

## Hall A - SoLID Magnet Control Systems – Meeting Minutes

**Date:** December 4, 2019

**Time:** 10:00 – 11:00

*Attendees: Aaron Brown, Peter Bonneau, Pablo Campero, Mike Fowler, George Jacobs, Steven Lassiter, Tyler Lemon, Marc McMullen, and Whit Seay*

1. **Marc McMullen showed progress on Constant Current Source (CCS) board design and assembly**
  - 1.1. Updated part list presented.
  - 1.2. Values for electronic components in Hall C spare CCS board were measured and recorded.
  - 1.3. Ordered connectors to test output current on spare CCS board.
    - 1.3.1. Steven Lassiter mentioned that there are connectors in hand that could be used for testing CCS spare board.
  - 1.4. Development of PCB design in Altium is in progress.
  - 1.5. Expected review for final CCS board design is expected for mid-January, 2020.
2. **Motor Driver Control/Relay boards design and assembly**
  - 2.1. STI Company (company that developed Hall C relay boards) is defunct.
  - 2.2. Agreed that Marc McMullen/Peter Bonneau will start PCB part list and design based on Hall C spare relay board
3. **Pablo Campero presented DSG breakdown tasks for SoLID magnet controls**
  - 3.1. Spreadsheet contains tentative breakdown of software, hardware and documentation tasks.
  - 3.2. Software tasks with regards to the programming for the PLC, HMI and EPICS archiving are based in Hall C-HMS/SMHS control systems.
  - 3.3. Agreed that Steven Lassiter, Mike Fowler and Whit Seay will review breakdown list and will provide feedback to add/subtract tasks as needed.
4. **PLC programming status**
  - 4.1. Load cell sensors required to star read/calibration PLC program is not available
  - 4.2. Whit Seay mentioned that most probably the axial load cells sensors along with other instrumentation will be unpacked and accessible by next week.
  - 4.3. Based on Cleo's I&C operations manual, radial load cells (x16) already installed in the magnet (not accessible) have been calibrated (by Oxford).
    - 4.3.1. Radial load cell sensors were most probably installed and lately calibrated on 1988.
  - 4.4. Any potential useful information found to develop control systems for the SoLID magnet will be shared with DSG.
5. **FactoryTalk View data archiving progress**
  - 5.1. Pablo Campero mentioned status of FTView data archiving developed in PLC test station.
    - 5.1.1. Set files mode archiving done and tested on DSG PLC test station.
    - 5.1.2. Creation of SQL Server running on local host computer had issues to connect SQL server database source with FTView
      - 5.1.2.1. Mike Fowler mentioned that there is no need for SQL Server, Microsoft Access could be used to manage the data.
  - 5.2. Whit Seay will take a look into the FTView data logger mode preferred for SoLID magnet.

## 6. Documentation

### 6.1. Agreed drawing nomenclature convention.

6.1.1. It has been defined numbers for SoLID I&C drawings based on JLab convention  
e.g. A00000-16-03-XXXX.

6.1.2. First ten numbers/characters will not change; last four digits XXXX will be  
modified as needed to group the drawings.

6.1.3. Grouping of drawing will be based on Hall C drawings.

6.1.4. Pablo Campero will send a preliminary index with all drawing numbers assigned,  
so then they can be reviewed and defined.

## 7. Arrangements for PLC and Instrumentation racks

7.1. PLC and Instrumentation racks for SoLID magnet have been requested by Steven Lassiter,  
but there is no answer yet.