Detector Support Group
Weekly Report, 2015-10-28

Antonioli, Mary Ann
Hall B
DC
- Wired power portion of National Instruments cRIO test station.
- Documented test data of 21 signal cable bundles.
    - ✶ Region 3's S6SL6 completed this week.
    - ✶ One connector was replaced in this bundle.

DSG
- Assisted, Amanda with phone issues, TLD badge, required training, and purchase of basic safety equipment.

Arslan, Sahin
Hall B
DC
- Labeled 14 bundles of signal cables.

HDICE
- Rearranged test set up in control room.
- Fabricated 1/0 AWG cable to measure current from Oxford power supply.

DSG
- Connected UPS to two dry boxes in the clean room for RICH detector.
- Reconfigured work area in rm. EEL 121C (DSG control room).
- Rearranged DSG clean room (EEL 121A).

Bonneau, Peter
Hall B
HDICE
- Conducted bi-weekly HDice slow controls status meeting with Xiangdong from the HDICE group.
- Reconfigured test stand as part of the reorganization of the instrumentation and computers in DSG control room.
- Added an Oxford IPS-120 superconducting magnet power supply to test station to fully debug and test dual power supply controls needed for the rotation of polarization of target.
    - ✶ This added power supply will serve as the axial supply in the tests.
- Ran initial ramp tests of axial power supply to test the computer communication interface and the current loop.
    - ✶ Successfully ramped supply in manual operator mode.
- Developed code to allow for simultaneous readout of both current and field during ramping.
- Modified field hold functions to allow for dual supply (axial and transverse) ramping.

- Dual ramping is only available in manual mode. Upon initial test of automatic rotation sequence with dual supplies, program halted unexpectedly. Cause of error was that supply had internally programmed limitations which were preventing the automatic rotation from progressing. Supply limits were reprogrammed and the test ran successfully. Error handling code will be developed to indicate power supply limits to operators.

SVT

- Monitored the system on a daily basis.
  - Chiller failed causing a lack of coolant flow to SVT. Hardware Interlock System worked as designed and disabled both high and low voltages to SVT modules. Chiller fault is being investigated and the chiller's manufacturer (Lauda) has been been contacted regarding the error.
- Restarted Hardware Interlock System user interface after the computer had updated Micro Soft Windows.

Hall D

- Updated HallDSC6 slow controls computer.
  - This computer is the PLC HMI server computer for Hall D. This update was part of a reconfiguration of the control computers in the DSG Control Room. The UPS for the computer was changed out becase it had intermittent errors.
- Examined status of slow control systems on a daily basis.

Butler, Dave

Hall B

HTCC

- Worked on a design to add a output flow controller on the temporary HTCC gas system.
  - Nick Markov asked about monitoring the system from a remote computer. There are no plans on implementing remote monitoring until installation is in the hall.
- Wrote code for the Gas System's mass flow controller configuration file scheme that is to be used for managing IP addresses.
  - Code will allow minimal system interruption when replacing a new flow controller is required.

Forward Tagger

- Attended the Hall B slow controls meeting and discussed adding a N_2 purge system for the Forward Tagger Calorimeter to the gas system.
- Met with Ken Livingston and Marco Battaglieri to discuss specifics for the system and how the controls system would be affected.
  - After receiving some specifics of the system discussed with George Jacobs mechanical design and sent an initial drawing of the system. (I made it clear that they would be responsible for the budget for this addition to the gas system).

Eng, Brian

Hall B

SVT

- Meeting: Data validation status. Bad channel status: R1=0%, R2=0.02%, R3=0.04%, R4=0.01%.
- Yuri reported that three modules in R4 (1B, 9T, 12B) have had to have their bias voltage reduced due to higher leakage current.
    - ✶ I looked at the data from MYA and found 6 total modules that have a higher number of entries (R2S2T, R3S11B, R4S15B, in addition to the ones Yuri found); need to investigate these modules further.

HDICE

- Got delivery date for type N connectors – end of this week.
- Craig didn't make last teleconference.
    - ✶ Mathematica progress is on hold until more information is received.
- Helped Sahin find a solution to connect magnet power supply with L6-20 plug into L21-30 outlet; power strip that was previously used for SVT chiller + new adapter.

DC

- Evaluating using old test box *c.f.* CLAS-Note 2004-021.
- Meeting with Mac, George and Sergey about what needs to be tested on CAEN mainframes and cards.

Jacobs, George

Hall B

DC

- CAEN HV testing requirements; meeting with Mac Mestayer, Serge Boiarinov, and Brian Eng.
- Discussions about detector cabling plans and routing with Steve Christo and Eugene Pasyuk.
- Further discussions on DCLV cable lengths, decided to use original lengths, no optimization.

Gas System

- Updated gas system spreadsheet and added manpower and man-hour requirements.
- Ordered aluminum fittings to check compatability with Corrlock CLL17 corrogated nylon tubing for DCGAS.
- Discussions about DME gas cylinders and certain potential hazards with Jennifer Williams and Bert Manzlak.

Leffel, Mindy

Hall B

DC

- Replaced 6 signal cable connectors:

- One had transposed wires, three broken connectors, and two labeled incorrectly.

Broken Connector Good coonector

- Tested termination of DC LV cables.
  - Took ~15 minutes to terminate the connector.
  - Documented repair/replacement of DC LV connectors.
- Labeled CAEN mainframes with serial numbers.
- Labeled DC LV cables with Amanda.
- Replaced Argon-CO_2 10% cylinder for the DC test stand in 90/125.

DSG

- Participated in supply cabinet overhaul and labeled all cabinets.
- Reorganized work area.

McMullen, Marc

Hall B

SVT

- Met with Hall B Engineering to discuss connections between SVT off-cart racks and insertion cart.
  - Provided DSG documents on off-cart cable routing and detector/insertion cart cabling.

HTCC

- Worked with Butler and Hall B engineering to make an adjustment to the pressure sensor (MKS-223).
  - Sensor was 0.05 in H_20 high and needed to be zeroed.

DSG

- Discussed elements of the Hall D Tagger HV Reset PLC program with Butler.
  - Programs scheduler is written in ladder, with subroutines written in both script and function block.
- Established network communication with the CompactLogix L35E PLC.

- Held safety briefing with Leffel and Arslan concerning a gas bottle located in the cage containing DME.
    - ✶ Bottle has been labeled shock sensitive; the bottle was identified and will be avoided during bottle exchanges.

Sitnikov, Anatoly

Hall B

DC

- Tested 18 signal cable bundles.
- Cleaned 180 connectors.