Weekly Reporting

WBS 1.01.07 JLAB Management

Week of April 5-11, 2018

**Issues:**

Need a decision on how many SRF cavities to procure.

**Accomplishments this week:**

Lots of CP vendor activities ongoing. FATs and status meetings at multiple vendors.

Finalizing CM rework P6 input and restart documentation.

Continue to work the Yearly EACs.

**Upcoming Activities:**

7 May – Collaboration Meeting @ SLAC

8-10 May – OPA Review @ SLAC

15-17 May – LCLS-II HE Director’s CD-1 Review

19-21 June – LCLS-HE CD-1 Review

Weekly Reporting

WBS 1.04.06 JLAB Cryomodules

Week of April 5-11, 2018

**Issues**:

Production hold due to BPM leaks.

**Accomplishments this week:**

Refined EAC for cryomodule control accounts.

Cavity award package approved by DOE. Awaiting direction from project on quantity to award.

Developed plan for reworking (27) NX900 cavities as an alternative. Awaiting project direction on this alternate.

Retro-fit travelers and procedures drafts are reviewed and approved for restart on 11-April. This included slow bleed up, BPM hardware replacement and retrofit travelers and procedures.

Developing BCR for CM rework that includes cost for additional fixtures and equipment.

HX modifications to piping is nearly complete. Preparing for leak check and pressure testing. MLI re-installation and thermal strap mods on-going for 50 K shield.

Preparing list of activities requested by SLAC staff upon receipt of CM-07 in early May.

J1.3-01 - @ WS6; Idle; Waiting to move to WS4 for VV removal

J1.3-02 - @ WS6; Idle

J1.3-03, J1.3-04 - @ Storage atop UITF. Waiting to move to WS4 for VV removal.

J1.3-05 -@ WS5; Gas guard installation complete; leak check complete; beam pipe prep complete; Plan to ship to LERF 12 April (Thursday).

J1.3-07 - @ WS5. Removing bayonet box and end cap. Survey of string cavity flange positions in preparation for shipping; Beam pipe prep for shipping; Internal documentation review completed. Plan review with SLAC for next week.

J1.3-08 - @ WS4; Portable cleanroom installed in preparation for beamline vent; UCM hardware rework procedure and checklist in prep; Slow bleed up / pump down procedure signed off; BPM hardware replacement procedure signed off; Retrofit traveler signed off.

J1.3-09, J1.3-10 @ WS3 – UCM hardware rework being re-evaluated; Wait for BPM hardware replacement.

J1.3-11 – Idle; Waiting to move to WS3.

J1.3-12 – String build began 08-APR. Six cavities on the rails as of today. Roll-out planned for 20-APR or sooner.

J1.3-13 – All cavities have been qualified for the string.

J1.3-14 – Four cavities qualified. Results presented at SRF weekly meeting.

SSA Upgrade and Maintenance - Spare SSA upgraded and checked out (HPRF into load). Eight production SSA’s upgrade to 90% level. Lifting bolt change out in progress. Progressing well and on track for completion this week.

**QUALITY**:

The final, approved version of the Project Cryomodule Assembly QA report was released Tuesday. As previously noted, the scope focused on bolt retention and proper torque values for various elements, including the pCM. Incorporated JLab revisions include succinctly defined restart authorization requirements and use of Design Change Requests for Cryomodules (similar to Cryoplant). However, the recommendation for a combined Technical and Quality Committee review on high risk issues remaining in the build process was not.

Code and SCI compliant eyebolts for the SLAC SSAs arrived Tuesday and are currently being replaced.  The non-compliant eyebolts will be turned over to JLab's SCI coordinator for verification of 100% removal and accountability, and then transferred to the visiting SLAC representative.

**Upcoming Travel/Meetings:**

EZ Vendor Visit Apr TBD (Gonella)

EZ Vendor Visit May TBD (H. Park)

EZ Vendor Visit Jun TBD (C. Reece)

Weekly Reporting

WBS 1.04.06 Cryomodules - LERF Conversion

Week of April 5-11, 2018

**Issues:**  None

**LERF accomplishments this week:**

Waveguide installation is at 75% - waiting on the SLAC couplers & isolators.

The F100 cryomodule has been moved out of the LERF vault & the first LCLS-II module (CM5) will be delivered on Thursday 4/12/2018.

Cable list by zone has been posted to the WIKI:

<https://wiki.jlab.org/lerf/index.php/Cable_by_rack_location>

Base plates for both CMs have been delivered & first pair have been installed, they will be surveyed in Thursday.

Kick-off meeting was held for the cryo-can contract with Eden.

Spacer plates for the wheel extensions were ordered.

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of April 5-11, 2018

**Issues:**

**Accomplishments this week:**

**2K Cold Box**

1. The vendor proposals were received on 09-Apr-2018.
   * Technical evaluations have begun.
2. Award is expected June 2018.

**4.5K Cold Box Status**

1. The date for the FAT of the final leak check of the UCB has been set
   1. JLab, SLAC and ALATUS staff will be at PHPK 19-Apr-2018.
2. The LCB is nearing final leak check of the internal piping systems.
3. UCB2 - All pressure vessel installed, piping is being added. Internal framework is finished. Bottom head and skirt assembly is nearly completed.
4. LCB2 - Pieces delivered this morning to build frame; plan to begin fabrication of internal frame today.
5. Cryoduct - Complete.

**Interface Boxes**

1. Final (revised) proposals due back from potential vendors 12-Apr-2018.
2. Award expected April 2018
3. Engineering change request (ECR) received from SLAC 05-Mar-2018.
   1. Need to mitigate maintenance issue created by permanent connection to 2K cold box.
   2. JLab & SLAC are working through the details of u-tube crossover.
   3. Crossover U-tube will isolate flow from 2K cold box.
      1. This solution will not fully mitigate thermal link caused by permanent connection.

**Helium Purifier**

1. FDR documents received and distributed for review.
2. FAT scheduled for 23-Apr-2018.
3. Operational training expected in May-2018

**Cryoplant Engineering Status**

* The final design review (FDR) for the 2K cold box is complete.
  + Vendor proposals have been received and are under evaluation.
* The Interface box award is on schedule for April.
* The FMEA and specifications for the Instrumentation & controls effort are on schedule to complete this month.

**QUALITY**:

* Attend several (see below) factory acceptances testing of equipment in April.

**Upcoming Travel/Reviews:**

* 4.5K cold box final leak check 19-April-2018
* 4.5K cold box re-assembly meeting @SLAC Postponed
* 2nd MCC Vendor Site visit (acceptance testing) Week of 23-April-2018
* Visit to GHe vendor for acceptance Week of 23-April-2018
* Helium Processor FAT Week of 23-April-2018
* DOE OPA Review May 8-10th

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of April 5-11, 2018

**Issues:** None

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