1140 to 1155, return to 1140 within 5 mins. Time stamp in hydrogen system PLC log files requires correction when logger restarted.
- No change in insulating vacuum during quench
- Absorber temp rose by a few K, 28K to 30K at top of absorber constant where liquid is present. Check physical status on disassembly. JB to fill by tomorrow morning.
- Upper coil was 3 ohm higher impedance after 20mins, now both 8 ohm, indicated quench was in upper coil.
- No sign of stress in leads – ‘red’ indication on quench detector mimc is wrong - voltage taps may be wrong.
- **Action AK** to investigate and contact DL as appropriate.
- Decide to note parameter 2 x per day over weekend.
- Monitoring and archival of data
- Fins interface PLC will still be connected to MiceNET?

- PC with gateway? **Action PF** to prepare short doc describing proposed secure access to H2 system for ISIS.

Air ingress -MT/JB

- Next step – leak checking.
- External to FC then interspace this afternoon and Friday.

Current technical

- Refurbishment of turret in R9 – CW

PL next week.

- Refurbishment of pipework from turret to gas panel and plenum
 - Y piece - JT
 - 150mm line -CW/JT
 - H2 supply line 'boot' – MT Monday
 - Quench line support - JT to design?
- Refurbishment of gas panel.

Action JB to verify changes required.

- Refurbishment of pipework from plenum to roof and vent.
 - Support and positioning. JT to layout.
 - Testing of quench valves? **Action MT/JB** to agree and implement.
- Y piece between absorber and condenser PL.
- **Action MT** to find pins for turret connectors and pass to CMcW

Timetable

- Leak checking MT today/tomorrow
- Empty absorber Monday morning – PW by phone
- H2 supply line boot. MT/SB Monday afternoon
- PRY removal. Monday RP?
- Extraction of FC from beam line – CW Tuesday.
- Leak check of top hat before turret and absorber removal.
- Removal of turret from FC - MT/SB. Tuesday/Wednesday
- **Action CW** to arrange meeting with PW, JB, MT to discuss timetable Tues/wed next week.

Actions

Action MT to investigate gas supply leak

Action on PW. to check is hydrogen detection system sensitive to neon.

Action AK to follow through de-bugging of datalogger.

Action AK to investigate quench detector mimic and contact DL as appropriate.

Action PF to prepare short doc describing

Action MT/JB to agree and implement testing of quench valves.

Action MT to find pins for turret connectors and pass to CMcW.

Action CW to arrange meeting with PW, JB, MT to discuss timetable Tues/wed next week.

Action MT to label keys for H2 system

Next meeting

same time same place next week.

AoB

Valve locks installed in bottle cage and hydrogen cage locked, keys are now in key press in H2 room. **Action MT** to label keys.