Minutes of the SPL steering group

meeting no. 17

date: 12 March 2009

present: S. Calatroni, E. Ciapala, R. Garoby, F. Gerigk, V. Parma, M. Vretenar, W. Weingarten
excused: A. Lombardi, S. Weisz

Agenda

1. General news and facts
2. Status of SPL work packages
3. Next meeting
4. Comments to the minutes

1. General news and facts (R. Garoby)

- The task distribution for the SPL steering group has been updated since the last meeting. It now includes Sergio for surface treatment and vacuum.
- S. Myers has proposed a new time schedule for the injector upgrade to the managent. It means a one year delay for the start-up of all concerned machines (Linac4, SPL, PS2), an updated budget request has to be prepared for the end of the month (action: R. Garoby).
- The Tesla Technical Collaboration will open its meetings to the proton community. SPL, ProjectX, ESS-? will be invited to dedicated meeting.
- Future meeting will probably be moved to Friday morning (action: R. Garoby)

2. Status of SPL work packages

- **High-Power RF:** E. Ciapala presented his list of tasks and reported that there are no news from the Cockroft Institute. There is good progress on LLRF, which was presented recently at the SLHC meeting by W. Höfle.
    - Question on precision for klystron modulator flat top: for Linac4 we specified 1%, which will be difficult for the SPL type modulators. At JPARC 7% are accepted (DC modulators with mod-anode) and GSI is talking of 10%. In these cases the LLRF system compensated the droop. Is a larger droop acceptable for the SPL and can we consider to use DC power supplies (+mod-anode) at least in the SPL RF test stand? (action: E. Ciapala)
    - If so maybe this solution can be proposed as a collaboration subject to ESS-B. (action: R. Garoby/F. Gerigk)
    - Is there a possibility to have the complete modulators on the surface and use long high-voltage cables to connect to the klystrons (action: E. Ciapala)
    - We need to compare the "one-amplifier-per-klystron" solution with the power splitting scheme, which is currently considered to be the nominal solution. The suggestion is to use high-power IOTs for such a comparison (action: E. Ciapala, deadline ~3 months from now (for input to civil engineering) with more details in September).

- **SC cavities:** W. Weingarten presented his work package organisation and milestones (document). He also reports that there will be news on the grant requests by German universities around Easter. There are no technical news from BNL/TRIUMF since the collaboration meeting. The Soltan Institute will be contacted to clarify their interest in SC RF (action: W. Weingarten). F. Gerigk reported that BNL shows an interest in testing more than one cavity at CERN, possibly even a cryo-module, and they

may try to lauch a 2nd request to the DOE.
    - EUCARD: there is a question wether we could do low-power RF tests (to determine peak fields and Q-slope) on the 704 MHz CEA cavities at CERN. This could offer the opportunity to do tests at 4.2 K and 2 K and should be pursued (action: W. Weingarten).
    - Eric Montenisos was mentioned as a possible linkperson for the development of high-power RF couplers.
    - The question was raised wether we should also develop construction capability for SC cavities at CERN. This was considered a good idea but needs resources (e.g, upgrade of e-beam welding machine at CERN), which are not yet available.

- **cryogenics:** V. Parma showed his plans for the cryo-module development, which are based on EDMS document 927236. His available time will probably decrease in the coming months due to additional responsibilities for the LHC. Possibly Ophelia Capatina can help with the coordination of the cryo-working package.

- **architecture:** (not presented in the meeting): milestones for 2009:
    - re-define start and end point of the SPL (taking into account extractions, and new starting point after Linac4): July 2009
    - definition of debunching/rebunching sections after the SPL or in the transfer lines: September 2009
    - intermediate energy extractions: July 2009
    - definition of dianostics needs (action: A. Lombardi): August 2009,
    - collimators, dumps (civil engineering impact): Oct. 2009

5. Next meeting

19 March 2009, 10:00 in 30-6-17

from March 27th, weekly meetings will take place on Friday mornings, 10:00 in 30-6-17

6. Comments

-- FrankGerigk - 12 Mar 2009

- SPL management
- Milestones SC Cavities
- Work package SC Cavities
- Work package High-power RF

This topic: SPL > SPLSG12March2009
Topic revision: r5 - 2009-04-17 - FrankGerigk