

## DSG Weekly Report – May 20, 2015

### Antonioli, Mary Ann:

#### Hall B

##### LTCC

- Coordinating and overseeing **project activities**.
  - Tina's rework of PMT bases and WC testing.
  - Mindy's rework of PMT bases.
  - Assessed location (in ESB) of the remaining PMT bases needed, with Mindy.
- QC-ed fabrication and assembly of 24 reworked **PMT bases**.

##### HDICE

- Attended the daily meetings on **program development**.
- Programming in LabVIEW **rotation of target polarization**.
- Testing performance of **RF Attenuation/Switching chassis**.

##### DC

- Spread sheeting lengths of **data cable**.

##### SVT

- Testing SVT EPICS slow controls for **R4** completed.
  - HV tested; initially, a problem with S2 top not turning off when alarmed and inability to turn on HV for S16 top. Sue was notified, problems fixed, and all tested OK.
  - Ambient temperature, humidity, and dew-point all tested OK.

#### Hall D

##### Meeting

- Attended DSG group's daily meeting on **magnet and detector performance**.

### Arslan, Sahin:

##### DC

- Unbundled and sorted and **signal cables**.
- Measured lengths of **signal cables**.
- Reorganized by length (with Anatoli) **signal cables**.
- Completed training on **SAF502 FORKLIFT INSPECTION, OPERATION, TESTING FUNDAMENTALS**.
- Reviewed for gas bottle handling **EH&S manual**  
section: <https://www.jlab.org/ehs/ehsmanual/6150T2.htm>,

## Bonneau, Peter:

### Hall B

#### HDICE:

- Reviewed procedure for the **rotation of target polarization** in the daily status meeting.
- Programming sessions on the **rotation of target polarization** with the group.
- Adding an instrumentation disable mode for the **rotation of target polarization** program for troubleshooting sequences without the need for attached instrumentation.
  - Will allow for testing of the logic, program flow and error responses.
- Received CAEN report that first version of **software** should be available in June, 2015.
  - Software will provide some low level communication functions in LabVIEW 2014 to communicate with the device. **First version will be TCP-IP and not USB or RS485.**
- Requested from HDICE group for debugging code and for testing the CAEN current shunt CT-box an **Oxford IPS-120-10 power supply**.

#### SVT

- Wrote and distributed design report on **SVT Safety Interlock System**.
- Designed all cable assembly types for the **SVT Safety Interlock System**.
  - There are 12 named cable assemblies, a total of 55 cables for the system.
- Specifying and ordering components for the **SVT Safety Interlock System**.
- Tested (2) newly received cRIO - C type modules for the **SVT Safety Interlock System**.
  - A LabVIEW error (unrecognized module type) was encountered with the 8 channel RTD module which is a new product. Contacted National Instruments and they sent updated cRio drivers which corrected the problem.

### Hall D

- Attended DSG group's daily meeting on **magnet and detector performance**.
  - Examined the status of the solenoid after the test ramp to 300 Amps and the beam line instrumentation EPICS screens.

## Butler, Dave

### Hall B

#### Gas System

- Discussed part numbers and ordering information with George and Marc for the **gas system controls**.
- Installed gas controls touch screen into rack mounting bezel for **testing and calibration**.

### Hall D

- Attended DSG group's daily meeting on **magnet and detector performance**.
  - Provided information and recommendations for making changes to the software quench detector. Recommendations included removing the 250ms software time delay and using the quench detector algorithm without it being AND'ed to the simple over voltage threshold.
- Attended the tech meeting and discussed having the electricians install an additional UPS outlet for the interlock **PLC**.

## Eng, Brian:

### Hall B

#### SVT

- Routed and connected cables to crate side for **R4**.
- Installed ESD mats for **R4 assembly**.
- Inspected FSM code that Valery developed as a **higher level GUI**.
  - Not usable. **IOC is offline and many commands require to be run under his account.**
- Developed Bash shell script to speed up turning on/off voltages of SVT, uses SNMP commands to directly communicate with **MPODs**.
  - Can control and retrieve select parameters from the whole SVT or by region.
- Ordered flow meter for cold pate for **R4**.
- Ordered additional monitors for more **screen real estate** until higher-level GUIs are developed.

