# DSG Meeting Minutes – Wednesday, January 14, 2015

# **Antonioli, Mary Ann:**

### Hall B

• Retested the HV alarms of the SVT EPICS system. Of the 20 channels tested, 12 failed due to the HV remaining on. See table.

HV Interlocks	Tacting o	AF EDICS	Cada	for SV/T

Load	340
Current	0.25

	Limits	testing values
low alarm	0.2	0.26
high alarm	0.7	0.24
lo lo alarm	0	
hi hi alarm	2	0.24

	ni ni alarm			I	
	Testing values			1/12/2015	
			High alarm	Hi hi alarm	comments
sector	slot 7	0.26	0.24	0.24	
R1S1 t	ch 1 (0)	✓	✓	failed*	
R1S1 b	ch 2 (1)	✓	✓	failed*	
R1S2 t	ch 3 (2)	✓	1	✓	
R1S2 b	ch 4 (3)	✓	✓	failed*	
R1S3 t	ch 5 (4)	✓	✓	failed*	
R1S3 b	ch 6 (5)	✓	✓	failed*	
R1S4 t	ch 7 (6)	✓	✓	✓	
R1S4 b	ch 8 (7)	✓	<b>✓</b>	✓	
R1S5 t	ch 9 (8)	✓	✓	failed*	
R1S5 b	ch 10 (9)	✓	✓	✓	4 attempts/clicks to turn back on
R1S6 t	ch 11 (10)	✓	✓	failed*	
R1S6 b	ch 12 (11)	✓	✓	failed*	
R1S7 t	ch 13 (12)	✓	✓	failed*	
R1S7 b	ch 14 (13)	<b>✓</b>	<b>~</b>	failed*	
R1S8 t	ch 15 (14)	✓	✓	✓	
R1S8 b	ch 16 (15)	✓	<b>√</b>	✓	3 attempts/clicks to turn back on
	slot 8				
					HV shut down, but alarm button changed from red back
R1S9 t	ch 1 (0)	✓	✓	✓	to green; 4 tries to turn back on
R1S9 b	ch 2 (1)	✓	`	failed*	
R1S10 t	ch 3 (2)	✓	<b>*</b>	failed*	
					HV shut down, but alarm button changed from red back
R1S10 b	ch 4 (3)	✓	✓	✓	to green
	ch 5 (4)				
	ch 6 (5)				
	ch 7 (6)				
	ch 8 (7)				
	ch 9 (8)				
	ch 10 (9)				
	ch 11 (10)				
	ch 12 (11)				
	ch 13 (12)				
	ch 14 (13)				
	ch 15 (14)				
	ch 16 (15)				

<sup>\*</sup>Status screen and alarm handler both show a trip (red), but HV did not turn off.

### **DSG**

- Imported Werth's **note** on **PLC Controls for the Hall D LH**<sub>2</sub> **Cryotarget** from Word to Adobe InDesign.
  - Added pictures, made table, and laid out document in correct format and with correct text and paragraph styles. Began discussions with Werth and began editing.
- Made additional edits to Dave's, Pete's, Marc's, and my notes.
- Began re-configuring DSG control room.

## Arslan, Sahin:

### Hall B

- Qc-ed SVT HFCBs.
- Stationed **FNAL** from 01/12/15 01/30/15.
  - Conducted on HFCBs 81, 84, 85, 86, register test and gain scan.
  - HFCB 90 keeps failing register test in any station.

## Bonneau, Peter:

#### Hall B

- Discussed with Sue Weatherspoon the status of the **SVT** EPICS slow controls.
- Advised Sue that running multiple Alarm Handlers causes problems with the system.
  - She terminated her Alarm Handler to avoid conflicts during our system testing.

### **DSG**

• Programmed firmware and partially tested new FPGA-based Weiner VME Controller, which will be used in the VME test station as the controller that communicates between the VME backplane and the VME board under test.

## **Butler**, Dave:

#### Hall B

- Attended the **SVT** meeting where the following items were discussed:
  - Cold Plate: manufacturing on new schedule.
  - DOE Review March, 2015
  - SVT Commissioning: must be commissioned by June 2015.
  - A total of 86 HFCB boards will be manufactured
  - SVT controls not meeting expectations.

### Hall D

- Worked on a PLC solution for shutting off the main 208 V, 3-phase power, to the **chiller** in case of an over-temperature event.
  - Brian suggested controllable switch boxes that would work for this task, which DSG already had
    in stock.
  - Werth tested the controllable switch box and ordered a control connector to interface the PLC.
- Helped troubleshoot the intermittent fault (since November, 2014) in the Cryo Monitor signal in the solenoid controls.
  - The signal monitors the PLC in the cryo building and dumps the magnet if there is a fault or loss of communication.
  - It was discovered that there was a faulty connection at the Cryo PLC interface. The problem is being monitored but seems to be working properly.
- Gathering information on the Hall D solenoid PXI in preparation for system turnover from Yi Quang.
- Began designing a controls scheme to interface a VESDA fire system with the FCAL darkroom PLC.
  - The interface will turn off high voltage in darkroom and also ensure that the magnetic door locks are disabled to allow for a safe exit for personnel.

