

Draft: Minutes of ML-SCRF Technology Meeting (080611)

Date & Time:

13:00-14:15 GMT, June 11, 2008, using WebEx.

Participants:

L. Lilje, H. Hayano, N. Ohuchi, H. Carter, T. Peterson, S. Fukuda, A. Yamamoto, M. Ross, J. Carwardine, W. Bialowons, J. Kerby, C. Pagani, R. Larsen, H. Padamsee, Bob Kephart, M. Champion, B. Chase, S. Michizono, S. Simrock, J. Branlard, G. Cancelo, W. Funk, S. Prat, T. Shidara

Agenda:

1) Status report from PM (A. Yamamoto and M. Ross)

See the attached file "SCRF-PMreports-080611"

During the Dubna meeting, technical design report was released (release 2).

It is necessary to re-evaluate and fix the base-line field gradient within TDP-1 for other systems (CF&S and AS) to enable to progress further systematic work in TDP-2.

2) Report from each group leader

- Cavity (by L. Lilje)

S0 WebEx meeting was initiated and regional statuses were presented. Meeting slides at

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=2772>

Next S0 WebEx meeting is scheduled on Tuesday, 17 June, from 12:00- GMT. Agenda at

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=2782>

And discussions how to handle tight loop will be included.

- Cavity Integration (by H. Hayano)

4 TESLA-like cavities are under cool-down test at STF without connecting warm couplers.

Cool-down/high power tests are scheduled from July 1 till 25.

Orsay-KEK collaboration for Orsay coupler test at STF was discussed.

(It shall be reconsidered since the power source at Orsay has recovered: S. Prat)

STF started the evaluation and material test to clear HP regulation for phase-2 He vessel.

INFN-KEK collaboration of cryomodule production for S1 Global is starting.

DESY stated to supply two cavity packages with Chechia Test in the middle of 2009.

Chechia Test of US cavities at DESY might be technically possible, if it is requested.

- Cryomodule (by N. Ohuchi)

Cryomodule design for S1 global was presented.

- Cryogenics (by T. Peterson)

Comparison between shallow versus deep tunnel in terms of Cryogenic System:

Shallow site allows most cryogenic plant hardware to remain on the surface and just distribution needs to be in the tunnel. There might not be a big cost difference in terms just of cryogenic hardware. A shallow tunnel with no access to the surface except for the same very widely spaced locations as a deep tunnel “looks” much like a deep tunnel in terms of cryogenic system constraints except for the “lower cold box” requirement at refrigerators for the deep tunnel.

- HLRF (by S. Fukuda)

During the Dubna GDE meeting, delta T issues of cooling water for klystron collector and power distribution system (PDS) were discussed. Delta T for PDS (esp. for circulator) is important since its performance will be affected largely by the temperature rise.

Shallow site scheme will affect the ACD, especially speaking the location of Marx generator should be carefully considered, and related cost difference should be examined.

PDS for S1 global is under consideration and its preliminary designs were presented.

- MLI (prepared by C. Adolphsen)

Progress and test results of the superconducting quadrupole model magnet will be presented at the next meeting.

3) Special topics and discussions

- HLRF-LLRF cooperative contribution to FLASH-9mA test: (J. Carwardine)
Contribution from ILC-GDE collaboration to FLASH-9mA test is expected.
See the attached file “Carwardine_HLRF_LLRF_9mA_Studies_11June08”.
S. Choroba will be asked to act as one of contact persons for HLRF.
S. Fukuda will be the contact person for KEK to participate the test program.
HLRF/LLRF Combined WebEx meeting will be organized for this test.

4) Meeting schedule

- SCRF WebEx Meeting: July 9, no meeting in August.
High gradient R&D and its direction (including guideline for the S0 process, and re-organization of the “tight-loop program”) will be reported/discussed by L. Lilje
Functional parameters and plug-compatible conditions will be discussed. H. Hayano and N. Ohuchi will prepare compatibility tables for cavity package and cryomodule.
 - Post-TTC SCRF meeting, October 24, in Delhi.
 - LCWS-08, GDE meeting, November 17-20, in Chicago.
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