NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, October 11, 2005 at 11:30AM are as follows:

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

DOE HQ: Barry Sullivan, K. Chao, S. Barish

ORNL: J. Lyon

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

1. DOE News (Barry)

There is no new information about the FY06 budget. Speculation indicates that a lengthy Continual Resolution is possible. There has been no news regarding a rescission due to the recent disasters.

2. Safety Management (Jerry)

a) PPPL has met its TRC and DART goals for FY2005. NCSX has maintained its excellent safety record as well.

b) The Princeton Site Office (PSO) has reviewed the upcoming critical lifts for the receipt and mounting of the first modular coil winding form;

c) As discussed in previous IPT meetings, an Activity Certification Committee (ACC) reviewed the readiness for the Coil Winding Facility which supports the winding of the modular coils and TF coils. All findings by the ACC have been closed-out.

3. Next Lehman Review (Kin/Barry/Greg/Hutch)

a) The next Lehman review is scheduled for November 2-3. Hutch provided a slightly revised outline of topics that will be discussed during the review including an updated plan for FY06 and discussion of risk management issues. The outline and agenda are posted on the review website.

b) Kin outlined the members on the review team which will be chaired by Steve Meador. The review will focus on current efforts both at the vendor sites and at PPPL. Charge item #3 will be important – the project will present its workplans for FY2006 & beyond with an emphasis on risk and contingency. FPD will ask the committee to assess these plans in light of proposed ECP which will include a big contingency draw (leaving 18% to 20%). The project will also present and explain their latest ETC.

4. Project technical progress (Hutch/Wayne)

MCWFs

Eight modular coil winding forms (MCWFs) are in process. The following is an update in status of each casting:

a) The C-1 casting has arrived. Minor rework (grinding & drilling) was required and completed by PPPL. Currrently being mounted for winding. EIO team will visit later this week.

b) The C-2 casting continues in the machining phase with the commencement of 5-axis machining phase. The C-2 casting is progressing much better from lessons learned on the C-1 casting. Expected delivery in mid-November.

c) The A-1 and C-3 castings have been shipped from the foundry (MetalTek) and are at MTM. There are now three C-type MCWFs, and one A-type MCWF in the machining phase;

d) The C-4, C-5, and C-6 castings have been poured at MetalTek and are undergoing routine quality assurance testing and weld repairs.

e) The A-2 casting has been poured.

f) The "B" pattern work was completed by Lawton and shipped to MetalTek for mold preparation. The first B-type casting (B-1) will be poured in late October;

VVSA

a) The VVSA effort continues. The first pair of 60 degree sections are completed and have been welded together to form the 1st period. Machining of the holes for the diagnostic ports is underway;

b) Work on the 2nd period also continues. Panel welding for the first 60 degree section is completed and welding of the second 60 degree section is moving forward;

c) Work on the diagnostic ports is continues with port fabrication and polishing. Odd shaped ports have been subcontracted by MTM to another supplier.

Other components and facilities

a) The Twisted Racetrack Coil (TRC) cold testing in the Coil Test Facility has concluded. No issues have been noted; no results from current center mapping exercise.

b) Many of the components discussed in previous IPT Meetings are in the procurement phase and are discussed in the Procurement section below.

c) Design and specification for insulation on the vacuum vessel continues. Nanogel has been adopted as the baseline insulation material, to satisfy the 150 C bakeout requirement. Also, analysis of cryostat port seal design continues due to possible space constraints where the diagnostic ports pass thru the shell;

5. Procurement (Rod)

a) All component parts in support of winding the first modular coil (C-1) have either been fabricated in-house or were successfully procured and received. The coil winding team is ready to go;

b) The procurement of pre-bent cooling tubes which cover the exterior surface of the VV was unsuccessful due to the complex shape of the tubes which had no interest from outside vendors. The NCSX Team, in anticipation of this outcome, will further investigate the use of corrugated tubing that will be formed in-house;

c) Receipt of the copper conductor for the TF coils is delayed by the supplier for approximately 6 weeks. However, winding of the TF coil is not on the critical path.

6. Review of critical issues (Hutch/Wayne)

a) Category 1 risk - - The TF Wedge Castings have been added to the Critical Issues list. When recently advertised for fabrication, only one bid was received and it was substantially higher than the estimate. Changes to design configuration and materials are being discussed. This is not a critical path item.

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

As discussed during the meeting, the following tasks continue as follows:

- Close-out designs for vacuum vessel, C-type modular coil, and TF coil;
- Continue vendor fabrication activities & begin coil winding;
- Focus on design work related mostly to the support structures;
- Re-plan next years scope and resources adjusting for delays experienced this fiscal year regarding the modular coil winding forms.

8. Project performance thru July (Ron)

a) The SPI and CPI as of end of Sep are .95 and .96 respectively as reported against the new baseline. Drivers for the variance continue to be the same as discussed in the last IPT Meeting. With the arrival of the 1st MCWF, it is possible that some recovery of schedule will be achieved.

b) Contingency is 27% based upon remaining work.

b) An estimated carryover at end of the fiscal year is anticipated to be approximately $2.0M.

9. ECP status (Ron)

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

There are currently no ECPs pending DOE action. As mentioned above, the next ECP for DOE action will be a topic for discussion during the Lehman review.

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

Oct 27 - - OFES Monthly Briefing
Nov 2-3 - - Next Lehman Review
Nov 8 - - Proposed next IPT meeting