

## NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, June 20, 2006 at 11:30AM are as follows:

**Attendees:** DOE-PSO: J. Makiel, L. Dietrich  
DOE HQ: B. Sullivan, K. Chao  
ORNL: n/a  
PPPL: W. Reiersen, R. Templon, H. Neilson, J. Levine, J. Malsbury

### 1. DOE News (Barry)

- a) Dr. Decker (DOE SC-2) requested, via email to Barry, for an impact analysis of the workscope adjustments that have been made to the NCSX Project to date. The information is to be provided to Dr. Decker by June 27th. [Hutch has this action].

### 2. Safety Management (Jerry)

- a) The PPPL ISM re-verification was performed last week (week of June 12<sup>th</sup>) with a focus on NCSX activities. Overall, the review was very positive. PPPL will follow-up on the recommendations that were made by the ISM Review Team.

### 3. Lehman Review (Jeff)

- a) Jeff will send a letter to the NCSX Project Team that will request a disposition plan for the recommendations made by the SC Project Review Team during the May 2006 Lehman review;
- b) The next Lehman Review is tentatively scheduled for the week of December 11 2006.

### 4. Project technical progress (Hutch/Wayne)

The following provide a brief status on the major components:

#### MC Winding

- a) The C-1 MC: The C-1 underwent initial cold testing at 5, 15, 35 and 36.5KA (full) current. Prior to cold testing, warm testing ("Meggar testing") at 7.5KV revealed a ground fault at approximately 7.0KV. The location of the fault was determined to be in the lead block assembly of the coil and is accessible for repair. Subsequent coils will be modified to prevent this issue from reoccurring;
- b) The C-2 MC: The C-2 was VPI and awaits de-molding and final clamps;
- c) The C-3 MC: The C-3 will move to the VPI facility later this week;
- d) The C-4 MC: The C-4 completed conductor winding;
- e) The C-5 MC: The C-5 is having cladding installed.
- f) The A-1 MC: The A-1 winding form was received at PPPL and is being installed in the winding ring fixture for Station #1 prep work.

#### MCWFs

The following is the status of MCWFs in vendor production:

- a) A-2 is in the 5-axis machining phase. The A-2 winding form was previous delayed during a 3-axis machine breakdown last month with the Mitsubishi 40;

- b) A-3, and A-4 are in the 3-axis phase;
- c) B-1 and B-2 continue in the rough machining phase.
- d) All remaining modular coil winding forms have been poured. Only two remain in foundry operations.

In summary:

2 in foundry phase  
 10 in machining phase  
6 delivered  
 18 total

## VVSA

The VVSA effort continues as follows:

- a) VVSA #1 continues to undergo in-house dimensional verification. VVSA Prep Station #1 is being assembled for the installation of diagnostic loops and heating/cooling tubes;
- b) The 2<sup>nd</sup> segment fabrication continues to have the ports removed and indexed for later reattachment during field period assembly operations at PPPL. Delivery is planned for July 25th;
- c) The 3<sup>rd</sup> segment continues fabrication. Delivery was planned for August 15<sup>th</sup>, but this date may slip. However, delivery is anticipated by the end of this fiscal year, and the 3<sup>rd</sup> VVSA is well off the critical path.

## Other components and facilities

- a) Materials procurement to support the VV Prep Station work continues to support the Prep Stations facility
- b) Design continues to support the ongoing fabrication and procurement efforts with more schedule float than previously experienced earlier this fiscal year
- c) The TF coil procurement at Everson Tesla Inc is progressing. Delivery schedule of the TF coils as specified in the contract is on track. Everson Tesla is initiating subcontract work for the wedge fixtures which are part of the TF contract. An inductive brazing machine was borrowed from Fermi National Lab and will be sent to Everson Tesla for use on the coil lead connections
- d) The NCSX Project Team is investigating the cost of storing the casting patterns near the foundry as an alternative to discarding them upon acceptance of the first completed MCWF of that type.

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

- a) Procurement continues to support the NCSX Project with approximately 110K of component procurements underway;
- b) An independent Peer Review was performed within PPPL's Procurement Department. The Review went well.

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

- a) A new critical issue was identified since the last IPT Meeting regarding the electrical fault in the C-1 modular coil as mentioned in Section 4 of these minutes. This issue has a corrective action in place and is now considered as a category II critical issue.

## 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. It is anticipated that 4 more technicians will be added to the Project;
- Continue with design support.

## 8. Project performance may (Jeff)

The following project performance items were briefly discussed:

- Thru the end of May performance data: SPI=.99 and CPI=.97. Project costs to date are \$51.41M. Budget to go is \$40.99M (includes contingency).
- ECP #45 released \$549K to offset a portion of past cost variances for work (risk) that was considered retired. Contingency is now \$8.17M or 24.9% of remaining funds;
- ECP#45 also reduced workscope and re-planned work within the NCSX Project. As a result, the schedule contingency has increased from 5 months to 6 months along the project's critical path.

## 9. ECP status

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

- a) ECP 45, as discussed in paragraph 8, was approved by DOE-FPD
- b) No other ECPs requiring DOE-FPD are planned at this time.

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

July 18<sup>th</sup> ..... Next IPT Meeting  
July ??? ..... Next SC Watch List Briefing (TBD)  
Week of Dec. 11 ..... Next NCSX Lehman Review