

Summary of Meeting for S1-Global module design Cryomodule and Cryogenics (20081125)

Date: 25 Nov. 2008

Time: 23:00-00:30 (Japan Time)

Attendant: Akira Yamamoto, Jim Kerby, Mark Champion, Hitoshi Hayano, Carlo Pagani, Serena Barbanotti, Tetsuo Shidara, Tug Arkan, Harry Carter, Tom Peterson, Hirotaka Nakai, Norihito Ohuchi

Agenda

- (1) Module-C characteristics (Serena Barbanotti)
- (2) Progress of Module design (Norihito Ohuchi)
- (3) Cryomodule WP (Norihito Ohuchi)
- (4) Cryogenics WP (Tom Peterson)

Discussion

- (1) Module-C design characteristics (Material:2008_11_25_S1globalStatus_Barbanotti)

Order status

- Call of tender started in September
- INFN made available all the funding in October, anticipating the second part that will come from KEK next FY.
- Order placed to Zanon in these days
- Administrative work to be finished before the end of this year
- Delivery time: 8 month from contact signature

Order technical documentation

- 2D technical drawings of TTF cryomodule type3
- S1 global module drawings
1009-01.pdf, 1009-02.pdf
- List of modifications agreed between INFN and KEK on mid Oct. 2008 (before LCWS08)

Agreed changes with respect to cryomodule 3

- Details are shown in the presentation by Serena.

Q: Is it possible to change the module length from 5.8 m to 6 m in order to avoid the interference between the tuner drive shaft and the big vacuum bellows?

A: The order of module-C started on September. If the design of module-C is modified, the problem is the delivery time. The module-C will not be delivered in the scheduled time. The change of the design is avoidable.

A: The big movable flange by change of design has a big effect on the production.

- (2) Progress of module design

The interconnection and Module-C designs were explained in case that the Module-C was modified for accommodating the design change of the KEK tuner position.

However, at the next day of this meeting, Shuichi Noguchi, Akira Yamamoto and Norihito Ohuchi discussed this situation, and decided the followings;

The cryomodule-C design, established between INFN and KEK by the end of September, shall be kept.

- (3) WP discussion on cryomodule

The responsibility persons of the WPs and priority were proposed.

WP-1.3.1 Standardization : DM, NO, PP

WP-1.3.2 Cooling pipe configuration and 5K shield: PP, YO, TP, HN, NO

WP-1.3.3 Quadrupole and BPM assembly: NO, YO

WP-1.3.4 Assembly process and Engineering design with CAD: NO, PP, KJ, TA, YO

WP-1.3.5 System performance evaluation: NO, PP, TP

WP-1.3.6 Transportation: MM, KJ, SB

WP-1.3.7 Industrialization and cost: NO, TS, PhPf

C: At the next ILCSC/FALC meeting January, the R&D plan will be revised and the comments on the document to PM are appreciated.

The WP works in the near future as the cryomodule group was proposed;

1. S1-G design work
2. Completion of the specific table
3. Heat load table

C: Tomorrow SCRF-ML meeting, Jim will propose the cavity envelop including the input coupler span.

(4) WP discussion on cryogenics

WP-1.4.1 Heat loads : Peterson, Ohuchi, Pierini, Petersen

WP-1.4.2 Cryogenic process design, cryoplant design and surface impact : Klebaner, Arenius, Tavian

WP-1.4.3 Venting, pressure limits, and piping and vessel standatdrds : Petreson, Nakai, Hosoyama, Petersen

WP-1.4.4 Tunnel cryogenic system design and integration with main linac: (on hold)

WP-1.4.5 Oxygen deficiency hazard : (on hold)

WP-1.4.6 Cryogenics outside of main linacs, damping ring, RTML, BDS): (on hold)

WP-1.4.7 Cold vacuum systems : (on hold)

Next meeting date

Meeting Date: 9 December 2008 23:00 (Japan time), 7:00 (FNAL), 14:00 (INFN and DESY)