

NCSX Project Team Meeting: Aug 20, 2008



- Safety Minute
- July Cost Performance Report
- Publication Plan
- 3-Week Look Ahead



	A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	NCSX Closeout Scope																
2	Cost Performance Through July 2008																
4	WBS	Job	Job Title	Job Manager	BCWS	BCWP	ACWP	SPI	CPI	BUDGET (ETC (\$K)) from 6/1/08	ETC (or BCWR)	EAC (=ACWP +(ETC or BCWR))	over / (under)	June Costs (\$K)	July Costs (\$K)	Remaining Budget (\$K)	Variance Analysis
5	12 - Vac Vsl Sys	1204	VV System	Viola	-	-	4	-	-	0	-	4	4.2	4	-	(4)	
6	13 - Conventional Coils	1352	PF Coil Procurements	Chrzanowski	93	93	98	1.00	0.95	93	-	98	4.6	0	98	(5)	
7		1354	Trim Coil Design & Procurement	Kalish	24	22	22	0.92	0.99	24	2	24	0.2	22	1	2	
8		1361	TF Coil Fabrication	Kalish/Meigha	87	71	86	0.82	0.83	245	174	260	15.0	41	45	159	
9	14 - Modular Coils	1408	Modular Coil Winding Supplies	Chrzanowski	21	11	7	0.52	1.45	21	10	18	(3.3)	1	7	13	
10		1416	Modular Coil Type A&B Design	Cole	37	27	6	0.72	4.46	37	11	17	(20.8)	6	0.4	31	
11		1421	Modular Coil Interface Design	Cole	50	47	36	0.95	1.34	50	2	38	(11.9)	(7)	43	14	
12		1429	Mod Coil Interface R&D	Gettelfinger?	-	0	1	-	0.00	0	-	1	1.2	1	-	(1)	
13		1431	Modular Coil Interface Hardware	Dudek	97	97	92	1.00	1.05	97	-	92	(4.9)	92	-	5	
14		1451	Modular Coil Winding Operations	Chrzanowski	210	185	178	0.88	1.04	280	95	274	(6.3)	100	79	102	
15		1459	Modular Coil Fabrication Punch List Items	Chrzanowski	45	28	30	0.61	0.91	68	40	70	2.6	17	14	37	
16	15 - Coil Support Structures	1501	Coil Structures Design	Dahlgren	74	45	152	0.61	0.30	74	29	181	107.3	68	84	(78)	Re-iterated design based on Trim Coil design & Cryostat Concep. Fault modes & structural models developed which were not planned.
17	16 - Coil Services	1601	LN2 Distribution System	Goranson	30	30	61	1.00	0.50	30	-	61	30.6	24	39	(31)	
18		1701	Cryostat	Raftopoulos	-	0	16	-	0.00	0	-	16	16.2	16	-	(16)	
19	17 - Cryost&Base Sprt Struct	1702	Base Support Structure Design	Dahlgren	12	12	19	1.00	0.63	12	-	19	7.0	38	(19)	(7)	
20	18 - Field Period Assembly	1802	FPA Oversight & Support	Viola	163	189	113	1.16	1.68	355	167	279	(76.2)	68	45	243	
21		1803/05	FPA Tooling Design & Constructability and Procurements	Brown	99	107	144	1.08	0.75	114	7	151	36.5	111	33	(30)	
22		1806	FPA Specifications & Drawings	Cole	6	6	15	1.00	0.41	6	-	15	8.5	8	8	(9)	
23		1810	FPA Operations - Stations 1, 2 & 3	Viola	473	493	580	1.04	0.85	812	319	899	86.5	353	227	232	
24	19 - Stell Core Mgmt&Integr	1901	Stellarator Core Mgmt & Integr	Cole	67	57	58	0.85	0.99	127	71	128	0.8	8	52	70	
25	3 - Diagnostic Systems	3101	Magnetic Diagnostic Systems	Stratton	28	28	41	0.99	0.68	28	-	41	13.1	32	9	(13)	
26		3901	Diagnostics System Integration	Stratton	-	0	8	-	0.00	0	-	8	7.7	2	8	(8)	
27	4 - Power Sys	4301	DC Systems	Raki	-	0	7	-	0.00	0	-	7	7.0	0	7	(7)	
28		4401	Control & Protection	Raki	-	0	4	-	0.00	0	-	4	4.1	0	4	(4)	
29	5 - I&C	5801	Central I&C Integration	Reiersen	-	0	2	-	0.00	0	-	2	2.2	2	-	(2)	
30	6 - Facility Systems	6201	Cryogenic systems	Raftopoulos	-	0	44	-	0.00	0	-	44	43.7	32	12	(44)	
31	7 - Test Cell Preparation and Machine Assy	7401	TC Prep 7 Mach Assy Planning	Perry	-	0	3	-	0.00	0	-	3	2.7	3	0	(3)	
32	81 - Project Mgmt & Integr	8101	Project Management @ PPPL	Rej	173	179	171	1.04	1.05	633	454	624	(8.9)	93	77	463	
33		8102	Project Management @ ORNL	Harris	52	27	21	0.53	1.30	137	109	130	(6.2)	9	12	116	
34		8998	PPPL Direct Allocations	Strykowski	73	73	55	1.00	1.31	202	129	185	(17.3)	28	29	146	
35	82 - Project Engineering	8202	Engineering Management & Systems Engineering	Heitzenroeder	97	128	70	1.32	1.82	363	235	306	(57.4)	41	30	293	
36		8203	Design Integration	Brown	7	7	26	1.00	0.27	14	7	33	18.8	10	7	(12)	
37		8204	Systems Analsi & Techn Assurance	Brooks	21	21	38	1.00	0.56	42	21	59	16.5	20	9	4	ACWP adjusted for charging error
38		8205	Dimensional Control Coordination	Ellis	19	22	15	1.15	1.46	34	12	27	(7.0)	9	8	19	
39		8210	Proj Rebaseline Estimate	Reiersen	-	0	8	-	0.00	0	-	8	7.7	1	7	(8)	
40		8220	Equipment Disposition & Facility Restoration	Perry	89	93	28	1.04	3.36	530	438	465	(65.0)	4	24	503	
41		8221	Documentation for Closeout	Heitzenroeder	307	174	85	0.57	2.04	1,134	960	1,045	(88.4)	38	49	1,048	
42		8222	Prepare manuscripts for peer-reviewed archi	Neilson	-	0	2	-	0.27	300	300	301	1.1	-	2	299	
43		8501	Integrated Test Documetnation	Gentile	-	0	1	-	0.00	0	-	1	0.7	1	0	(1)	
45			Subtotal =		2,453	2,272	2,345	0.93	0.97	5,861	3,589	5,934	72.8	1,306	1,039	3,517	
46			Contingency =							1,172							
47			Total =							7,033							

