

## DSG Weekly Report – April 15, 2015

### Antonioli, Mary Ann:

#### Hall B

##### SVT

- Tested **EPICS Slow Controls Interlocks** for RI – RIII.
  - Interlock system commissioned.

##### HDice

- Drafted in Illustrator power system wiring of **RF Attenuation/Switching chassis**.
- Attended daily meetings: Topic of the week - **NMR Initialization Procedures**.

#### DSG

- Imported, into Adobe InDesign, formatted, and made first edits on **DC Gas System note**.
- Submitted PR to have janitorial services clean **Cleanrooms EEL121/EEL 124**.

### Arslan, Sahin:

#### Hall B

##### LTCC

- Delaminating aluminized coating of **Winston Cones**.
- Updated delamination and inventory spreadsheet on **Winston Cones**.
- Trained by Tina on calibration, mirror alignment, and testing of **Winston Cones**.

##### DC

- Configured, with Robert, test set up for **R1**.
  - Disassembled old crate in room 124, Fast Bus Power Supply, Fan Crate.
  - Disassembled old test set up DC DCRB.
  - Unplugged all signal cables, trigger cables, communication cables.
  - Assembled new crate, VME, DCRB, NIM and attached all signal cables, trigger cables, and communication cables to the new set up.

### Bonneau, Peter:

#### Hall B

##### HDice

- Conducted bi-weekly **status meeting**.
  - Presented status report, reviewed work requests, and status of those requests.
  - Received NMR test cable-set, cable set will be tested by Xiadong's group.
  - Mathematica programming requests on hold, till a data files are found by the Xiadong's group.
  - Modification of RF Attenuation/Switching box is in progress
  - Current measurement system is on order.
- Tested rebuilt **NMR computer** after it was upgraded to Windows 7.
  - Computer center did not complete work requested in CCPR.

- Outstanding issues:
  - DSG needs to be an administrator on this machine.
  - No auto-sleep mode at night, since we will be using it to take NMR data.
  - No-rebooting. We can't have this auto rebooting during a run.
- Upgrading development computer to the Jlab site version of Labview 2014, stopped **Xilinx-based FPGA compilation tools** from working.
  - Obtained second install disk from the computer center; the first disk they provided was the wrong version. After installing the latest disk, we finally can compile FPGA code on a cRIO 9067 target.

### LTCC

- Troubleshooting **Laser Test Stand's** intermittent communication between the monochromator with computer.
  - Changing the connecting USB port on the test computer fixed the communication problem.
- Installed **internet file sharing (dropbox)** for another user.

### SVT

- Revising final design of the **Hardware Interlock System**.

## Hall D

### Slow Control Systems

- Examined the status of the **PLCs** on a daily basis.
- Reviewed procedure to remote login into **CSS** for ops.

## Butler, Dave:

## Hall B

### SVT

- Attended weekly **meeting**.

### Gas System

- Transferred PID code to **cRio-9082 chassis** for preliminary testing.
  - Coded in LabVIEW to run simulations on laptop; had to re-code to work with cRio-9082.

## Hall D

### Solenoid

- Troubleshooting possible issue with **PXI fast DAq system**.
  - Looks like link from PXI data to EPICS is failing during ramp down. Checking code structure of the PXI and setting up the PLC to monitor PXI signals. Not sure if the problem is in the PXI, IOC or CSS.

### Beam Readiness

- Attended **meetings**.

### FDC/CDC

- Attended **meeting**.
- Helped move spare **FDC** package to tagger hall for radiation detection testing.

## Eng, Brian:

### Hall B

#### SVT

- Tested **EPICS Slow Control Systems** dewpoint interlocks.
- Setup for **HFCB** testing, 4-module test stand's MPOD crate with BNL iseg HV card and old 8-pin dsub LV card.
- Testing **VSCM** self-triggering capability on svt2 controller using 4-module test stand.
  - Set up kill masks to remove noisy channels, rate ~16 Hz when trigger is a hit on top and bottom of a single module.
- Troubleshooting with Saptarshi **Chiller** in EEL/121B.
  - Chiller does not cool, heats instead!
- Reviewed **Service Cart Model**.
  - Needed to change crate map since design doesn't match last design we had.
- Started **data run** after reconnecting R1 and R2 cables to crates, using VSCMs as trigger.
  - Rate is ~80Hz.
- Attended **weekly meeting**.

