DOE-NCSX Monthly Teleconference, November 28, 2001

On the teleconference were Warren Marton (DOE-OFES), Chuck Finfgeld (DOE-OFES), Greg Pitonak (DOE-PG), Jim Lyon (ORNL), Rich Hawryluk (PPPL), Hutch Neilson (PPPL), and Bob Simmons (PPPL)

(1) Project Status Report (Hutch) - Hutch summarized the findings and recommendations from the recently completed PAC-5 meeting held at PPPL earlier this month. PAC seemed to be pleased with the progress made by the project in reducing the number of coils, the boundary studies, and plans for the manufacturing studies. He also indicated that the prime recommendation was for the Project to work at converging the physics and engineering in the coil design and that is exactly what is occurring now. Tentatively, the Project is proceeding with 1102 design for engineering analyses, but work is continuing on further coil optimization. Plans are to reach a "final" design for CDR purposes by December 20th.

(2) Planning for CDR (all) - Warren summarized some recent thinking in Office of Science on whether separate Lehman Reviews will be needed with the new external reviews indicated in the new DOE Project Management Order 413.3. The current OFES thinking is that this external review would occur sometime near the end of Preliminary Design (around mid-FY2003) to lock in the cost and schedule baseline. Another Office of Science Review (Lehman Review?) would then occur in mid-FY2004 to provide a basis for start of construction activities. Greg indicated that he thought that some type of validation review, perhaps in conjunction with the CDR, would be needed at about the same level of detail and participation as previous years to provide assurances to OMB that NCSX was ready to proceed with CD-1 to permit start of Title I (Preliminary Design) early in FY2003. Hutch then discussed that a slight delay in the CDR (e.g., from mid-April to mid-May time frame) would greatly benefit the Project to permit additional analyses and design work to proceed. Warren and Greg both indicated that the driver for when to have the CDR would be when OFES had to provide validation assurances to OMB as part of the budget development process. In past years, this has typically been in the mid to late June time frame. Warren took an action to find out when the information was needed by OMB this year. In addition, Jim pointed out that a delay in the CDR for NCSX would have a domino effect on the CDR for QPS. While Warren determines the OMB time constraints, Hutch and Jim will propose CDR dates for NCSX and QPS, assuming that the respective CDRs and validations can occur in conjunction with each other.

(3) Impact of Deputy Secretary Blake's Memo (Warren) - Warren indicated that it is still not clear exactly what the process will be, but that the validation of CD-0 by Under Secretary Card, the DOE Acquisition Plan, and Under Secretary Card's approval of Project Start for NCSX would indeed be required. Warren indicated that he expected the Office of Engineering and Construction Management (OECM) to provide additional guidance within the next few weeks. In particular, he expected that the DOE Acquisition Plan would have to now address the entire fusion life cycle of a project vs. only the construction project. He will provide feedback as soon as he receives it.

(4) Definition of Project Costs (all) - A discussion was held as to what exactly comprises the cost target for NCSX. Our current cost target is $69M in as spent dollars, leading to a first plasma in early FY2007. After some discussion it was agreed that:

(a) The cost target would only be TEC and that this would remain at $69M in as spent dollars.

(b) The TEC activities would commence on October 1, 2002 (start of FY2003). (c) The TEC will include the following:

(i) Title I (Preliminary), Title II (Final), and Title III (Construction Support) design and management

(ii) Manufacturing Development (formerly called R&D - large scale prototype development)

(iii) Physics Analyses/Requirements Development in support of the design process (formerly called project physics)

(iv) Construction fabrication, assembly, installation, construction management, and testing activities

(d) FY2002 conceptual design activities, including manufacturing studies and other R&D is NOT in the TEC. It should also be noted that in some WBS elements, the conceptual design will proceed into early FY2003 (e.g., non-stellator core systems) and will not be included in the TEC, even though in FY2003.

(e) Other Research Prep activities being accomplished in parallel with the construction project will need to be separately funded, but is NOT in the TEC.

(5) The next DOE-NCSX Telecon will be on December 18th at 10:30 am.

Please provide any corrections to me.

Summary by:
Bob Simmons