



Science & Technology
Facilities Council

Project Managers Update

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MICE Video Conference, December 12th 2013

MICE Update

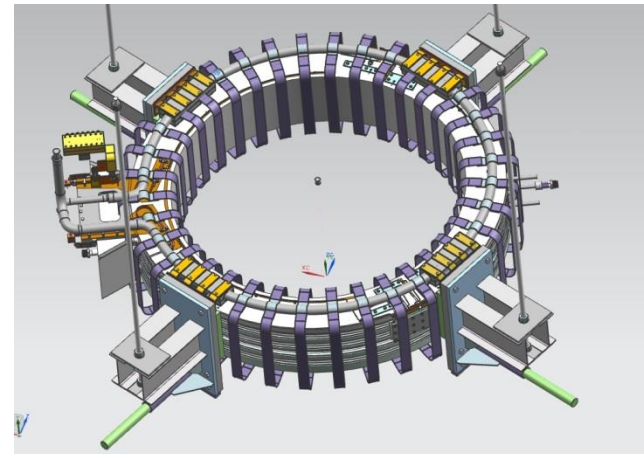
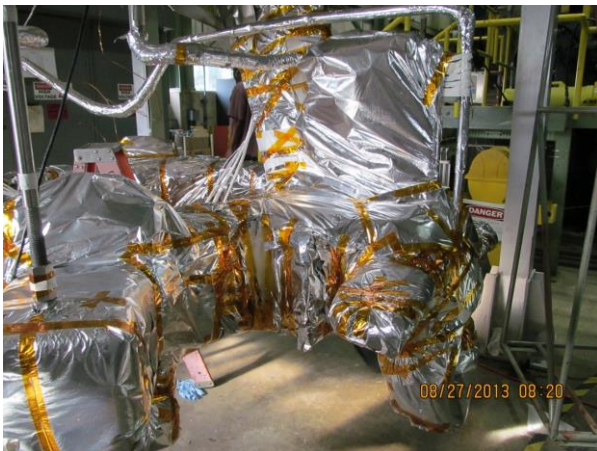
- Spectrometer Solenoid Magnets
 - First Magnet fully trained and delivery to RAL early October 13.
 - Currently having leak and continuity testing
 - Tracker detector installation started this week
 - Second magnet in the process of being trained
 - Some issues with HTS lead failures relating to bad thermal intercepts.
 - Before HTS issue the magnet was training well, with 30A increases in current each quench
 - Two HTS leads are being replaced after full testing
 - Intention to pump over the Christmas period and re-cool in the new year.
 - Training and mapping by March
 - Arrival at RAL planned for May
- RF
 - First amplifier fully tested to 2 MW at Daresbury Lab
 - All equipment shipped to RAL and has been installed.
 - Testing has started.
 - ***More detail from Tim later in the meeting***

MICE Update

- Focus Coil Magnets
 - First magnet has some issue with training, just reaching the lower level of acceptance – no stable operation.
 - Second magnet is at RAL and in the process of being cooled.
 - Issues found with the temperature of the radiation shield
 - LHe fill was carried out but boiled off in a 3 hour period.
 - Junction of the cooler 1st stage to intercept is good – temps to within 0.5K of each other.
 - Cold spot found on the bore of the magnet – investigations by Tesla are underway
 - Thermal camera
 - Weld leak checks
 - After investigation the magnet will need to go back to Tesla for disassembly and fix
 - 2 - 3 month turn around, including shipping and re-cooling at RAL
 - Focus Coil 1
 - Tesla technicians onsite to fit the insulation that was missing from the coolers
 - Re-tension the cold mass supports
 - During FC2 fix, FC1 to be re-mounted, re-cooled and powered.

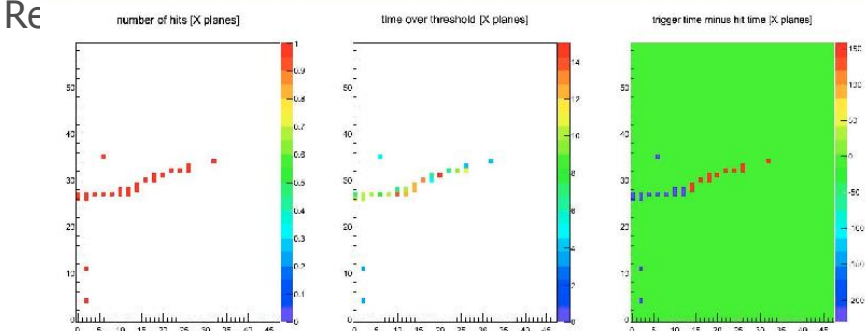
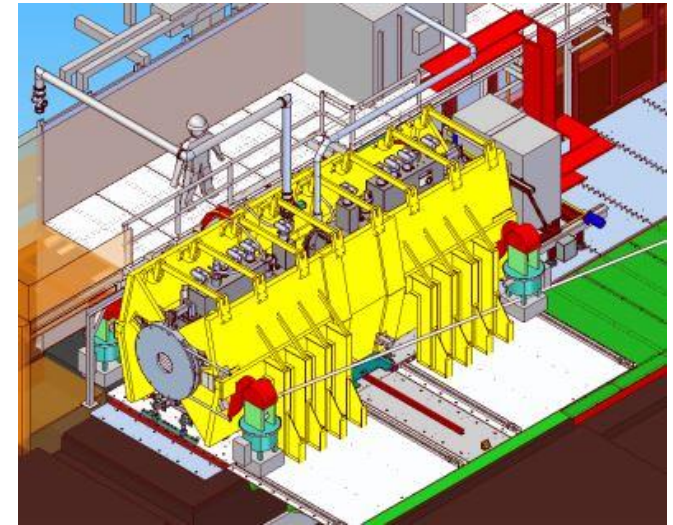
MICE Update

- Coupling Magnets
 - Large heat load on the coil, 60w – 70w
 - Attributed to the MLI wrapping, probably to tight and no pump out points
 - Radiation shield being manufactured and will be installed
 - Active cooling of the shield from the He exhaust gas tube
 - MLI sheets being manufacture offsite
 - Installation by external effort with instruction given to Fermi techs
 - Remainder will be installed by Fermi techs
 - Cooling intended for the end of January 14 with the testing completed by end Feb 14



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- Partial Return Yoke
 - Design for the Step IV installation nearing completion (Brookhaven and RAL.)
 - Orders for material will be placed soon.
 - Production readiness review scheduled for the new year.
 - Full installation before the commencing channel commissioning in August 2014.
- Decay Solenoid
 - Have had a LTS lead failure, fix scheduled during the Christmas shutdown.
 - New power supply purchased and ready for installation.
- EMR
 - Successfully shipped and installed.
 - Data runs have been successfully completed.
 - Re



MICE Update

- **Schedule and Milestones**
 - Spectrometer Solenoid (Downstream) still on track to achieve the May 14 delivery milestone
 - Focus Coil 2 will have a probable 2 – 3 month delay.
 - Will not be on the critical path
 - South side PRY completion late August 14
 - Installation after South side possible, and probably better due to space.
 - So we have time.
 - PRY start installation on the South side June 14
 - Installation south side completed late August 14
 - Installation of the North side completion late October 14
 - Services installed along South side
 - Powering of the magnets can start when full PRY has been installed
 - Step IV
 - Commissioning starts after the PRY fully installed
 - Commissioning continues until end Jan 15
 - User run starts March 15