### Hall D

- Attended DSG group's daily meeting on **magnet and detector performance**.
  - Went over CSS screens: BEAM, Tagger Hodoscope and Microscope
- Confirmed timing synchronization after over a week of uptime between **PXI & IOC**.
  - Are within 1 second of each other.

## Jacobs, George:

### Hall B

#### Gas System

- Writing gas system operating manuals for **DC and LTCC**.
- Determined requirements of **components**.
  - $\pm 15\text{vdc}$  3 amps power supply - SOLA-HD SLD-15-3030-15T 24vdc 6 amps power supply - SOLA-HD 83-24-260-3
- Worked on parts list of **components** with Marc and Dave.
- Attended TDG meeting.
  - Discussed detector status, manpower requirements, schedule

### Hall D

- Attended DSG group's daily meeting on **magnet and detector performance**.
  - Magnet cooldown, 300 amp test

## Leffel, Mindy:

### Hall B

#### LTCC

- Modified 30 bases of the **PMTs**.
- Populated 24 divider boards for the **PMTs**.
- Repaired solder work (cold solder joints, excess solder and solder shorts) on 24 divider boards of the **PMTs**.

## Mann, Tina:

### Hall B

#### LTCC

- Installed 10 divider boards on **PMT'S**
- Aligned and calibrated A and B pinholes of **Reflectance Test Stand**, four times
- Set up mirror test of **Reflectance Test Stand**, four times
- Tested 2 small Winston cones from ECI as a test for Mauri to troubleshoot issues with the **Reflectance Test Stand**.
- Tested a known "good" Winston cone to compare "Today's data" with results from the previous data to see if there could be a problem with the **Reflectance Test Stand** or if it was a coating issues from ECI.
- Assisted troubleshooting of A and B photo diodes of the **Reflectance Test Stand** used to test Winston cones (Photodiode B has a problem)
- Inspected for cosmetic issues dirt, dust, de-lamination and smudges **Winston cones** that came from ECI.

## McMullen, Marc:

### Hall B

#### SVT

- Troubleshoot disconnected low voltage cables at the **L1C and HTSB** extensions.
  - Slow controls on R3S5 had intermittent error, measured ~2V at the L1C and the patch panel. Connections appear good, and measurements appear OK, but software alarms sporadically. Installed R4 cables with Brian
- Connected R4 Slow Controls cables to the **Slow Controls patch panel**.
- Installed and grounded ESD mats in **clean room Rm. 124**.
- Conducted training with Anatoly on final QA procedure for populated **HFCBs**.
- Completed QA testing of populated **HFCBs** with Anatoly.
- Approved payment for final batch of populated **HFCBs**.
- Resubmitted a purchase requisition for spare **pulsar cables**.
  - Currently there are 12 cables which are not slated for use in the detector.
- Attended weekly status meeting.

#### Gas System

- Drawing PID/controls chassis for **DC**.
- Reconfigured layout of chassis #2 for **sensors and valves** (Gas Shed).
- Verifying the components of **chassis**.
- Updated cost sheets with higher current supplies for both  $\pm 15V$  and 24V **power supplies**.

#### DSG/Safety

- Explained to Jlab cleaning staff work procedures for **room 121c and 124**.
  - Researched information on the training required for handling flammable gas bottles, Fire awareness training is needed in addition to reading the chapter on gas bottle handling and informing Physics Safety.

## Sitnikov, Anatoly:

### Hall B

#### SVT

- Visual inspection 7 **HFCB** boards

#### DC

- Sorted 14 bundles by length(14\*6 **signal cables**) in ESB with Sahin

## Teachey, Robert Werth

### Hall B

#### HDICE

- Fixed LCD display error of **RF Attenuation / Switching Chassis**.
  - LCD was displaying incorrect cable or terminator number when the key was plugged in the chassis front panel.
- Programmed in LabVIEW initialization and control functions for **RF Attenuation / Switching Chassis**.
  - Will replace code in the NMR Control software.
- Attended daily HDICE meetings.

#### SVT

- Researching cables for the **SVT Hardware Interlock System**.