

DSG-SoLID R&D Meeting Minutes

Date: October 15, 2020

Time: 11:00 – 12:00

Attendees: Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, Marc McMullen and Amrit Yegneswaran

1. PLC programming tasks status

- 1.1. Compared $T=f(R)$ curves for rhodium/iron temperature sensors added in PLC code with curves provided from Cornell, Cleo II documentation
- 1.2. Implementation of $T = f(R)$ curves for diode temperature sensors located in the CCR is pending; curves will be implemented once they are provided by Ability Engineering
- 1.3. Added PLC code for two current leads' warm ends temperature sensors
- 1.4. Added PLC code for radial supports interlocks
 - 1.4.1. Code groups strain gauge sensor readouts by upstream and downstream locations
 - 1.4.2. Added two Boolean indicators to show upstream and downstream strain gauge interlocks
- 1.5. Researched typical operational range values for forces acting in radial supports when magnet is powered to its nominal current of 3300 A
 - 1.5.1. Information from old logbooks show values are 1700 Kgf – 2400 Kgf
 - 1.5.2. Need to verify if values were recorded when magnet was at 3300 A

2. HMI and CCS screens

- 2.1. Pablo Campero tested three HMI trend screens
 - 2.1.1. *Solenoid JTV Trend*: seven JT valves located in Cryo Control Reservoir
 - 2.1.2. *Solenoid JTV Trend WR*: EB valve located in Cryo Control Reservoir
 - 2.1.3. *Solenoid JTV Trend HX*: two JT valves located in heat exchanger
- 2.2. Mary Ann completed *Solenoid CCR Expert CSS BOY* screen; Pablo Campero will test
- 2.3. Reviewed HMI & CSS Screens spreadsheet
 - 2.3.1. Documentation column added, with links to related notes
 - 2.3.2. Status column updated

3. Constant Current Source (CCS) and Motor Controller Relay (MCR) boards status

- 3.1. MCR components have arrived and bare boards are expected by next week
- 3.2. All CSS components and bare boards delivered to Mindy Leffel for assembly

4. Documentation

- 4.1. Pablo Campero completed modifications to instrumentation rack layout drawings
- 4.2. Reviewed *Hall A SoLID Solenoid Rack Layouts* talk and changes were suggested
 - 4.2.1. Modify some headers
 - 4.2.2. Update labels that indicate location of rails in the frame
 - 4.2.3. Count rack holes for rail holders from top to bottom
- 4.3. Mary Ann completed drawings A00000-16-03-0210 and 0211; under review by Pablo Campero