

DSG Weekly Report – August 5, 2015

Antonioli, Mary Ann:

Hall B

DC

- Coordinating and overseeing activities on signal cable sorting, repairs, cleaning, testing, and inventorying.
 - ★ Began adding, to check and compare quality of cables, test result numbers on rise time, amplitude, and fall time to spreadsheet.

HDICE

- Generating flowchart in AutoCAD of LabVIEW program for rotation of target polarization.
 - ★ Completed automatic rotation section.

SVT

- Completed bench testing of Hardware Interlock System's software.
- Added extensions to two coolant leak detection cables.

Hall D

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

Arslan, Sahin:

Hall B

DC

- Cleaning and testing signal cables with oscilloscope and signal generator.
 - ★ Set up test stand for signal cables.

SVT

- Wrapped 1/2" Kapton tape around screws (to protect lacing cord from screw threads and also to serve as a guide: to indicate how far to thread them in).
- Wrapped and tied lacing cord around the screws.
 - ★ To hold bundle down and between the screws.
- Replaced N₂ Bottle
- Attended DSG group's daily meeting on magnet and detector performance.

LTCC

- Moved LTCC gas control rack to hall.
- Installed solenoids power cables (supply, exhaust, and power) to channel #3.

Hall D

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

Bonneau, Peter:

Hall B

HDICE

- Conducted bi-weekly slow controls status meeting.
 - ★ Power supply in test station computer has failed.
 - ★ DSG is ordering new computers for test station and lab.
 - ★ *Critical issue since computer is used for all tests.*

- * Since it can take two months to order, receive, and have the computer center configure a new computer, a refurbished power supply will be ordered for the old computer as a stopgap solution.
- Low current initial testing has been done on the CT-box with CAEN's Windows-based CT-Viewer version 1.1 program and the new firmware.
 - * CT-box is reporting an error on current shunt head-warm-up (never reaches full calibration operating temperature).
- CT-software capabilities demonstrated during meeting.

SVT

- Added common enable/disable to all HFCB's connected to the Hardware Interlock System.
 - * Temperatures from the HFCB's are only available when the modules are powered. These temperature sensors must be disabled when the LV is off.
- Corrected status display programming for cooling system temperature.
- Added error logging capabilities to system.
- Connected and tested via the LabVIEW program all production cable assemblies
- Ran extended operation tests to ensure system stability.

Hall D

- Attended DSG group's daily meeting on magnet and detector performance.
- Contacted Alexander Ostrovidov from FSU regarding structure in the TOF HV levels and corresponding currents. Alex reported that the PMTs were sorted by their gains with the highest-gain PMTs positioned closer to the middle of the detector. This is to allow more room to raise HV of the central modules in future, when their gains deteriorate with time due to higher rates in the TOF center.
- Examined status of slow control systems on a daily basis.
- Contacted Alexandre Deur regarding the neutron detector shielding tests.
 - * Shielding is made from 10 cm thick polyethylene.
- Contacted Lubomir Pentchev regarding lower current on the last two LV groups on the CDC.
 - * Currents are lower due to less preamps are connected to these channels.

Butler, Dave:

Hall B

Gas system

- Prepared cRIO PID test setup to go to hall on Wednesday morning.

Hall D

- Coding turn off of mass flow controllers at the gas panel in case of over pressure conditions.
 - * Currently only flow controllers in the gas shed are turned off. This code will send a serial command to override flow valve.
 - * Lubomir Pentchev requested that in the code there *not* be an operator reset and that only an expert be able to reset system.
- Attended FDC/CDC meeting. Discussed baseline issues with CDC and FDC resolutions and FDC 55 Fe source studies (Garfield Simulations). Minutes can be found at: <https://halldweb.jlab.org/wiki/index.php/Minutes-7-30-2015>.

Eng. Brian:

Hall B

SVT

- Developed method for cable management of R1-R3 cables on support tube using SS screws and lacing cord.
- Replaced plastic eye bolts on support tube with metal screws after Sahin wrapped kapton tape around threads.
- Began lacing cable bundles to support tube.

Jacobs, George:

Hall B

Gas system

- Produced following diagrams for EPICS monitoring of gas system parameters:
 - * DCGAS-EPICS-Monitoring-CLAS12-07-30-2015.pdf.
 - * LTCC-GAS-EPICS-Monitoring-07-29-2015.pdf.
 - * HTCC-EPICS-Monitoring-07-30-20152015.pdf.
 - * Completed preparations for LTCC window test
- HTCC gas system components, dry air purge, pressure protection reliefs, H2O sensor, pressure sensor, gas line attachment is with Youri Sharabian and Steve Christo.

Hall D

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

Leffel, Mindy:

No report –vacation

Mann, Tina:

Hall B

SVT

- Replaced three cable connectors for humidity temperature sensor boards.
- Made and replaced 6 cable labels for humidity temperature sensor boards.

Gas system

- Added two connectors to 40 ft. control valve for LTCC.
- Assisted in moving rack for testing LTCC into hall.
- Fabricated one 40 ft. mass flow controller cable.

Hall D

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

McMullen, Marc:

Hall B

Gas System

- Completed drift chamber PID/HTCC/SVT control chassis.
 - * Tested output voltages at connectors, and signal throughputs from sensors to the cRIO connector.
- Wrote test VI to verify operation of moisture detector and analog outputs to front panel.
- Installed DCGAS chassis on space frame level 1.

- Ran controls cables and connected chassis to the DC PID test setup.
- Made a spreadsheet to assign the cRIO channels for the chassis on space frame level 1.
- Manufactured cables for use on the LTCC solenoid valves with Tina Mann.
 - ★ Verified the connections with Jacobs, Mann, and Arslan.

SVT

- Wrote requisition for two selector switches for the Hardware Interlock System.
 - ★ Each switch will have two contacts (one normally open early-make and one normally closed late-break) to allow uninterrupted connection to power when selecting between a power reset module and standard power feed for the SVT crates.

Hall D

- Attended DSG group's daily meeting on magnet and detector performance.
 - ★ Went over previous day's log entries, discussed TOF voltages, and changes made to the flow of gas to the CDC and FDC.
 - ★ Went over the Time of Flight detector, controls systems in tagger which check position of amorphous radiator and provide remote reset for tagger electronics.

DSG

- Completed monthly walkthrough of Physics areas in EEL.
- Ordered change out of extinguishers in the Electronics group's lab.
- Placed service request to have emergency exit light batteries checked.

Sitnikov, Anatoly:

Hall B

DC

- Cleaned and dried 80 connectors(680 channels) using alcohol and dry air
- Tested 80 connectors using CTS-64 tester, generator 81150A, DP oscilloscope 4054, and Flash Drive memory.
- Found damaged 3 cables:
 - ★ R1S2ST7.1. 1 channel
 - ★ R3S3ST20.2. 2 channels
 - ★ R3S1ST23.1. 1 channel