Weekly Reporting

WBS 1.01.07 JLAB Management

Week of Mar 3-9, 2017

**Issues:**

**Accomplishments this week:**

2K Cold Box FDR is in progress at JLab

Cryoplant 1.4.8 replan is in progress

Held status meetings for CP and CM.

Prepare and submit BCRs

Participated in 1.01 Program Office Bottom Up EAC

**Upcoming Activities:**

2k Cold Box FDR at JLAB March 9

Director’s Review at SLAC 3-5 May 2017

International Particle Accelerator Conference 14-19 May

DOE Status Review at SLAC 13-15 June 2017

FAC at SLAC Late Summer 2017

Weekly Reporting

WBS 1.04.6 JLAB Cryomodules

Week of Mar 3-9, 2017

**Issues:** Cost and schedule impacts due to cavity recipe development effort at vendors. Planning and execution of CTF down activities. Lack of parts in circulation returned to RI may limit future cavity delivery rates.

**Accomplishments this week:**

CTF down is in progress and currently on schedule to complete work on 7-April.

Discussing path forward including schedule and priority for 32 cavities and additional niobium.

Cavity Status

Zanon has been restarted for all work on material for 67 cavities. All procedures have been reviewed and approved. Main areas of focus were grinding/handling and related to the furnace operation. First four cavities from group 2 material were welded. JLab cavity fabrication expert is onsite and supervising procedure development and on-going work. A plan for continued on-site supervision through early June has been detailed. The staffing is primarily JLab SMEs with some support from SLAC SMEs.

PCCM was held this past week with a focus on status at Zanon and RI. Zanon cavities 202 and 240 (reworked with 15 microns BCP) have been shipped to FNAL for testing next week. Three RI cavities (065, 069, 071) have been shipped to FNAL.

Four RI cavities were tested at DESY. Two of four are qualified for CM04 and two showed some field emission. Three RI cavities shipped from JLab to FNAL were tested.

RI cavity 024 had a light EP of 3 microns and is awaiting re-rinse prior to shipment to FNAL for testing.

RI has proposed a revised procedure for helium vessel removal.

Reviewed cost estimate for an additional 25% of PICs to continue cavity shipments uninterrupted.

pCM Status

Completed shipping tests and characterized shipping environment. Shipping fixture provided excellent damping. Vacuum levels were unchanged. Presented preliminary status at weekly SRF meeting. Planning to measure alignment of cavity flanges and shape of vacuum vessel.

Production Status

Production Readiness Review - Presented most recent test results from pCM testing at follow-up videoconference with review committee.

Requested revised bills of materials and kit lists from FNAL for comparison with JLab’s versions.

CM-04:

Awaiting qualified cavities from DESY testing. Expected third week in March.

CM-03 currently at WS1:

During prep for rollout, the bellows between cavity 8 and the BPM/Magnet spool was compressed to an extreme limit. String will be disassembled, re-rinsed, reassembled due to concern about potential particulate contamination from this event. Lessons learned have been reviewed and a report is being prepared. Cavities rinsing begins Thursday and the string is planned for rollout by Friday, 17 March.

Upper cold mass UCM006 – Finished magnetic hygiene pass.

Vacuum vessel VV006 - Incoming QC is complete.

CM-02 currently at WS3:

Two-phase pipe welding is near completion. Added two-phase invar support rings. Magnet foil heat station, Gate valve supports, invar clamps and coupler heat stations have been added.

We are awaiting parts from FNAL - G-10 flux gate holders that install between HV mag

shield layers. Only three magnetic shields have been installed and no more can be installed until these parts arrive.

Continuing inspections on beamline bellows and spools prior to shipment to plating vendor. Finished inspections on HOM and field probe feedthroughs.

**QUALITY**

Submitted the Significant NCR Dashboard for the data month of February. The NCR for the coupler installation issue was included in the Dashboard. A more detailed summary of the issue will be added to the NCR.

Provided support with the issue of the compressed CM3 string assembly inside the cleanroom. A significant NCR will be submitted to the SLAC Project QA.

Participated in the follow up meeting on the pCM PRR.

**Upcoming Travel:**

RI Vendor Oversight Visit to discuss FE Mar 13 – 15 (A. Palczewski)

E. Zanon Vendor Oversight Mar 16-31 (A. Palczewski)

E. Zanon Meeting March 17 (J. Galayda, J. Preble)

E. Zanon Vendor Oversight Mar 26-31 (C. Reece)

Vendor Visit to Wuxi March 20-24 (Cheng, Fischer)

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of Mar 3-9, 2017

**Issues:**

**Accomplishments this week:**

Preparation and presented was conducted for the 2K cold box assembly design review on 9 March. This the agenda, charge, and supportive materials was provided to three reviewers from 3 different laboratories.

Fabrication of the CP1 warm helium compressor skids at PHPK continued to be on schedule with indications of substantial progress in both the HP and LP compressor skid assemblies. First shipments to SLAC is scheduled for April 2017. Preparation for delivery and storage of the compressor skids are underway at SLAC. A pre-shipment meeting is to take place at PHPK on March 14th. Mike Bevins and Dirk Pfluekhaln (SLAC) will attend the planning meeting.

4.5K cold box shipping and field reassembly preliminary plan to be started 10 March by the vendor.

A BCR was presented to cover unexpected custom charges for 4.5K cold box heat exchangers and turbines on 23 February. The request was rejected by SLAC management until SLAC/DOE discussion was completed. Waiting for SLAC response.

An EAC was developed for presentation for cryoplant engineering 1.4.8.5 and will be presented on 2 March to the CCB.

**QUALITY**

JLab QA/QC plans to participate in 2K cold box assembly FDR.

Reviewed the draft 2K Cold Box Specification with the JLab CryoPlant SOTR. Recommended additions and modifications were provided.

**Upcoming Travel/Reviews:**

2k Cold Box FDR, JLAB, March 9 in JLab CEBAF Center, L102

Warm Helium Compressor Shipping Plan Meeting, PHPK, March 14

Cryoplant Commissioning Review, 20 March

75% CP Installation Design Review, SLAC, March 28-29

Directors Review, SLAC, May 3-5th 2017

DOE Review, SLAC, June 13-15th 2017

FAC Review, SLAC, late summer 2017

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of Mar 3-9, 2017

**Issues:** None

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