Weekly Reporting

WBS 1.01.07 JLAB Management

Week of August 17-23, 2017

**Issues:**

**Accomplishments this week:**

Conducted 1.04 EV Performance Review.

Estimated 1.04.06 and 1.04.08 Accruals.

BCR for CM Testing in the LERF was approved.

JLab and SLAC team members traveling to PHPK to conduct an inventory inspection of 4.5K CB components.

**Upcoming Activities:**

Vendor Visit to PHPK August 22-24, 2017

Vendor Visit to PHPK August 30-31, 2017

CP Controls Review September 13, 2017

FAC at SLAC September 26-28, 2017

Weekly Reporting

WBS 1.04.06 JLAB Cryomodules

Week of August 17-23, 2017, 2017

**Issues**: Expect delays in cavity shipments due to lack of availability of PICs. Short interruption in vendor deliveries due to August holiday closures at vendor facilities.

**Accomplishments this week:**

LERF as a test LCLS II CM test bed - BCR was accepted. Planning internal meetings now and kick-off for mid-September.

Schedule re-alignment BCR was accepted.

2+2 CM procurement BCR is in preparation.

Preparing BCR for fabrication of 133 replacement cavities.

pCM (J1.3-1) at FNAL where it is being prepared for testing after F1.3-4.

CM02 - Evaluating HOM tuning and thermal strap installation in advance of CM03 cooldown.

CM03 at WS-5: Bayonet box installation is complete. Evaluating HOM tuning and thermal strap installation in advance of cold testing. Moving to CMTF at the end of the week. Plan to cooldown early next week.

CM04 at WS-3: Re-torquing all heat stationing is complete and recheck HOM tuning is in progress. Verifying the HOM tuning procedure. Next step is to install shields.

CM05 at WS-3: Magnet lead soldering is in progress. Hold awaiting HOM tuning on CM-04.

CM06 at WS-2: Ready to move to WS3. UCM 016 under inspection.

CM07 at WS-2: Rolled-out on 18-Aug.

CM08 : Three cavities qualified for the string (116, 122, 278).

Cavity 122 (NX-A) first test, Admin limited at 24 MV/m, Q0(16) = 2.5e10, FE free. Cavity qualified.

Cavity 116 (NX-A) first test, Admin limited at 24 MV/m, Q0(16) = 2.7e10, FE free. Cavity qualified.

Cavity 118 (NX-A) first test, Radiation limited at 22 MV/m, Q0(16) = 2.4e10, FE onset at 11 MV/m after field emitter activated. Cavity will be re-rinsed and retested.

Cavity 281 (TD) first test, Admin limited at 24 MV/m, Q0(16) = 2.1e10, FE free. Cavity failed due to low Qo. Investigating cooldown rate in dewar 5.

Cavity 281 (TD) first test, Admin limited at 24 MV/m, Q0(16) = 2.1e10, FE free. Cavity failed due to low Qo. Investigating cooldown rate in dewar 5.

Cavity 279 (TD) first test, Admin limited at 24 MV/m, Q0(16) = 2.1e10, FE free. Cavity failed due to low Qo. As with 281, investigating cooldown rate in dewar 5.

Cavity 278 (TD) first test, Admin limited at 24 MV/m, Q0(16) = 3.4e10, FE free. Cavity qualified. Cavity position #3 in dewar 5 has had two successful tests sequentially. Suspect cooldown rate caused low Qo for other two cavities (281, 279).

Future cavity test plans - 270 (TD) first test in D8, 261 (TD) retest in D7 (failed Q0 in D5), 102 (NX-B950) retest in D8 (passed, but fast-vented). In addition, we will perform D5 low Q0 investigation. In total there are about 14 cavities on-site proceeding through receiving inspection.

CMTF warm, new Cold Box #3 back online.

**QUALITY**:

Had a QA Coordination meeting with Fermilab where we exchanged QA/QC statuses with the assembly and testing of cavities and cryomodules. We also discussed SNCRs, Equipment Transfer, and JLab pCM arrival at Fermilab.

Discussed QA staff transition plan internally and held various meetings for knowledge transfer to ensure a smooth transition.

**Upcoming Travel:**

E. Zanon Vendor Oversight August (D. Gonella), September 2017 (C. Reece)

FNAL for preparations for pCM testing (R. Legg)

LERF Kick-Off 14 or 15 September TBC at JLab (K. Jordan, C. Hovater)

FAC at SLAC 26-28 September - TBD

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of August 17-23, 2017

**Issues:**

**Accomplishments this week:**

Members of the JLab/SLAC engineering team visited the 4.5K cold box subcontractor to assess the shop progress status on August 23rd.

4.5K Cold Box Turbine Pods are scheduled to be shipped in September 2017. Shipping coordination is coordinated with SLAC.

The first compressor skids for Plant #2 is scheduled to be shipped to SLAC late August. Delivery is being coordinated with SLAC.

The internal support frame for mounting of heat exchangers and vessels is complete for CP#1 4.5K lower cold box. Mounting of heat exchangers and vessels are pending. 50% of the piping spools pieces have been fabricated. JLab/SLAC engineers to confirm status on August 23rd.

Witness point for the CP#1 upper cold box intermediate leak check is scheduled for the week of August 28th. Tentative scheduling meeting to be held at PHPK week of August 28th.

**QUALITY**: No Report.

**Upcoming Travel/Reviews:**

Vendor Visit to 4.5K cold box subcontractor PHPK Aug 22-24, 2017

Vendor Visit to 4.5K cold box subcontractor PHPK Aug 30-31, 2017

CP Controls Specification Review Sep 13, 2017

FAC Review Sep 26-28, 2017

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of August 17-23, 2017

**Issues:** None

**Accomplishments this week at JLab:**

* LLRF Coordination/Documentation:
  + LLRF Production: Meeting with JLAB leadership on Thursday.
  + BCS: Trent and John presented their findings and recommendations last week to SLAC. Over all it was well received but more time is needed to finish the presentation.
  + LERF project: Primarily finalizing schedule and coordinating with SLAC.
* Resonance/Stepper Motor Board/Chassis:
  + Rama continues working on chassis test procedure and test bench with RF technician.
  + Sent Mike Drury the EPIC PVs for labview.
* Interlock Board/Chassis:
  + An interlock functional requirements document has been issued by SLAC and is being reviewed.
* Common Power Supply/Chassis/Boards:
  + Received quotes on a custom 6 v/28 A supply, $720 or off the shelf 6v/40 A supply $550, both in quantities of 80. Will discuss Wednesday at meeting.
  + Shipped power supply to FNAL with cables.
  + Received two old supplies from SLAC which are being reworked.
* CMTF
  + PRC/RFS: Chassis are powered in the rack. Installed the fiber chassis. Waiting on Couplers and switches which are due in by mid-September.

**Upcoming Activities:**

* LERF presentation for SLAC early September.
* FAC at the end of September.