

NCSX June 2007 ETC
TABLE V - Basis of Estimate

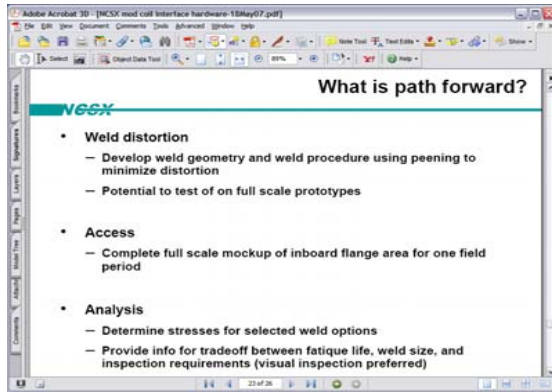
WBS Number: 142
WBS Title: Windings and Assembly
Job Number: 1421
Job Title: Design of Modular Coil Interfaces
Job Manager: David Williamson

Assumptions
Bladder design remaining and testing are in Larry Dudek's job 1431. Still need method to retain bladder and to provide bladder at B-A interface where bladder is much thicker

Engineering and Technician Hours

Color Key	ORNL	PPPL	multiplier	Pro-E models (avg)	Pro-E models (complex)	assy dwgs	Detail drawings	installation dwg	Cabling schematic	electrical schematic	I&C schematic	stress analysis	thermal analysis	special analysis (electromagnetics)	assembly specs and procedures	procurement/ lab and associated specifications	R&D reports	peer, preliminary and final design reviews	Planning	misc engr tasks	Comments for Engineering labor	crew size	shifts	time from detail	Comments for Technician labor
			unit	hrs/model	hrs/model	hrs/dwg	hrs/dwg	hrs/dwg	hrs/dwg	hrs/dwg	hrs/dwg	hrs/calc	hrs/calc	hrs/calc	hrs/proc	hrs/spec	hrs/report	hrs/rev	hrs/wk	hrs		hrs/shift			
	Total Engr hours	Total Tech hours																							
Outboard Interface Design																									
IH4-020	60	0					1																		
INTRF-045	40	0																1							
Bolted Joint Tests																									
1421-3067	8	48																							
1421-3075	8	16																							
1421-3077	24	24																							
1421-3079	24	24																							
1421-3084	24	24																							
1421-3087	24	24																							
1421-3081	160	160																							
1421-3090	40	0																1							
1421-3112B	40	0																1							
1421-3115B	320	100																							
1421-3119B	80	0																							
Inboard Interface Design																									
IH1-001	520	0										2													
1421-3125	80	0			1																				
1421-3127	240	0											1												
1421-3132	40	0																							
AB/BC/AA welded joints																									
	300	0		3			3																		
INTRF-050	240	0																							
INTRF-055	24	0																							
	40	0																							
CC bolted joint																									
IH1-000	680	0		5	3		2																		
IH1-0000	80	0																							
	140	0			1		1																		
	200	0			2		2																		
	360	0			1	1	3																		
	40	0																							
Welded Joint Tests																									
INTRF-035	40	0																							
INTRF-001	8	0																							
INTRF-005	40	0																							
INTRF-025	140	0			1		1																		
INTRF-030	40	0																							
INTRF-010	40	0													1										
INTRF-015	80	600																							
INTRF-020	120	0																							
Overall interface design																									
INTRF-040	320	0			1							1													
1421-3134	300	0																							
1421-3136	40	0																							
1421-3138	240	0																							
FY07 Rebaseline exercise																									
ECPSR8X05	256	0																							
	5560	1020																							
	1390																								
TOTAL	6950																								

WBS Number: 142
WBS Title: Windings and Assembly
Job Number: 1421
Job Title: Design of Modular Coil Interfaces
Job Manager: David Williamson



WBS Number: 142
WBS Title: Windings and Assembly
Job Number: 1421
Job Title: Design of Modular Coil Interfaces
Job Manager: David Williamson
