

PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

**** Cumulative to date FY03, FY04 , FY05 & FY06****

MARCH 2006

CUMULATIVE TO DATE (from 4/1/03) (k)

ECP 43

	Budgeted Cost	ACWP	VARIANCES				Budget Thru FY06	
			BCWS	BCWP	Sch Var	SPI		Cst Var
12 Vacuum Vessel Systems	8,983	7,828	8,040	-1,155	.87	-212	.97	9,159
CLOSED 1201 - Vacuum Vessel Prelim Dsn	424	424	424	0	1.00	0	1.00	424
CLOSED 1202 - Vacuum Vessel R&D	1,770	1,770	1,771	0	1.00	0	1.00	1,770
1203 - Vacuum Vessel Final Dsn	1,098	1,028	1,119	-70	.94	-92	.92	1,098
1204-VV Sys Procurements (non VVSA)	68	33	95	-35	.49	-62	.34	193
CLOSED 1206 - VV Field Weld Joint R&D	16	16	16	1	1.03	0	1.00	16
1250 - Vacuum Vessel Fabrication	5,608	4,557	4,614 (1)	-1,051	.81	-57	.99	5,658
13 Conventional Coils	2,274	1,930	2,098	-344	.85	-168	.92	2,765
1301 - TF Design	946	945	964	-1	1.00	-19	.98	946
1302 - PF Design	11	9	2	-2	.85	7	3.96	11
1303 - Central Solenoid Support Design		72	81	72		-10	.88	
1350 - TF Coil Fabr Prep	743	501	545	-243	.67	-45	.92	743
1351 - TF Coil Fabr Supplies	489	360	424	-129	.74	-64	.85	811
1361 - TF Fabrication	85	43	81	-42	.51	-37	.54	254
1352 - PF Coil Procurement								-
1353 - CS Structure Procurement								-
1354 - Trim Coil Procurement								-
1355 - WBS 13 I&C Proc & Coil Assy								-
14 Modular Coils	22,888	22,731	23,387	-157	.99	-657	.97	27,311
CLOSED 1401 - Mod Coil Prel.Dsn	304	304	304	0	1.00	0	1.00	304
CLOSED 1402 - Mod.Coil Analyses	239	239	239	0	1.00		1.00	239
1403 - Modular Coil Final Design (includes job 1421)	3,278	3,198	3,432	-80	.98	-233	.93	3,339
1416 - Mod Coil Type A&B Final Design	689	420	209	-269	.61	212	2.02	756
CLOSED 1404-MCWF R&D & 1st Prod Casting	2,544	2,544	2,544	0	1.00	0	1.00	2,544

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CLOSED 1405-Mod Coil Winding R&D Prep	168	168	168	0	1.00	0	1.00	168
CLOSED 1406 - Mod. Coil Winding Facility	2,247	2,247	2,264	0	1.00	-17	.99	2,247
CLOSED 1407 -Mod Coil Winding Facility	2,546	2,546	2,571	0	1.00	-25	.99	2,546
1408-Mod Coil Winding Supplies	1,051	1,135	1,156	85	1.08	-21	.98	1,638
CLOSED 1409 - Mod. Coil Test Stand	916	916	862	0	1.00	54	1.06	916
CLOSED 1410 MC Twisted Racetrack Fabr	1,050	1,050	1,050	0	1.00	0	1.00	1,050
1411-MCWF Fabrication S005242	5,998	6,173	6,165 (2)	175	1.03	8	1.00	8,098
CLOSED 1412 - Complete Winding Facilities	537	537	541	0	1.00	-4	.99	537
CLOSED 1413 - Mod Coil Fracture Analysis	28	28	28	0	1.01	0	1.01	28
1414 - Coil Testing	232	216	346	-16	.93	-130	.62	276
CLOSED 1415 - Dimensional Control Testing	24	24	24	0	.99	0	.99	24
CLOSED 1419 - Winding Facility Modification	48	48	55		1.00	-7	.87	48
1421 - Mod Coil Interface Hardware								
1451 - Mod Coil Winding	990	938	1,328	-52	.95	-390	.71	2,553
1459 - MC Unplanned rework			102			-102		
15 Structures	119	80	82	-39	.67	-2	.97	208
1501 - Structures Design	119	80	82	-39	.67	-2	.97	208
1550 - Structures Procurement								-
16 16 - Coil Services			3			-3		-
17 Cryostat and Base	377	368	415	-9	.98	-47	.89	377
1701-Cryostat&Base Sprt Strct Dsn	377	368	415	-9	.98	-47	.89	377
1751 - Cryostat Procurement								-
1752 - Base Support Structure Procurement								-
18 Field Period Assembly	1,753	1,697	1,776	-56	.97	-79	.96	2,526

