Weekly Reporting

WBS 1.01.07 JLAB Management

Week of March 18-24, 2016

**Issues:** Some Nb and NbTi material has been delivered. Some material remains to be delivered.

**Accomplishments this week:**

VARs submitted for 1.04.06, 1.04.08, and Lab level.

Held Accrual meetings with a focus toward the new baseline.

Continue to advance BCRs and EACs as planned.

Hosted Marc and Greg.

Reviewed CM and CP schedules with project PMCS group.

**Upcoming Activities:**

Warm helium compressor CDR 25 April 2016

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

Week of March 18-24, 2016

**Issues:** JLab pCM schedule is driven by the availability of parts including a completed GHRP assembly. Project schedule driven by production cavity delivery schedule – need to recover float.

**Accomplishments this week:**

The following list of BCRs have been discussed with the SM and are in preparation: Cavity Tuning Machine (CTM) Cost, (status: currently running Cobra test integration), Production Tuner Schedule (awaiting final signatures). JLab has provided input and review of Cancellation Coils (status: proceed as of 2/25).

EAC for infrastructure was represented at CCB on 3/10. Plan to complete EAC by 3/25.

EAC for pCM is being prepared for presentation at CCB in April.

E. Daly participated in ASD Collimator Mechanical Design FDR at SLAC.

Cavity Procurement

Actively working cavity production schedule issues in order to recover schedule float by accelerating vendor delivery rates. Current P6 what-if reflects JLab’s best estimate showing -62 days of float.

Zanon provided an updated delivery schedule that is being reviewed. It does not contain any acceleration proposal. We have asked again for an accelerated schedule.

Both vendors have materials suitable for first article production.

Resolving final customs issues at ZANON – DESY is revising invoices and material lists to be consistent with material at ZANON.

RI has first article production is underway.

ZANON first article production is underway, only pressing of half cells.

Remainder of HOM housings and rods, inadvertently omitted from FNAL shipment to DESY, will be shipped from FNAL as an expedited shipment.

Remaining tube materials from ATI are being inspected at FNAL and will be shipped upon completion, expected mid-April.

Remaining cell material has been inspected at DESY and is expected to ship to both companies in Mid-April.

DESY colleagues plan to visit RI for to refurbish CTM in early April. Visit to ZANON is pending negotiations between DESY & Zanon. JLab has given ZANON approval to proceed with refurbishment activities.

Cavity vendor visit planning is on-going – tentative dates are 10-19 May to ZANON and RI respectively. Agenda is being developed.

Cavity string assembly: As of Wednesday evening, string is being disassembled due to several large leaks found at cavity/FPC interface. Expecting approximately 3 to 4 weeks delay.

Modification of parts and assembly of UCM (GHRP) ongoing - 5K Cu straps are still being reworked at vendor. Expected delivery week of 3-21. Need to be installed prior to shield. Instrumentation has been started on UCM. Instrumentation on GHRP has been completed. Upper cold mass support match drilling has been completed. Repairing GV support bracket welds and began welding to the GHRP consistent with Fermi DR 10773. Shield is ready for install onto UCM

The SC Quad magnet BPM end plate modifications are on-going.

Initial planning is on-going for vendor visit to production VV manufacturer – tentatively late April. JLab staff are planning a coordination meeting with FNAL colleagues in advance of the trip.

CMTF – All circulators were tested to 3.8 kW into a short in a standing wave configuration. Modifications for existing cable tray in the Cave have been designed to accommodate the new coax installation. Coax support structure is designed.

Inventoried available lead bricks to build two more walls around CMTF fan stack.

PO is in place for contractors to install the CMTF-to-cave cable tray. Hardline Coax installation continuing (~33% complete)

**QUALITY**

* Mike Skonicki was satisfied with his visit to JLab on March 17. We discussed the Dashboard process for significant NCRs, which included the process steps, roles & responsibilities, and also what constitutes a significant NCR. JLab staff also provided updates on the pCM, ACSs, Travelers, and NCRs. Mike was open to ideas we had to improve the Dashboard form. Valerie provided a live demo of Pansophy travelers and reporting for Mike.
* Participated in the PRR on March 16 for the cavity string interconnecting bellows and spools.

**Upcoming Activities:**

* Visit FNAL to observe cryomodule alignment process April 2016
* Visit FNAL to observe tuner installation April 2016
* Vacuum Vessel Vendor Visit to China April 24-29, 2016
* Cavity Vendor Visit to France May 10-19, 2016

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of March 18-24, 2016

**Issues:**

**Accomplishments this week:**

Several members of the cryoplant design team traveled to Sassenage France at Air Liquide headquarters to witness a performance test of the turbine brake system. The performance demonstration was successful thus validating the Air Liquide variable brake application for the LCLSII project.

The 4.5K Cold Box PDR was held at JLab on March 10. Comments from reviewers are being consolidated for transmittal to ALATUS and is currently being addressed.

The weekly coordination meeting with the warm compressor vendor (PHPK) was held. PHPK presented their proposed modifications to the cooler skid frames to meet the seismic requirements. Those recommendations were evaluated and accepted.

Specifications for the warm helium oil removal vessels, gaseous helium storage vessels, and final charcoal vessel are being circulated for final review.

The compressor room warm helium gas piping installation design drawings are being reviewed.

Substantial progress was made on the preliminary design of the LN2 transfer lines and associated P&ID drawing.

**QUALITY**

No report.

**Upcoming Activities:**

* + Warm Helium Compressor CDR, 25 April 2016

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of March 18-24, 2016

**Issues:** None

**Accomplishments this week:**

JLAB

* + LLRF Coordination/Documentation:
  + Sent SLAC the JLAB cost rollup and participated in a Telecom with Sandeep, Matt and Hamid.
  + Contacted Alex Ratti (LBNL) to get a BMB7 FPGA board for the resonance and interlock chassis.
  + Resonance/Stepper Motor Board:
  + We are working with the designer to mount the Piezo board in the chassis. While it will work for the prototype, connector and mounting holes will need to be resolved on the next rev.
  + Chassis power boards and FMC breakout are in design.
  + Interlock Board/Chassis:
  + FEM: Board is done. Waiting on connector decision between sma and D. We exchanged emails with Peter Prieto (FNAL) to discuss this issue.
  + CMTF connectors were decided upon which rippled down to the interlock boards. They are being revved to reflect the new connector
  + Common Power Supply:
  + Chassis Issues: The quality and design of the “Protocase” chassis is below what we use at JLAB. We may go with our vendor.
  + CMTF
  + Cable Tray: Will be completed next week.
  + Documentation: System block diagram is being updated weekly.
  + Cabling: This is moving along. Cables are being identified.

**Upcoming Activities:**

* + JLAB:
  + Continue prototype tests and assembly (resonance, interlocks, power supply)
  + CMTF: Continue working on documentation, installation and instrumentation.
  + May 9/10 Team meeting (Tentative)
  + June 6-8 Rack assembly, test and shake down (JLAB)