## Hall A – ECAL
*Marc McMullen*

- Added a second inch of mineral wool insulation to the heater test stand and started a new test at 92 W
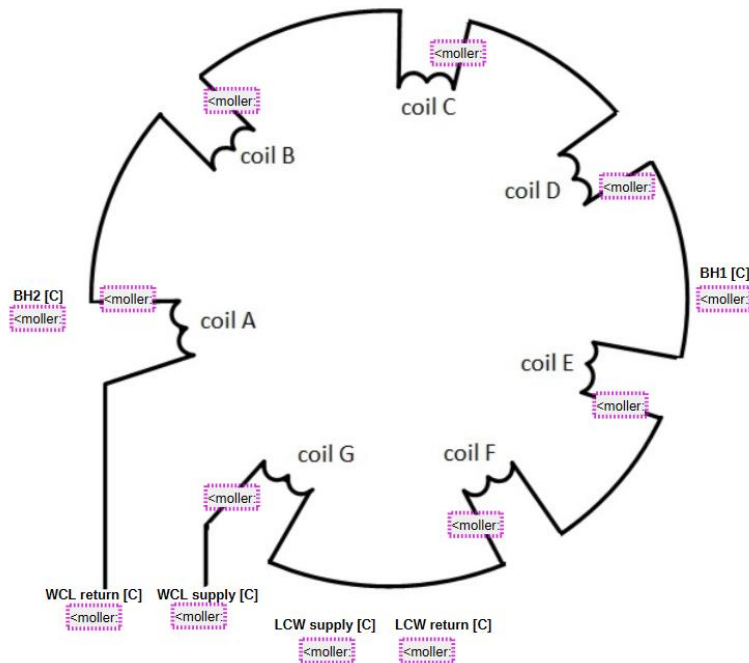


## Hall A – Møller
*Mary Ann Antonioli and Brian Eng*

- Reviewed RTD wiring drawing
- Met with local Siemens distributor; received loaned demo controller and analog module
- Received V17 instead of V18 software from Siemens; working with vendor to fix
- Completed Phoebus screen to monitor magnet #2 temperatures

## Hall A – SoLID

*Mary Ann Antonioli and Pablo Campero*

- Completed requested modifications to *Solenoid CCR Expert* HMI screen
- Modified *Solenoid Cooldown* HMI screen
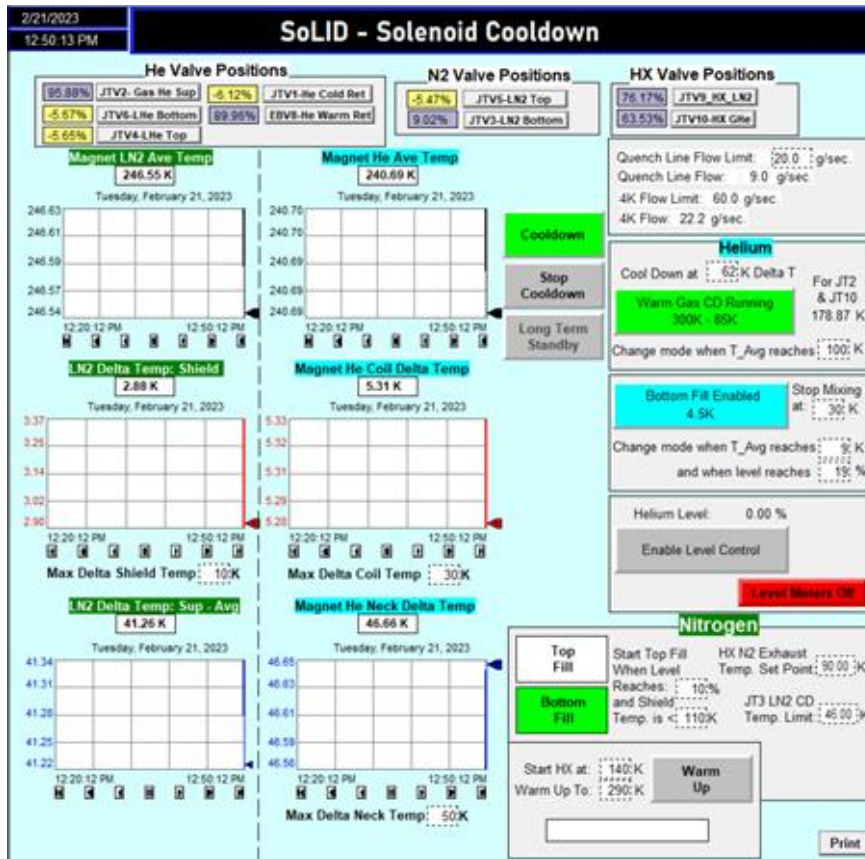


