

## DSG Meeting Minutes – Wednesday, August 27, 2014

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

#### **Hall B SVT**

- Labeled three VXS crates' hook-ups in the AutoCAD layout of the **insertion cart** (*cf.* attachment).
- Completed two **HV** cables, 37-pin CPC connector end.
- Disassembled and reassembled terminal plugs of HV system distribution box (**HVDB**) #3 and re-tested drains.
- Began **HVDB** #4, attaching and wiring drains of the nine CPC connectors of back panel.
- Made changes to **Slow Controls System's** patch panel labeling.
  - Partially labeled blocks 19 and 20.
- Began wiring of **Slow Controls System's** patch panel (low voltage).
  - Removed all test wiring from patch panel.
- Ordered part requested by Saptarshi for **disassembly fixture**.
  - Made many phone calls to deal with the undelivered package.

#### **Hall D**

- Made changes to **Target Controls** Visio flowcharts.

### **Bonneau, Peter:**

#### **Hall B SVT**

- Programmed recently received flow meter with the parameters required for using it in the **Cooling System**.
- Tested, with Brian, first version of the EPICS-based **Slow Controls System**.
  - Using the EPICS GUI MPOD controls, we tested the initial capabilities of the developed system. We responded to the Accelerator Controls Group with the following comments on the MPOD LV/HV Controls:
    - In the present EPICS software version, the readback and settings are in unit of Amperes [A], when it should be [ $\mu$ A] or [nA].
    - The lowest readback observed on the EPICS screen is 1  $\mu$ A (the screen on the MPOD crate was reporting 0.97  $\mu$ A).
    - The HV channels will not trip (turn off) when the software limits are reached. The EPICS readback value did toggle between the different alarm-states (minor, major), but it never ramped down the over-current channel as required.
- Finalized layout of the **Slow Controls System's** LV distribution on the patch panel.
  - The LV powers humidity, coolant flow meter, and other slow control sensors.
- Reassembled EPICS-based VME **Slow Controls System's** test system.
  - System consists of mini VME crate, MVME 5500 controller, and V450 ADC; will be tested with the environmental sensors after sensors are attached to the patch panel.
- Continued on PAC (cRio) projects for the cleanroom and for the **Gas System**.
  - Tested the received cRio NI ADCs for the system.

### **Butler, Dave:**

#### **Hall D**

- Completed the five-day stress test of the **Solenoid**.
- Performed a fast current dump of the **Solenoid** from 1200 A to study the effects of the dump.

- Programmed an improved alarm monitoring scheme for the **BCAL** temperature monitoring.
- Provided a temporary test setup for the **Pair Spectrometer** coil and cooling temperatures.
  - Investigating whether there was a correlation between the temperature of the coils/cooling lines and the field.

## Eng, Brian:

### Hall B SVT

- Debugging **Module P32** using internal pulser.
  - Initial efforts failed due to the termination resistor changing the amplitude. The termination resistor is needed for the external pulser from the VSCM. After verifying that the code works on module P4, code was found to not be working on module P32 (U1, U3, U4: don't properly set internal pulser amplitude [always the same], U2: doesn't have any hits from internal pulser). Debugging this module continues.
- Helped with installation of **R2 Cold Plate** side support ring
  - First try tore a kapton shim resulting in the copper heatsink being conductive with the cooling ring; second attempt (using less kapton on screws) was fine.
- Trained Tina (at JLAB) on testing **modules** at FNAL; now that Tina is at FNAL, helping her by phone.
  - Had to manually correct typos from a few of her entries, other than that, testing appears to be going smoothly.
- Requested **Cable Strain Reliefs** for R2 from Medical Imaging group; they printed 16 sets.
- Evaluating/testing initial ACC-developed SVT **Slow Controls System** GUI.
  - Sent list of issues, the biggest of which is the lack of resolution when reading back HV current. Currently it only reads down to 1  $\mu$ A while we need in the nA range. This is a limitation of their driver and not of the MPOD crate itself.
- Completed, *as much as possible with current hardware*, **HPS SVT** PLC interlock code.
  - Wired 5 VDC supply for TTL output module (which uses inverted logic).
  - **Still no word on what will be done regarding flowmeter (Hovanes assumed it was analog out, it is pulsed out); got a quote (\$776.49) from Allan Bradley company on counter module to read pulsed type sensor outputs.**

## Jacobs, George:

### Hall B

- Inspecting magnet at AES.

## Leffel, Mindy:

### Hall B

- Continued testing and packaging **LTCC** Winston cones.
- Started repairing the drain wires on the **Slow Controls** and **Low Voltage** cables for R2; completed seven of each.

### Hall D

- Started making three thermocouple cables for the **Pair Spectrometer (PS)**, to monitor temperature coils and the cooling loop.

## **McMullen, Marc:**

### **Hall B SVT**

- Ordered additional **components**.
  - 15ct. 51 pin Nanonics.
  - 15ct. 37 pin Nanonics.
  - 10 data cables.
  - 2 cable protectors.
- Completed post-manufacturing QA of 4 **HFCBs**.

## **Mann, Tina:**

### **Hall B**

- Set up for calibration and test of UV light for **LTCC** Winston cones.
- Trained w/Brian on Register and Gain testing at FNAL of **HFCBs**.
- Currently at FNAL testing and troubleshooting **HFCBs**.
- Reviewing **HFCB** production process.
- Taking **safety training** on-line for onsite safety awareness and badge issue at FNAL.

## **Sitnikov, Anatoly:**

### **Hall B**

- Completed design for cutting and polishing 0.3 mm boron-silicone fibers of **CTOF** and sent the design for fabrication to the machine shop.

### **Hall D**

- Assembled the **PS** converter.
- Installation of **PS** in the tagger hall.
- Assembled the 4 cartridges (Al foil 10, 30, 30, and 100  $\mu\text{m}$ ) for **target**.

## **Teachey, Robert (Werth):**

### **Hall D**

- Completed and tested PLC software to reset the **Tagger** HV Caen crates and modules.
- Started installation of PLC hardware in the **Tagger** for the CAEN HV reset.
- Working with the target group to specify, order, and prototype cRio hardware for the **Cryotarget**.