

Summary of NCSX SIT Meeting of Monday, Nov. 25, 2002

1. FY-03 Work Planning and Authorization (Wayne)

* Adequacy of the plan (as incorporated in the WAFs) in terms of logic and deliverables was raised as an issue at the 11/19 SIT meeting. A series of follow-up meetings with Wayne and affected WBS managers has produced a revised plan that addresses what needs to be done when to get ready for the PDR. A memo by Wayne documenting the plan was issued Nov. 21. It was agreed that the WAFs will be updated to reflect these improvements. ACTION: Ron

* It is now planned that the conductor for the prototype windings will be procured by PPPL. ORNL has requested quotes and expects to get them Nov. 25.

* Availability of engineering staff to support the peak work load in Jan.-Mar. to prepare for the PDR is being worked on but still an issue. Should aim to resolve by the next WBS 1 status meeting, Dec.5. ACTION: Brad, Wayne, Ron.

2. Planning for future reviews: PDR, EIR, CD-2, FDRs, CD-3 (Hutch)

A new review schedule was proposed in which the PDR and EIR would be separated by ~2 months instead of being held simultaneously. The PDR would be in May, 2003 and would focus on the technical basis and estimates for the modular coils and vacuum vessel, including their interfaces with neighboring systems. The EIR would be in July, 2003 and would focus on the adequacy of the overall project estimates and management systems for establishing the performance baseline. CD-2 would immediately follow the EIR. Initial discussions with DOE are supportive. More are planned, but it was decided that the project should plan on this new review schedule. Some issues for further discussion were raised:

* Does there need to be a "DOE" PDR?

* Does there need to be a "Lehman" cost and schedule review prior to the EIR?

* Is CD-2 immediately following the EIR realistic? Is it necessary?

ACTION: Hutch continue to follow up with DOE.

3. Critical Technical Issues (Wayne)

Critical issues were documented in recent memos by Wayne. Concerning the issue of diagnostic port integration, meetings were held with Vacuum Vessel, Diagnostics, and Physics managers. The current level of agreement between Diagnostics and Vacuum Vessel, which was adequate for the CDR, will be taken to a more detailed level. There is agreement that the number of ports and available viewing area is about right, but now we need to reach closure on satisfying the specific viewing requirements of each diagnostic. The plan is to:

* Update the VV geometry between now and the holiday break.

* Using the updated geometry as a starting point, lay out and allocate ports for required diagnostics.

* Develop Interface Control Documents for the PDR.

* Magnetic diagnostics: a plan is under development, further discussions will be held this week.

Other critical technical issues will be addressed by the responsible engineers at the Nov. 27 Project meeting.

4. Establishing, documenting, and maintaining the baseline (Bob, et al.)

* The current technical baseline is the Conceptual Design Report design, established May, 2002. The electronic ProE model will be stored in a folder on the Pro Intralink data base and identified as the baseline. **ACTION: Bob continue to follow up with Tom Brown to ensure this is done.**

* The current Cost & Schedule baseline is the Level 2 resource-loaded schedule dated July 31, 2002. The controlled document is the Primavera file which is locked and resides on Ron's computer. A viewable PDF copy is available on the Engineering web site under "Cost & Schedule".

* The Level 3 baseline for performance measurement is the current set of WAFs. Also maintained by Ron. A viewable PDF copy is available on the Engineering web site under "Work Plans".

* Although the technical and cost/schedule baselines were established at different times, it is OK as long as they are consistent with each other.

* It was decided that we will begin to maintain a "developmental" cost and schedule baseline to obtain greater visibility of the impacts of day-to-day changes in design, estimates, and schedule on the overall cost and schedule. These changes move us away from the baseline and will need to be reconciled with the baseline at an appropriate time. The developmental baseline will enable us to keep up with changes as they are recognized and warn us of their implications for the bottom line and completion date.

Ron is responsible for maintaining the developmental baseline.

5. Project Control Issues (Ron)

* Ron requested feedback on the monthly status reports issued last week. Are changes in format or additional information needed?

* A validation of NCSX's project control system is needed as a pre-requisite for CD-2. It is proposed that this be done in February. **ACTION: Ron continue to follow up with DOE.**

6. Physics-Engineering Interface Issues (Mike)

* A trial PFC boundary is needed for flexibility studies of M47. Art Brooks is responsible for providing this information.

* Regarding further tolerance studies by engineering, the current plan is to document what was done for the M45 design. Further analyses may be needed to respond to questions from Curt Bolton. If so, Mike will identify.

* Recent physics analysis of the heated M47 design reveals that there is some degradation in performance (fast ion losses, rotation damping at the edge, and residual island width) relative to M45h. Physics will continue to study whether these can be recovered with minor geometrical changes, and may propose changes in the future.

* Schedule for magnetic alignment and e-beam mapping. There are advantages in conducting these studies with warm coils, before the cryostat is installed. What is the process for deciding? An e-mail by Hutch suggesting some first steps was issued Nov.

13.

7. Coordination Items (Jim)

- * The quote for the winding R&D conductor procurement is expected Nov. 25.
- * University of Tennessee (UT) representatives will participate in UT test coil potting operations at PPPL, currently scheduled to start Dec. 11.

8. Next SIT Meeting: Monday, Dec. 2 at 11:00 a.m. EST.

Please bring any corrections to my attention.

Summary by:
Hutch Neilson