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		Budgeted Cost			VARIANCES					
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI		
<i>CLOSED</i>	1801-Field Period Assly	61	61	65		1.00	-4	.94	61	
	1802 - FP Assy Oversight&Support	519	519	505	0	1.00	14	1.03	718	
	1803- FP Assy Tooling/Constructability	722	658	664	-64	.91	-6	.99	933	
	1804-FP Assy Measurement	442	450	532	8	1.02	-83	.84	452	
	1808 - TF/Mod Coil Sub-Assembly								-	
	1810 - Field Period Assembly	10	10	10	0	1.00	0	.96	362	
19	1901 - Stellarator Core Mngtt&Integr	1,742	1,744	1,746	2	1.00	-3	1.00	2,003	
2 - Plasma Heating, Fueling & Vac Sys		349	349	348		1.00	1	1.00	349	
	21 - Fueling Systems								-	
	22 - Torus Vacuum Pumping Systems								-	
<i>CLOSED</i>	2001-VPS Gas& Cond Sys Oversight	64	64	63		1.00	1	1.02	64	
<i>CLOSED</i>	2501 - Neutral Beam Refurbishment	285	285	285		1.00	0	1.00	285	
3 - Diagnostics		601	609	679	7	1.01	-70	.90	770	
31	3101 Magnetic Diagnostics	292	299	376	7	1.02	-76	.80	425	
36	36 - Edge and Divertor Diagnostics								-	
38	38 - Electron Beam (EB) Mapping								-	
39	3901 - Diagnostics sys Integration	309	309	303	0	1.00	7	1.02	345	
4 - Electrical Power Systems		703	572	713	-131	.81	-141	.80	742	
41	4101 - AC Power	107	108	107	1	1.01	0	1.00	107	
43	4301 - DC Systems	308	272	385	-36	.88	-113	.71	314	
44	4401 - Control & Protection	55	59	82	4	1.08	-23	.72	55	
45	4501 - Power Sys Dsn & Integr	233	133	138	-100	.57	-5	.96	265	
46	4601 - FCPC Bldg Mods	1	1	1	0	1.30		1.00	1	

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		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	Thru FY06
5 - Central I&C Systems		33	33	33		1.00	0	1.00	33
51	51 - TCP/IP Infrastructure Systems								-
52	52 - Central Instrumentation & Control								-
53	53 - Data Acquisition & Fac Computing								-
54	54 - Facility Timing & Synchronization								-
55	55 - Real Time Plasma & Power Supply								-
56	56 - Central Safety Interlock Systems								-
58	5801 -Central I&C Integr	33	33	33		1.00	0	1.00	33
6 - Facility Systems		24	24	24		1.00	0	.99	24
61 - Water Systems									
	6163 - Facility Systems Support FY04	15	15	15		1.00	0	1.01	15
62 - Cryogenic Systems									-
63 - Utility Systems									-
CLOSED	6501 - Facility Systems Integration	9	9	9		1.00	0	.96	9
7 - Test Cell Prep & Machine Assy		897	905	942	8	1.01	-37	.96	915
CLOSED	7101 - Shield Wall Modif	32	32	33		1.00	-1	.98	32
7201 - Control Room Walls&Floors									-
	7301 - Platform Design &	71	72	76	1	1.01	-4	.95	71
	7401 - TC Prep & Mach Assy Planning	794	801	833	7	1.01	-32	.96	812
75 Machine Assembly									-
	7501 - Construction Support Crew								-
	7502 - Test Cell Facility Preparations								-

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	7503 - Machine Assembly								-	
76	7601 - Tooling Design & Fabrication								-	
8	Project Oversight & Support	7,479	7,480	7,746		1	1.00	-266	.97	8,665
81	Project Management and Control	3,544	3,543	3,627		0	1.00	-83	.98	4,126
	8101 - Project Management & Control	2,263	2,263	2,293	0	1.00	-29	.99		2,588
	8102 - NCSX MIE Management ORNL	340	340	346	0	1.00	-6	.98		429
	8998 - Allocations	941	940	988	0	1.00	-48	.95		1,109
82	Project Engineering	3,466	3,466	3,649		1	1.00	-183	.95	4,069
	8202 - Engr Mgmt & Sys Eng Support	1,921	1,921	1,965	0	1.00	-44	.98		2,241
	8203 - Design Integration	755	755	751	0	1.00	4	1.01		826
	8204 - Systems Analysis	609	609	751	0	1.00	-142	.81		724
	8205 - Dimensional Control Coord.	182	182	182	0	1.00	0	1.00		278
84	Project Physics	470	470	470		1.00	0	1.00		470
	CLOSED 8401 - Project Physics	324	324	324		1.00	0	1.00		324
	CLOSED 8402 - Project Physics MIE ORNL	146	146	146		1.00	0	1.00		146
	85 - Integrated Systems Testing									-
	Subtotal	48,223	46,350	48,032	-1,874	.96	-1,682	.96		55,848
	Contingency/Management Reserve									1,295
	Incremental Funding									1,291
	1% hold back on FY06 BA									(172)
	DCMA QA Inspection services									75
	TOTAL PROJECT									58,337
	(1) Reflects accrual increase of \$216 k based on MTM's earned value report									

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				Budgeted Cost		VARIANCES				Budget	
				BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	Thru FY06
(2) Reflects accrual increase of \$ 246.9 k based on EIO's earned value report											