US HL-LHC Accelerator Upgrade Project

Review of MQXFA Wedge Drawings

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1. Goal & scope

The HL-LHC AUP project received CD-2/3b approval in February 2019. CD-3b scope includes procurement of all MQXFA coil parts.

Drawings must be approved by all affected L3s, before procurement may start. In case of disagreement among L3s a review may be called at the discretion of the appropriate L2 to address any issue.

This review is called because there is disagreement about the drawing of coil wedges. The reviewers are requested to evaluate the proposed drawings, the procurement strategy, and the alternative plans.

MQXFA Final Design [1], requirements [2], and present wedge drawings are available on the Indico page of the review.

2. Charges

The committee is requested to answer the following questions:

1. Are the drawings of the MQXFA wedges, procurement and QC strategy adequate to meet MQXFA requirements [2]?
2. Are the alternative plans for MQXFA wedges adequate to meet MQXFA requirements [2]?
3. Which plan do you recommend taking into account past procurements and status of drawings?
4. Do you have any other comment or recommendation regarding drawings and procurement strategy for MQXFA wedges?

3. Technical information

Committee

Steve Gourlay – LBNL, chairperson
Daniel Cheng – LBNL
Paolo Ferracin – CERN
Juan Carlos Perez – CERN
Ezio Todesco – CERN

Date and Time

April 8, 2019. Start time is 7/9/10/16 (LBNL/FNAL/BNL/CERN)

Location/Connection

Video-link by Zoom, info by email.

Link to agenda with talks and other documents

https://indico.fnal.gov/event/20383/

4. References

1) *MQXFA Final Design Report*, US-HiLumi-doc-948.
2) *MQXFA Functional Requirement Specification*, US-HiLumi-doc-36, *MQXFA Final Design Report*, US-HiLumi-doc-948 section 5.1.1, and *QXFA Coil Fabrication Electrical QA*, US-HiLumi-doc-521 step 16.