

DSG-ECal Controls Meeting

Date: April 28, 2023

Time: 3:15 – 4:00

*Attendees: Aaron Brown, Peter Bonneau, Pablo Campero, Brian Eng, George Jacobs
Donald Jones, Mark Jones, Tyler Lemon, Marc McMullen, Jack Segal*

1. 6-supermodule heater controls update

Marc McMullen

1. A presentation was given to provide an update on the completed installation of the controls system for the test stand located in the physics storage building
 - Details on the test stand and controls equipment were reviewed
 - Attendees were briefed on operating the controls software
 - [6-Supermodule Test Stand Heater Controls](#)

2. 6-supermodule test stand

Hall A/DSG

1. The test stand has been segmented into five channels
 - 3 supermodule banks (2 supermodules per bank)
 - 2 heaters per supermodule
 - 12 total heaters
 - 2 aluminum bar banks
 - 6 heaters per bank
 - 12 total heaters
 - 2 additional heaters need to be added to the aluminum bar channels
 - New total of 14 heaters for the aluminum bar banks
2. Power cables (standard NEMA 1-15p) from the heater distribution blocks need to be fabricated and installed next week by Hall A
 - 1 per channel (5 total)
 - The cables should be rated for 20 A
3. The current total system draw of five channels is ~24 A
 - The two new heaters will add ~1 A per aluminum bar channel
 - total system current ~26 A
 - The system will require two 20 A AC circuits (one for all supermodule banks and one for all aluminum bar banks)

3. ERR recap

Hall A

1. The ERR recommendation is that a full-chain test of a single supermodule with all operational components (including controls, power supply, and heaters) is to be done in the hall during beam
 - No DAq system is needed
 - The test should provide proof-of-principle and evidence that the equipment can be properly shielded to withstand an in-beam environment

4. Open discussion

1. Hall A has selected two remote, adjustable, AC to DC converters for testing
 - 0–10 V adjustment, linear output
 - DSG will provide feedback