

Internal review of DFH detailed design

Date: 16 of June 2020

Scope: review the detailed design of the DFHX and DFHM with the purpose of validating maturity and confirm readiness for starting production of the first unit DFHX. The review will be held via vidyo.

Mandate of the review committee:

- 1) Review the functional, technical and interface documentation and confirm their completeness in terms of cryogenic, mechanical and electrical requirements;
- 2) Review the detailed design wrt cryogenic design and operational aspects, mechanical design and interfaces, electrical design and interfaces;
- 3) Review location of the DFH in the underground area and interfaces with the other systems;
- 4) Review requirements for safety aspects and compatibility of safety equipment with tunnel environment;
- 5) Review plan and schedule for DFH production;
- 6) Review strategy and plan for QA and QC, as well as plan for intermediate and final acceptance tests.

Review Committee: M. Modena (chair), D. Tommasini, Krzysztof Brodzinski, F. M. Rodriguez, S. Atieh
Scientific secretary: M. Mendes

Draft Timetable (5 min for questions included in each talk)

8:30-8:40 Welcome (Lucio/Luca)

8:40-9:00 DFH in WP6a and Master Plan (Amalia)

9:00-9:20 DFH Overview and detailed production schedule (P. Cruikshank)

9:20-9:30 Follow-up from CDR (P. Cruikshank)

9:40-10:00 DFH functional and technical requirements – including cryogenic cooling aspects (Y. Leclercq, V. Gahier)

10:00-10:30 Coffee break

10:30-10:50 DFH Cables, splices & instrumentation (J. Fleiter)

10:50-11:10 DFH Detailed mechanical design: helium & vacuum vessels, supports, interfaces (Y. Leclercq)

11:10-11:30 DFH Assembly sequence and tunnel transport aspects (R. Betemps)

11:30-11:45 Status of CAD drawings (R. Betemps)

11:45-12:00 Location of DFH in underground areas (M. Mendes)

12:00-12:20 DFH maintenance and repair in underground area (P. Cruikshank)

12:30 – 13:30 Lunch

13:30-14:00 Design and integration of safety equipment and safety aspects in the LHC tunnel (Th. Otto, N. Grada)

14:00-14:20 DFH acceptance tests and QA Plan (Y. Leclercq)

14:20-14:40 DFH in the QA plan of WP6a (S. Hopkins)

15:00- 17:00 Reviewers close video-meeting”

List of invited: speakers, L. Rossi and O. Bruning (HL-LHC Project Office), M. Jimenez (TE), MSC and CRG group leaders and deputies, F. Bertinelli, L. Tavian and Paolo Fessia (WP 17), V. Parma, D. Perini, S. Claudet and A. Perin (WP 9), M. Martino and S. Yammine (WP 6b), A. Gharib, J. Hurte and M. Curylo (WP6a), T. Ekelof and R. Ruber (Uppsala University), V. Baglin and J. Perez Espinos (WP 12)