Weekly Reporting

WBS 1.01.07 JLAB Management

Week of Jan 5-12, 2017

**Issues:**

**Accomplishments this week:**

Hosted the Production Readiness Review.

Hosted the pCM workshop.

Completed monthly P6 progress updates.

Attend FDR for the cold compressors.

Kick-off meeting for two new cryogenics plant contracts.

Updated procurement monthly status.

**Upcoming Activities:**

Director’s Review May 2017

DOE Status Review at SLAC 13-15 June 2017

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

Week of Jan 5-12, 2017

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

**Accomplishments this week:**

Hosted pCM Production Readiness Review at JLab with FNAL colleagues and external reviewers. Review closed out with a “green light” for production on 11-JAN.

What-if schedule for CTF down planned to start 17-FEB was discussed with SM. Potential impacts to and mitigations for CM assembly labor, testing and delivery were reviewed. Working with lab management to mitigate impact on production schedule.

Developing plan for additional cavities and niobium material procurements.

Production cavity coordination meeting – main topics are evaluating Zanon EP process and NX material performance. Zanon has shipped four bare cavities to FNAL for evaluation of EP process.

pCM Status

Module is cooled down and controlling at level and pressure with good stability.

Interlock checkouts and power into individual cavities began on 04-JAN. Five cavities were powered by end of second shift on 06-JAN. Snow storm limited any further testing prior to the PRR.

Results from initial testing presented at pCM production readiness review. Average gradient for four cavities with acceptable external coupling is > 17 MV/m. No sustained field emission observed when operating CW. External coupling is low on four cavities – investigating options to raise coupling without interrupting testing.

Production Status

Qualified cavity 031 for CM03 string. Qo = 4.0 x 10^10, Emax = 24 MV/m, no FE.

Continuing receipt inspection of tuners. Continuing receipt inspection of bellows and spools for next shipment to copper plater.

Finalizing shipping test plans.

**QUALITY**

The Significant NCR Dashboard for data month of December 2016 was submitted to SLAC LCLSII Project QA.

Participating in the CM PRR and the pCM Workshop being held at JLab this week.

**Upcoming Travel:** ZANON Vendor Visit January 28-Feb 10

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of Jan 5-12, 2017

**Issues:**

**Accomplishments this week:**

Held kickoff meeting with Oil Removal System vendor (Eden).

Held kickoff meeting with Warm He Tank Vendor (Modern Custom Fabrications).

Progressed review of the 4.5K cold box seismic design package.

Completed technical evaluation of LN2 dewar vendor proposals.

Provided design documentation and 3D model of the cryoplant to SmithGroup for their design assessment.

Received vendor proposals for the Helium Purifier System.

The second phase of the 2K cold compressor FDR was held on January 11th at the Air Liquide R&D center in France. In attendance were the design team from Air Liquide, JLab procurement, JLab SOTR, and JLab CAM. In preparation of the review all review material was received as planned prior to the review and made available to the project. The review was available by video conference and was attended by SLAC engineers and JLab QA/QC. Questions from the reviewers are due no later than 2 weeks after the review.

Updates to the project variance table for the cryoplant was completed and submitted.

Skid frames for the warm helium recovery compressors were completed and are undergoing painting.

**QUALITY**

Participation in the 2K Cold Compressors FDR Part 2 on January 11, 2017.

**Upcoming Travel/Reviews:**

Interface Box/Transfer Line PDR January 2017

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of Jan 5-12, 2017

**Issues:** None

**Accomplishments this week at JLAB:**

* LLRF Coordination/Documentation:
  + Heater: Board is in assembly.
  + JLAB Production cost estimate: Need to send to SLAC.
  + Buncher Interlocks: Reviewing the I/O document sent by Gang.
* Resonance/Stepper Motor Board/Chassis:
  + CMTF test by the end of January. Software development has been slowed down by competing JLAB projects supporting CEBAF operations.
* Interlock Board/Chassis:
  + 2nd Chassis problem was traced to a flakey power supply board. It was swapped out and it has been running fine. Onish will analyze power supply board.
  + No electron activity has been observed in the couplers yet. This is good news in that we may be able to drop the FEM board from the chassis.
* Common Power Supply/Chassis:
  + Five power supplies are complete.
  + Production mods being acquired.
  + Gun PS Chassis: Working on the design internally.
* CMTF
  + We are supporting on going cavity and cryomodule tests. We have not been able to make the microphonic measurements due to higher priority testing. We also lost four days this week to snow.

**Upcoming Activities:**

* + Team Meeting moved to January (FNAL/JLAB), 4th week.
  + JLAB/FNAL pCM tests in January/February
  + FDR March/April