SoLID Magnet Control Systems – Meeting Minutes

Date: February 24, 2021
Time: 10:30 – 12:00

Attendees: *Peter Bonneau, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, Steven Lassiter, and Marc McMullen*

1. Debugged FactoryTalk View Studio license issue on PHYCAD-58 PC (Pablo Campero)
    1.1. FactoryTalk View Studio was running in Demo mode
    1.2. Re-installed software version 10.00.00 (no version change)
    1.3. Downloaded licenses for FT View Studio, FT View Server (unlimited version), and FT View Client
    1.4. Solved issue; tested access to the software

2. HMI and CSS-BOY screen development (DSG and Steven Lassiter)
    2.1. Modifying *Radial and Axial Supports –Expert* HMI screen
        - Change labels for headers
        - Verify PLC tags used are correct for the indicators
        - Move units for each radial and axial indicators
    2.2. Added mass flow indicators for current leads on *CCR-Expert* and *Neck* HMI screens
    2.3. Proposed a *Current Leads Flow Control Expert* screen, with readout and control of manual/automatic modes and set points
    2.4. Made changes to *Cryo Controlled Reservoir Expert*, version 2, HMI screen
        - Changed colors of heat exchanger tubes, based on associated JT valve
        - Confirmed if current lead helium tank needs to show LN_2 lines on shield
        2.4.1. Further changes needed
            - Change valve symbol colors: open = same as cryo line and closed = black
            - Change label for tank (current leads)
            - Add temperature sensor readout indicators for each current lead
            - Add flow set point readback values for each current lead
            - Change color of GHe return lines from red to orange
            - Change figure used for current lead tank to top part of the Solenoid Neck 3D NX-12 model
            - Add colors to three indicators (GHe Supply, LHe Supply, and GHe return)
            - Remove GHe Return line from screen

3. Hardware (Marc McMullen, Mindy Leffel, Steven Lassiter, Pablo Campero)
    3.1. Five of eight constant current source boards were assembled; will be tested
    3.2. Discussed current configuration of mass flow readout and control
        3.2.1. Generated control layout diagrams
        3.2.2. CLEO valve actuators, mass flow meters, and valves will be used for the first current test in Test Lab
        3.2.3. New mass flow controllers will be acquired once the magnet is moved to Hall A

4. Reviewed valve control panel AutoCAD mechanical drawings (Pablo Campero)
    4.1. On 2U panel, key switch and voltmeter device will be moved 1” from the border
    4.2. On 3U panel, tag size will be based on dimensions shown in Allen Bradley Technical manual, Jumbo Legend Plate type

5. Documentation
    5.1. Drawing A00000-16-03-0212 – CCR Temperature Sensor Wire Diagram is in progress