NCSX Publication Plan

“Title” or Topic	Venue or Journal / Date	Lead Author	Outline or Abstract Date	First Draft Date
I. Commitments				
“Progress in NCSX Construction”	SOFT-25 8/8/08	Dudek		7/28/08
“Engineering Accomplishments in the Construction of NCSX”	TOFE-18 9/28/08	Neilson	7/23/08	8/29/08
“Design and Construction Solutions in the Accurate Realization of NCSX Magnetic Fields”	IAEA FEC-22 10/12/08	Heitzenroeder		
Physics Design Overview		Zarnstorff		
Dimensional Control for Assembly		Ellis		Jan./Feb '09
Machine Assembly Engineering Advances		Viola		
Modular Coil Interface Design Basis (Analysis & Test Results)		Freudenberg		
Global analysis of the NCSX Structural System	SOFE-09	Fan	9/30/08	
NCSX Rogowski coils	SOFE-09	Labik		
Tooling for Limited-Access Assembly	SOFE-09	Fogarty		
Cost and schedule lessons learned and opportunities for improvement	SOFE-09	Neilson, Strykowski, Heitzenroeder		
II. Ideas				
Modular Coil Fabrication Summary		Chrzanowski		
Conventional coils and support structures		Kalish, Dahlgren, Chrzanowski		

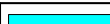

“Title” or Topic	Venue or Journal / Date	Lead Author	Outline or Abstract Date	First Draft Date
Metrology Advances Summary (<i>results, comparisons and applicability of arms, laser, PG?</i>)		Raftopoulos, Priniski, Dodson		
Low-Distortion Welded Joints		Viola, England		
Application of High-Performance Aerogel/Nanogel Insulating Materials (Analysis & Test Results)		Goranson		
Compact bolted fasteners with insulation and friction-enhanced shims		Dudek		
Strategies for achieving tolerance goals: trim coils, realignment to recover tolerances		Brooks		
System Engineering	AICHE Conf., Nov., 2008 ?	Simmons		
Configuration & Data Management	ACDM Conf., April, 2009 ?	Simmons		

Conferences

1. 25th Symposium on Fusion Technology (SOFT), Rostock, Germany, Sept. 15-19, 2008. (Publish in Fusion Engineering & Design)
2. 18th Technology of Fusion Energy (TOFE), San Francisco, Sept. 29- Oct. 2, 2008 (Publish in Fusion Science & Technology)
3. 22nd IAEA Fusion Energy Conference, Geneva, Switzerland, October 13-18, 2008 (Publish in Nuclear Fusion)
4. 18th International Toki Conference (ITC-18), Toki, Japan, Dec. 9-12, 2008
5. 23rd Symposium on Fusion Engineering (SOFE-23), San Diego, CA, May 31- June 5, 2009. (Publish in IEEE Trans. Plasma Science)
6. ASME Design Engineering Division, 2009?

