

Minutes of the NCSX-DOE IPT Meeting on October 9, 2002

On the teleconference: Warren Marton (DOE-OFES), Greg Pitonak (DOE-PG), Gene Nardella (DOE-OFES), Jim Lyon (ORNL), Rich Hawryluk (PPPL), John Schmidt (PPPL), Hutch Neilson (PPPL), Wayne Reiersen (PPPL), and Bob Simmons (PPPL).

Topics of Discussion:

(1) Overall Project Status - Warren Marton, Greg Pitonak, and Hutch Neilson (a) AEP continues to await signature by Under Secretary Card. Apparently the hold-up may have more to do with the overall fusion plans vs. NCSX specifically. Warren reported that Ray Orbach will soon meet with Secretary Card to address this issue and hopefully get the NCSX AEP signed. (b) Continuing Resolution - no new status except that DOE financial types have confirmed that the monies targeted for the MIE Project can be reprogrammed to advanced conceptual design activities during the continuing resolution period. The November Fin Plan is expected to address the funding redistribution between PPPL, ORNL, and LLNL, and authorize conversion of MIE funding to OPEX to permit the Advanced Conceptual Design activities to proceed without hesitation (for approximately two months). (c) Greg confirmed that PPPL is continuing to get contract modifications that match the time period of the Continuing Resolution. (d) Hutch confirmed that the Project had met with the DOE Contracting Officer (Jerry Faul) this morning and discussed the work scope of the Advanced Conceptual Design phase and the planned procurements. It was agreed that the project can proceed with all planned in-house activities, procurement, and initial phases of R&D by industry. The decision regarding actual fabrication of prototypes is deferred until January 2003 - about the time the contracts will be awarded.

(2) Project Status - Hutch Neilson and Wayne Reiersen (a) Hutch provided an overview of the FY2003 planning which is based on the \$73.5M total cost/June 2007 schedule. He also indicated that the project has ~\$420K of carryover from FY2002 at PPPL and only a minimal amount (\$10K or less at ORNL). As expected the primary focus in on the modular coils and vacuum vessel. The other systems are focusing on defining interfaces, especially with the modular coils and vacuum vessel. We are currently working on finalizing the WAFs (work plans) and hope to have them in place by the end of the month.

(b) Warren asked if we could provide him the average FTEs at PPPL and at ORNL over the first three months of FY2003. Bob has contacted Ron Strykowski to provide this info to Hutch. (c) Technical Issues - Wayne Reiersen

a. Time constant in the modular coil support structure - the time constant is currently too long. The project is evaluating adding one poloidal break and adding insulating toroidal breaks to decrease the time constant. It is anticipated that this decision will be factored into the procurement package.

b. Cooling of modular coil windings - the CDR had a formed Cu plate for cooling the windings. Consideration is being given to cladding the "T" instead to improve tolerances. It is anticipated that this decision will be factored into the procurement package.

c. Finalizing the new modular coil option - thanks to the lab providing increased computational capabilities, the healing process has now been expedited and a new design is approaching finalization. After the healing is completed, there will be additional physics analyses (e.g., flexibility, etc.) before it can be released to engineering. Rather than hold up the procurement process, the proposal will be based on the current design, but the bidders will be provided information on the impact of the new design which will be the one they actually work on.

d. Interference between modular coils and VV when assembling the three field periods - as a result of the rapid prototyping model, we discovered a interference when the 3 field periods are brought together for the current design. However, we do not yet know if the new design will have a similar problem. Solutions in the form of modifications to the assembly process are being examined. The value of the rapid prototyping scale model was certainly demonstrated.

(3) Future IPT Meeting Discussion Items - Greg Pitonak (a) Greg requested that future IPT meeting address the CD-2 deliverables. These are:

1. Final Project Execution Plan
2. Detailed cost & schedule baselines (based on resource loaded schedules)
3. Complete preliminary design documents for major subsystems
4. Preliminary Design Review (PDR) & report
5. Independent Project Review (IPR) & report (EIR)
6. Technology development (R&D) results and decisions for procurement
7. Revised risk assessment and mitigation plans
8. Final EA/FONSI
9. Systems Engineering Management Plan
10. Integrated Systems Test Plan

(b) Greg also indicated that we need to understand the EIR depth and process. He will contact OECM to determine the expectations.

The next IPT meeting will be Tuesday, November 5th, at 11:00 am.

If you have any corrections, please contact me.

Summary by:
Bob Simmons