## Eng, Brian:

### Hall B

- Began configuring multiple VXS crates for the **SVT** DAQ setup.
  - Got short fiber optic cable from Ben Raydo to connect trigger interface (TI) cards.
  - Sergey Boiarinov began transitioning SVT controllers to release 0.2 of CODA.
- Attended **SVT** meeting, plus a separate meeting with Latifa to go over **ETC**.
- Went over electrical testing of unpopulated **SVT** HFCBs with Anatoly.

#### Hall D

- Reviewing Hall D Solenoid PXI LabVIEW code since Yi will be leaving at the end of this month.
  - Uninstalled all old versions of LabVIEW and installed 2014 Dev Suite 2 from M:\ drive.

### **DSG**

• Updated firmwares on VSCMs in EEL/121B to 2.12.

## Jacobs, George:

### Hall B

- Attended **engineering meeting** regarding ESB storage of panel 2 TOF, equipment storage priorities for ESB, better management of randomly-stored items.
- Inspected gas handling equipment for **MicroMegas** testing in EEL 124 clean room and the gas handling area behind the EEL.
- Meeting with Paul Hanson, TORUS cable tray designer. Meeting topics included, cable tray locations, orientations, sizes, supports, cable paths, and tray loading. Discovered that the upstream TORUS vertical supports interfere with access to one DCRB rack North and South side. DCRB racks will need to be shifted North and South to avoid this 8" beam. It looks like we lose the space for the empty rack both North and South.
- Produced gas supply piping diagram for MicroMegas testing in EEL rm 124.
- Produced piping and controls diagram for MicroMegas gas mixing system using 5 gasses.
- Requested pricing from gas vendor, Praxair, on pure gasses for the **MicroMegas** mixing system to determine feasibility of using pre-mix vs mixing in-house.

### **DSG**

• Meeting with Marc McMullen and Bert Manzlak concerning safety issues with cylinder and lines behind the EEL in the gas handling area.

## **Leffel, Mindy:**

### Hall B

- Continued working on the 12 **SVT** HTSB cables.
  - Stripped all 84 temperature sensor wires and 84 humidity sensor wires and attached the pins.
  - Attached all 84 pieces of heat shrink.
- Started working on the 12 **SVT** HTSB 20' jumper cables.
  - Cut 9 of the 48 cables (24 temperature sensor cables and 24 humidity sensor cables).

#### Hall D

- Met with Tina and Dave in Hall D to discuss a system check procedure for the FDC and bubblers.
- Attended Hall D Tech meeting.

### **DSG**

Began reconfiguring DSG control room.

## Mann, Tina:

### Hall B

- Unpacked and staged returned LTCC Winston cones from Evaporated Coatings Inc.
- Met with Mauri on upcoming LTCC work in TEDF high bay area (WC and PMT installation, soldering amplifier boards, and installing cables).

#### Hall D

• Implementing checklist for Hall D System check.

### **DSG**

• Worked on LTCC Winston Cone Testing **note**.

## McMullen, Marc:

#### Hall B

- Completed quality assurance tests on 7 **SVT** HFCBs.
  - Sent four to module production.
  - QC indicated HFCB 88 had a high current, bad capacitor was the root of the problem, replaced capacitor, now current in the normal range.
- Started visual inspection of 13 bare **SVT** HFCBs under microscope.
- Started working with Anatoly on QA of SVT HFCBs.

### **DSG**

- Met with B. Manzlak and G. Jacobs about the **safety** of the flammable gas pad, bottles, and lines.
  - Bert has contacted the bottle owners so that they may dispose of any unwanted or empty bottles.
  - George is providing a suitable bottle rack which will be used for the Micromegas gas system during testing in the EEL.
  - Bert will look into changing the lines from plastic to metal.

# Sitnikov, Anatoly:

### Hall B

- Measuring 0.32 mm CTOF glass fibers' transmittance (~50 fibers).
- Checked 3 bare **STV** HFCBs, using 2002 multimeter and microscope.

# **Teachey, Robert Werth:**

## Hall B

• Completed remote operational checks of the slow controls test stand at Fermilab which is being used for the production of the **SVT** modules.

## Hall D

• Acquired and tested a BiRA 208V remote switching module. Researched and ordered CPC connectors for the BiRA four conductor remote cable.

## **DSG**

• Debugging the new code for the **MPOD test stand** voltage variation test.