

CFS & Global Systems Monthly Webex Meeting

July 29, 2009

AGENDA

1. Report on the the CFS Accelerator Design & Integration meeting at SLAC
2. Report on Safety documents and 3-D modeling
3. Availability Task Force
4. Project Manager Q&A

Attendance

A. Enomoto, A. Yamamoto, V. Kuchler, M. Ross, E. Paterson, J. Osborne N. Toge, P. Garbincius, T. Himel, J. Carwardine.

MEETING NOTES

Report on CFS AD&I Meeting at SLAC (Vic)

- The meeting comprised working sessions to identify and document CFS requirements from each of the Accelerator Areas: identify specific CFS items from each area to identify machine layout, identify overall heat load, utility requirements, etc. The format of small discussions proved successful.
- The requirements spreadsheet template developed by CFS group being filled out to describe the current status will be the main way of capturing the data
- The group met with all the Area Systems Leaders either in person or via webex. The format of small working sessions provide successful.
- Discussions with Area Leaders continue as part of the weekly CFS webex meetings. There is now an area on Indico (ilcagenda) for the CFS weekly meetings where sides and the latest revisions of the requirements spreadsheets will be posted.
- Vic requested guidance from the PMs by Alberquerque on the final positions on each of the working assumptions for SB2009. There are CFS issues that cannot be finalized without this guidance. For example, they need to know the final decision on the working gradient because it has a direct bearing on tunnel length and a number of follow-on requirements.
- Akira responded on the gradient question, saying a final decision on the gradient is not likely to come until much later in the year.
- The CFS group plans to have a full machine layout for next CFS AD&I meeting in Daresbury in Sept (just before Albuquerque)
- Marc asked how CFS criteria specific to the linac and HLRF options were handled at the SLAC meeting. Ewan reported there was no great examination of the details, they just considered the two options. Vic reported that the group was studying CFS impact of both HLRF options in all three regions.
- Two low-power options are still on the table for SB2009: the half current option and the short-pulse option. Ewan noted that a PM decision was needed on which option will be chosen.

- Marc asked the CFS group to put together a list of the specific decisions that are most critical in order to proceed. Vic agreed to develop the list.

Safety Documents and 3-D modeling (John Osborne)

Safety documents:

- The LHC chapter has been compiled and is under approval at CERN, and will be used as a template for other chapters. It was presented at the CLIC meeting in May. The chapter can be found on the (CERN) Indico page or in CERN EDMS at the following link:
<http://indico.cern.ch/conferenceDisplay.py?confId=44870>
 CERN EDMS 995165 v1
https://edms.cern.ch/cedar/plsql/doc/info?cookie=8286997&document_id=995165&version=1
- The XFEL safety document is in the process of being translated from German
- The goal is to have all the safety reports assembled by Albuquerque. The final document will be assembled after that.

3D modeling – central injector complex integration (John Osborne)

- There have been several meetings and work has been proceeding, but it has gone as far as it can until there are better indications of where to go next with regard to the SB2009 options. Until then, 3D modeling effort has been put on hold
- CERN has produced some very preliminary layouts. John showed a preliminary layout of DR - but the wrong assumption had been made about which side the DR is on relative to detectors and bypass region. John noted that it would be much easier from CFS perspective to have DR on opposite side from service tunnel. Ewan will review this.
- The next step is to integrate all the beamlines.
- There are some discrepancies that need to be reconciled between the CFS layout the layout that Suzanna showed at the CFS meeting the previous day (July 28th).

Availability Task Force (John Carwardine)

- The Availability Working Group is studying issues associated with single tunnel linac for the two HLRF configurations. Tom Himel's Availsim application will be used to explore the different scenarios
- Availsim input data on equipment reliability, repair times, access times, etc is based on operations experience and availability data from SLC and the Tevatron, which gives a large database of component reliability experience. More recent experience with storage rings, especially light sources such as APS have demonstrated significantly better availability numbers, and it is in our interest to present the ILC availability in an optimistic light. We want to therefore update our database to use the 'best in class' availability data and operations models *that we can defend*.
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- Nobu pointed out that it is important to take into account not just mean-time-to-failure numbers, but also repair times.
- Output from Availsim will be analyzed according to these criteria:
 - Items that have a high impact on mean times to beam fault
 - Items that have a high impact on machine downtime, which constitutes:
 - Actual repair times
 - Access times, eg for equipment that is in the tunnel
 - Recovery times to get luminosity back to the nominal level
 - This will be used as a target list for further investigation and study

Cost Management (Peter)

- Peter reported that Barry wants to start Primavera integration into the cost management tools. At Peter's request, Triad has submitted a proposal for doing that.

Next Meeting: August 26,, 2009