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	% cmplt	ETC from 8/1/08	FY08		FY09									
							AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR				
Brown																		
Job: 1803/1805- FPA Tooling/Constr-BROWN																		
Station 3-Modular Coil to VVSA Assembly																		
1803S3-4	Generate laser screen trace drawings (1/2 period	17JUL08A	08AUG08	05SEP08	55	2,460.48												
1803S3-9	Oversite, cost and schedules, reviews	31JAN08A	30SEP08	30SEP08	LOE	1,742.66												
1805S3-207	Misc assembly Cost	31JAN08A	30SEP08	30SEP08		2,471.58												
Job: 8203 - Design Integration-BROWN																		
8203FY08-4	General integration activities	01FEB08A	30SEP08	30SEP08	LOE	6,911.66												
Brooks																		
Job: 8204 - Systems Analysis-BROOKS																		
8204-FY08Z	Syst Analysis, studies & tech assurance FY08 etc	02JUN08A	30SEP08	30SEP08	LOE	20,747.27												
Chrzanowski																		
Job: 1408 - MC Winding Supplies-CHRZANOWSKI																		
1408-7	Misc tech shop support	23MAY07A	29AUG08	31JUL08	92	4,043.26												
Job: 1451 - Mod Coil Winding-CHRZANOWSKI																		
Station 1 Post VPI																		
P2-171C	Final Clamps & Warm Test (Station1) B6	02JUN08A	15AUG08	23JUL08	80	4,801.38												
P1-171C	Final Clamps & Warm Test (Station1) A6	18AUG08	12SEP08	20AUG08		24,006.88												
LOE Oversight & Supervision																		
145XSPRV-3	Winding Engineering oversight and supervision	01MAY07A	30SEP08	30SEP08	LOE	20,867.95												
145XSPRV-A	Winding Engineering oversight and supervision	01NOV07A	29AUG08	29AUG08	LOE	27,772.42												
Job: 1459 - Mod Coil Fabr.Punch List-CHRZANOWSKI																		
Punchlist Tech shop/RESA																		
PLTS-B5	Grinding -B5	01MAY08A	30SEP08	29AUG08	ETC	4,738.20												
PLTS-A6	Grinding -A6	01MAY08A	30SEP08	29AUG08	ETC	1,625.20												
PLTS-B6	Grinding -B6	01MAY08A	30SEP08	29AUG08	ETC	4,738.20												
PLTS-C6	Grinding & Drill Holes -C6	01MAY08A	30SEP08	29AUG08	ETC	7,960.18												
Punchlist- Coil Technicians																		
PLCT-A6	Insul,measure,TC,SG other punch list-A6	01OCT07A	29AUG08	29AUG08	36	10,411.40												
PLCT-B6	Insul,measure,TC,SG other punch list-B6	01OCT07A	29AUG08	29AUG08	36	10,411.40												
Cole																		
Job: 1416 - Mod Coil Type AB Fnl Dsn-COLE																		
Analysis and closeout documentation																		
1416-601	Prepare EM and structural analysis of leads	31JAN08A	18AUG08	30JUN08	80	6,644.00												
1416-650	Prepare cooling analysis of lead area	01JUL08A	29AUG08	30JUN08	20	2,416.00												
ECN Modifications																		
1416-810	Process completed ECN's Bladders	01AUG08*	29AUG08			1,510.00												
Job: 1421 - Mod Coil Interface Design-COLE																		
Inboard Interface-CC																		
1421-3155	Resolve C-C shim FDR comments	01AUG08*	18AUG08	30JUN08	80	2,355.60												

