

SoLID Magnet Controls System Meeting Minutes

Date: May 5, 2021

Time: 11:00 – 12:00

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

1. Electrical drawings completed

Mary Ann Antonioli and Pablo Campero

1. A000000-16-03-0250 *Voltage Taps Wiring Diagram*
2. A000000-16-03-0309 *Analog Input PLC I/O Module Wiring Diagram Module*
3. A000000-16-03-0252 *Quench Detector Wiring Diagram*
4. A000000-16-03-0212 *PT-102 Temperature Sensors Wiring Diagram*
 - Added HX temperature sensors
 - Combined multiple cables connecting with the CCS boards and signal conditioning into one cable per board
 - Changed PT_GHe_Mix to PT_HX_GHe_Mix
 - Changed PT_GN2_HX_Exhaust to PT_HX_GN2_Exhaust

2. Electrical drawings in progress

Mary Ann Antonioli and Pablo Campero

1. A000000-16-03-0210 *Magnet Temperature Sensors Wiring Diagram*
 - Combining multiple cables into single cable to connect terminal strip to CCS boards and to connect terminal strip to signal conditioning modules
 - Adding notes on cables that appear on multiple sheets
 - Changing labels for vacuum feedthroughs
2. A000000-16-03-0213 *Diode Temperature Sensors Wiring Diagram*
 - No need to assign a PLC I/O channel to check cable-disconnected loop status
3. A000000-16-03-0214 *CCS Board Wiring Diagram*
 - Combining multiple cables into a single cable to connect terminal strips with CCS boards
4. A000000-16-03-0401 *Voltage Tap Cable Diagram*
 - Need to add description of cable once it is selected
 - Check that actual cable colors match cable colors shown in drawing
 - Confirm connector to be used at resistor box end
5. A000000-16-03-0406 *Diode & PT-102 Sensors Cable Diagram*
 - Name for vacuum feedthrough connector used for temperature sensors in heat exchanger will be HX-1
 - Connector for current leads' PT-102 temperature sensors will be a terminal block with three connection points
 - Added two terminal blocks to connected cable-disconnected loop wiring. CCR-TS-01 terminal strip group now has 38 terminal blocks; need to modify drawing A000000-16-03-101

3. Cables and connector researching

Pablo Campero, Brian Eng, and Marc McMullen

1. Selected four possibilities for voltage tap cables
 - Joe Beaufait approved vw-1 (Vertical-Tray Flame Tests) ratings for the Hall as long as there are no wall penetrations or vertical shafts
2. Selected option for 16-pin CPC connector for the voltage tap resistor box end
 - No connector selected
3. Researching options for multi-conductor cables required for temperature sensors located in the CCR. Cables will connect the CCR's 41-pin feedthrough and terminal strip
 - For 41-pin feedthrough part number shown in drawing A00000-16-03-02-0100, connectors for the feedthroughs must be ordered separately (Based on vendor note)
 - Will verify if connector already installed in the CCR has sockets for soldering wire
 - Two cables required
 - Minimum conductors required is 32
 - Low voltage rating
 - 20 to 24 AWG m.3