

		Active Risk	12					Retired Risk			13		
ID	Risk Description	Potential impact on project	Risk score			Ownership	Proposed Action	Post-action risk score			Comment / Conclusion		
			L	I	LxI			L	I	LxI			
			MICE 3	Magnetic field effecting operation of electrical equipment relating to the continued operation of the cooling channel magnet systems and detectors.	Inability to operate the cooling channel			5	5	25		MICE - UK / MAP	Installation of a partial return yoke has mitigated the major risk. Movement of the control and power supply equipment to a dedicated room outside of the magnetic field.
MICE 4	Extended period of re-training for the lattice of magnets for Step IV - SS1/AFC/SS2.	Timescales for the training period, cost of the amount of LHe required to carry out the training the availability of the Lhe. Expert personnel required to be available for magnet operations over a protracted period of time.	4	5	20	MICE-UK / MAP	Discussions with BOC (or supplier) to agree delivery timescales and availability during heavy use periods. Magnet integration task force to define commissioning method to keep schedule and cost to a minimum.	4	4	16	Each re-cool and fill of the Spectrometer Solenoid can take upto 500l LHe, AFC remembers it's training. Each full lattice quench could cost in the region of £7K. Initial investigations with BOC show that the predicted amount of LHe will be available during the commissioning period.		
MICE 8	Resourcing issues from the STFC and national labs	inability to complete significant sections of work on agreed time or cost scales.	4	5	20	MICE - UK / MAP	Realised. Escalation of the issue to the STFC and DOE.	2	4	8	Project scope has changed leading to a different labour profile required to complete the project.		
MICE 16	Failure of a Focus Coil Magnet	Internal cold mass or associated equipment deep within the assembly. LTS leads.	3	5	15	MICE UK	Follow all specific operational aspects as defined by the experts for the superconducting magnet	1	5	5	Transportation, dis-assembly, investigation, fix and reassembly would be extremely costly and extensive with regard to schedule. A spare magnet would be out of the reach of the project. A repair intervention would be 12 months including testing and commissioning and manufacture of new magnet system, test and commission around 2 years.		
MICE 17.1	Failure of Upstream Spectrometer Solenoid Magnet	Internal cold mass or associated equipment deep within the assembly. LTS leads.	4	5	20	MAP	New quench protection system	1	5	5	Has the same design issues as SSD, confidence improving with operation and testing with forces.		
MICE 19	Failure of M2 in SSD.	Reduction in scientific output and resulting cooling effect.	3	4	12	MICE-UK / MAP	Maximise data collection before running M2.	2	4	8	Consider completing data set for one absorber.		
MICE 20	Failure of Helium space feedthrough in SSD.	Reduction in scientific output and resulting cooling effect.	3	4	12	MICE-UK / MAP	Limit number of quenches	2	4	8			
MICE 23	Risk of equipment failure/breakage	Cost of repair/replacement. Time lost during recovery	3	3	9	MICE UK	Spares inventory / proper planned maintenance	3	1	3	to some degree inevitable due to age of equipment		
MICE 24	Problems during magnet string commissioning	Further compromise of SSD / Delays to program	3	5	15	MICE UK	Conservative magnet settings.	3	3	9	Always recognised as a challenge - complicated and exacerbated by SSD situation		
MICE 28	Inability to cool absorber to required temp	No H2 absorber / reduced science	3	5	15	H2 Group	Heat load modelling/design revision	2	5	10	improvements to heat load design.		
MICE 29	Further compromise of SSD performance	Slower data-taking, more remedial action required	3	5	15	MICE-UK / MAP	Power supply improvements, feedthrough heating improvements.	3	5	15	Anomalous earth leakage and noise seen - now absent, but as yet unexplained.		
MICE 30	Insufficient international manpower available.	Delay in remediation of non-UK assets and associated reduction in effort on other tasks.	4	3	12	MICE-UK / MAP	Discussion with international management to maximise staff availability.	3	3	9	Long standing issue.		