Run Date: 18AUG08 07:54

 FORECAST SCHEDULE
 x target
 Progress Bar
 Critical Activity

0808

NCSX
MIE CLOSEOUT PLAN
AUGUST 1ST STATUS

Sheet 1 of 6

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	% cmplt	ETC from 8/1/08	FY08		FY09							
							AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR		
Job: 1901 - Stellarator Core Mngtt&Integr-COLE																
191 - Stellarator Core Management & Oversight																
1901-08	WBS 191 FY08	01OCT07A	29SEP08	29SEP08	LOE	10,713.45			COLE	etc =121hr ; NELSON etc =						
1901-9000	Update drawing tree	01OCT07A	29SEP08	29SEP08	LOE	12,080.00			lovett=	160						
192 - Stellarator Core Integr & Global Analysis																
1902-08	WBS 192 FY08	01OCT07A	29SEP08	29SEP08	LOE	47,900.30			COLE MCGINNIS	etc =121 m&s =20 travel= 10 etc =182						
Dahlgren																
Job: 1501 - Coil Structures Design-DAHLGREN																
1501-533F	Integrated Stress Analysis	01OCT07A	06AUG08	30JUN08	95	16,434.88			DAHLGREN	etc =154hr ; FAN=etc=40						
1501-537	FDR Prep	01AUG08	06AUG08	30JUN08		12,370.68			DAHLGREN	etc =38hr ; RUSHINSKI etc =49h						
1501-541	Coil Support Structures - FDR		06AUG08	30JUN08		0.00										
Ellis																
Job: 8205 - Dimensional Control Coordin-ELLIS																
Station 3-Modular Coil to VVSA Assembly																
METFY08R	Support FPA Station 2	01FEB08A	30SEP08	30SEP08	LOE	7,355.46			ELLIS	etc =45hr ; SMITH etc =45h						
STAT3 PREP	Station 3 preparations	30JUN08A	02SEP08	02SEP08	70	4,250.40			ELLIS	etc =80hr ;						
Harris																
Job: 8102 - NCSX MIE Management ORNL-HARRIS																
810.105XX	Project Management Office ORNL FY08 (LOE)	01FEB08A	29SEP08	29SEP08	LOE	73,517.11			ORNL35 HILLIS MMORRIS	etc =07\$; etc =70 ; HARRIS etc =28 etc =176 ;						
810.105Z	Project Management Office ORNL FY09 (LOE)	01OCT08*	31MAR09	31MAR09	LOE	35,930.73										
Heitzenroeder																
Job: 8202 - Engr Mgmt & Sys Eng Sprt-HEITZENROED																
8205DC	document control & admin support	01FEB08A	31MAR09	31MAR09	LOE	18,854.12										
8205FY08.2	Engr mgt & systems engr FY08	01FEB08A	30SEP08	30SEP08	LOE	81,870.03			HEITZENROED REIERSEN VONHALLE	etc =445hr ; SIMMONS etc =89hr ; DUDEK etc etc =89hr ;						
8205FY09	Engr mgt & systems engr FY09	01OCT08*	31MAR09	31MAR09	LOE	134,313.25										
Job: 8221 -Documentation Closeout-HEITZENROEDER																
Closeout Documentation																
8221-100	Technical data collection	14JUL08A	14NOV08	31OCT08	ETC	484,517.45				SIMMONS =160hr BLANCHARD BROOKS =100hr BROWN CHRZANOWSKI =168hr CO DAHLGREN =40hr DOD DUDEK =32hr ELLIS = GORANSON =80hr Fogal Phil =160; Kalish =56; la langish =24 freudenberg = Perry =16; Raftopoulos=220; F rushinski =335 mike morris=20 sichta =80; smith = 14; strykowski =160; upcav viola = 158 williamson =80 Nelson=10; Harris = 20; Jun=100; Gentile=20; Le						
8221-251	Tech presentation/paper collection	01AUG08*	29OCT08	29SEP08		10,094.00			HAMPTON	etc =100hr ; TYREL						
8221-301	Guidance to collect data	02JUN08A	29SEP08	29SEP08		25,927.44			SIMMONS	etc =300hr ;						
8221-305	Organizing and posting data	30SEP08	27MAR09	27MAR09		56,203.18										
8221-401	Finalizing and archiving key analyses/reports	01AUG08*	30SEP08	29SEP08		130,951.30			FREUDENBERG FAN ZHANG	etc =160hr ; DAHLGRE etc =160hr ; AVASARALA et etc =160hr ;						
8221-575	Archiving doc & files in ops center	01AUG08*	26MAR09	26MAR09		18,168.78										
8221-700	As-built Drawing Updates	01AUG08*	23DEC08	23DEC08		233,941.28				EA/SB Designers						

