	NCSX Work Approva	l Form (WAF)	
Job Numbei Job Title: Pl	Platform Design & Fabrication			
Description	:			
	This WBS element consists of the activities a NCSX machine platform. This work scope e platform around the NCSX device, in suppor required for operation. It includes all platform	encompasses t of various di	the design and fabricatior agnostics and systems	
Schedule:	See Attached			
Approvals:				
	Job Manager	_	Date	
	Responsible Line Manager	_	Date	
	Project Manager	_	Date	
	Engineering Department Head	_	Date	

NCSX June 2007 ETC TABLE I - DESIGN LABOR

WE	BS Number: 73																	
WE	3S Title: Platform Design	& Fab	ricatio	า														
	o Number: 7301																	
Jol	o Title: Platform Design &	Fabri	cation															
Jol	o Manager: Erik Perry																	
							İ									Í		
Dec	cription:		1		1	I	I		1			1		1		1		
				1							L L		1					
Title	I and II Engineering for PF Coils and Ti	le III Sup	port of Fab	rication	Effort.													
			FY07\$1	K							HOURS	5						
Task ID		41MS	48MS 37STK	35TRVL	31 0 T	OR NL EM	ORNL DSN EMEM	EMSM	EMSB	emtb Eaem	EAEM Dsn	EASB EEEM	EESM	EESB EETB	ECEM	ECSB ECTB	RM2	Basis of Estimate
Alrea	ady completed.			1														
									ļ			1						
												1						
													1					
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NCSX June 2007 ETC TABLE II - Materials and Subcontracts

WBS Number: 73			
WBS Title: Platform Design & Fabrication			
Job Number: 7301			
Job Title: Platform Design & Fabrication			
Job Manager: Erik Perry			
Materials and Subcontracts (M&S)		Basis of Estimate	
Based on actual costs for NSTX platform which had the same design	n. See Table III.		
Based on actual costs for NSTX platform which had the same design	n. See Table III.		
Based on actual costs for NSTX platform which had the same design	n. See Table III.		

NCSX June 2007 ETC TABLE III - Fabrication/Assembly Installation

WBS Number: 73											
WBS Title: Platform Design & F	abricatio	n									
Job Number: 7301											
Job Title: Platform Design & Fa	brication	1									
Job Manager: Erik Perry											
		1	1	1	1				1	1	
In-house Fabrication and Assembly	/ and Insta	llation									
Job 7301 - Platform Design & Fabri	cation										Basis of Estimate
		К\$			Hours			Duration in Shifts	Persons per Shift	Assumptions	
Description of Task	ACT	M&S	EAEM	Metrology	EMEM	EMSM	EMTB				
Platform nut plates	711A.040	\$0.1K					36				Based on NSTX Platform - same design
Platform Parts	712.020	\$3.0K			32	0	300				Based on NSTX Platform - same design
Survey and layout locations for platform posts					40	40	160	10	2		Based on NSTX Platform - same design
Misc Platform Hardware/Material	712.030	\$16.0K									Based on NSTX Platform - same design
Machine Platform Trial Assembly and Fit-up					48	240	960	20	6		Based on NSTX Platform - same design
Subtotal Job 7301		\$19.1K			120	280	1456				
	1	1									

