DSG-SoLID R&D Meeting Minutes

Date: November 12, 2020
Time: 11:00 – 12:00

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

1. PLC Programming tasks
    1.1. Worked on CLEO PLC program
        1.1.1. Added comments to show names and location of five temperature sensors
        1.1.2. Moved PLC code used to reset the power supply CPU from sheet 11 to sheet 39
    1.2. Pablo Campero wrote python code to calculate the first, second, third, and fourth order polynomial coefficients of the curve $T=$ f(R) and to plot their respective curves
        1.2.1. Used data provided in *Operating Manual for Cleo II, Oxford Instruments*
        1.2.2. Presented python plots for each case; second order polynomial fits better for data provided
    1.3. Discussed minutes of Nov. 11th PLC programming meeting
    1.4. Reviewed *PLC Programming* spreadsheet in progress
        1.4.1. Descriptions for program and version need to be added for each PLC sheet

2. HMI and CSS-BOY screens
    2.1. Mary Ann is working on the *Solenoid Liquid Levels – Expert* CSS-BOY screen
        2.1.1. Pablo Campero completed testing of the *Solenoid CCR Valves Setup* HMI screen; indicators, control buttons, data saving, and recording all worked correctly
    2.2. Pablo Campero generated *Solenoid POSP* HMI screen, which is used to determine opening or closing of a valve
        2.2.1. Main inputs of the screen are cycle time, open rate, and close rate
        2.2.2. HMI code allows use of screen for six JT valves
    2.3. *Databasing* is been updated with the proposed EPICS PVs for the *Solenoid CCR Valves Setup* screen

3. Documentation
    3.1. Pablo Campero and Mary Ann Antonioli completed the second version of drawing A00000-16-03-0220 *LHe and LN$_2$ Liquid Level Meter Wire* Diagram
    3.2. Amrit Yegneswaran is reviewing *Solenoid Liquid Levels Controls* talk
    3.3. Pablo Campero presented talk on status of HMI and CSS-BOY screens
        3.3.1. Amrit suggested edits
            3.3.1.1. Add links for DSG notes on developed screens
            3.3.1.2. Change titles on slides of screenshots of screens
        3.3.2. Talk will be posted after revision and approval