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	% cmplt	ETC from 8/1/08	FY08		FY09									
							AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR				
Kalish																		
Job: 1361 - TF Fabrication-KALISH																		
TF Title III and Fabrication Oversight																		
131-033C	Title III engr,inspection, support	02JAN08A	18SEP08	18SEP08	LOE	27,850.15											KALISH etc =71hr ; 35etc =02\$K ; 41etc =00\$K ; EM/TB etc =00hr ; MEIGHAN etc =173hr ;	
TF Fabrication Contract																		
1361C-115	Fab, Test & Deliver Coil #15	01AUG08*	05AUG08	17JUL08	90	4,720.00											49etc =47 ;	
1361C-116	Fab, Test & Deliver Coil #16	27AUG08*	27AUG08	08AUG08		47,220.00											49etc =47 ;	
1361C-117	Fab, Test & Deliver Coil #17	18SEP08*	18SEP08	02SEP08		47,220.00											49etc =47 ;	
1361C-118	Fab, Test & Deliver Coil #18	03OCT08*	03OCT08	24SEP08		47,220.00											49etc =47 ;	
1351-195X	ALL TF COILS DELIVERED		03OCT08	24SEP08		0.00												
Job: 1354 - Trim Coil Design &Procurement-KALISH																		
Trim Coil **Updated estimate**																		
TRIM-170	Complete Trim Coil Detailed Drawings	25MAR08A	29AUG08	30JUN08	99	864.61											KALISH etc =14hr ; RUSHINSKI etc =10h CRUIKSHANK etc =80hr ;	
TRIM-200	Assy drawings & parts list	01APR08A	29AUG08	30JUN08	99	1,115.75											KALISH etc =04hr ; RUSHINSKI etc =10h CRUIKSHANK etc =80hr ;	
Neilson																		
Job: 8222 - Manuscripts and Papers - NEILSON																		
Prepare Closeout report																		
8222-900	Manuscripts, journal & papers (40 papers@40hrs)	02SEP08*	31MAR09	31MAR09		299,600.15												
Perry																		
Job: 8220 - Equip Save & Facility Restora-PERRY																		
Safe and store NCSX hardware assets																		
8220-201	Coordination and oversight	01JUL08A	23DEC08	23DEC08	LOE	49,799.71											PERRY etc =382h	
8220-205	NCTC floor penetrations & PLT water hdr removal	30JUN08A	12AUG08	12AUG08	30	39,373.98											41etc =21\$K ; EM/TB etc =382hr ;	
8220-209	Secure platform parts from CAS Bldg to NCTC	13AUG08	26AUG08	26AUG08		4,163.16											41etc =00\$K ; EM/TB etc =48hr ;	
8220-223	Items f/TFTR bsmnt (incl spare MC cond) to NCTCB	01AUG08*	14AUG08	14AUG08		13,831.24											41etc =00\$K ; EM/TB etc =172hr ;	
8220-227	Portable AC units to Dsite crib	27AUG08	03SEP08	03SEP08		631.76											EM/TB etc =08hr ;	
8220-231	Drawing closeouts and field follow-up	01OCT08*	23DEC08	23DEC08		27,614.00											EM/TB etc =08hr ; LANGELLA etc =20	
8220-235	Large and Small shield block to Dsite pad	02SEP08*	15SEP08	15SEP08		2,527.04											EM/TB etc =32hr ;	
8220-239	Machine mock-up to NCTC	13AUG08	19AUG08	19AUG08		631.76											EM/TB etc =08hr ;	
8220-243	Welding machines to RESA	01OCT08*	07OCT08	07OCT08		668.56											EM/TB etc =08hr ;	
8220-247	Tools to Csite crib	01OCT08*	14OCT08	14OCT08		2,674.24											EM/TB etc =32hr ;	
8220-251	Measuring Equipment to MU Shop	01OCT08*	07OCT08	07OCT08		1,337.12											EM/TB etc =16hr ;	
8220-255	Inventory parts,material, tools to new location	01OCT08*	28OCT08	28OCT08		6,685.60											EM/TB etc =80hr ;	
8220-409	Crates,cabinets,parts shelves f/TFTRTC to NCTCB	23JUL08A	14OCT08	14OCT08	5	9,406.87											EM/TB etc =124hr ;	
8220-415	Coil winding station to NCTC	13AUG08	26AUG08	26AUG08		5,054.08											EM/TB etc =64hr ;	
8220-419	MC bolts (incl crate) to NCTCB	23JUL08A	14OCT08	15SEP08	5	2,084.11											41etc =00\$K ; EM/TB etc =20hr ;	
8220-427	Assemble 4 remaining MC 3 packs	03SEP08	07OCT08	08SEP08		25,564.80											EM/TB etc =320hr ;	
8220-431	Transport MC 3 packs (6) to NCTC	08OCT08	21OCT08	22SEP08		5,609.68											EM/TB etc =64hr ; 41etc =00\$K	
8220-501	Autoclave- Safe all AC power	01AUG08*	07AUG08	05AUG08		3,762.80											LANGELLA etc =24hr ; EM/TB etc =08h	
8220-505	Autoclave-Removal and store Dsite pad & NCTCB	01OCT08*	23DEC08	23DEC08		154,843.44											EM/TB etc =40	
8220-901	VV Diagnostic parts incl fab crates to NCTCB	09SEP08*	15SEP08	15SEP08		1,669.86											41etc =0.2\$K ; EM/TB etc =18hr ;	
8220-903	Move tool crib from C-site back to D-Site	09SEP08*	15SEP08	15SEP08		9,476.40											EM/TB etc =120hr ;	
8220-605	VV Spool piece crates to NCTCB	01AUG08*	04AUG08	02JUL08		473.82											EM/TB etc = 6	
8220-423	VVSA's (incl port extension crates) to NCTC	13AUG08	26AUG08	26AUG08		7,176.24											41etc =01\$K ; EM/TB etc =72hr ;	
8220-609	Yellow wedge stands to NCTC	01OCT08*	02OCT08	02OCT08		334.28											EM/TB etc = 4	
8220-613	Wedge cover plates to NCTC	01OCT08*	02OCT08	02OCT08		334.28											EM/TB etc = 4	
8220-617	5 ton lift beam to RESA	01OCT08*	02OCT08	02OCT08		334.28											EM/TB etc = 4	
8220-621	14 ton lift beam to RESA	01OCT08*	02OCT08	02OCT08		167.14											EM/TB etc = 2	
8220-625	Remove coil winding rooms & dispose	02JUN08A	02SEP08	01OCT08	60	27,686.40											EM/TB etc = 480 Langella etc = 241	
8220-633	Equipment in MU machine shop-Electrical to RESA	02SEP08*	29SEP08	29SEP08		11,536.00											EM/TB etc = 80Langella etc = 40	

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	% cmplt	ETC from 8/1/08	FY08		FY09					
							AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
8220-641	Equipment in MU machine shop-Mechanical to	02SEP08*	15SEP08	15SEP08		12,635.20			EM/TB	etc = 160				
8220-653	Cryo pump skid- Mechanical to NCTCB	01AUG08*	26AUG08	16JUL08		3,790.56			EM/TB	etc = 48				
8220-657	Cryostat-disposal	27AUG08	10SEP08	16JUL08		3,790.56			EM/TB	etc = 48				
8220-661	Interlocked cryo room-leave in place	01AUG08*	01AUG08	02JUN08		0.00								
8220-665	Spherical bearings (Dahlgren) to NCTCB	01AUG08*	04AUG08	03JUL08		78.97			EM/TB	etc = 1				
8220-669	Prototype castings to NCTC	13AUG08	14AUG08	14AUG08		631.76			EM/TB	etc = 8				
8220-673	Prototype VV cross sections-Scrap	22SEP08*	23SEP08	03JUL08		157.94			EM/TB	etc = 2				
8220-677	TF coil fabrication fixtures to NCTC-VPI fixture	13AUG08	14AUG08	14AUG08		315.88			EM/TB	etc = 4				
8220-681	TF coil fabrication fixtures to NCTC-Mandrel	13AUG08	14AUG08	14AUG08		315.88			EM/TB	etc = 4				
8220-685	TF coil fabrication fixtures to NCTC-Misc fixtur	13AUG08	14AUG08	14AUG08		315.88			EM/TB	etc = 4				