- Cooldown alarms and email notification system
  - ✶ Added nine digital alarms and two deviation alarms
  - ✶ Running test for more than one alarm at the same time

## Hall B – Magnets

*Brian Eng*

- Still working with Rockwell Automation tech support to get them to look at the log files
  - ✶ They want pictures of labels (some inaccessible unless equipment unplugged, assuming no beam and physical access). Serial numbers have been given.

## Hall B – SVT

*Brian Eng*

- Troubleshooting lost communication from interlock cRIO
  - ✶ RMA generated for bad hardware

## Hall C – NPS

*Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Mindy Leffel, and Marc McMullen*

- Developing LabVIEW program to test if the additional length of the fabricated extension cables to the Keysight affects the voltage reading (and therefore the temperature reading) of the thermocouples
  - ✶ A temperature measurement is read using a K-type thermocouple, followed immediately by a voltage measurement on the same channel; repeated 500 times
  - ✶ The first test used the manufacturer's 10-ft. cable, the second used the manufacturer's cable connected to the extension cable
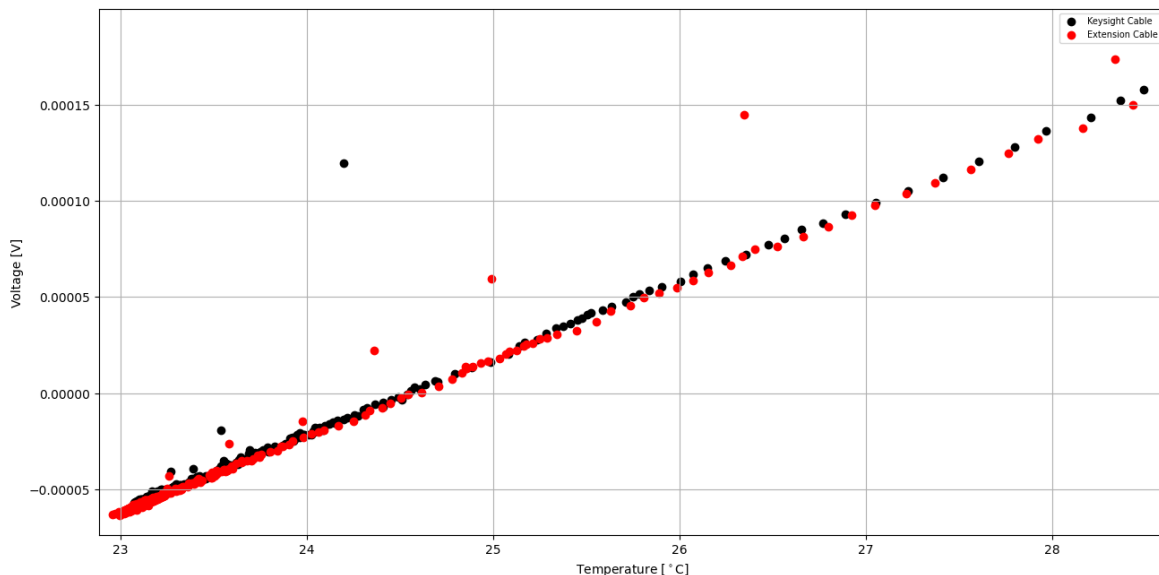


