Weekly Reporting

WBS 1.01.07 JLAB Management

Week of March 1-7, 2018

**Issues:**

**Accomplishments this week:**

Conducted January Progress Analysis

Gathered CM and CP progress for February

Conducted CM 1.04.06 and CP 1.04.08 status for February

Preparing several award BCRs for March presentation

Participated in FAC review at SLAC

Building a what-if schedule that includes the impacts of the CM BPM bolt change as well as the UPC and tuner assembly bolt checking

Bundled BCR for the CP that includes MCC mods, Oil Processing mod and the Cryogenic valve award - Approved.

Evaluating RFPs for Interface Box.

4.5K turbine housings delivered to SLAC.

2K Cold Compressor electrical cabinets delivered to SLAC.

PRR for the 2K CB - Approved.

**Upcoming Activities:**

6-7 March – FAC Review

19 March – LCLS-II HE Risk Meeting @ SLAC

20-22 March – Director’s Review @ SLAC

1-3 May – LCLS-II HE ICR

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 March 1-7, 2018

**Issues**:

**Accomplishments this week:**

Awaiting submission of CM management LOE BCR.

Participation at FAC review

Continue BPM testing and evaluation of completed CMs and planning for CM rework.

J1.3-01 - WS5. In rework, removing warm couplers, main coupler line and instrumentation flanges.

J1.3-02, J1.3-03, J1.3-04, J1.3-05 – Idle.

J1.3-07 – Currently in CMTF. Warmed up.

J1.3-08 – Currently at WS4. On hold pending resolution of BPM issue.

J1.3-09 – Currently at WS3.

J1.3-10 – Currently at WS3.

J1.3-11 – Leak-tight. On hold pending resolution of BPM issue.

J1.3-12 – All cavities have been qualified for the string.

**QUALITY**:

Confirmed with SLAC that the suspect eyebolts on the SSAs were DOE reportable. There are 24 of eyebolts on SSAs atop the Cryomodule Test Facility (CMTF) in the Test Lab. Each of these SSAs has four suspect eyebolts that have been tagged with non-conformance labels. Once these eyebolts are removed they should go to Mike Martin.

**Upcoming Travel/Meetings:**

FAC Mar 6-7 (K. Jordan, K. Wilson)

EZ Vendor Visit Mar TBD (K. Macha)

EZ Vendor Visit Apr TBD (Gonella)

Weekly Reporting

WBS 1.04.06 Cryomodules - LERF Conversion

Week of March 1-7, 2018

**Issues:**  None

**LERF accomplishments this week:**

IP address listing for all devices can be found at: <https://wiki.jlab.org/lerf/index.php/Network>

Prepared for & presented LERF status at the LCLS-II FAC meeting.

Met with many SLAC folks about details on LLRF, Cryo, Magnet, & Vacuum controls and delivery schedule for racks & waveguide components.

Control power is on CM # 1 SSAs & IP addresses have been loaded.

Waveguide installation is at ~ 65%.

Weekly Reporting

WBS 1.04.08 JLAB Cryoplant System

Week of March 1-7, 2018

**Issues:**

**Accomplishments this week:**

**2K Cold Box**

1. Implementation of engineering change request (ECR) from SLAC complete.
2. Engineering analysis of vacuum vessel & piping complete.
   * Reports distributed to SLAC for reference and comment.
3. Holding FDR date of 28-March despite change in performance requirements.
   * Charge for FDR in finalized.
4. PRR held Friday 02-Mar-2018 – Approved
5. Cold compressor cabinets delivered to SLAC.

**4.5K Cold Box Status**

1. PHPK is continuing to work to reduce the helium background.
   1. Shell pumped down to lowest vacuum level to date – showing progress.
2. Final leak check of internal piping for lower cold box for CP1 nearing completion.
3. Shipment for delivery expected to move out from 12-April-2018.
4. Turbine housings delivered to SLAC.

**Interface Boxes (no Change)**

1. Evaluating engineering change request (ECR) from SLAC to Interface box performance requirements.
   1. ECR requires design change to internal piping.
2. Request for proposals received 23-Feb-2018.
3. Vendor proposals are competitive and under evaluation.

**Oil Removal Vessels**

1. Last two vessels (coalescers) for CP1 delivered to SLAC last week.
2. First three vessels (coalescers) for CP2 delivery to SLAC last week.

|  |  |
| --- | --- |
| Oil Removal Vessels Delivered to SLAC | 4.5K Turbine housings & 2K CC Cabinets |

**Cryoplant Engineering Status**



Engineering continued to focus on preparation for the 2K cold box FDR & Interface box award.

**QUALITY**:

Planning to attend final leak test of CP#1 Upper Cold Box in March.

**Upcoming Travel/Reviews:**

* 4.5K cold box final leak check ~Week of Mar 12th
* 4.5K cold box re-assembly meeting @SLAC March 8th
* MCC Vendor Site visit (acceptance testing) 8-9-March-2018
* FAC Review Mar 6-7th
* Director Review Mar 20-22nd
* 2K Cold box FDR 28-Mar-2018
* DOE OPA Review May 8-10th

Weekly Reporting

WBS 1.02.03.05.12 LLRF

Week of March 1-7, 2018

**Issues:** None

**Accomplishments this week at JLab:**

* Resonance/Interlock Chassis:
  + Ongoing: Chassis assembly is in process. Plan is to have these mostly assembled by the end of next week.
  + Piezo boards are at JLAB.
  + BMB-7 boards are still missing (need from SLAC). We need these to test the chassis.
* Interlock Board/Chassis:
  + Work at this time is on hold until needed for 3.9 GHz.
  + Contacted Andrew Burrill to set up a discussion for 3.9 GHz interlock needs. Waiting on this to proceed.
* Common Power Supply/Chassis/Boards:
  + Dave is obtaining stickers so the boards will say 10 A fuses instead of seven. Additionally a large sticker will point out the change.
* LERF
  + LERF LLRF instrumentation cables: On order.
  + LLRF Front end requirements: Editing the document now. The plan is to update the LLRF functional requirements after a LERF test cycle.
  + HOM Measurements: HOM measurements slipped through the cracks. We are developing the hardware (cabling, switches and power heads) and software now to make these tests.
  + Tomasz is working on the Reference system and LO for the LERF. Not expecting any surprises.
* CMTF
  + Rama is working on new features (see last week’s report) to the LLRF system to make the steppers and piezo tuners easier to operate.

**Upcoming Activities:**

* LERF RF cable installation: This may take place before racks arrive. We are running out of time.
* Test Resonance/Interlock chassis: Hopefully by the end of March.