

Hall A SoLID Magnet Control Systems – Meeting Minutes

Date: October 28, 2020

Time: 10:30 – 11:30

Attendees: Aaron Brown, Peter Bonneau, Pablo Campero, Brian Eng, Steven Lassiter, Tyler Lemon, Marc McMullen, and Whit Seay

1. Motor Controller Relay (MCR) board status

- 1.1. MCR bare boards and components arrived
 - 1.1.1. Bare boards were inspected and do not have any visible issues
 - 1.1.2. Bare boards and components will be organized for assembly

2. PLC programming status

- 2.1. New version of the CLEO PLC code deployed to the PLC controller
 - 2.1.1. NMR routines were removed and standard PSU communication routines reloaded
 - 2.1.2. Redundant tags that were alias to other I/O were cleaned up
 - 2.1.3. Name of I/O PLC remote chassis was changed
 - 2.1.4. Hall probe sub-routine was removed
 - 2.1.5. Diode and PT-100 temperature sensors subroutine was modified
 - 2.1.6. Upstream and downstream radial support interlocks subroutine was added
- 2.2. Added Cryo routine to select flow limit values
 - 2.2.1. PLC logic allows selection of the 4 K flow limit value from EPICS or from the entered value in the *JTV valve Setup* HMI screen
- 2.3. Pablo Campero will set up a meeting with Steven Lassiter to continue reviewing and working on remain PLC programming

3. HMI and CSS programming status

- 3.1. Pablo Campero completed three HMI screens to monitor trends for valves
 - 3.1.1. *Solenoid JTV_Trend*
 - 3.1.2. *Solenoid JTV_Trend_Hx*
 - 3.1.3. *Solenoid_EBV_Trend_WR*
- 3.2. Completed preliminary testing of three *JT Valve Page* HMI screens
 - 3.2.1. Seven JT valves in the CCR
 - 3.2.2. One EB valve for helium warm return flow
 - 3.2.3. Two JT valves for heat exchanger
- 3.3. *JTV Valve Setup* HMI screen in progress
 - 3.3.1. Confirmed that option to override value for 4 K flow limit from EPICS is needed on the screen
 - 3.3.2. Verified PLC logic and operations from the HMI screen
 - 3.3.3. EPICS PV name for the 4 K flow limit is unknown at this time
- 3.4. Pablo Campero noted that HMI and EPICS Screen List that shows status and details is available on DSG website
- 3.5. Mary Ann Antonioli completed three *JT Valve Page* CSS-BOY screens equivalent to HMI screens
 - 3.5.1. Testing in progress

4. Instrumentation

- 4.1. Confirmed that cryomagnetic line voltage controller module will be used for power cycling liquid level meter

- 4.2. Steven Lassiter provided information about the connector for PT-100 and diode temperature sensors in the CCR
- 4.3. Confirmed pinout for LN₂ and LHe liquid level sensors cables

5. Electrical drawings status

- 5.1. Pablo Campero completed modifications to PLC and instrumentation racks drawings
 - 5.1.1. Major modification includes changing rack size from 22U to 44U
 - 5.1.2. Noted that updated versions for drawings are available on DSG website
 - 5.1.2.1. Copy also available in the dsg-halla-control folder
 - 5.1.3. Steven Lassiter will review drawings
- 5.2. Mary Ann Antonioli updated drawing numbers in existing electrical drawings
 - 5.2.1. Drawings are being reviewed and will be uploaded to DSG website once completed