

NCSX Monthly Progress Assessment

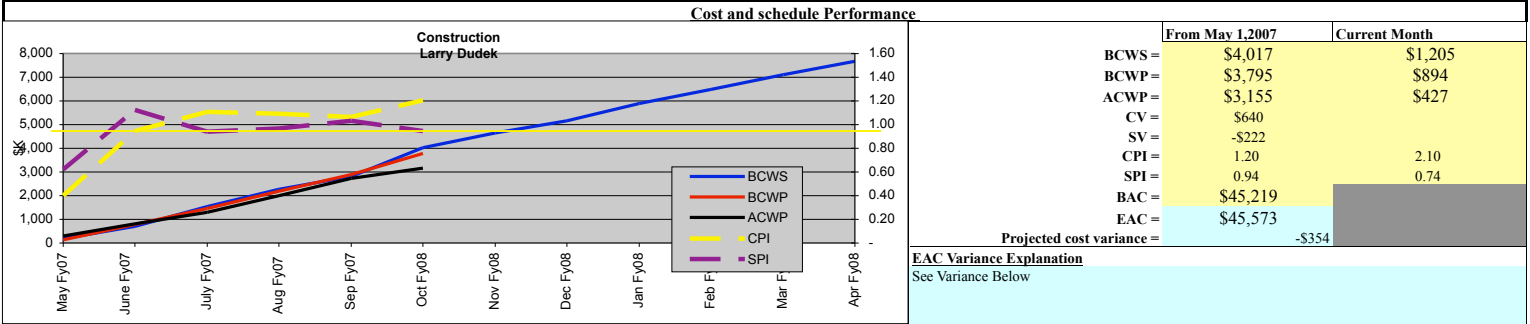
Description:			RLM:	<i>Initials</i>	Period:
NCSX Construction			Larry Dudek		Oct-2007
Scope (jobs):	Job Manager	<i>Initials</i>	Scope (jobs):	Job Manager	<i>Initials</i>
Mod Coil Fab Jobs 1408/1451/1459	JC		Fueling & Vacuum WBS 21 & 22	BB	
Cryo Systems WBS 62	GG		Diagnostics WBS 3	BS	
Assy Tooling design/fab Job 1803	TB		Water/Utilities WBS 61/63	LD	
Field Period Assy Jobs 1802/1810/1815	MV		Bakeout Systems WBS 64	MK	
Final Machine Assy WBS 75	EP				

Highlights and Progress:
WBS14: The 18th and last MCWF began its journey through the winding line; it is expected to be completed by the end of May. Station 4 [Modular Coil B6]- Completed measurements of winding form; completed installation of cladding/ Station 3 [Modular Coil C6]- Completed coil winding; measured coil bundles and made initial adjustments [having major problems with metrology equipment]/ Station 2 [B5]- Completed coil winding; measured coil bundles and made initial adjustments [having major problems with metrology equipment]/ Modular Coil A5- Completed all post VPI operations including final electrical tests/ During this period, we began the installation of thermocouples on the finished modular coils. Four technicians are expected to be released from the winding area between January and February; another 5 are expected to be released by June, and the winding area is expected to be shut down by July. Photogrammetry equipment is on order to supplement our metrology tools which should speed up assembly operations. WBS 1803: Worked to complete the Station 3 SISSCO rigging interface structure and the laser screen drawings. Station 5 support stand models were near completion, but need to be reworked to accommodate the lower trim coil.

Issues (not currently impacting technical, cost, or schedule but being watched):
Metrology resources continue to be stretched and are often the pacing item on assembly operations. Equipment reliability continues to be an issue - 2 of the 3 arms are presently out of service. Negotiations are underway with the Romer maintenance group to get a loaned arm while ours are re-serviced. A1 and B1 are ready to assemble (begin station 2 and gain 3 months on the critical path) except for 3 things 1)Nose design 2)Alumina shims 3)plugging of holes on A coils. Diagnostics - There was a hold on the magnetics to complete work for NSTX. This week was the start of assembly of two additional CO Wound Loops for the Modular Coils and Wednesday (11/21/07) will start some electrical characterization testing of the 0.032 dia coaxial cable in the High Temperature Rogowski configuration which should also characterize the Co Wound Loop configuration.

Problems and work around plans :
The cladding interference was resolved by bending the cladding overlap tabs upwards. Winding stations 2 & 3 have had a significant reduction in production during the last month as a result metrology equipment failure. As a result measurements had to be repeated, and the third remaining arm had to be shared between all the stations. Discussions are on-going with Romer to correct these failures. At least 2-week loss in winding schedule. Special service technician availability (crane operators, welders) Train new people but will take 3 months. Current delays in schedule due to nose design and plugging alignment feature holes are making this problem less acute. First batches of shim have been received from machining, permeability was high due to the use of 316. Parts were annealed to reduce the permeability but they were also warped by the process. The shims are now being reground. Procurement is in the process of negotiating a "fast turnaround" ordering agreement with the vendor for shim flame spraying.

Schedule (Total Float <1 in RED)						
<u>Milestones (6 month look ahead)</u>	<u>Job</u>	<u>Job Mgr</u>	<u>Baseline plan</u>	<u>Current Forecast</u>	<u>DOE Commitment</u>	<u>Level</u>
Stage 3 support FDR	1803	TB	13-Jul-07	17JUL07A		3
ROWGOSKI COIL - FDR	3101	BS	6-Sep-07	09AUG07A		3
Final Scan of VVSA #3 Station 1 complete	1810	MV	6-Feb-08	7-Jan-08		3
Shims required for 1st 3 pack MC assy	1431	LD	20-Sep-07	11-Jan-08	Dec-07	2
Station 5 FDR	1803	TB	21-Nov-07	19-Feb-08		3
COMPLETE VPI OF 18th MOD COIL	1451	JC	15-Jul-08	12-May-08	Nov-08	2
Station 6 FDR	1803	TB	4-Jun-08	4-Jun-08		3



Analysis	
Cost Variance (Cause, Impact, and Corrective Action) (>5% and >\$50k)	Schedule Variance (Cause, Impact, and Corrective Action) (>5% and >\$50k)
The punchlist items are requiring more lifts than planned. Approximately 1728 manhours is required to lift the coils for punchlist items. Work is being replanned to minimize this, for example the Sellers can bore all of the C coils with only one lift instead of using the crane to move the coils or milling machine to reach holes in sets of 3. Where possible lifts are being combined. Personnel at each lift are being limited to the minimum required.	Although we have recovered the pre-measurements critical path, we are about to lose the assembly critical path because we cannot start early as planned on the assembly due to the unforeseen requirement to plug the flange hole alignment features provided by design.

Changes/Additions to the risk registry		
Description	Likelihood of Occurrence	Cost and schedule impact