Weekly Reporting

WBS 1.01.07 JLAB Management

Week of Nov 24-Dec 1, 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:**

Updated monthly progress

Developed an alternative plan for cryoplant procurements to avoid exceeding baseline funding plan and maintain the project schedule.

**Upcoming Activities:**

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

Week of Nov 24-Dec 1, 2016

**Issues:** Cost and schedule impacts due to cavity recipe development effort at vendors.

**Accomplishments this week:**

BCR to request additional funds for BLA procurement - need to finalize split of FY17/FY18 funding when award is made.

Preparing EAC for two WBSs – 1.04.06.05 Engineering and Design and 1.04.06.06 Prototype CM.

Cavity Procurement

Attended PCC meeting and reported on vendor meetings from previous week including hold point updates and expected cavity deliveries. Discussion was focused on EP process at Zanon.

Conducted weekly vendor call with RI. Vendor continues to ship cavities in advance of incentivized dates. The vendor identified an issue with vacuum integrity of large transition joint. About 4% of the joints are leaking. Investigation of cause is on-going and discussions with supplier are planned.

Conducted weekly vendor call with Zanon. First article cavity performance is below expectations. Following output from PCC, Zanon changed the next bulk EP runs – bare cavities are being process using the JLab-style cathode and processing parameters. First results from bulk EP were very encouraging as parameters matched SME expectations.

Awaiting resolution of design revision to split ring assemblies from FNAL. Review planned for Friday 2-Dec.

Four cavities from RI (TD/900/200) arrived at JLab on 29-NOV. Four cavities from RI (TD/900/200) are schedule to arrive at FNAL today 1-DEC.

Next two RI shipments of four cavities each expected to ship to JLab and FNAL during the second full week of December.

pCM assembly activities at Work Station 5:

The end cap Ion pump has been installed. Beamline vacuum currently 7e-9 torr. End cap end accelerometer and diode Instrumentation is complete. Bayonet box end ion pump has been removed and beam line spool with Ti window was installed. The bayonet box installation is complete. The magnet lead flange installation was completed.

FNAL visitor was on site for support and training for the magnet flange soldering process on Nov-29th. Flange soldering was completed.

FNAL visitor on site for support of pCM and VV04 (WXCX) degaussing on Nov. 30-Dec.2. The pCM was successful degaussed; the peak magnetic field was reduced to ~4 mG.

SLAC visitors are on site for operational check-out of SC magnet power supply.

The pCM was installed in the CMTF on 30-Nov, and is tentatively scheduled for cooldown on 15-Dec.

Cryomodule Test Facility

RF cable installation is completed. SSA check-out with waveguide and controls is in progress. Temperature readback units have been installed in the CMTF control room. Labview software work on-going. Operational check-out of the SC magnet power supply was completed.

Production CM Activities

Continuing to inspect bellows and spools and production tuner frames.

Continuing receipt inspection on RI cavities planned for CM03 string.

Continued to receive FPCs from CPI and RI.

The CM02 string assembly was surveyed to confirm alignment.

Vertical Test on L2-210 (Zanon 900/200/NX) was conducted on 30-NOV – admin limited to 18 MV/m, FE onset at 11.0 MV/m, Qo = 2.4 x 10E10 at 16 MV/m. Cavity not qualified - major NCR. Re-work path being determined.

Completed both mobile degaussing rings to be used for degaussing VVs.

The upper cold mass and vacuum vessel for CM03 were received on Monday 28-Nov.

**QUALITY**

* Preparing for visit to Zanon in December.
* Submitted the monthly Significant NCR Dashboard to the SLAC Project QA.

**Upcoming Travel:**

* Vendor Visit to Eden Nov 30-Dec 1
* Shipping Frame Vendor Visit Dec 12-13 (delayed one week later)
* 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 24-Dec 1, 2016

**Issues:**

**Accomplishments this week:**

A meeting is scheduled on Dec 7th with the Smith Group (Detroit) to discuss gap cryoplant design to advance the installation time schedule and company capabilities.

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 has been summarized. A number of site visits is being planned to evaluate vendor capabilities.

Specifications for the helium and nitrogen vaporizers, helium gas storage vessels, control panels, and oil processors are being distributed for approval/comments.

**QUALITY**

* No new updates.

**Upcoming Activities:**

* Smithgroup Visit, Dec 7th
* 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 24-Dec 1, 2016

**Issues:** None

**Accomplishments this week at JLAB:**

LLRF Coordination/Documentation:

* + Heater: Board is in fabrication.
	+ Production cost estimate: Finalizing the production costs. Waiting on chassis costs and BMB7.
	+ Gun Interlocks: Reviewing the I/O document sent by Gang.

Resonance/Stepper Motor Board/Chassis:

* + One Chassis installed into CMTF.
	+ Garth/Rama/George: On hold as the team works on the interlocks.
	+ Firmware still being developed.

Interlock Board/Chassis:

* + Interlock Chassis: Two chassis are bench tested.
	+ Three chassis are assembled. Last two waiting on a part.
	+ Third chassis is being bench tested.
	+ George/Garth/Rama are working on the soft IOC and EPICS interface.

Common Power Supply/Chassis:

* + Five power supplies are complete.
	+ Production mods being acquired.

CMTF

* + LCLS2 Server: Server and switch have been installed and ready to go.
	+ RF Cables and instrumentation: All done.
	+ Clyde is planning to run the SSAs into waveguide shorts this week.

**Upcoming Activities:**

* + Team Meeting moved to January (FNAL/JLAB)
	+ JLAB pCM Installation and tests