

Minutes of NCSX IPT Meeting of Aug. 13, 2002

Attendees

DOE-PAO: G. Pitonak, chair

DOE-OFES: W. Marton, G. Nardella

PPPL: H. Neilson, R. Strykowski, W. Reiersen, R. Hawryluk

ORNL: J. Lyon

1. Status of Acquisition Execution Plan and DOE Report

W. Marton: The AEP is currently being reviewed by the budget group (David Tracy) in the CFO's office, on its way to OECM and Under Secretary Card. Although the signature process is taking longer than expected, it is believed that the AEP will be signed by the time it is needed to authorize release of project funds for Title I design.

W. Marton: Re-iterated guidance to the project to continue planning consistent with full funding in FY-03. If this changes in the future, it will be necessary to iterate with the project on its FY03 plans. The October fin. plan is being prepared based on the assumption that there will be a continuing resolution.

H. Neilson: The project wishes to issue RFP's for manufacturing development subcontracts around Oct. 1 and, to the extent possible, to award and proceed with the work even in the case of a continuing resolution. Pitonak has requested a meeting with PPPL Business Operations representatives to reach a common understanding of how such procurements will be handled in the continuing resolution case. ACTION: Neilson arrange meeting.

2. Project Planning for FY-03 (Neilson)

Confirmed that detailed FY-03 work planning is under way assuming a budget of \$11,026k for the MIE project and \$789k for Research Prep.

In the MIE project, \$9.6M of work is being planned, consistent with the schedule; the remaining \$1.4M will be set aside at the beginning of the year as management reserve.

Initial cost & schedule baseline will be established around Oct. 1. It will incorporate the changes made since the CDR to match DOE funding guidance, a revised procurement strategy (see IPT minutes of 7/23/02), and a revised WBS. It is expected that an updated C&S baseline will be presented at the Preliminary Design Review (PDR) scheduled for April, 2003.

It was agreed that the project will plan to present design and cost information for all work packages at the PDR, while recognizing that most of the technical effort between now and then will be on the modular coils and vacuum vessel. Impacts of vacuum vessel and modular coil design developments on other systems, through interfaces and requirements, will be addressed.

PPPL wishes to plan the NCSX shield-wall reconfiguration work to dovetail smoothly with the PBX-M site clearing activities. It may be most cost-effective to start some of the NCSX workscope prior to CD-2. The project will keep DOE informed of its plans.

The initial technical baseline, namely the CDR design, will be established around Oct. 1. To that end, the General Requirements Document is now being reviewed for project approval. It will be submitted to Pitonak for approval.

It is expected that the technical baseline will be updated by about the end of November to incorporate changes now in development: revisions to the modular coil coiling configuration, and revisions to the coil and vacuum vessel geometry. (See below.)

### 3. Status of Technical Activities (Reiersen)

Manufacturing development activities planned for FY-03 are critical for risk reduction. Two contracts will be placed for vacuum vessel work, and two for modular coil winding forms. In-house winding and potting R&D will also be carried out. Specifications and statements of work are being prepared.

A trade study of alternative modular coil cooling concepts is being carried out. The purpose is to look for a simpler design than the CDR design based on copper strips. Alternatives being studied are to use copper clamps, rods, or spray coatings to conduct the heat away.

A trade study of alternate coil and vacuum vessel geometries is being carried out. The goal is to increase the clearance between the plasma and first wall in order to improve divertor performance. Both the physics and engineering teams are addressing the issue. The physics team is investigating coil re-designs to shift the plasma away from the wall; the engineering team is investigating structure modifications to move the wall away from the plasma. The new geometry will be decided about the end of September.

Sensititvity studies of magnetic island width sensitivity to coil errors are being extended to set tolerances.

4. Quarterly Reviews. The first NCSX quarterly review is expected to be in January, 2003, after the first-quarter close.

5. Next IPT Meeting: Tues., Sept. 17 at 11:00. Usual arrangements.

Please bring any corrections or comments to my attention.

Summary by Hutch Neilson