- Debugging high voltage settings Python script
  - ✶ Replaced caput EPICS command in code with caput_many, which sends the caput command to each PV in a list, with the option to wait until all of the PVs have received the command before moving on, or to wait until one PV in the list has received the command before moving on to the next PV in the list
  - ✶ The caput_many command had to be sent twice to ensure that all channels in the PV list received the command
  - ✶ Will verify that the command is received, using GECO2020
- Terminated one 50-conductor cable; 10 of 12 completed
- Evaluating methods of implementing simulated detector signals for alarm system development EPICS softIOC

## Hall D – JEF

*George Jacobs and Mindy Leffel*

- Wrapped 26 crystals with foil only (no Tedlar); 38 to date
- Wrapped 30 Crytur crystals with 3M foil and Tedlar; 583 to date

## EIC
*Brian Eng and Pablo Campero*

- Presented to BNL/JLab engineers the initial Fluent simulation results of of ~5°C drop when adding a 1-mm aerogel layer around beampipe
- Ran thermal simulation with 5 mm of separation between the beampipe and silicon layer 1, with different thermal properties for the aerogel

| Air Velocity at Annulus & Enclosure [m/s] | Temp. at Annulus & Enclosure [°C] | Aerogel Properties | | | Max. Si Sensor Temp. [°C] | Min. Si Sensor Temp. [°C] |
| | | Density [Kg/m^3] | Thermal Cond. [W/m*K] | Mass [Kg] | | |
|---|---|---|---|---|---|---|
| 1.00E-07 | 20 | 50 | 0.0156 | 0.001613 | 99.7735 | 69.7811 |
| | | 100 | | 0.003227 | | |
| | | 150 | | 0.004846 | | |
| | | 250 | | 0.008067 | | |
| | | 50 | 0.014 | 0.001613 | 99.7648 | 69.5366 |
| | | 100 | | 0.003227 | | |
| | | 150 | | 0.004846 | | |
| | | 250 | | 0.008067 | | |

- Calculated mass flow rates and heat transfer rates for different air flow velocities, using Ansys Fluent Flux

| | Mass flow rate at inlet [Kg/s] | | Heat transfer [W] |
| Airflow [m/s] | Annulus space | Enclosure | From beampipe |
|---|---|---|---|
| 1 | 0.001195 | 0.033272 | 26.5557 |
| 5 | 0.005976 | 0.166363 | 46.4342 |

## EIC-DIRC
*Tyler Lemon*

- Designed holders for optical table side walls
  - ✶ Walls will be held vertical with a magnetic attachment on a threaded rod
  - ✶ Threaded rods in holder will also be used to fasten hinge to optical table
  - ✶ Magnet receptive sticker will allow magnet to stick to the aluminum side walls
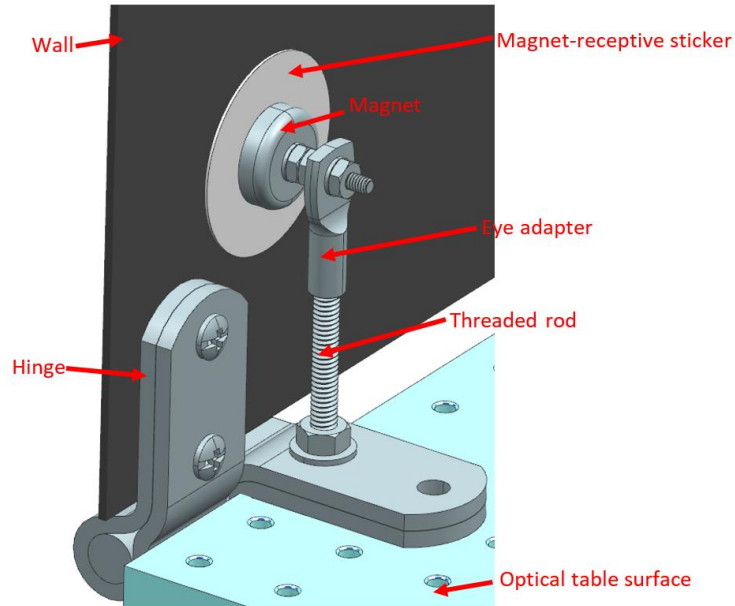
- Designed sidewalls for optical table
  - ✦ Side walls will be in 5-ft sections; total of six sections needed, one for each 5-ft side of the optical table, two for each 10-ft side