Weekly Reporting

WBS 1.01.07 JLAB Management

Week of Nov 11-17, 2016

**Issues:**

Funding issues – JLab LLRF is running out of funds and the remaining FY17 funding and commitment profiles need to be finalized.

**Accomplishments this week:**

Held the 4.5 K Cold Box Schedule Recovery Directors’ review at JLab.

Submitted monthly financial report.

Preparing October VARs.

Beamline Absorber RFP went out. This is the last procurement in the 1.4.6 WBS.

Went to FNAL and conducted SOTR training.

**Upcoming Activities:**

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

Week of Nov 11-17, 2016

**Issues:** Efficient transfer of lessons learned from FNAL pCM assembly in order to reduce JLab pCM assembly duration – currently at last assembly work station. Cost and schedule impacts due to cavity recipe development effort at vendor.

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**Accomplishments this week:**

BCR for beamline bellows plating schedule adjustment is ready for CCB presentation on Friday 18-Nov.

BCR to request additional funds for BLA procurement is ready for CCB presentation on Friday 18-Nov.

Instructed by project at last BCR facilitation meeting to procure third shipping frame. It is expected that a variance of $75K will be incurred.

Cavity Procurement

Attended PCC meeting and reported on vendor meetings from previous week including hold point updates and expected cavity deliveries. Conducted weekly vendor calls with RI and Zanon.

Awaiting resolution of design revision to split ring assemblies from FNAL.

Zanon vendor visit scheduled for 14-15 December. Four cavities (900/200/NX) from Zanon arrived at JLab on 11-Nov. Four cavities from RI (900/200/TD) arrived at JLab on 11-Nov.

Continuing discussion on routing of cavities from RI and Zanon to partner labs and plans for use in CMs. Twenty more cavities from RI will arrive at PLs by end of November.

pCM assembly activities at Work Station 5:

Downstream beam pipe has been installed and leak checked. Warm coupler frisbee flanges have been completed. Instrumentation T’s and MC line have been installed. Instrumentation flanges are being installed and read backs verified. GHRP Testing caps have been installed in preparation of leak check and low pressure test. High pressure test of Pipe A is complete.

Requested additional procedure from FNAL for soldering to the warm flange for the SC magnet. Request for the technician who soldered the leads at FNAL come to JLab to instruct and oversee the effort at JLab.

Current CM completion date is 22-NOV in P6.

Production CM Activities

Received 12 sets of production magnetic shielding. Production VV degaussing coil in process. Materials on hand for end flange stands.

Jlab and FNAL reps visited WXCX on 11/9 & 10. A total of 18 action items for UCM and 6 items for VV were formulated.

Continuing to inspect bellows and spools and production tuner frames.

Continued to receive FPCs from CPI and RI.

The CM02 string assembly was rolled out on 11-NOV.

Internal optical inspection of L2-202 ongoing (previously quench limited at 14.9 MV/m with strong Q0 roll-off)

Retest on L-201 Thursday, 11/17 (previously FE limited). Initial testing of Zanon and then RI cavities beginning week of 11/21.

JLab staff is visiting DESY to review shipping cap installation on XFEL CMs.

Cryomodule Test Facility

Heat exchanger pressure test and leak check has been completed. Installing MLI and preparing shield. RF cables pulled from control room to SSAs. Terminated and QC'd.

UPS's and LCLS-II Instrumentation Power Supply chassis and cabling installed in LLRF racks. PSS certification complete. Verified SSA HV control. SSA's now integrated into PSS. New lead shielding wall configuration at fan-stack approved by RadCon.

Some Labview work started.

**QUALITY**

* Preparing for visit to Zanon in December.
* On-going QA/QC support of various incoming CM components.

**Upcoming Travel:**

* Shipping Cap Installation Visit at DESY - 13- 16 Nov 2016
* Vendor Visit to Eden Nov 30-Dec 1
* Shipping Frame Vendor Visit Dec 5-7
* Vendor Visit to Zanon to provide feedback on first articles, 14-15 Dec 2016

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of Nov 11-17, 2016

**Issues:**

**Accomplishments this week:**

The 4.5K Cold Box vendor reported a 12-week delay in the delivery during the FDR. A Director’s review was conducted on Nov 16th to show how the vendor plans to recover the contractual schedule slip for the contractual CP#1 contractual delivery date of Sept 11, 2017. Results of the review showed a baseline recovery to the first week of November 2017 with additional options which recovered the schedule to the end of September and the first week of September 2017.

A 2K cold compressor FDR Part 1 was successfully held Nov 8th at JLab. JLab has received all pre-review documentation from the vendor (Air Liquide) in advance of the review. Additional questions concerning the MTBF of the bearings and electrical cabinet floor mounting details are scheduled to be provided by Nov 17.

Work continued addressing the 10 Cryoplant PDR recommendations.

The design of the transfer line interface boxes and related transfer line continued through the week. A review of the interface box design and connected transfer line remains set for January 2017.

Technical bid evaluations for the oil removal vessels and helium storage vessels was submitted to the SOTR and is in the process of being summarized. .

A BIO visit to JLab to discuss the cryogenic plant documentation, standards, ES&H coupled with a tour of the CHL took place on November 15th.

**QUALITY**

* Participated in the SLAC BIO and ESH visit to JLab on Nov 15th.
* Participated in the Director’s review on the 4.5K Cold Box schedule recovery on Nov 16th.

**Upcoming Activities:**

* Controls Integration Meeting, at SLAC, Dec 9th
* 2K Cold Compressor Design Review Part 2, Jan 11, 2017
* Interface Box/Transfer Line PDR January 2017

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of Nov 11-17, 2016

**Issues:** None

**Accomplishments this week at JLAB:**

LLRF Coordination/Documentation:

* + Heater: Board has been released for fabrication.
  + Production cost estimate: Reviewing costs now for test benches and production testing. Dave has responses from companies on kitting quotes for the resonance chassis.
  + Gun Interlocks: Trading emails with Gang.

Resonance/Stepper Motor Board/Chassis:

* + Chassis waiting for installation into CMTF.
  + Garth/Rama/George: Soft IOC is working and boots off JLAB network.
  + Firmware still being developed.

Interlock Board/Chassis:

* + Interlock Chassis: Bench Testing is complete on first chassis.
  + Chassis four will be completed at the end of the week. Three chassis are assembled.
  + Remaining Chassis are in the process of being bench tested.
  + George is working on the soft IOC.

Common Power Supply/Chassis:

* + Developing test bench and discussing how to test for production.
  + Production PS: Discussing modifications needed for the production unit.
  + Tracking the modifications for production design.

CMTF

* + LCLS2 Server: Server and switch have been installed.
  + RF Cables and instrumentation: Probe, Forward, Reflected and HOM cables are being installed this week.
  + Chassis (Resonance and Interlock) connector list sent to Larry King for connector and cable fabrication.
  + Clyde and George are working on EPICS screens and data bases.

**Upcoming Activities:**

* + Continue prototype tests and assembly (resonance, interlocks, power supply)
  + Team Meeting planned for week of December 5.
  + Test SSAs into waveguide shorts.
  + JLAB pCM Installation and tests.