Rej

Job: 8101 - Project Management &Control-REJ

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	LOE	ETC	Resources
810.900	Project Management Office PPPL FY08 (LOE)	01OCT07A	30SEP08	30SEP08	LOE	100,467.45	NEILSON etc=414hr ; STRYKOWSKY e B///CB etc=680hr ; 35etc=12\$k ; 41etc=03\$k ; DEPUTYPC etc=95hr
810.9005A	Project Management Office PPPL fy08 etc	02JUN08A	30SEP08	30SEP08	LOE	62,050.00	DON REJ1 etc=126\$k ;
810.901	Project Management Office PPPL FY09 (SA LOE)	01OCT08*	31MAR09	31MAR09	LOE	290,785.02	

Job: 8221 -Documentation Closeout-HEITZENROEDER

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	ETC	Resources
Prepare Closeout report						
8221-614	Chapter Draftes complete		30SEP08*		70	0.00
8221-616	Chapter Draft reviews complete		15OCT08*			0.00
8221-618	Chapters Complete		17NOV08*			0.00
8221-636	Executive summary complete		05DEC08*			0.00
8221-639	Draft Report complete		05JAN09*			0.00
8221-642	Report Reviews Complete		02FEB09*			0.00
8221-646	DOE Concurrence		02MAR09*			0.00
8221-649	Final Report Issued		31MAR09*			0.00
8221-655	Submit NEPA form		31JUL08*			0.00

Strykowski

Job: 8998 - Allocations-STRYKOWSKY

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	LOE	ETC	Resources
99.08	PPPL Allocations FY08	01OCT07A	29SEP08	29SEP08	LOE	69,686.76	54etc=88 ;
99.09C	PPPL Allocations FY09	01OCT08*	31MAR09	31MAR09	LOE	59,465.00	54 etc=35

Viola

Job: 1802 - FP Assy Oversight&Support-VIOLA

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	ETC	Resources	
Oversight and Supervision							
1802ORN02	ORNL Title III field period assy station 2/3	02JUN08A	30SEP08	30SEP08	LOE	6,846.84	mcginnis=140
R1802-003	Metrology Engr Super FY08	01OCT07A	30SEP08	30SEP08	LOE	22,295.02	PRINISKI etc=293hr ;
R1802-007	FPA Management FY08	01OCT07A	30SEP08	30SEP08	LOE	42,369.47	VIOLA etc=558hr ;
R1802-010	Drexel co-op student support	02JUN08A	30SEP08	30JUN08	ETC	4,729.20	DREXEL etc=168 revised EAC = 56
R1802-015	HP Coverage in the TFTR TC LOE FY08	01OCT07A	30SEP08	30SEP08	LOE	26,266.02	SH//TB etc=440hr ;
R1802-016	HP Coverage in the TFTR TC LOE FY09	01OCT08*	23DEC08	23DEC08	LOE	36,276.45	SH//TB etc=629hr
1802MISC	Misc materials,tools, GSA vehicle,rigging	01FEB08A	30SEP08	30SEP08	LOE	27,758.70	41etc=45\$k ;

Station 3 procedures,JHA,ACC,Training,Prep

R1802-320	Update FPA cost estimate for FPA station 2&3	15SEP08	19SEP08	20OCT08		0.00	
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Job: 1810 - Field Period AssyStation 1,2,3 VIOLA

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	LOE	ETC	Resources
R1810-003	LOE Crane support, fixture setupfor FY08	01OCT07A	30SEP08	30SEP08	LOE	27,476.03	EM//TB etc=704hr ;

