

NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, Jan 17, 2006 at 11:00AM are as follows:

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

DOE HQ: B. Sullivan, K. Chao

ORNL: J. Lyon

PPPL: R. Strykowski, W. Reiersen, R. Templon, H. Neilson,
J. Levine, J. Malsbury, R. Hawryluk

1. DOE News (Barry)

No news on the FY07 budget yet.

2. Safety Management (Jerry)

- a) Safety performance, site-wide, continues to be excellent. The last recordable incident was in November;
- b) Hazard Awareness training will be performed at PPPL on March 9th. Don Erbschloe (SC-3) will also attend;
- c) Safety walk-thru's on the NCSX project continue. In the most recent walk-thru's, conditions were found to be very good.

3. Lehman Review

- a) During a briefing to Anne and SC-2 (Decker) by Kin on the Lehman Review on Nov 9th, SC-2 and Anne recommended that NCSX provide an assessment of progress to be presented in February. The assessment will be incorporated into the next quarterly project report. A tentative date will be scheduled for the week of February 20th.

4. Project technical progress (Hutch)

The following provide a brief status on the major components:

MC Winding

- a) The C-1 MC: Clamp adjustment for establishing the current center, and lacing operations, are concluding in preparation for the next steps: closure of the ground wrap, installation of chill plates, and epoxy impregnation. The March 2006 coil completion date looks good.
- b) The C-2 MC: Winding operations are underway. The casting has been inspected and clamp studs have been affixed. Overall, the winding operation is going well.

MCWFs

Vendor performance by Major Tool & Machine (MTM), who is subcontractor to Energy Industries of Ohio, continues to be of concern to the NCSX Project Team. MTM has indicated that they will not achieve a 12 week turn around on machining of the MCs as hoped. The Project Team has investigated non-critical tolerances that can be relaxed to relieve low value, high cost machining efforts. This effort yielded modest improvement to the schedule. The Project Team has requested EIO to submit, by January 24, an updated plan for completing the remaining MCWF on a schedule that supports the NCSX project baseline. EIO is working with its sub-contractors MetalTek and MTM to produce the plan

The following is the status of MCWFs in vendor production:

- b) C-3 is in the 5-axis machining phase at Major Tool and Machine (MTM) with revised delivery in February;
- c) C-4 is in the 3-axis (Mitsubishi) machining phase at MTM with revised delivery April;
- d) C-5 has completed the rough machining phase at MTM and awaiting the 3-axis (Mitsubishi) machining phase;
- e) C-6 has been poured and awaits machining after the A-1;
- f) A-1 and A-2 were previously shipped to MTM but were returned to the foundry for removal of excess stock material to ease machining burden;
- g) A-3, 4 and 5 have been poured and are in foundry operations;
- h) B-1 has been poured and returned from radiographic inspection, no abnormal issues noted.

In summary 2 MCWFs are completed, and 10 MCWFs are in vendor production.

VVSA

The VVSA effort continues as follows:

- a) The 1st segment is completing fabrication and will be undergoing weld inspection and testing upon completion of surface polishing. The NCSX Project Team will send technical representatives next week to participate in the vacuum test;
- b) The 2nd segment completed machining of the port holes. Welding of the ports is now proceeding;
- c) The 3rd segment continues with basic fabrication of panel installation;
- d) Fabrication of the first space is complete. The fabrication of the second spacer is underway.

Major Tool's delivery for the 3 VVSA segments: 3/27/06, 5/15/06, and 6/16/06. The final sector delivery forecast date is 3.5 months ahead of schedule for the Level II milestone scheduled for September

Welding of the ports on the first period section is complete. Due to the complexity of the VVSA design, work is taking longer than originally anticipated by MTM. The delays were attributed to skill-mix and resource coordination issues within MTM. These issues were addressed and the schedule was re-estimated in December. Since then, work has proceeded in accordance with the revised schedule. The work that is yet to be accomplished on the first period assembly includes surface polishing, thermal cycle, perform a 100% dimensional scan, and vacuum testing. MTM has indicated that the first VVSA will now be delivered on March 27th.

Other components and facilities

- a) The TF coils are in the procurement phase and discussed in the Procurement section below.
- b) The VV Prep Station #1 will be ready by mid-March for the delivery of the 1st VVSA section. Procedures are currently being prepared and the fixture is being fabricated in-house.

5. Procurement (Rod)

- a) Procurement of the TF coils has been initiated. The RFP will be formally released on February 1st. An award date has been set for April 15th.

6. Review of critical issues (Hutch/Wayne)

There are no category I critical issues at this time. Several lower category critical issues were discussed at the Lehman Review and continue to be tracked by the Project Team. One lower tier (category 2) critical issue that was discussed is as follows:

- a) Availability of parts for the MC winding operations is a concern because timely actions are important to ensure that the many parts are procured and received when needed. The project is managing this risk by ensuring adequate staffing of design activities, and close coordination of design, fabrication, and procurement organization on procurement priorities to support on-time availability. This effort continues to support the current winding operations.

7. Planning for the next 6 months (Hutch/Ron)

- a) The NCSX Project has about \$2.5M of management reserve which will be used for advancing the cryostat design, coil design services, two field period assembly stations, PF and coil structures design acceleration and other opportunities. Many of these items are scheduled for FY07 execution;

8. Project performance thru October (Ron)

PARS data thru November:

SPI = .98

CPI = .98

Schedule variance due to essentially the same reasons as stated in the last IPT meeting: (1) vacuum vessel delivery schedule slip; (2) MCWF delivery slip.

Cost variance due to: (1) MC winding of C-1 experienced rework of the cladding, and; (2) the C-1 casting required more preparation work prior to commencement of winding.

During the 1st quarter of FY06, \$4.3M has been costed. Total anticipated expenditures for this year will be around \$17.5 to \$18.5M of the \$19.9M available. Approximately \$2.5M of management reserve, as discussed in paragraph 7 above, remain in the project.

Contingency remains at \$9.6M or ~23.4% of work remaining. \$3.5M of workscope has been retired with no contingency draw down.

9. ECP status (Ron)

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

- a) No further ECPs requiring DOE approval have been identified at this time.

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

Jan 18, 2006..... DOE Watch List Brief
Jan 26..... OFES Monthly Briefing at 10:00am
Feb 7 Next IPT at 11:30am
Mid Feb DOE Watch List Brief
Mid/late Feb 2006..... Project Interim Assessment to SC2 & OFES
May 9-10, 2006..... Next Lehman Review at PPPL