

DSG-SoLID Magnet Controls Meeting Minutes

Date: October 13, 2021

Time: 11:00 – 12:00

Attendees: Aaron Brown, Pablo Campero, George Jacobs, Steven Lassiter, Mindy Leffel, Tyler Lemon, and Marc McMullen

1. Completed modifications for drawings

1. A00000-16-03-0304 *PLC IO, Remote A, Slot 4 Wiring Diagram*

2. Drawings in progress

Mary Ann Antonioli and Pablo Campero

1. A00000-16-03-0050 *SoLID Magnet Interconnect System Diagram*
 - Confirmed that cables between PSU and instrumentation racks will be labeled later, once magnet's power supply is defined
 - Need to add Ethernet line connection for the PLC controller
2. A00000-16-03-0281 *Power Supply M-panel Connections*
3. A00000-16-03-00291 *ASCII Communication System Diagram*
 - Confirmed that ASCII module will not be needed for any future connection of the NMR unit; only hall probe will be used to measure magnetic field
4. A00000-16-03-306 *PLC IO Remote A, Slot 6 Wiring Diagram*
 - Channel 4 of PLC relay module controls remote reset of the liquid level controller, which is connected to the voltage controller module
 - Based on specifications for voltage controller module, 15 VDC is required to reset liquid level controller unit; currently there is no 15 VDC power supply
 - Will connect a 24 VDC signal to reset liquid level controller

3. Power supply connections

Mary Ann Antonioli and Pablo Campero

1. Since power supply has not been assigned for the SoLID magnet, some drawings cannot be revised at this time
 - Power supply crate modifications. Reference SHMS drawing: 67185-D-00292
 - Front panel of the power supply replacement. Reference SHMS drawing: 67185-D-00293

4. Changes to rack #2 rear layout

Pablo Campero

1. Completed drawing A00000-16-03-0100 *Instrumentation Control Panels Front Layout*
2. Updated drawing A000000-16-03-0105 *Part List*

5. Instrumentation cabling

Mary Ann Antonioli, Pablo Campero, Brian Eng, Mindy Leffel, and Marc McMullen

1. Completed 42 cables
2. Cable fabrication in progress, following maintained spreadsheet of information required to for fabrication
3. Ran cables of lengths 10', 15', and 20' in the racks to verify that estimated lengths and strip lengths are correct; no problems encountered
4. The 3-level terminal blocks currently in racks will be used instead of the 2-level terminal blocks shown in drawings; drawings will not be changed.

6. Cable and connector procurement

Marc McMullen

1. Reviewed *Cable List* spreadsheet
 - Added cables to connect magnet power supply from terminal strip to PLC I/O modules and quench detectors
2. DSG does not need to procure cable to interconnect power supply crate (left side of the terminal strip connections)
 - Reference SHMS drawing: 67185-D-00291
 - No need to procure cables for SoLID power supply 281-01, 281-02, and 281-03

7. Other topics

Steven Lassiter

1. Shared two pictures of the pressure transducers connections
2. Shared one picture of the cable from the current lead mass flow controller
 - To connect the 100' cable from terminal strip on instrumentation rack to the 6' cable from mass flow controller, a DIN connector could be used