



EB December 2nd 2016

Project Manager's Report

Data- taking

- MICE now operating at higher availability than ISIS?
- Magnets very stable once at current – VTs quiet significantly after period of running.
- Ramp sequentially - SS magnets first then FC.
- Magnet team developing techniques which allows operation of magnets without quenches – great care taken. Requires all magnet ramps done under Duty co-ordinator control.
- Minimise number of magnet settings.
- New issue of insulating vacuum pressure in SSD, slowly rising. Unknown source – possibly He or air. Watch and ramp magnet down if threshold 10^6 breached.

Controls & Monitoring



- Significant progress in ‘drop-out’ performance
 - Number of problem events on Lakeshore power supplies reduced by factor ~200
 - Detect out of range readings and discard – deals with remaining drop outs, now zero drop-outs in archiver.
 - Now require to apply the same fixes to the AMI current controllers for the M coils.
- Dipoles calibrated.
- SSU M1 noise alleviated sufficiently to run magnets.
 - Problem not replicated.
- Voltage taps which are not used have now been disconnected from QPS physically and in software to reduce coupled noise
- Trench water issues traced and fixed.



Safety

- Unexpected ramp event during testing
 - Duty co-ordinator system caught and corrected problem
 - Resulted in SoPS (serious or potentially serious) event
 - Technical report now complete and posted to SHE website. Combination of unclear rules and imprecise application – now fully clarified and improved.
- 2 main actions outstanding
 - Review of MICE safety management
 - Staff in place – likely to run into new year.
 - Paperwork progressing
 - Organisation perhaps slightly lagging.
 - Rolling review of MICE C&M

Liquid Hydrogen



- FC end caps installed – leak found and cured.
- H₂ system leak tight.
- R9 chiller re-commissioned and cryo-coolers plumbed and operational.
- Cooldown reached less than 40K
- Stage 2 of cryo-cooler at 22K.
- Absorber return heater used to estimate heat load.
 - ~8W heat load from Cold box
 - cold touch – 2 possible treatable sources found
 - Copper braid
 - Stainless pipe
 - 1 week turnaround
 - ~8W heat load from absorber
 - remove pre-cool lines ~ 1/3rd reduction in radiation load.



Cooling cell - Mechanical



- Magnets and PRY all bolt torques checked
- Few 'missing' bolts placed and torqued– bolts omitted from original fit–up due to slight mis–alignments, now corrected.
- PRY support bolts **not** torqued as these affect alignment of assembly – may affect re–assembly when plates removed for absorber changes for instance.
- Plan to re–position SS magnets next shutdown
 - Eases Absorber changes.
- Magnet to PRY braces complete, 2 of 6 placed – not in use – yet. Awaiting pressure vessel approval followed by collaboration approval.

