Weekly Reporting SNS PPU

WBS P.02.03 Cryomodule Integration (JLab Scope)

October 28, 2022

**Issues:**

Impact of COVID-19 - JLab status is MEDCON-3 since 14-MAR-2022. Staff who can effectively work remotely continue to do so.

**Accomplishments this week:**

Management:

* PPU activities are continuing onsite with testing of production cavities, continuing with cryomodule assembly, and receipt inspection of components.
* Off-site work efforts continue, focused on completion of original procurement activities, continuing procurements for 8th CM and production activities.
* Presented status at monthly Planning & Coordination meeting.
* Evaluating impacts of COVID-19 on overall project schedule and developing mitigations.

Engineering & Design:

* Sustaining engineering activities are continuing in order to revise drawing packages based on feedback during the procurement phase.

Procurement:

* Two from JLAB will visit the end can vendor on 11/2 to witness REC 5 leak check.
* End can vendor is informed of the galling issue between cool down valve drive rod and its guide. JLab sent videos on a few types of JT-style valve stem actuation demonstrations, all can be pressed by hand to slide. Vendor will investigate why theirs can't. REC 5, 7 & 8 cool down valves affected.
* Supply End Cans (SECs):

|  |  |  |
| --- | --- | --- |
| S/N | Status | Estimated Delivery Date |
| 01 | Installed on CM-03 | - |
| 02 | Installed on CM-04 | - |
| 03 | Installed on CM-01 | - |
| 04 | Welded onto CM-05. CMA-INSP traveler incomplete. | - |
| 05 | Welded onto CM-06. CMA INSP traveler incomplete. | - |
| 06 | Delivered to JLab on 6/6. Uncrated, inspections started. Phase 1 dimensional inspection done. | - |
| 07 | Installed on CM-02 |  |
| 08 | SEC 08 is at the vendor's place. Most machining is done. Start to stage components. | TBD |

Return End Cans (RECs):

|  |  |  |
| --- | --- | --- |
| S/N | Status | Estimated Delivery Date |
| 01 | Installed on CM-03. |  |
| 02 | Installed on CM-01. |  |
| 03 | Delivered to ORNL 9/30. ORNL performed multiple leak checks, leaks are confirmed to be inside the end can body on the LP line. Next is to cut the end can open and proceed with investigations. |  |
| 04 | Installed on CM-02. |  |
| 05 | Ready to set up for next in-process cold shock and leak test. JLAB will witness the LC. | 11/28 |
| 06 | Installed on CM-04.  | - |
| 07 | Cernox wire repair is done. Top plate welding close to finish. | 12/28 |
| 08 | REC 08 is at the vendor's place. 99% of machining is done. New shell to be complete, to work on the spools next. | TBD |

Production:

* Cavity Status:
	+ PPU-26t, -31t are in preparation for RF test next week.
* Cavity String Status: String #8 – 1 of 4 cavities qualified.
* Cryomodule Status:
	+ CM05: Punch list items I.P. awaiting REC.
	+ CM06: SEC beamline work is complete. Punch list items I.P. awaiting REC.
	+ CM07: mag shield installation on-going; welding FPC bellows I.P.
	+ Helium Vessel Update – PPU31 (last production cavity) completed.
* FPCs: Total of 10 FPCs in the Annex inventory area. Two FPCs in the clean room cabinet.

Project Management:

* Submitted Data call information
* Updated Mid-Month Manpower charts
* Updated CAM Notebook

Quality Assurance:

* Continue to monitor quality data for possible trends.
* Early work gathering data deliverables for CM05 begins.
* Agreement to supply a sampling of RF Field Probe attenuation measurements to John Mammosser.