

NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, May 24, 2005 at 11:30AM are as follows:

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

DOE HQ: Kin Chao

ORNL: J. Lyon

PPPL: J. Levine, R. Strykowski, F. Malinowsky, L. Sutton,
H. Neilson, W. Reiersen

1. DOE News (Kin)

Kin provided an update on the ESAAB: OECM has the "paper" ESAAB documentation for review. It is anticipated that the approval authority of the ESAAB will be the Deputy Secretary level. The signed ESAAB approval document will be made an attachment to the NCSX Engineering Change Proposal ECP-031.

2. Safety Management (Jerry)

PPPL continues to have no OSHA recordable workplace injuries or illnesses so far this fiscal year.

A PPPL Construction Safety Coordinator that has been preparing the Test Cell for the NCSX device will retire later this month. PPPL Industrial Hygiene Division will continue to provide oversight.

An Activity Certification Committee (ACC) reviewed the autoclave facility in preparation for epoxy impregnation of the TRC and modular coils. The ACC was pleased with the NCSX Project Team's level of safety considerations in the design of the facility, and with the tentative operations of the facility. The ACC continues to also review the Coil Test Facility.

3. Next Lehman Review (Kin/Hutch)

A date for the next Lehman review (in the fall timeframe) is tentatively scheduled for the week of October 17th. (Update: Due to scheduling conflicts, the tentative date may change to November 2nd or 3rd.)

4. Project technical progress (Hutch)

- a) The machining of the C-1 casting continues to progress. The C-1 casting is scheduled for delivery in late June;
- b) The C-2 casting process went well and is now undergoing dimensional testing and radiography;
- c) The casting pour for the A-1 casting will occur later this week. The casting form (and pattern) proved to be more complicated than originally anticipated;
- d) The “B” pattern is in the development phase and undergoing solidification modeling;
- e) The VVSA panel forming continues. The panels exhibited a “skin” upon delivery from their supplier which Major Tool will remedy in-house to ensure that the specified surface finish is achieved;
- f) Fabrication of the 60-degree weld fixture continues. The entire fixture was assembled last week, but two of the supports were found to require some re-work;
- g) The vacuum bag mold for the TRC continues more slowly than anticipated. PPPL is investigating more efficient methods to reinforce the bag mold in preparation for the epoxy impregnation. The goal is now to have the TRC ready for coil testing around June 13th;
- h) Final Design Reviews continue for the modular coils and VVSA component parts (cladding, chill plates, clamps, cooing tubes, etc.). Most important is the fabrication of the type “C” modular coil lead-blocks;
- i) The statement-of-work for the TF coil components is being prepared. The construction of the TF coils will be performed in-house;
- j) Members of the NCSX Team will visit MetalTek and Major Tool later this week to oversee progress and discuss technical issues and schedule;
- k) The NCSX Team is investigating a method to check the tolerances of completed coils using high precision magnetic measurements.

5. Procurement (Larry/Hutch)

- a) There were no issues noted regarding the current major procurements for the MCWFs and VVSA;
- b) Continued small procurements are underway to support component parts. Most notable is the requisition for the TF conductor.
- c) PPPL NCSX Project Team and PPPL Procurement have met to plan the upcoming procurements for the remainder of this fiscal year.

6. Review of critical issues (Hutch/Wayne)

- a) As mentioned in the previous IPT meeting of May 3rd, current center position control, and completion of MCWF design tasks, are most critical (category II) at this time. A plan has been developed to address the dimensional control issue.
- b) Fracture analysis of the MCWF has determined that the design is more than adequate for the planned life of the machine. This issue has therefore been resolved.

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

The 6 month look ahead continues to be the same as stated in the last IPT Meeting on May 3rd:

- a) Finish FDRs for the stellarator core systems, place procurements as required by the schedule;
- b) Starting to wind the modular coils and TF coils;
- c) See "Technical Progress" for other planned tasks.

8. Project performance thru Feb (Ron/Greg)

- a) SPI=.97 and CPI=.98 as measured against ECP30. There has been no reduction (or draw down) on contingency which remains at \$12.8M;
- b) Regarding the VVSA and MCWF procurements, approximately 3.0M has been costed, with approximately \$3.8 of remaining work for this fiscal year;

- c) A carryover of approximately \$2.0M is anticipated. However, actual costs regarding component fabrication/procurement, and actual labor costs associated with the first production coil winding, continue to only be estimates at this time.

9. ECP status (Wayne/Ron/Greg)

ECP30 has redistributed the work within the current baseline in anticipation of the re-baseline effort. Upon approval of the ESAAB by the Deputy Secretary, ECP31 will establish the new baseline. There are no other ECPs planned at this time.

10. Planned IPT meetings thru June are as follows:

June 21	IPT Call
Early Nov	Lehman Review