#### HDIce

- Attended meeting
  - Sent Xiangdong list of missing files from Mathematica notebooks.

### Hall D

- Monitoring EPICS screens.

## Jacobs, George:

### Hall B

#### LTCC

- Performed pre-job planning on gas line routing on the **forward carriage**.
- Supervised **pressure relief bubbler** cleaning and rebuilding, ~50% complete.
- Assembled **leak test setup** using low pressure N<sub>2</sub> for bubbler assemblies.
- Determined cable length requirements for **gas flow controls**.
  - MK# 647B to MFC, 36 ft, 6 required.
  - Solenoid valve power distribution box to solenoid valves, 36 ft, 12 required.

#### DC Gas System

- Performed pre-job planning on **line attachment to solenoid panel, component placement, power attachments, and line routing**.
- Moved **Solenoid Control Box** from L2 space frame to floor level and attached it to the **Solenoid Valve Panel**.
  - Connected the piping on L1 space frame to the solenoid panel on the floor level.
  - Completes activity ID# 24267125, Install new gas lines from gas shed to the hall, and activity ID# 24267090, Reroute DC gas lines to the distribution panel.
- Determined for the **PID control cables**, cable routing, and length requirements.
  - Patch Panel to MKS 223 transducer, 50 ft, 2 required.
  - Patch Panel to MKS 1249 valve driver, 50 ft, 4 required.

- MKS 1249 valve driver to valve, 6 ft, 4 required.

## Leffel, Mindy:

### Hall B

#### SVT

- Repaired drain wires of seven **Slow Control Systems'** spare cables.

#### LTCC

- Met with Maurizio twice, to discuss **PMT** rework.
- Worked with Tina at the ESB unwrapping **PMTs**, removing the bases, and re-wrapping the **PMTs**.
- Discussed modifying the **PMT** base covers with Aantoly, to allow for an additional signal connector to be added.

## Mann, Tina:

### Hall B

#### LTCC

- Trained Sahin and Werth on **Winston Cone** calibration, mirror test, and testing procedures.
- Delaminated 2 **Winston Cones** (but both need to be polished).
- Inventoried **Winston Cones**
- Meetings with Amrit on **Winston Cone** status.
- Unpacked 240 **PMTs**, removed covers, and repacked, with Mindy at the ESB.

#### DC Gas System

- Discussed with Jennifer Williams safe way to clean the gas **bubblers**.
  - Set up work station in the gas shed for cleaning the gas bubblers.
  - Trained Anatoly on cleaning bubblers.

## McMullen, Marc:

### Hall B

#### SVT

- Completed population tests for 7 **HFCBs**
  - Visually inspected under microscope
  - Secured data connectors with screws and Loctite
  - Applied LV and HV
  - Measured output of LV regulators.

#### DC

- Tested cRIO virtual instrument on output of the **Bertan HV** supply used to test DC HV board.

- VI was able to accurately display the output of the supply with a virtual gauge, as well as convert the voltage to the actual supplied voltage value and display that on a separate gauge.

## Hall D

- Installed cable for **chiller's** momentary reset button.
  - Cable was routed from the chiller PLC location, past the solenoid magnet, and around to the chiller.
- Studying details of the **PLCs** for the Start Counter, Solenoid, and Gas System.
  - Dave gave details on what he frequently checks as far as indicators and readout displays.

## Sitnikov, Anatoly:

### Hall B

#### LTCC

- Delaminated, polished, and cleaned 1 **Winston Cone** (U6-15R).
- Cleaned 5 **Winston Cones** (U4-11L, U4-17L, U5-12L, U3-13L, U2-12L).

#### DC Gas System

- Cleaned 18 **bubblers** (inside and outside).
- Assembled and epoxied (fixed) 6 **bubblers**.

## Teachey, Robert Werth:

### Hall B

#### DC

- Removed old DAQ Fastbus, fan, crate, and cables and replaced them with the new **VME and NIM crates**.

#### HDIce

- Testing USB-to-RS232 converters with the **RF Attenuation/Switching Chassis** of the new NMR System's.
- Coding **initialization sequences** for NMR 2015.
- Calculating ramp rate options for **NMR Magnet Power Supply**.
  - Ramp rates limited due to Lock In Amplifiers DAQ hardware.