

## DSG Meeting Minutes – Wednesday, June 25, 2014

### **Antonioli, Mary Ann:**

- For Hall B SVT modules P39—P50, completed spreadsheet of calculated total current contribution to a module side by sensors allocated to that side.
  - Entered in Excel calculated total current vs. actual current of a side for modules P1—P22.
- Removed trace from 35 Hall B CTOF PMT boards.
- Revised two Hall B SVT fault charts: Environmental and Hardware.
- Prepared shipment of Hall B HV test and production cables to Fermilab.
- Began fabrication of replacement Hall B HV test cable for the one shipped.

### **Bonneau, Peter:**

- Worked on the Hall B SVT manufacturing readiness review (MRR) recommendations regarding ESD protection, cleanroom humidity control, backup system for independent temperature and humidity monitoring with data-logging, Faraday cage, and slow controls.
- For Hall B SVT slow controls:
  - Worked with Pam Kjeldsen and Sue Witherspoon of the Accelerator Controls Group.
    - Reviewed LV, HV, and VME requirements for region 1, and interlocks for temperature and humidity.
  - Held meeting regarding Hall B SVT slow controls development.
    - The accelerator controls group will be working on access to the Mpod HV and LV for the next two weeks. Upon completion of the Hall B SVT slow controls development, the accelerator controls group will be responsible for system software maintenance.
  - Coordinated with Ken Livingston (Glasgow University, U.K.) work on EPICS support for Hall B SVT chiller.
    - Basic EPICS commands for the chiller have been written, but not fully tested. From the manual, commands, except those related to programming a sequence, are implemented.
  - Modified VME module configuration, signal assignments, documentation, and hardware test program, to add two Highland V450 ADC modules, which will read environmental RTDs and humidity sensors.
- For Hall D target controls:
  - Set up new CompactLogix controller including configuration through serial interface, connected via RSLinx to program Ethernet parameters, flashed firmware, and confirmed communication via RSlogix-5000.
    - Wrote procedure for future reference.
  - Wrote, installed, and tested new Electronic Data Sheet (EDS) file for PLC I/O module (1769-IF4).
    - Version 3.1 of this I/O module is not defined in the Rockwell database. The EDS file defines the parameters of a PLC module including, among others, types of inputs and voltage ranges.
  - Troubleshooting of the communication connection between the Hall D target control PLC and the compressor. The protocol and RS232 connections were investigated.

### **Butler, Dave:**

#### Hall D

- Repaired a corrupted configuration file in the Factory Talk Software.

- Working with Rockwell for the last couple of weeks on this issue. Corruption of configuration files occurred when Hall D switched to the slow controls network.
- Populated the new PLC On-Change database with 363 initial tags (process variables) that will be recorded during magnet cool down.
  - Created a spreadsheet with a list of all tags.
- Checked and edited procedures for: magnet cool down, vacuum check, quench detector checkout, pre-cooldown checklist.
- Updated a list of PLC alarms for magnet, fast and slow ramp down alarms, and FDC/CDC GUI.
- Implemented: bar graphs for FDC package Cell Pressures, strip chart for mixing tanks and Argon/CO2 inlet pressure (added to database).

**Eng, Brian:**

Hall B SVT

- Final inspection of backing structures: 21A, 22A, 23A (rejected), 24A, 25A.
- HFCB testing (chip placement and/or encapsulation): 028, 036, 037, 026, 027, 029.
- Completed modules: P23, P24, P25, P26.
- In progress: module P27.

**Jacobs, George:**

Hall B

- QA on conductor soldering at AES, 15 June - 20 June.
  - Temps over 90 F and a 230 C solder pot with 1200 lbs of solder in it.
- Reviewed RICH detector's N<sub>2</sub> purge system.
- Ordered hardware for attaching ground lugs on R2 drift chamber's signal-boards.
- Reviewed with Morgan and Sahin modifications required on R2 S3, S4, and S5 HV cable hangers and cables to avoid obstructions on associated cryostat.
- Finished testing a sector of R2, 5 sectors to go.
  - Moved HV gas supply to three other R2 chambers.

**Leffel, Mindy:**

- Completed the last two sections of Qualified Electrical/Electronics Worker training. SAF603N2 and SAF602N3.
- Worked on dehumidifier in control room.
- Reworked eight more PMTs (cumulative total = 63), added a bypass wire to 20 PMT circuit boards and cut 33 jumper wires.
- Started working on the last two HTS boards, board #s 11 and 12.

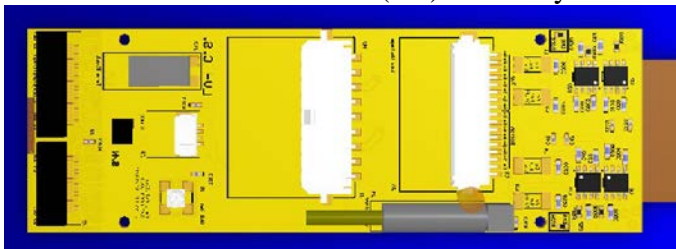
**McMullen, Marc:**

- QA-ing 3 bus-cable panels (cumulative total 22).
- Ordering parts for VME patch panels .
  - 5 V supplies, terminal blocks, and jumpers.
- Working on recommendations made by the manufacturing readiness review committee.
  - Researched ESD floor mats, SVT module installation cable layout, and protective covering for cables on the floor.
- Discussed with Compunetics shipment schedule of HFCBs and bus cables.
  - As of 6/24/14, 87 HFCBs and 14 bus cable panels outstanding.

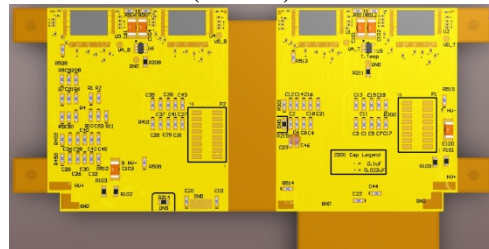
- 12—24 HFCBs V2.2 scheduled to be shipped on 7/1/14.
- 14 panels of bus cable to be shipped by 7/30/14.



Final version (2.2) of the Hybrid Flex Circuit Board (HFCB)



Level 1 Connector



Hybrid Area

#### **Mann, Tina:**

- Connected Hall B DC HV cables to CAEN test stand and verified voltage output readings from each HV board using a multi-meter.
  - Checked guard, field, and sense wires by inspecting Hall B DCs' signal output graphs.
  - Debugged and repaired components, based on the signal output reading.
- Completed Web-Based Training: SAF603N1, SAF603N2, and SAF603N3.
- Started prepping and soldering 3 female D-sub 25 connectors for slow controls cable.

#### **Sitnikov, Anatoly:**

- Completed Web-based training: SAF603N1, SAF603N2, and SAF603N3 and Ladder Safety.
- Measured voltage on Hall B DC HV channels of R2 boards.
- Repaired 6 damaged HV channels.
- Cabling Hall B DC HV.

#### **Teachey, Werth**

##### Hall D Target

- Debugged and successfully used code written for the Hall D target PLC in structured text to communicate with the target compressor via RS232 using the Sycon Multidrop Communication Protocol.
  - Tested communication interference with the compressor RS232 with the Hall D compressor hardware interlocks.
  - Tested code to control the target gate valve.
- Tested and debugged PLC code that communicates with the Temperature Monitoring and Heater Control hardware, while the target is being cooled in the EEL.
- Completed Hall D Conducts of Safety Training.