Weekly Reporting

WBS 1.01.07 JLAB Management

Week of September 3-10, 2015

**Issues:**

**Accomplishments this week:**

Making arrangements for the 4.5K CB vendor kick-off meeting.

Two SLAC engineers are on sight and working.

Reviewed and verified the split activities in P6 for the new baseline effort are IAW project guidance.

The processing cabinet final specification is planned for next week and a RFP the following week.

Expect RFI input for production copper plated bellows and beamline spool pieces in 1-2 weeks.

**Upcoming Activities:**

Mike Skonicki is planning to visit JLab on Sep 15th to follow up on some of the items from the Cross Walk Exercise. In addition, Mike plans to conduct a separate QA Assessment on JLab sometime in October. The assessment may or may not be on site; and the details and expectations will be provided during the Sep visit.

Cryogenics System FDR at SLAC, September 28-30, 2015

4.5K Cold Box Vendor Kick-off Meeting, tentatively 1st week of October – To be confirmed

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

**Issues:** pCM component schedules, JLab pCM schedule is driven by the availability of parts. Awaiting approval to proceed with production component orders for gate valves, HOM & FP feedthroughs.

**Accomplishments this week:**

The first VQ cavity (AES023) arrived at RI, along with one set of testing hardware.

The second VQ cavity (AES025) is in transit to Zanon, along with one set of testing hardware. Customs issues are delaying delivery to Zanon.

The third and fourth VQ cavities (RI023, AES014) are being prepared for baseline testing. AES014 showed field emission at 7 MV/m and will be disassembled and re-rinsed.

JLab has eight cavities on-site - AES029, 030, 031, 032, 033, 034, 035 and 036. Considering corrections for testing hardware, seven cavities are qualified for string assembly – AES 029, 030, 032, 033, 034, 035, 036. The final one (031) leaked at an HOM flange seal and will be re-tested on 9/16. AES 030 has low Qo and may be retested if time allows.

Two cold couplers received from Cornell show signs of oxidation on the inner conductor and are under evaluation for use in the prototype string.

Final two cold couplers were received from SLAC, and are undergoing receipt inspection.

Continuing with preparations for HTB testing of AES033. PSS system check-out was completed. Testing of SSA showed limitation in maximum power of only 2.4 kW compared with 3.9 kW advertised. RF check-out and testing began 9/8.

Completed installation of cold mass assembly fixture (four-poster) to be used for prototype CM assembly.

All cu-plated bellows and spools have been received. Currently performing receipt inspection on cu-plated bellows assemblies needed for cavity string assembly. Bellows have passed leak checks and undergoing blister tests. In addition, JLab will blister test spool pieces needed for FNAL pCM.

Began assembly activities for CM Bayonet Box needed for CM testing. Received thermal shields sub-assemblies, top plates and bayonet parts. Began welding female bayonet sub-assemblies.

**QUALITY**

Draft ACS documents for the HOMFTs, Gate Valves, and Cavity String Bellows & Spool are out to Fermilab for comments. JLab will continue to work on the Tuner and HOM Absorbers ACS documents.

**Upcoming Activities:**

* 13-18 September 2015 – SRF2015, Vancouver
* 28-30 September 2015 – Cryosystems FDR at SLAC

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of September 3-10, 2015

Week of September 3-10, 2015

**Issues:** Proposed (the cryomodule Rev 1 EN heat load document) cryomodule shield heat leak appears to exceed the refrigeration shield capacity of a single plant.

**Accomplishments this week:**

Preparations continued for the Integrated Cryogenic Systems review to be held at SLAC Sept 28-30th.

A draft version of the 2K cold compressors (JLab 79222-S001) and helium gas storage vessels (JLab 79729-S001) procurement specifications were released for comment. Comments were received and are in the process of being incorporated into the procurement specification.

A warm helium compressor procurement presentation was made SLAC and DOE. Documentation has been sent to DOE for approval.

John Pucci and Viswanath Ravindranath (engineers from SLAC), have relocated to Virginia and have joined the JLab cryogenic group for the LCLS-II Project.

Weekly meetings with SLAC Infrastructure continued for planning the new larger cryoplant building for the first and second cryogenic plant. Topics included the layout sizing of the SLAC LN2 dewars.

**QUALITY**

Reviewed the QA requirements on the draft technical specifications for the various CryoPlant subsystem assemblies (i.e. ambient air heat exchanger, 10K liter He dewar, purifier compressor, & etc.)

**Upcoming Activities:**

Sept 28-30th, Cryogenics System Final Design Review hosted by SLAC

4.5K Cold Box vendor kick off meeting, tentatively 1st week of Oct, to be confirmed

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of September 3-10, 2015

**Issues:** None

**Accomplishments this week:**

* Stepper Motor Board: The stepper board will be sent out this week for manufacture.
* Interlock Board: Work continues on interlocks schematic and pcb.
* CMTF: SSA is ready for test. Waiting for TOSP.
* Common Power Supply: Working on rear connector and filter panel design for the chassis.
* CMTF: SSA was powered up 2.4 kW. The limit is a factory limit and for now we will leave it at that level.

**Upcoming Activities:**

* + Get stepper board back late next week.
  + Finalize the interlock schematic
* Order chassis for common power supply.