

NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, Jan 16, 2007 at 11:30am are as follows:

Attendees: DOE-PSO: J. Makiel, L. Dietrich, G. Pitonak

DOE HQ: B. Sullivan

ORNL: J. Lyon

PPPL: R. Templon, J. Malsbury, R. Strykowski,
J. Levine, H. Nielson, R. Hawryluk

1. DOE News (Barry)

- a) No further news about the Energy and Water Bill. The Continuing Resolution continues to be indefinite. Ron stated that a continued CR will begin to make the Project's budgetary conditions "tight" in the April/May timeframe;
- b) An HQ requirement has been imposed on the NCSX Project to have the PARS data available by the 10th day of the following month upon ending a fiscal quarter. The NCSX project will comply with this requirement;
- b) Barry will schedule the Quarterly Review to report on the FY07 1st quarter achievements and issues. Barry will also schedule the next monthly SC Watch List Briefing.

2. Safety Management (Jerry)

- a) There are no notable safety related issues within the NCSX Project;
- b) A PPPL Management Safety Walk-thru of the NCSX Fabrication Facility was conducted in December. No major issues were identified;
- c) The close-out for the PPPL site wide ISM re-verification was planned for next week but may be delayed. The NCSX project was a focal point for the re-verification team.

3. SC Project Review (Jeff)

- a) An SC Project Review was performed on December 19 at PPPL. It was an abbreviated one day review;
- b) A draft report was prepared and reviewed by DOE. A draft copy will be provided to the NCSX Project Team for a factual accuracy check (draft sent via email Jan 16th);
- c) A key finding from the review is a recommendation that the NCSX Project should plan for a re-baseline later this fiscal year after more data on field period assembly is gained;
- d) The NCSX Project Team noted that the re-baseline activity is an unplanned activity and was not in the FY07 budget. Given the CR and the tight budget for FY07 critical path work, the NCSX Project Team must examine what workscope can be delayed this FY to support the re-baseline cost;
- e) One SC Review Report finding/recommendation is to establish a technical peer review to determine if additional cold testing of completed modular coils is required. Jeff will coordinate the Peer Review with Wayne and the appropriate technical members of the SC Project Review teams.

4. Project technical progress (Hutch)

The following provides a brief status on the major components:

MC Winding

- a) B-3 was delivered. This is the 12th casting;
- b) B-4 is in final inspection at Major Tool;
- c) A-3 was successfully VPI-ed;
- d) B-1 will be the next coil for VPI;
- e) B-2 began conductor winding;
- f) A-4 is in prep;
- g) Minor modification of the final clamps continue. Upon receipt of the parts, final clamps will be installed thus completing the coils in preparation for field period assembly (Station #2);
- h) A third winding station has been successfully added and is now operating.

MCWFs

The following is the status of MCWFs in vendor production:

- a) Twelve modular coil winding forms have been delivered to date. The next winding form will be B-4 which will provide the winding forms necessary for the 2nd field period;
- b) Modular coil winding form production is going well at Major Tool and Machine and continues to support the Project's needs. A delegation will visit Major Tool this week to review contract status.

In summary:

0 in foundry phase
6 in machining phase
12 delivered
18 total

Field Period Assembly

The Field Period (FP) Assembly effort continues as follows:

- a) FP work is comprised of two functional areas:

Production: Station #1 activities -- The installation of heating & cooling tubes, the diagnostic loops and the cryostat flange collar on the vacuum vessel;

Research and Development: Trial fit-up of modular coils (Station #2) and trial fit-up of diagnostic ports (Station #5);

- b) Staffing levels to support Field Period Assembly work has been increased.

TF Coils

- a) The TF Coil contract with Everson Tesla Inc (ETI) satisfactorily continues. Work continues to focus on developing fabrication techniques on the first TF coil;
- b) Several wedge castings were poured and are now in preliminary machining;
- c) It continues to be anticipated that the first two TF coils delivery dates will slip as previously reported. The TF coils are not a critical path item. Delivery will begin in early March. No cost issues by ETI have been noted.

Other activities

Design activities continue with the following:

- coil assembly drawings;
- modular coil interface;
- field period assembly stations including assembly fixtures.

5. Procurement (Rod)

- a) Procurement continues to support both major and minor material contracts including EIO/MTM and Everson Tesla Inc as discussed above;
- b) Procurement is working to recover costs for some materials from Major Tool for the VVSA dies. In addition, the molds used to pour the castings will be placed in storage by EIO until receipt of all MCWFs by PPPL.

6. Review of critical issues (Hutch)

- a) There are no Category I critical issues;
- b) Category II critical issue: The project continues to investigate another surface treatment process that will improve the shear strength on the mating flanges of the modular coils. This surface treatment may eliminate the need for the previous shear pin plate design. Developmental trials are underway to determine the viability of the surface treatment process.

7. Planning for the next 6 months (Ron)

The primary technical focus will continue to be on the receipt of MCWFs, and the winding of modular coils. However, critical path will soon shift to Field Period Assembly as anticipated.

Planned activities for the next 6 months are:

- a) 9 TF coils delivered by June;
- b) 6 remaining MCWFs delivered by June. EIO/MTM contract completed;
- c) 4 more MCs are potted for a total of 12 potted;
- d) MC interface design completed to support FPA Station #2 activities;
- e) FP tooling and fixture design completed;
- f) FPA #1 to be completed by June;
- g) FPA #2 started;
- h) PF coil preliminary design review completed;
- i) Coil structure design commences;
- j) Re-baseline effort.

8. Project performance through Dec (Ron)

- a) The project cost performance data thru the end of December as per ECP52:
 - SPI=.99
 - CPI=.97
 - Incremental CV for Dec = \$500K
 - CV (cum to date) = \$2.1M
 - Management Reserve = \$1.3M

9. ECP status (Ron)

The following are current and anticipated Engineering Change Proposals (ECPs) that require DOE approval:

- a) ECP52 re-planned activities in FY07 and is the current ECP which the Project is tracking against;
- b) Proposed ECP53 will increase budget to support coil winding activities in FY07. The increase will be offset by reduced workscope in diagnostic and AC power systems, and control systems. The offset will also include a favorable site G&A rate change and reimbursement of work that will now be funded by GPP.

10. Planned IPT meetings (and other events) are as follows:

Jan 25thNCSX Quarterly Report (1st Qtr FY07)
Jan 29thNCSX Monthly Watch List Report for Dec
TBDPeer Review for Cold Testing of Modular Coils
Feb 6thNext NCSX IPT meeting at 11:30am
Spring/SummerNext NCSX SC Project Review