

NCSX June 2007 ETC
TABLE IV - Uncertainty of Estimate and Residual Risk Assessment

WBS Number: 132
WBS Title: PF Coils
Job Numbers: 1302 and 1352
Job Title: PF Coil Design (1302) and PF Coil Procurements (1352)
Job Manager: Mike Kalish

<u>Uncertainty of the Estimate</u>					
	<u>High</u>	<u>Medium</u>	<u>Low</u>	<u>Uncertainty Range (%)</u>	<u>Comments/Other Considerations</u>
Job 1302				-15%/+25%	
Design Maturity			X		Still in initial design phases - although much design work accomplished, still haven't held PDR. Interfaces with coil structures still not finalized.
Design Complexity			X		PPPL has significant experience designing conventional solid copper round coils (e.g., TFTR, PLT, PBX-M, etc.)
Job 1352				-15%/+25%	
Design Maturity			X		Still in initial design phases - although much design work accomplished, still haven't held PDR. Interfaces with coil structures still not determined.
Design Complexity			X		Both PPPL and outside vendors have significant experience manufacturing conventional solid copper round coils (e.g., TFTR, PLT, PBX-M, etc.)

Other Comments: Have budget estimates from a single vendor, risk that final estimate could increase. See COMEX quote on 5/10/2007. Original pricing based on April COMEX quote @ \$3.14/lb => as of May 10, 2007, now at -\$3.60/lb => used this COMEX quote as of mid-May.

Note: High/Medium/Low uncertainty assessment from Job Manager. Uncertainty range based on AACEI recommended practice 18R-97 as amended for NCSX.

<u>Residual Impacts</u>								
<u>Job</u>	<u>Risk Description</u>	<u>Likelihood of Occurring</u>	<u>Mitigation Plan</u>	<u>Basis of estimate</u>	<u>Cost Impact</u>		<u>Schedule Impact</u>	
					<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>
1302 - NONE								
1352 PF vendor produces a non-compliant coil requiring fabrication of an additional coil		VU	Conductor for extra coil will be procured in advance and available to wind a new coil if required. Float in schedule appears adequate to avoid critical path impact.	Increase PPPL Title III by -1 man-month	+\$15	+\$35	+ 0.00	+ 0.00
No suitable PF coil vendor submits bid. PC coils need to be built in-house.		U	PF is last major, special procurement. Sources sought received two qualified respondents. Capability to build at PPPL exists if needed.	Cost impact estimated to be up to \$300k (1/3 of fabrication costs) for potentially higher labor rates at PPPL. No impact on critical path expected.	+\$0	+\$300	+ 0.00	+ 0.00

- Notes:
- Low cost and schedule impacts are considered the minimum (0-percentile) impacts should the event occur. High cost and schedule impacts are considered the maximum (100-percentile) impacts should the event occur
 - Cost impacts should be entered as man-hours (by demographic) and M&S direct cost under basis of estimate. Cost impacts should NOT include standing army costs which are separately calculated from the schedule impact Project control is responsible for quantifying the low and high cost impacts based on the labor hours and M&S identified
 - The schedule impacts should be entered as the min and max impacts on the critical path. If there is no critical path impact then the schedule entries should be zero.
 - Likelihood of occurrence should be entered consistent with our risk classification methodology, i.e. VL= Very Likely (P>80%), L=Likely (80%>P>40%), U=Unlikley (40%>P>10%), VU=Very Unlikely (P<10%), NC=Non-credible (P<1%)