US HL-LHC Accelerator Upgrade Project

Production Readiness Review of the HL-LHC AUP MQXF Strand Procurement Task 302.2.02

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1. Goal & scope

The HL-LHC AUP 302.2.02 scope covers strand procurement, vendor QC supervision, QC validation, and preparation and test of extracted strands and witness samples. The HL-LHC AUP project received CD-3a approval for conductor procurement in October 2017, and the remaining scope of 302.2.02 was approved under CD-3b in February 2019. This PRR covers the remaining scope approved under CD-3b: QC validation, and preparation and test of extracted strands and witness samples.

The 302.2.02 L3 Manager (Lance Cooley) is presently with FSU and the NHMFL, where strand QC validation is being performed. The 302.2.02 L3 Manager Deputy (Vito Lombardo) is at FNAL where extracted strands and witness samples are prepared and tested.

Production Readiness Review (PRR) is a major review step in the HL-LHC Accelerator Upgrade Project (AUP). It is held prior to the start of series production, and is intended to be a largely technical review, but include assessment of the planned cost, schedule, and personnel needs to complete the production.

Scope of this PRR:

- Parts and materials for testing virgin strands, extracted strands and witness samples.
- Procurements, sample preparation and test procedures.
- Interfaces.

Goal of this PRR:

- Approval of plans and procedures for remaining scope of 302.2.02.

2. Charges

The committee is requested to answer the following questions:

1. Scope and interfaces: is the L3 task scope clearly defined and are interfaces with other tasks sufficiently well-defined for execution during QC validation, and preparation and test of extracted strands and witness samples?
2. Procurement and Manufacturing: are the procurement and manufacturing work flow documents and travelers —including scheduling, personnel needs, floor space, and facilities requirement—appropriate to execute these activities during series production?
3. QA/QC: is the QA/QC plan adequate? Is there appropriate documentation for quality control procedures, manufacturing and inspection plan, and data reporting?
4. Cost and Schedule: are the cost and schedule estimates sufficiently well-defined and of adequate maturity to support these activated during series production?
5. ES&H: Have all hazards been identified and addressed? Are ES&H policy and documentation sufficient for the series production?
6. Risk: are risks understood and appropriately managed for the series production?
7. Reviews: are all closeout recommendations for this L3 task from Final Design Review addressed?
8. Is this L3 task ready for series production?

3. Technical information

Committee
Steve Gourlay, chair (LBNL)
Najib Cheggour (NHMFL)
Paolo Ferracin (CERN)
Diego Perini (CERN)

Date and Time
Aug 22, 2019; start time: 7/9/10/16 (LBNL/FNAL/NHMFL/CERN)

Location/Connection
NHMFL, room TBD
Video-link by Zoom, info by email.

Link to agenda with talks and other documents
https://indico.fnal.gov/event/21525/