Weekly Reporting

WBS 1.01.07 JLAB Management

Week of Dec 2-8, 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:**

Monthly accruals done.

CP procurements; MCC proposals received, LN2 dewar final proposals received.

Several vendor visits completed and more are scheduled.

**Upcoming Activities:**

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

Week of Dec 2-8, 2016

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

**Accomplishments this week:**

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

Developed what-if schedule for CTF down planned to start 17-FEB for discussion with SM on impacts to CM assembly labor, testing and delivery.

Cavity Procurement

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

No weekly vendor call with RI. The vendor identified an issue with vacuum integrity of large transition joint. RI, JLab and FNAL technical staff contacted transition material supplier. Cause for leaks was determined – potential faulty joints can be identified. Helium tank supplier has successfully repaired a leak joint. Finalized contract mods for costs associated with caps, increased EP and eight spare cavities.

Conducted weekly vendor call with Zanon. Zanon changed the next bulk EP runs – three bare cavities have been processed using the JLab-style cathode and processing parameters. Results from bulk EP - parameters matched SME expectations. Reviewed agenda for upcoming vendor visit. Planned for development EP runs prior to vendor visit.

Awaiting resolution of design revision to split ring assemblies from FNAL. Attended review meeting held last Friday. Tentative path forward defined.

Six cavities from Zanon (TD/900/200) arrived on 6-DEC. Four cavities from Zanon (TD/900/200) are en route to FNAL. In that batch, 225 at JLab is being expedited for cavity qualification – it has detailed process control from helium tank integration.

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

pCM assembly activities at Work Station 5:

pCM is aligned in position in the CMTF. Heat stationing of Ti window is complete. U- tube fabrication is in progress. Bayonet box top external circuits are complete. Insulating vacuum leak check is on-going.

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 – first four channels complete. SSA check-out for second four channels in progress. Labview software work on-going.

Production CM Activities

Received 12 sets of production magnetic shields.

Inspected gate valve supports and found unmachined surfaces like what Fermi found – plan for rework in place.

Orbital welding test for production 2 phase pipe done for CM02.

Load testing of second four-post fixture – PR has been submitted.

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.

Vertical Test RI 021 (900/200/TD) was conducted on 03-DEC – Radiation limited at 21.5 MV/m, Initial FE onset (sudden, >3R/hr) 24 MV/m, Final FE onset 13 MV/m, 1 mGauss field, Q0(16MV) = 3.9e10. Plan to rinse, retest date TBD.

Vertical Test RI 023 (900/200/TD) was conducted on 07-DEC – Quench limited at 20 MV/m, no FE, Q0(16MV) = 3.6e10. First qualified cavity for CM03 string.

Vertical Test on RI 024 planned for 08-DEC.

Planning for visit from M. McGee (FNAL) for review of shipping fixtures and plans for shipment.

**QUALITY**

* Preparing for visit to Zanon week of December 12th. QA topics have been added to the draft agenda.
* On-going evaluation of NCRs and determination of the significant level for the NCR Dashboard.

**Upcoming Travel:**

* 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 Dec 2-8, 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. Smith Group will visit JLab on Dec 19th to go over the completed design to date and the remaining work scope. Copies which depict the current design status and work scope are scheduled to be sent to Smith Group in preparation of the meeting

4.5K cold box FDR documentation was received with the exception of 3 items scheduled for completion Dec 19th. The documentation is under technical evaluation.

An evaluation of what procurement items could possibly be deferred until May 2017 was completed.

The December coordinated controls interface meeting has been postponed.

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 currently underway to evaluate vendor capabilities and facilities.

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

**QUALITY**

* QA Vendor Evaluation scheduled for Dec. 13 at Modern Custom Fabrication located in Fresno, California. This is for the Warm He Storage Tanks.
  + Reviewed QA Manual
  + Reviewed Welding Documentation and Certs
* 2K Cold Compressor FDR scheduled January 11, 2017.

**Upcoming Activities:**

* Smith Group Visit to JLab, Dec 19th
* Controls Integration Meeting, at SLAC, TBD moved from 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 Dec 2-8, 2016

**Issues:** None

**Accomplishments this week at JLAB:** On travel.No report.