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	% cmplt	ETC from 8/1/08	FY08						FY09					
							AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR				
R1810-025	Crane & Rigging inspections	01FEB08A	30SEP08	30SEP08	LOE	1,950.56												
R1810-007	LOE Field Supervision for FY08	01OCT07A	30SEP08	30SEP08	LOE	39,053.16			EDWARDS	etc =50hr ;								
R1810-2001	Misc Hardware and hardware rework (1/2 fte loe)	01FEB08A	30SEP08	30SEP08	LOE	11,703.35			EM/TB	etc =300hr ;								
S21-4.02	Perform routine metrology set-up and checks (loe)	01FEB08A	30SEP08	30SEP08	LOE	30,180.56			ZMET	etc =525 ;								
Setup																		
R1810-2034	Misc Tool and Hardware	02JUN08A	30SEP08	30SEP08	LOE	9,203.22				41etc =15\$k ;								
Pre-Measuring and fitup checks																		
Pre measurement of MCHP A2,B2,C2 flanges																		
2-2-2.99	Drill Stycast fill holes C2	01AUG08*	05AUG08	03JUL08		9,476.40			EM/TB	etc =120hr ;								
Station 2 MC subassy A1B1C1																		
Stycast shim bags & final measurements																		
2-1-8.01	Fill all wing bladders & cure	16JUL08A	08AUG08	01AUG08	70	1,137.17			EM/TB	etc =48hr ;								
2-1-11.05	Perform Electrical Megger test on each coil	11AUG08*	12AUG08	15AUG08		3,790.56			EM/TB	etc =48hr ;								
2-1-11.08	Remove from stand & measure weight of	23JUL08A	13AUG08	20AUG08	80	758.11			EM/TB	etc =48hr ;								
S21-11.07M	Complete 1st MCHP Assy (Sta 2)		13AUG08	22AUG08		0.00			EM/TB	etc =00hr ;								
Station 2 MC subassy A2B2C2																		
AB-C MC Assembly																		
2-2-7.13	Measure position of all monuments	11AUG08*	11AUG08	10JUL08		2,792.88			EM/TB	etc =00hr ; ZMET	etc =24							
2-2-7.14	Measure shim puck height	12AUG08	12AUG08	11JUL08		1,579.40			EM/TB	etc =20hr ;								
2-2-7.15	remove puck locating rings & install all nose s	13AUG08	13AUG08	14JUL08		4,738.20			EM/TB	etc =60hr ;								
2-2-7.16	"Lightly" tack weld nose flex shims	14AUG08	14AUG08	15JUL08		789.70			EM/TB	etc =10hr ;								
2-2-7.17	remove "C" coil & place it on a separate fixtur	15AUG08	15AUG08	16JUL08		3,158.80			EM/TB	etc =40hr ;								
2-2-7.18	Recheck part alignment & weld all Type-B flex s	18AUG08	18AUG08	17JUL08		5,585.76			EM/TB	etc =00hr ; ZMET	etc =48							
2-2-7.19	After welding "B" coil nose shims recheck align	19AUG08	19AUG08	18JUL08		1,861.92			EM/TB	etc =00hr ; ZMET	etc =16							
2-2-7.20	Back office assessment of part after weld	20AUG08	20AUG08	21JUL08		3,723.84			EM/TB	etc =00hr ; ZMET	etc =32							
2-2-7.21	Measure "C" fiducials	20AUG08	20AUG08	21JUL08		1,861.92			EM/TB	etc =00hr ; ZMET	etc =16							
2-2-7.22	Weld all Type-C (A-flange) flex shims plasma sid	21AUG08	21AUG08	22JUL08		3,158.80			EM/TB	etc =40hr ;								
2-2-7.23	After welding determine metrology acceptance	22AUG08	22AUG08	23JUL08		1,861.92			EM/TB	etc =00hr ; ZMET	etc =16							
2-2-7.24	Back office assessment	25AUG08	25AUG08	24JUL08		3,723.84			EM/TB	etc =00hr ; ZMET	etc =32							
2-2-7.25	Remove shims for alignment mating coil	26AUG08	25AUG08	24JUL08		0.00			EM/TB	etc =00hr ;								
2-2-7.07	Place unfilled shim bags in wing areas	26AUG08	26AUG08	25JUL08		1,579.40			EM/TB	etc =20hr ;								
2-2-7.26	Lower mating "C" coil into position.	27AUG08	27AUG08	28JUL08		3,158.80			EM/TB	etc =40hr ;								
2-2-7.261	alignment "C" coil tooling balls	28AUG08	28AUG08	29JUL08		1,861.92			EM/TB	etc =00hr ; ZMET	etc =16							
2-2-7.27	position coil accurately in x, y, & z directio	29AUG08	29AUG08	30JUL08		1,579.40			EM/TB	etc =20hr ;								
2-2-7.28	Install shims;studs,, & "wobble"	02SEP08	02SEP08	31JUL08		2,369.10			EM/TB	etc =30hr ;								
2-2-7.29	Torque50% of final value.	03SEP08	03SEP08	01AUG08		789.70			EM/TB	etc =10hr ;								
2-2-7.30	Measure position of all monuments	04SEP08	04SEP08	04AUG08		2,792.88			ZMET	etc =24 ;								
2-2-7.31	Adjust shims locally. Re-torque all studs50%.	05SEP08	05SEP08	05AUG08		3,158.80			EM/TB	etc =40hr ;								
2-2-7.32	Install bushing. Replace nut & tighten back50%	08SEP08	08SEP08	06AUG08		4,738.20			EM/TB	etc =60hr ;								
2-2-7.33	After super bolt tightening, measure position	09SEP08	09SEP08	07AUG08		2,792.88			EM/TB	etc =00hr ; ZMET	etc =24							
2-2-7.34	Tighten all bolts to final torque.	10SEP08	10SEP08	08AUG08		1,579.40			EM/TB	etc =20hr ;								
2-2-7.35	After tightening hardware, meas position of monu	11SEP08	11SEP08	11AUG08		2,792.88			ZMET	etc =24 ; EM/TB	etc =00h							
2-2-7.36	Weld B / C nose region solenoid side	12SEP08	12SEP08	12AUG08		4,738.20			EM/TB	etc =60hr ;								
2-2-7.37	Measure positions of all monuments	15SEP08	15SEP08	13AUG08		1,861.92			EM/TB	etc =00hr ; ZMET	etc =16							
2-2-7.38	Back office of above results & INSTALL wing supp	16SEP08	16SEP08	14AUG08		3,723.84			EM/TB	etc =00hr ; ZMET	etc =32							
2-2-7.39	Fill all lose bushings with Stycast 2850FT	17SEP08	17SEP08	15AUG08		3,158.80			EM/TB	etc =40hr ;								
Stycast shim bags & final measurements																		
2-2-8.01	Fill all wing bladders & cure	18SEP08	19SEP08	19AUG08		3,158.80			EM/TB	etc =40hr ;								
2-2-8.02	Inject stycast in all shim spaces	22SEP08	23SEP08	21AUG08		3,158.80			EM/TB	etc =40hr ;								
2-2-10.0	Complete local service & interface details	24SEP08	23SEP08	21AUG08		0.00			EM/TB	etc =00hr ;								
2-2-11.01	Measure tooling balls on all coils.	24SEP08	25SEP08	25AUG08		3,723.84			EM/TB	etc =00hr ; ZMET	etc =32							
2-2-11.02	Install or identify three primary fiducials	26SEP08	29SEP08	27AUG08		3,723.84			EM/TB	etc =00hr ; ZMET	etc =32							
2-2-11.03	Scan "B" flange Type-C coil & interfacing base	30SEP08	02OCT08	02SEP08		5,804.32			EM/TB	etc =00hr ; ZMET	etc =4							
2-2-11.04	Measure bolt length on all tension fasteners	03OCT08	03OCT08	03SEP08		1,671.40			EM/TB	etc =20hr ;								
2-2-11.05	Perform Electrical Megger test on each coil	06OCT08	07OCT08	05SEP08		3,342.80			EM/TB	etc =40hr ;								

