

NCSX IPT Meeting Minutes

The minutes from the NCSX IPT meeting of Tuesday, May 13, 2008 at 11:30pm are as follows:

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

DOE HQ: S. Barish, K. Chao

ORNL: S. Milora, J. Harris, J. Lyon

PPPL: R. Hawryluk, R. Strykowski, D. Rej, R. Templon, J. Levine, J. Malsbury, H. Neilson

1. DOE News (Sam)

a) None

2. Safety Management (Jerry/Leif)

- a) There were no NCSX related safety incidents.
- b) A new PPPL-wide safety initiative called "STOP" has begun. Training for supervisors will begin shortly.
- c) The Project has given DOE notification of upcoming crane lifts to support Station #2 and #3 activities. A lift engineering consultant has been contracted by the Chicago Service Center to perform the review. An information package has been provided by the PPPL lift engineer to the consultant.

3. Re-Baseline Status (Don/Jeff/Kin/Greg)

- a) At this time, it appears that the Project's Baseline Change Package will not reach the ESAAB for approval for another 6 to 8 months if the Project is determined to continue. The OECM EIR previously planned for May 21-23 has been indefinitely postponed.
- b) As a product of the last SC Review (April 2008), a 'Recovery Plan' was submitted by the Project which outlines near term goals to improve the baseline change proposal. No comments were received from DOE.
- c) Current timeline of events for re-baseline:
 - 1. August 2008: Red Team Review. PrUn will utilize the previous cost and schedule review chair to assemble a new team to review the detailed revised cost estimates prepared by the Project;
 - 2. Early Sept 2008: SC Re-baseline Review to determine if the Project is ready for re-baseline as per Recovery Plan expectations;

3. October-November 2008: OECM EIR;
4. November-December 2008: ESAAB.

4. Project technical progress (Don/Hutch)

Modular Coil

The 17th modular coil has been successfully VPI'd. The 18th modular coil completed winding and will now commence chill plate and outer wrap. This work is progressing well and will complete a significant task within the Project.

TF Coils

The 12th TF coil has been completed. The 13th, 14th, and 15th TF coils are in various stages of fabrication. Overall, this effort is progressing well.

PF Coils

Bids were received, but award has been put on-hold, (See Procurement above). The hold is currently reducing the schedule float on a day by day basis. The Project is also ahead of schedule on critical path work which, and if the trend continues, will further lessen the float.

Trim Coils

Final design was completed and a procurement package is being assembled. The coils (and associated copper conductor) will be provided via vendor. The mounting brackets will either be fabricated in-house or via vendor pending a make-or-buy decision. It is anticipated that the Trim coil procurement will also be put on-hold, (See Procurement above).

Base Support Structure and Coil Structures

A final design review is planned for the base support structure in about 2 weeks. The coil structure final design review will occur in June. This work was shifted back to accommodate cryostat interface requirements as the cryostat proceeds thru the conceptual design phase. This work is not critical path, and fabrication of parts is relatively straight forward.

Cryogenic System and Cryostat

The cryogenic and cryostat system underwent a peer review three weeks ago with help from BNL, ORNL, Fermi, MIT and a cryogenics consulting firm. Good input was received and reviewer recommendations are being implemented. The Project is assembling full time expertise to support the design effort. However, a PDR is not anticipated until December 2008. This work was 'flagged' by the April 2008 SC Review Committee as being deficient with design progress.

Field Period Assembly

- a) Station #1: Pressure testing of the heating and cooling tubes that are attached to the exterior of the vacuum vessel sectors has yielded several leaks. 13 of the 192 He cooling hoses were found to leak, and have been replaced. All 13 appear

to be a supply chain QA problem. The Project believes that the integrity of the hoses (existing and replaced) are satisfactory base upon: (a) leakage was at welded joints that are not prone to fatigue and later failure, and; (b) the leaks were very small and would not create a significant failure if they were to occur. A nonconformance report will be generated to document the decision.

- b) Station #2: Welding of the inboard shear plates was successfully completed for the first two coils (A1 and B1) that comprise a modular coil 'three pack'. To lessen the degree of heat distortion, the Project has solicited an external weld engineer who has developed an improved weld technique. Qualifications are now underway. This task remains ahead of the proposed schedule, and is considered as an important validation of future machine assembly.
- c) Station #3: Work is progressing quickly at Station #2 and therefore work is focusing on preparations for Station #3 activities as to maintain momentum. An 'as-built' CAD analysis is underway to help determine any clearance issues between the modular coil 3-pack and the vacuum vessel.

5. Procurement (Rod)

- a) The PF coil procurement has been put on-hold by DOE until a decision is made about the Project's future. Bids have been received and bidder selection has been made, but award is on-hold.
- b) The Trim coil procurement package will be ready for bid later this month. However, bid advertisement will be put on-hold.
- c) The Project will procure consulting services for cryogenic and cryostat system design. The consulting service has a past history with cryogenic systems on C-Mod at MIT. Also, services to secure a cryogenic lead engineer are also underway.
- d) There are other minor various part procurements being supported with a value less than \$100K.

6. Review of critical issues (Don)

- a) The risk registry continues to be a living document with revision 32 recently posted.
- b) No new significant risk items (or critical issues) have been identified. With fabrication and assembly work proceeding smoothly and/or concluding, the risk registry will continue to be updated accordingly.

7. Planning for the next 6 months (Jeff M)

- a) A decision by the Office of Science regarding the future of the project is anticipated shortly;

- b) In the interim, the Project will continue with design, ongoing component fabrication, modular coil winding and field period assembly. The Project will continue to cost at a rate of about \$1.3M per month;
- c) Revise the Baseline Change Package accordingly and re-present to the SC IPR later this fiscal year.

8. Project performance through end of March (Jeff M)

The Project has not had a valid baseline for about two years and another 8 months is anticipated until a new baseline is approved. The Project has revised the proposed baseline presented at the April 2008 SC IPR and status April's work against it.

The actual cost at the end of April is \$81,002K.

9. ECP status (Jeff M)

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

- a) There are currently no ECPs pending DOE approval. An ECP will be developed to support the project's re-baseline.

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

- Cancelled Quarterly Briefing with OFES (2nd Quarter)
- TBD SC Watch List Briefing
- June 3..... Next IPT Meeting
- Aug? Red Team Review
- Sept? Next SC IPR to support re-baseline
- Nov? EIR by OECM
- Dec? ESAAB