

# NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, Aug 8, 2006 at 11:30AM are as follows:

**Attendees:** DOE-PSO: J. Makiel

DOE HQ: B. Sullivan, S. Barish

ORNL: J. Lyon

PPPL: R. Templon, H. Neilson, R. Strykowski  
F. Malinowski

## 1. DOE News (Barry)

A continuing resolution appears likely. It will most likely result in a monthly BA profile that is flat consisting of 1/12<sup>th</sup> increments (or \$1.325M) based upon the NCSX FY07 budget authority of \$15.9M. The NCSX Project has requested an incremental increase (advance) of \$200K BA in both October and November to support ongoing critical path work.

## 2. Safety Management (Hutch)

PPPL is developing responses to the final report on the ISM re-verification that was performed the week of June 12<sup>th</sup> with a focus on NCSX activities. As one of the outcomes of the report, PPPL has commenced refresher training on lock-out/tag-out procedures.

## 3. Lehman Review (Hutch/Jeff)

- a) A letter was sent by Jeff as the FPD to the NCSX Project Team that requested a disposition plan for the recommendations made by the SC Project Review Team during the May 2006 Lehman review. Two recommendations of note will be addressed in the response as follows:
  - Evaluate the need for additional winding station capability. Update: The NCSX Team has determined that an expansion to the winding line will help facilitate the winding schedule and possible offset overall cost. The lack of available budget this year will most likely push the implementation into next fiscal year.

- Evaluate the need for cold testing of the type A and B modular coils. Update: The NCSX Team continues to evaluate this recommendation. A decision will be made upon technical consensus by the NCSX technical staff.

b) The next Lehman Review is scheduled for December 12-13 at PPPL.

#### **4. Project technical progress (Hutch)**

The following provides a brief status on the major components:

##### MC Winding

- a) The C-1 MC: The C-1 electrical fault in the lead block assembly was repaired and successfully re-warm tested. The subsequent modular coils will have a modified design to prevent this issue from reoccurring;
- b) The C-2 MC: The C-2 was potted, warm tested, and continues to await de-molding and final clamps. The C-2 MC shares the same lead block design as C-1. A decision will be made as to whether the lead block should be re-worked as similar to C-1;
- c) The C-3 MC: The C-3 underwent VPI last week and is now in the same stage of completion as C-2. The C-3 is the first coil with the revised lead block design;
- d) The C-4 MC: The C-4 is being prepared for VPI;
- e) The C-5 MC: The C-5 is completing conductor winding;
- f) The A-1 MC: The A-1 has begun cladding;
- g) The A-2 MC: In queue for winding operations;
- f) The A-3 MC: Recently received and in queue for winding operations.

##### MCWFs

The following is the status of MCWFs in vendor production:

- a) Modular coil winding form A-3 was received last week. This is the 8<sup>th</sup> form delivered to PPPL;
- b) Modular coil winding form production is going well. Approximately 8 months left to go on the winding form contract;

- c) Energy Industries of Ohio (EIO) and Major Tool and Machine (MTM) visited PPPL August 10 to discuss the general progress and delivery schedule of the winding forms, and to discuss some technical issues.

In summary:

- 0 in foundry phase
- 10 in machining phase
- 8 delivered
- 18 total

### VVSA

The VVSA effort continues as follows:

- a) VVSA #1 continues to undergo in-house dimensional verification and 'best fit' analysis;
- b) VVSA #2 was delivered to PPPL last week. It has been mounted in the fixture at Prep Station #2 and will begin in-house dimensional verification as similar to VVSA #1;
- c) The 3<sup>rd</sup> segment continues fabrication. Out of tolerance issues have been remedied by Major Tool and Machine, and subsequent vacuum testing was successfully completed. Delivery is anticipated in mid September.

### TF Coils

- a) The TF Coil contract with Everson Tesla Inc. (ETI) is underway. A key activity is the subcontracted fabrication of tooling (i.e., the winding mandrel). PPPL has also loaned ETI a conductor taping machine;
- b) An effort for a more cost effective material source for the low permeability stainless steel that will meet the Project's specifications continues by ETI. This issue will delay PPPL's receipt of the first coil assembly, but the slip will be recovered by the third coil. The coils are not a critical path item.

### Other activities

None discussed.

## **5. Procurement (Rod)**

- a) Procurement continues to support both major and minor material contracts including EIO, Major Tool & Machine and Everson Tesla Inc as discussed above. Upcoming procurement actions include a quote for a new modular coil winding fixture, cladding and chill plates for the 'B'-type modular coil, and another software seat of the VeriSurf<sup>®</sup> software for performing metrology tasks.

## **6. Review of critical issues (Hutch)**

- a) There are no new Category I critical issues.

## **7. Planning for the next 6 months (Hutch)**

The focus will continue to be on the receipt of MCWFs and winding of modular coils as a critical path activity.

Other planned activities are:

- Continue fabrication, and receipt, of vacuum vessel segments;
- Commence field period assembly with Prep Station #1 as resources allow;
- Monitor and oversee TF coil vendor fabrication;
- Increase technician staffing to support increasing activity in the Coil Winding Facility, Autoclave, and eventual Field Period Assembly operations. 4 more technicians have been added to the Project;
- Continue with design support.

## **8. Project performance through June (Ron)**

The project cost performance data for July is not yet available.

ECP #49 released approximately \$300K of contingency to cover retired risks including the cold coil testing of C-1. Contingency is now \$7.87M or 23.9% of work remaining. When adjusting for the current cost variance, the effective contingency is about 19.5% of the work remaining.

## **9. ECP status (Ron)**

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

- a) ECP 49 was approved by the Federal Project Director (FPD) for the release of contingency and retirement of \$290K of work;

- b) ECP 50 will be a technical change for workscope reduction of magnetic diagnostic work. This ECP will not require FPD approval.

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

TBD ..... NCSX Monthly Watch List Report for August  
Aug 29<sup>th</sup> ..... Next IPT Meeting  
Sep 15<sup>th</sup> ..... Response to CV and Contingency Usage Letter  
Dec 12-13..... Next NCSX Lehman Review