Activity ID	Activity Description	Forecast Start	Forecast Finish	BASELINE FINISH	% cmplt	ETC from 8/1/08	FY08		FY09						
							AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	
2-2-11.06	Mark part for identification	08OCT08	07OCT08	05SEP08		0.00			EM//TB	etc =00hr ;					
2-2-11.07	Install lift support beams	08OCT08	09OCT08	09SEP08		6,685.60			EM//TB	etc =80hr ;					
2-2-11.08	Remove from stand & measure weight of	10OCT08	10OCT08	10SEP08		3,342.80			EM//TB	etc =40hr ;					
2-2-11.09	Move to holding area.	13OCT08	14OCT08	12SEP08		6,685.60			EM//TB	etc =80hr ;					
Station 3-Assemble Mod Coils and VVSA-FP#1															
Set-up and Prep															
3-1-1.01	transfer CAD models	01AUG08*	11AUG08	10JUN08		13,033.44		ZMET	etc =112 ;						
Install Laser Screen															
3-1-6.03	Turn each lasers on & measure each laser source	12AUG08*	12AUG08	10SEP08		4,129.58		EM//TB	etc =24hr ;	ZMET	etc =19				
3-1-6.04	Print path on milar paper	13AUG08	12AUG08	10SEP08		0.00		EM//TB	etc =00hr ;						
3-1-6NEW	Dry-run MCHP thru laser screen path without VVSA	14AUG08	19AUG08	16SEP08		10,108.16		EM//TB	etc =128hr ;						
Install Vacuum Vessel															
3-1-7.03	Install VVSA to base support and make connection	20AUG08	20AUG08	19SEP08		1,895.28		EM//TB	etc =24hr ;						
3-1-7.04	take tooling ball readings and secure VVSA	21AUG08	22AUG08	23SEP08		3,790.56		EM//TB	etc =48hr ;						
3-1-7.05	Scan VV surface and compare data	25AUG08	27AUG08	26SEP08		6,702.91		ZMET	etc =58 ;	EM//TB	etc =00h				
Trial fit MCHP over VV															
3-1-8.01	Install any bumper protection components on the	28AUG08	28AUG08	29SEP08		947.64		EM//TB	etc =12hr ;						
3-1-8.03	Install MCHP lift fixture, disengage leveler	29AUG08	02SEP08	01OCT08		3,790.56		EM//TB	etc =48hr ;						
3-1-8.05	Move right MCHP over the VV	03SEP08	05SEP08	06OCT08		18,074.59		EM//TB	etc =144hr ;	ZMET	etc =58				
3-1-8.05M	MCHP test fit over VVSA Complete		05SEP08	06OCT08		0.00									
3-1-6.05	Disengage the right MCHP & position on floor	08SEP08	08SEP08	07OCT08		1,895.28		EM//TB	etc =24hr ;						
Contingency-Project															
CC	Closeout contingency @ 20%	01AUG08*	31MAR09	31MAR09		1,172,000.00									