NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, Feb 7, 2006 at 11:30AM are as follows:

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

DOE HQ: B. Sullivan, K. Chao

ORNL: J. Lyon

PPPL: W. Reiersen, L. Sutton, H. Neilson, J. Levine, J. Malsbury, R. Hawryluk

1. DOE News (Barry)

The FY07 budget request for the NCSX Project is $15.9M.

Upcoming meetings:

- Feb 15th: Pre-Watch List briefing with OFES. 11:00am-12:00pm. PPPL will present, then PSO will discuss with OFES
- Feb 17th: Watch List with SC-2 and OFES. 2:00pm-3:30pm. DOE only. Handouts to be provided by 16th.
- Feb 22nd: Quarterly Review/Interim Assessment. 10:00am-12:00pm. Discussion points include:
  - Considering MC vendor's proposed plan, can the NCSX Project remain within the project's current baseline?
  - Is MTM's plan credible to get from 19 weeks to 13 weeks for the MCWF machining time per casting?
  - Bruce Strauss and Jeff Hoy are invited to attend.
  - Hutch and Ron will provide a more detailed analysis to Jeff and Greg on Friday, Feb. 10.

2. Safety Management (Jerry)

a) One million work-hours have occurred without a DART case for all work at PPPL;

b) ISM re-verification is planned for March 6-10. It is anticipated that there will be a high level of focus on the NCSX project;

c) NCSX technical staff while visiting/working at vendor facilities will perform Job Hazard Analysis in addition to adhering to the vendor's in-house safety program.

3. Lehman Review

a) A Quarterly Review/ Interim Assessment is planned for February 22nd. Details are provided in the 'DOE News' section above.

4. Project technical progress (Hutch/Wayne)

The following provide a brief status on the major components:

MC Winding

a) The C-1 MC: Clamp adjustment for establishing the current center, lacing and ground wrap operations are complete. Installation of chill plates is concluding, and epoxy impregnation will be done next. Two winding crews are working on C-1. The March 2006 coil completion date looks good.

b) The C-2 MC: Winding operations continue. Copper cladding has been installed and ground wrapping is underway.

MCWFs

EIO has submitted a written proposal to the NCSX Project Team last week regarding the schedule and cost issues surrounding the delivery delays of the MCWFs. The proposal was preliminarily discussed with PPPL during an EIO/MTM visit to PPPL last week. The NCSX Project Team is preparing a reaction/response to the proposal and examining the project's cost and schedule plan for impact. Possible remedies to the schedule impact include compression of the schedule for the field period assembly and machine assembly phases.

The following is the status of MCWFs in vendor production:

a) C-3, C-4 and C-5 continue in the machining phase;

b) A-6 has been poured making it 13 castings to date. All C-type and A-type castings are now cast;

c) A-1 and A-2 have completed the removal of additional stock material by MetalTek and have been shipped back to MTM;

d) A-3 and C-6 castings were shipped to MTM. MTM now has seven castings in their possession.

e) A-4, A-5, A-6 and B-1 remains in foundry operations.

In summary 2 MCWFs are completed, and 11 MCWFs are in vendor production.

VVSA

The VVSA effort continues as follows:

a) The 1st segment is completing fabrication. The NCSX Project Team sent technical representatives last week to participate in the vacuum test which went well. This week, technical representatives will return to participate in thermal tests. Delivery of the 1st segment is planned for mid-March;

b) The 2nd segment completed machining of the port holes. Welding of the ports is underway;

c) The 3rd segment has completed the two 60 degree sub-sections. Welding of the subsections is underway;

Other components and facilities

a) The TF coils are in the procurement phase and discussed in the Procurement section below.

b) Two VV Prep fixtures are completed. Additional rotational brakes are being added.

c) Due to lack of vendor interest in the pre-forming of rigid heating/cooling tubes, corrugated tubes will be use instead. Oak Ridge performed thermal test on the corrugated tube and determined that the thermal performance was acceptable upon adding Grafoil gasket material under the tube clamps to improve thermal conductivity.

d) Field period assembly plans are being developed for optimal application of metrology systems. Laser tracking, Romer arm measurement and implementation of VeriSurf Software will be used.

5. Procurement (Larry)

a) Procurement of the TF coils has been initiated. The RFP will be issued today. Bids are due March 6th. 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. Overall, there are no significant changes on the Critical Issues List. One lower tier (category 2) critical issue that was discussed throughout this meeting is as follows:

a) Impact of MCWF vendor (EIO/MTM) performance on the project's overall performance.

7. Planning for the next 6 months (Hutch)

As stated previously in paragraph 4 above: EIO has submitted a written proposal to the NCSX Project Team last week regarding the schedule and cost issues surrounding the delivery delays of the MCWFs. The proposal was preliminarily discussed with PPPL during EIO/MTM's visit to PPPL last week. The NCSX Project Team is preparing a reaction/response to the proposal and examining the project's cost and schedule plan for impact.

8. Project performance thru December and partially January (Wayne)

Cost and schedule data are not yet available for the month of January. However, the following variances were briefly discussed:

- MC winding cost variance = 217K as of last month. This variance was due to: (1) Cladding required re-worked on C-1; (2) A learning curve was realized in the implementation metrology requirements and coordination with the winding crew, and; (3) The C-1 copper chill plates require cleaning and de-burring prior to placement due to the way they were cut out. The chill plates will now be mechanically sanded (belt sanded), and this issue only applies to the C-type casting.

- Coil design work continues to have a schedule variance of 141K but has not seen any further growth. However, design work continues to fully support the procurement schedule.

The RLM for the winding activity continues to monitor the winding activity. Winding crews continue to support continuous improvement with practical suggestions.

9. ECP status (Hutch)

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. A technical ECP was issued to document tolerance changes on the MCWFs.

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

Feb 15, 2006 ..... Pre-Watch List Brief with OFES
Feb 17, 2006 ..... Watch List Brief
Feb 22, 2006 ..... Quarterly Review/Interim Assessment
March 7, 2006 ..... Next IPT Meeting at 11:30am
May 9-10, 2006..... Next Lehman Review at PPPL