

DRAFT: Minutes of ML-SCRF Technology Meeting (110601)

Date & Time:

13:00-14:15 GMT, June 1, 2011, via Webex.

Participants:

A. Yamamoto, H. Hayano, C. Nantista, T. Shidara, J. Kerby, W. Bialowons, J. Carwardine, T. Peterson, S. Fukuda, M. Ross, B. Rimmer, R. Geng, N. Walker, P. Pierini

Presentation files are available at the following Indico site:

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5188>

1) Report from Project Managers (Akira Yamamoto, Marc Ross, Nick Walker)

Akira reported on the near completion of the vendor visits, with just Heraeus to go. Our industrial partners have given a great deal of valuable information, and we are looking forward to the Industrialization Workshop to pull all of the information together. Akira ran through the upcoming meeting schedule (attached at the end of these minutes).

Marc, Nick and Akira briefly reported on the major topics from the ILC-PAC. In particular addressing the issues found during S1-Global testing, such as detuning and tuner failures, were emphasized by the PAC. Related to the PAC, discussions also touched on how R&D continuity would be maintained after 2012, and the need to support the three cryomodules with the full RF system in NML in the out years were discussed.

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5084>

Nick and John C. mentioned the upcoming FLASH 9mA workshop. Webex is available, and attendance looks to be great. They are looking forward to an informative and cozy workshop.

2) Reports from Group Leaders

• Cavity Integration (Hitoshi Hayano)

Hitoshi reported that the S1-Global cryomodules are on the surface. Cryomodule-A (KEK) will be disassembled in the 3rd week of June; studies of the tuner problems will take place then.

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5177>

• HLRF (Chris Nantista / Shigeki Fukuda)

Chris reported they now have over 200 hours of running the 10m pipe. At 265 MW they have seen a breakdown probability of $5.6e-7$; at 281 MW, this increases by greater than a factor of 30. The pressure will be increased from 15 psig to 18 psig, but this makes the pipe a pressure vessel, so experiments are on hold pending safety approval. The platform design for the 80m length of pipe and the bend are underway.

Shigeki deferred to his longer report later in the meeting.

• Cavities (Rongli Geng)

Rongli noted due to conflicts the S0 meeting was rescheduled to 7 June; the agenda will focus on field emission monitoring.

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5189>

• Cryomodule (Paolo Pierini)

Paolo noted at the last Cryomodule webex Norihito presented the results of the 5K thermal shield studies, with the conclusion that the deletion of the lower half of the 5K shield resulted in no change to the required installed cryo power. This conclusion needs to be combined with industrial studies for the TDP. Paolo will check with the European XFEL Cryomodule vendors to see if they can lend comments. This may be possible in the US as well with the vendors involved with NML cryomodules.

<http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5177>

While working through the analysis Norihito, Tom Peterson and Paolo noted some small cryogenics / cryomodule heat load inconsistencies in the RDR, which need to be cleaned up.

• Cryogenics (Tom Peterson)

Tom reported that he had been working on responses to some detailed heat load questions from the PMs, and between this and the presentation of Norihito had been working on cleaning up the inconsistencies, and documenting the basis of the work better for the TDP.

3) Special Discussions

- **Plan for workshop on S1 Global and Results**

Akira reported that after some discussion it appears that the best and most convenient time for a workshop on the S1-Global result, which directly affected on or dedicated to the ILC technical decision, will be the afternoon 8 December and morning 9 December in Beijing, just after completion of the TTC (and at the same venue). The TTC may have a working group on common technical issues seen at S1-G, NML, and FLASH as well, but this extra day would address S1-G topics, directly related to the ILC and also the subjects such as HLRF/LLRF not already covered in the TTC meeting. We will consider that we will practically organize the S1-Global workshop in this combined effort.

- **Plan for the Technical Design Report**

In a change of format, as opposed to short reports from the group leaders Shigeki gave a longer report on DRFS and CFS developments in Japan (slides posted). In particular the radiation aspects of the single tunnel with thick wall option were discussed, and will be reviewed relative to previous radiation studies. Akira noted there will be a more detailed discussion at the CFS meeting 14 June, all are welcome to attend. Chris accepted that at the 29 June meeting he will give a detailed report on HLRF activities in the Americas region.

- **Plan for Granada Meeting**

Akira presented his outline of topics to be covered at the Granada meeting. He asked Hitoshi, Chris N, Jim and Paolo to work together to develop the detailed program. Marc reported the first conference organizing meeting is June 2; Jim requested three days of parallel sessions if at all possible.

4) AOB

Jim Kerby noted there are 5 confirmed speakers for the Industrialization workshop, but we need to follow up with the materials manufacturers and the laboratory reps in particular. He asked everyone to register for the workshop for logistical reasons in the next few weeks.

5) Further Plans and Meetings

Next ML-SCRF Webex meeting:	29 June, 2011
Future meetings (tentatively):	27 July, 24 August, 21 September
FLASH 9 mA Workshop (@ DESY) https://indico.desy.de/conferenceDisplay.py?confId=3007	6-8 June
ILC Cost Engineers Mtg	9 June
PM Visit to Heraeus	6 July
SCRF Industrialization Workshop @SRF11 http://ilcagenda.linearcollider.org/conferenceDisplay.py?confId=5182	24 July
SRF 2011 @Chicago http://conferences.fnal.gov/srf2011/	25-29 July
IPAC @ San Sebastian http://www.ipac-2011.org/inicio.asp	4-9 September
LCWS @Granada http://www.ugr.es/~lcws11/index.php	26-30 September
UKC-PAC @Prague	14-15 November
TTC @Beijing, China	5-8 December
S1 Global Meeting @Beijing, China	9 December 2011
SCRF TDR Preparation and Review (@KEK)	19-20 January 2012