



EB September 1st 2016

MICE Project Manager's Report

Quench Detection



- SSU and SSD QD ‘trip’ successful operation with 200mV threshold
- Adding di/dt monitors to FC
 1. allows compensation for FC ramp in SS QD system.
 2. aids in quench diagnosis
 3. single system will have measurement of all magnet currents.
- Modification to QD GUI in progress
- Diagnosis – current theory – 2 ‘signal sources’
 1. Related to Lakeshore trim supplies – possible solution
 2. Related to power supply interaction with circuit
- Alternate solutions proposed
 1. additional diodes
 2. RD pack connection point change
- FC quench logging upgrade next week – new PC



Magnet commissioning

- Modifications to FC GUIs
- Preparing for 'Josef' test
 - Run settings proposed C Rogers.
- Collaboration agrees no M2D operation this ISIS cycle.
- FC trained to 90A – ready for operation.
 - Data with FC and SSU ECE at end of last ISIS cycle
- PRY movement detectors
 - Verified draw wires against T Millington survey
 - Working to design OVC to PRY brace – J Tarrant.
 - Requires pressure vessel approval – nominated engineer.
 - Modelling progressing well.



Hall Air conditioning

- Placed and connected Unit #5 Air con from Didcot store.
- Re-charged Unit #1
- New compressor Unit #4
- Now have spare capacity and reserve

DL workload

- Warm magnet calibration
- DS calibration
- SS contactor 'sympathetic' operation
- 'Drop-outs'
- FC PS response



Water



- Roof system repairs completed inc. controls
- ‘Trench’ circuit for warm magnet power supplies
 - Completing today
 - Controls installed – programming with ISIS.
- A few too many exciting moments – better planning of fallback positions
- Tracker cryo #3&4 warmed up – gas analysis before purge.
- External chiller requires ‘doghouse’ if it is to operate as a backup without influencing RR2/RR1/MLCR air-con.
- Identified water-cooling component for Kaeser compressor potential to reduce heat load in hall.
- Kaeser compressor under test – purifying, may require further intervention.



Liquid H2



- Test of wiring mods in R9
 - Final checks and remedial actions in progress.
- Absorber bodies 'agreed good to go'
 - Final level sensor checks
 - Possible further temperature cycling.
- End-cap delivered on-schedule 21st July
 - mounted in FC cradles for access.
- Warm bore emissivity improvements – aluminium tape and foil.
- Improved feed and vent pipe placement – spacing – insulation.
- Improved contact point insulation
- Best time to install in MICE hall – Dec '16.

