

Spectrometer Solenoid Magnet interlock check list

Controls Interlocks
Hardware

CAN Controller	Module	Interlock	Magnet	Description	Trip level set	Pre-powering Healthy	Tripped	Powered Tripped	Post-Powered Latch Trip	Initials	Comments
1A	1	6 SSD	PPS PSU Guardline A		-	✓	✓	✓	✓	SKS	
1A	1	7 SSD	PPS PSU Guardline B		-	✓	✓	✓	✓	SKS	
1B	2	1 SSD	SD01 Temperature		44.0K	✓	✓	✓	✓	SKS	
1B	2	2 SSD	CX13 Temperature		72.5K	✓	✓	✓	✓	SKS	
1B	2	3 SSD	LHe Level		30%	✓	✓	✓	✓	SKS	
1B	2	4 SSD	Dump Water Flow		3.8l/min	✓	✓	✓	✓	SKS	RISK if bottom probe is selected
1B	2	5 SSD	Chiller Status		-	✓	✓	✓	✓	SKS	Flow is 300 l/hr (5 l/min)
1B	2	6 SSD	PSU Rack Temperature		35°C	✓	✓	✓	✓	SKS	Could only remove interlocks, could not fail chiller
1B	2	7 SSD	Vac G05 < E-6		1x10 ⁻⁶ mbar	✓	✓	✓	✓	SKS	
1B	2	8 SSD	Dump Rack Temp		35°C	✓	✓	✓	✓	SKS	
3A	5	1 SSD	M1 PSU Temp		70°C	✓	✓	✓	✓	SKS	Poor connection to thermostat, thermostat replaced
3A	5	2 SSD	M2 PSU Temp		70°C	✓	✓	✓	✓	SKS	Poor connection to thermostat, thermostat replaced
3A	5	3 SSD	Ctrt PSU Temp		70°C	✓	✓	✓	✓	SKS	Poor connection to thermostat, thermostat replaced
3A	5	4 SSD	DA1 Dump Temp		70°C	✓	✓	✓	✓	SKS	
3A	5	5 SSD	DA2 Dump Temp		70°C	✓	✓	✓	✓	SKS	
3A	5	6 SSD	DA3 Dump Temp		70°C	✓	✓	✓	✓	SKS	
3A	5	7 SSD	DA4 Dump Temp		70°C	✓	✓	✓	✓	SKS	
3B	6	1 SSD	PSU Ground Fault		-	✓	✓	✓	✓	SKS	Not been verified
3B	6	2 SSD	QPS Mains		-	✓	✓	✓	✓	SKS	System needs to be reconfigured for true n+1 redundancy
3B	6	3 SSD	QPS 24V PSU1		-	✓	✓	✓	✓	SKS	System needs to be reconfigured for true n+1 redundancy
3B	6	4 SSD	QPS 24V PSU2		-	✓	✓	✓	✓	SKS	System needs to be reconfigured for true n+1 redundancy
4A	7	6 SSU	PPS PSU Guardline A		-	✓	✓	✓	✓	SKS	
4A	7	7 SSU	PPS PSU Guardline B		-	✓	✓	✓	✓	SKS	
4B	8	1 SSU	SD01 Temperature		54.0K	✓	✓	✓	✓	SKS	
4B	8	2 SSU	SD08 Temperature		54.0K	✓	✓	✓	✓	SKS	
4B	8	3 SSU	LHe Level		30%	✓	✓	✓	✓	SKS	RISK if bottom probe selected
4B	8	4 SSU	Dump Water Flow		3.8l/min	✓	✓	✓	✓	SKS	Flow is 300 l/hr (5 l/min)
4B	8	5 SSU	Chiller Status		-	✓	✓	✓	✓	SKS	Could only remove interlocks, could not fail chiller
4B	8	6 SSU	PSU Rack Temperature		35°C	✓	✓	✓	✓	SKS	
4B	8	7 SSU	Vac G05 < E-6		1x10 ⁻⁶ mbar	✓	✓	✓	✓	SKS	
6A	11	1 SSU	M1 PSU Temp		70°C	✓	✓	✓	✓	SKS	Poor connection to thermostat, thermostat replaced
6A	11	2 SSU	M2 PSU Temp		70°C	✓	✓	✓	✓	SKS	Poor connection to thermostat, thermostat replaced
6A	11	3 SSU	Ctrt PSU Temp		70°C	✓	✓	✓	✓	SKS	Poor connection to thermostat, thermostat replaced
6A	11	4 SSU	DA1 Dump Temp		70°C	✓	✓	✓	✓	SKS	
6A	11	5 SSU	DA2 Dump Temp		70°C	✓	✓	✓	✓	SKS	
6A	11	6 SSU	DA3 Dump Temp		70°C	✓	✓	✓	✓	SKS	

