Weekly Reporting

WBS 1.01.07 JLAB Management

Week of April 21-27, 2017

**Issues:**

**Accomplishments this week:**

Preparations for the Director’s Review

Shipped first cryogenics plant equipment to SLAC.

Award for 32+3 cavities and material for 133 cavities to RI signed and completed.

New MCC bids were received after changing the specification.

Submitted accruals.

Submitted VARs.

**Upcoming Activities:**

Director’s Review at SLAC 3-5 May 2017

International Particle Accelerator Conference 14-19 May

Collaboration Meeting 12 June 2017

DOE Status Review at SLAC 13-15 June 2017

SRF 2017 in China July 17-21, 2017

FAC at SLAC July 25-27, 2017 (Tentative)

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

Week of April 21-27, 2017

**Issues:** Impact on cryomodule assembly schedule due to design changes and parts availability associated with microphonics. Insufficient quantities of PICs may lead to delays in shipments from cavity vendors.

**Accomplishments this week:**

Presentations were prepared and dry runs were conducted for two Director's Review talks: Cryomodule Production Status and Cavity Status.

Prepared a BCR to fabricate 18-20 cavities at RI from material that EZ had on hand. It should be presented on 27-April.

Developing a plan to pull in the award and contract milestones on the HOM BLA award.

A planned CTF interruption for commissioning of the new CTF cold box beginning 22-May.

Cavity Status

CAV0057, CAV0061, CAV0062 were tested and qualified at DESY and expected to arrive at JLab next week (3-May).

CAV0063 has a repaired tee and planned to go to FNAL if needed.

The next shipment of untested cavities was redirected to DESY for testing.

Eight EZ cavities are expected mid to late May. Four of these are new and will be a high priority for testing and the other four are reworked with additional EP/BCP for remediation process development.

pCM Status

Cool-down began on 4/26.

Production Status

CM-02 (currently at WS5):

J1.3-2 Setting up for beam pipe reconfiguration for End Cap. Found a small leak in the gate valve and discussion options.

Portable cleanroom for coupler installation installed.

Welding of reversed JT plumbing in progress.

CM-03 (currently at WS3):

Four inch two-phase pipe welding completed. Two-phase invar rods in place. Leak check of two-phase piping in progress.

CM-04 (currently at WS1):

The string assembly is under vacuum. Expect to roll out to WS2 on 28-APR. SC magnet has been QC’d and ready for installation.

CM-05

Four cavities are qualified for the string. Three tested qualified cavities (057, 061, 062) are expected at JLab next week. Plan to start assembly on 8-May.

**QUALITY**

Reviewed and provided comments on the QC documents from WXCX for UCM#014 and VV#014.

Work safety & lessons learned comments were provided to JLab ES&H at the request by SLAC.

**Upcoming Travel:**

E. Zanon Vendor Oversight Apr 24 – May 2 (K. Macha)

E. Zanon Vendor Oversight May 6-19 (A. Palczewski)

HOM BLA Vendor Kick-Off Mtg – May 14-18 (H. Park, E. Daly, T. Peshehonoff)

E. Zanon Vendor Oversight May 16-26 (C. Reece)

E. Zanon Vendor Oversight May 30-Jun 10 (A. Palczewski)

SRF 2017 Lanzhou, China July 17-22 (A. Palczewski, C. Reece, N. Huque, K. Davis, L. Zhao, V. Bookwalter)

WXCX Vendor Visit July 24-28 (Cheng, Fischer)

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of April 21-27, 2017

**Issues:**

**Accomplishments this week:**

* The final 4.5K cold box seismic report was received by JLab. The document is in the process of review before forwarding to SLAC for BIO approval. This document completes the document submittals required by the FDR.
* Director’s Review Cryogenic Plant Design and Production Status presentation and practice dry run was conducted in preparation of the review to be held at SLAC on May 3-5th.
* Assembly work continued on the fabrication of the CP1 Upper Cold Box in preparation of installing HXs and piping spool pieces. The start of this next phase of work was scheduled for ~25th April.
* Work continued on the two recovery compressor skid assemblies, Compressor skid #1 is nearly completion, skid #2 is approximately 30% complete.
* Shipment of Warm Helium Compressors began for SLAC with the shipment of CP1 C5 compressor skid. JLab’s Bruce Lenzer was at vendors for truck loading oversight, and Ted Peshehonoff traveled to SLAC for arrival oversight. Arrival is scheduled for 25th April. The compressor skid was pressurized to 13 psi.
* A 75% mechanical, electrical, and installation construction review was held at SLAC on March 30. The installation documentation package was reviewed. Comments/recommendations are currently being considered.
* A cryoplant Strategy and Procurement Modification BCR was developed for remaining work for presentation to SLAC management. A presentation was made on April 4th. Additional questions were raised during the BCR and tentative responses to the questions were reviewed on April 11th.with the deputy cryogenic SM. L4 milestone list developed, milestone descriptions are being generated

**QUALITY**

Bruce Lenzer visited PHPK (4/20 – 4/21) to witness the loading of the first warm helium compressor skid for delivery to SLAC.

**Upcoming Travel/Reviews:**

Directors Review, SLAC, May 3-5th 2017

DOE Review, SLAC, June 13-15th 2017

2K Cold Box FDR Closeout, June 20, 2017

FAC Review, SLAC, late summer 2017

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of April 21-27, 2017

**Issues:** None

**Accomplishments this week at JLab:**

* LLRF Coordination/Documentation:
  + Heater: The FPGA board was reviewed will go out after changes.
  + LLRF Production: JLAB management have requested a more thorough estimate. We are waiting on SLAC for a vendor quote.
* Resonance/Stepper Motor Board/Chassis:
  + Piezo control: Work continues.
  + Test Bench: Procuring of parts (motors) for the test bench is ongoing. Looking at encoders for stepper motor continues.
  + Making production modifications to the pc boards.
* Interlock Board/Chassis:
  + Test bench: Investigating using existing ADCs or looking for a commercial solution continues …slowly
  + Making production modifications to the pc boards … 8 channels FEP.
* Common Power Supply/Chassis/Boards:
  + Gun Power Distribution Board: Board sent out for manufacture. Should be back next week.
  + Gun/Buncher PS Chassis: Power supplies have arrived.
* CMTF
  + pCM cooling down now.
  + PRC/RFS chassis location was finalized. Cables, to connect from the patch panel to the chassis, were ordered.
  + Resonance and Interlocks ready for manual testing on the pCM.

**Upcoming Activities:**

* Garth will visit JLAB next week.
* CMTF LLRF Tests start May 11
* Prepare for Directors/DOE Review
* Internal design freeze meetings for JLAB designs May 15.