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

WBS Number: 73												
WBS Title: Platfor	m Design & Fabricat	ion										
Job Number: 730 ⁷	1											
Job Title: Platforn	n Design & Fabricatio	on										
Job Manager: Eril	k Perry											
		l		<u> </u>	1				1	l		
Uncertainty of the Estin	nate											
				Uncertainty						L		
	<u>High</u>	<u>Medium</u>	Low	<u>Range (%)</u>				Comments/O				
Design Maturity			Х	-15%/+25%	Have exte	nsive experien	ce building	g and using special to	ooling for f	abrication	and decon	nmissionir
Design Complexity			Х	-13%/+23%	Nothing e	xotic anticipate	d					
			~		Nothing e		u.					
Note: High/Medium/Low une	certainty assessment from Job Ma	anager. Un	certainty ran	ge based on A	ACEI recon	mended pract	ice 18R-97	as amended for NCS	SX.			
Desidual lauresta		1	-	1	1				1	1	1	
Residual Impacts									Cost I	mnact	Schedule	Impact
				Likelihood of					Cost I	mpact	Schedule	Impact
Job	Risk Description			Likelihood of Occurring	Mitiga	ation Plan	Bas	sis of estimate	Cost I Low	mpact High	Schedule Low	Impact High
Job	Risk Description				Mitig	ation Plan	Bas	sis of estimate				•
	Risk Description				Mitig	ation Plan	Bas	sis of estimate				•
Job	Risk Description				Mitig	ation Plan	Bas	sis of estimate				•
Job	Risk Description				Mitig	ation Plan	Bas	sis of estimate				•
Job	Risk Description				Mitig	ation Plan	Bas	sis of estimate				•
Job NONE Notes: [1] Low cost and schedu	le impacts are considered the mi			Occurring	he event or	scur.	Bas	sis of estimate				•
Job NONE Notes: [1] Low cost and schedu High cost and schedu	lle impacts are considered the mi	aximum (1	00-percentile	Occurring pacts should the product of the should be product of th	he event or	ccur.	Bas	sis of estimate				•
Job NONE Image: Notes: [1] Low cost and schedu High cost and schedu [2] Cost impacts should	lle impacts are considered the mi ule impacts are considered the ma be entered as man-hours (by den	aximum (1 nographic)	00-percentile and M&S dir	Occurring pacts should the product of the should be producted by the should be	he event or Id the even basis of es	ccur. t occur stimate.	Bas	sis of estimate				•
Job NONE Image: Notes: [1] Low cost and schedu High cost and schedu [2] Cost impacts should Cost impacts should	le impacts are considered the mi ule impacts are considered the mi be entered as man-hours (by den NOT include standing army costs	aximum (1) nographic) s which are	00-percentile and M&S dir separately of	Occurring pacts should the product of the should the product of the should the product of the should be producted the product of the should be producted from the	he event or Id the even basis of es the sched	ccur. t occur timate. ule impact		sis of estimate				•
Job NONE Image: Notes: [1] Low cost and schedu High cost and schedu [2] Cost impacts should Cost impacts should Project control is rep	le impacts are considered the mi ule impacts are considered the mi be entered as man-hours (by den NOT include standing army costs onsible for quantifying the low ar	aximum (1) nographic) s which are nd high cos	00-percentile and M&S dir separately o t impacts ba	Occurring pacts should the impacts should the impacts should the impacts should the context of the impact of the i	he event or Id the even basis of es the sched	ccur. t occur timate. ule impact		sis of estimate				•
Job NONE Image: Notes: [1] Low cost and schedu High cost and schedu High cost and schedu [2] Cost impacts should Cost impacts should Project control is rep [3] The schedule impact	le impacts are considered the mi ule impacts are considered the mi be entered as man-hours (by den NOT include standing army costs	aximum (10 nographic) s which are nd high cos nd max imp	00-percentile and M&S dir separately of t impacts ba bacts on the	Occurring pacts should the impacts should the impacts should the impacts should the context of the impact of the i	he event or Id the even basis of es the sched	ccur. t occur timate. ule impact		sis of estimate				•
Job NONE NONE [1] Low cost and schedu High cost and schedu [2] Cost impacts should Cost impacts should Project control is rep [3] The schedule impact If there is no critical [[4] Likelihood of occurre	le impacts are considered the mi ule impacts are considered the mi be entered as man-hours (by den NOT include standing army costs onsible for quantifying the low ar s should be entered as the min ar path impact then the schedule entered ence should be entered consisten	aximum (10 nographic) s which are nd high cos nd max imp ries should t with our i	00-percentile and M&S dir separately of the impacts ba bacts on the d be zero. risk classifica	Occurring pacts should the should be sh	he event or Id the even basis of es the schedu or hours an ogy, i.e.	ccur. t occur timate. ule impact d M&S identifie	ed					•
Job NONE NONE [1] Low cost and schedu High cost and schedu [2] Cost impacts should Cost impacts should Project control is rep [3] The schedule impact If there is no critical [[4] Likelihood of occurre	le impacts are considered the mi ule impacts are considered the mi be entered as man-hours (by den NOT include standing army costs onsible for quantifying the low ar s should be entered as the min ar path impact then the schedule ent	aximum (10 nographic) s which are nd high cos nd max imp ries should t with our i	00-percentile and M&S dir separately of the impacts ba bacts on the d be zero. risk classifica	Occurring pacts should the should be sh	he event or Id the even basis of es the schedu or hours an ogy, i.e.	ccur. t occur timate. ule impact d M&S identifie	ed					•
Job NONE NONE [1] Low cost and schedu High cost and schedu [2] Cost impacts should Cost impacts should Project control is rep [3] The schedule impact If there is no critical [4] Likelihood of occurre	le impacts are considered the mi ule impacts are considered the mi be entered as man-hours (by den NOT include standing army costs onsible for quantifying the low ar s should be entered as the min ar path impact then the schedule entered ence should be entered consisten	aximum (10 nographic) s which are nd high cos nd max imp ries should t with our i	00-percentile and M&S dir separately of the impacts ba bacts on the d be zero. risk classifica	Occurring pacts should the should be sh	he event or Id the even basis of es the schedu or hours an ogy, i.e.	ccur. t occur timate. ule impact d M&S identifie	ed					•

Activity	MILE- Activity	Duration	Baseline	Baseline	Shifts	Total	%	Proposed																	
	stones Description	(work days	Start	Finish		Float	cmplt	Budgeted	FY07	F	/08		FY	09				FY1	0			FY1	11	F	Y12
	& 3)	uays														Π	П	П	\square		Ш	I	\square	\square	
73 - Platfor	m Design & Fabrication																								
	atform Design & Fab-PERRY																								
			1	1	1																				
711A.040	Platform nut plates	30	02OCT08	12NOV08		16		2,976.68				E	М//Т	"В =	-36	зhr	; 4'	1=00	0\$k	(;					
712.020	Platform Parts	30	02OCT08	12NOV08		16		34,225.00				E	М//Е М//Т	ЕМ "В =	=3 =3(2h.)0h	r;4 r;	1=0)3\$ł	ik ;					
712.020 712.030	Platform Parts Miscs Hardware/Material	30 40	02OCT08 18SEP08	12NOV08 12NOV08		16 16		34,225.00 22,031.60					м//т	В=	=30	2h 30h	r;4 ïr;	1=0)3\$	ik ;					
												ше 1	M//T 1=16	-Β = 6\$k EM	=30 :; =4	00h	nr; r;E				l0hr :	;			
712.030	Miscs Hardware/Material	40	18SEP08	12NOV08		16		22,031.60					M//T 1=16 M//E M//T	ΈB = 6\$k ΞΜ ΈB = //ΕΙ	=30 ::; =4 =16 M :	00h 0hr 60h =48	nr; r;E nr; Bhr	EM//:	/SM	1 =4		; Юhr ;			

Run Date	18JUL07 07:31	ET	ETCZ NCSX Project	Sheet 79 of 99
			Resource Loaded Schedule	
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