

Minutes of the SPL steering group

meeting no. 14

date: 17 October 2008

present: O. Brunner, E. Ciapala, R. Garoby, F. Gerigk, A. Lombardi, W. Weingarten

Agenda

1. General news and facts
2. SPL collaboration meeting
3. New Actions
4. Next meeting
5. Comments to the minutes

1. General news and facts

- The last comments and corrections for the SPL review report should be given by Monday evening to FG.
- The HIPPI coupler (704 MHz) is not suited for the SPL because the window, which is thought for low duty cycle, is in the cold part. For the SPL duty cycle the average power density becomes too high and thus the window has to be in the warm part of the coupler.
- The question was raised to have cold quadrupoles in the transfer line. The line has to be cooled in any case to minimise losses by H- stripping (caused by Doppler-shifted black-body radiation). For cold quadrupoles the cost for power supplies would go down considerably!
- After a meeting with the civil engineering team it became clear that the target date for SPL/PS2 operation of 2017 will be very challenging, meaning that the R&D phase needs to be supported at a much higher level than at present. In any case the preliminary integration work has to start in January 2009.

Collaborations

- **Canada** seems to be ready to contribute with SC hardware and also intellectually to the SPL study. A first agreement will be signed on design work (cavity design, HOM studies), a 2nd agreement is expected on a hardware contribution (cavities) and will probably be signed in the 2nd half of 2009. In 2010 there could then be an agreement for more substantial hardware contribution, e.g. for the series production of cavities.
- **AES/Ilan Ben-Zvi:** is trying to make a case for hardware contributions to the SPL as a collaboration between BNL and AES, which would produce cavities. AES has already built 703.75 MHz cavities for beta=1. The cavity has reached 20 MV/m in a cryo-module and is intended to be used at eRHIC.
- **ESS-B** has visited CERN to discuss contributions to Linac4 (drift tubes for the DTL) and SPL (discussion on modulators). While the production of drift tubes seems likely, the discussion on modulators did not end up in a concrete contribution. In any case ESS-B is interested in the Linac4 modulator design, which could be used in their planned front-end test stand and which would allow hardware tests at a low duty cycle.
- **ESS-S** is sending 2 people to work on the SPL, expected to start in January 2009.
- **Cockroft institute** a contribution to the work on phase shifters and the RF distribution system is expected but not yet confirmed.
- **ProjectX RG** will take part in a collaboration meeting at FNAL at the end of November.

2. SPL collaboration meeting

To coordinate all the different collaborations it is planned to have a 2-day SPL collaboration meeting in the week of December 8-12 (with a preference for Thursday/Friday). Another purpose is to discuss some of the basic decisions on:

- final beta value for SPL cavities ($b=0.92$, $b=1$),
- type of HOM couplers,
- INFN/CEA tuner,
- etc.

There is a need for a collaboration board similar to the ones which are used in particle physics for large collaborations. Other questions for the meeting include:

- how do we demonstrate 25 MV/m before mid-2011?
- how do we organise/supervise the collaboration?

Further collaboration meetings could be organised before or after PAC'09 and SRF'09.

- M. Lindroos should be invited to represent ISOLDE,
- DESY/INFN must be informed of the meeting,
- Y. Blumenfeld should be invited for EURISOL,

3. New Actions

Assigned to	Start date	Description	State	Result
AlessandraLombardi	2008-10-17	verify the optimum beta values for the SPL cavities		edit

4. Next meeting

31 October, 16:00 in 866-1-D15

5. Comments

-- FrankGerigk - 20 Oct 2008

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