

**PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE**

NCSX

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

APRIL FY05

	CUMULATIVE TO DATE (from 4/1/03) (k)							ECP30
	Budgeted Cost		ACWP	VARIANCES				Budget
	BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	Thru FY05
1 - Stellarator Core Systems	22,565	21,790	22,480	-775	.97	-690	.97	29,403
12 Vacuum Vessel Systems	4,880	4,456	4,475	-424	.91	-19	1.00	7,302
CLOSED 1201 - Vacuum Vessel Prelim Dsn	424	424	424	0	1.00	0	1.00	424
CLOSED 1202 - Vacuum Vessel R&D	1,791	1,791	1,771	0	1.00	21	1.01	1,791
1203 - Vacuum Vessel Final Dsn	880	815	840	-65	.93	-25	.97	944
1204-VV Sys Procurements (non VVS/								257
1206 - VV Field Weld Joint R&D	11	11	14	0	.99	-3	.80	19
1250 - Vacuum Vessel Fabrication	1,774	1,414	1,426 (1)	-360	.80	-12	.99	3,867
13 Conventional Coils	884	802	849	-82	.91	-47	.94	1,677
1301 - TF Design	837	748	788	-89	.89	-39	.95	837
1302 - PF and CS Design								-
1350 - TF Coil Fabr Prep	46	54	61	7	1.16	-7	.88	381
1351 - TF Coil Fabrication								459
1352 - PF Coil Procurement								-
1353 - CS Structure Procurement								-
1354 - Trim Coil Procurement								-
1355 - WBS 13 I&C Proc & Coil Assy								-
14 Modular Coils	14,444	14,227	14,761	-217	.98	-535	.96	17,135
CLOSED 1401 - Mod Coil Prel.Dsn	303	303	304	0	1.00	-1	1.00	303
CLOSED 1402 - Mod.Coil Analyses	239	239	239	0	1.00		1.00	239
1403 - Modular Coil Final Design	2,701	2,555	2,597	-145	.95	-41	.98	3,141
CLOSED 1404-MCWF R&D & 1st Prod Casting	2,534	2,534	2,554	0	1.00	-20	.99	2,534
CLOSED 1405-Mod Coil Winding R&D Prep	168	168	168		1.00	0	1.00	168
CLOSED 1406 - Mod. Coil Winding	2,214	2,214	2,245	0	1.00	-31	.99	2,214
1410 MC Twisted Racetrack Fabr	699	685	755	-15	.98	-71	.91	799
CLOSED 1407 -Mod Coil Winding Facility	2,523	2,523	2,546	0	1.00	-23	.99	2,523
1412 - Complete Winding Facilities	304	309	420	4	1.01	-112	.73	310
1408-Mod Coil Winding Supplies	260	304	335	44	1.17	-31	.91	596
1409 - Mod. Coil Test Stand	438	427	612	-11	.97	-185	.70	488
1411-MCWF Fabrication S005242	2,033	1,943	1,966 (2)	-90	.96	-23	.99	3,420
1413 - Mod Coil Fracture Analysis	23	23	19	0	1.00	4	1.24	23
1451 - Mod Coil Winding	6		1	-6		-1		377
15 Structures	35	35	34	0	1.00	1	1.03	35
1501 - Structures Design	35	35	34	0	1.00	1	1.03	35
1550 - Structures Procurement								-
16 - Coil Services								-
17 Cryostat and Base	190	189	247	-1	.99	-58	.76	241
1701-Cryost&Base Sprt Strct Dsn	190	189	247	-1	.99	-58	.76	241
1751 - Cryostat Procurement								-
1752 - Base Support Structure Procure								-
18 Field Period Assembly	915	864	877	-51	.94	-13	.98	1,512
CLOSED 1801-Field Period Assly	61	61	61	0	1.00	0	.99	61
1802 - FP Assy Oversight&Support	248	248	278	0	1.00	-31	.89	311
1803- FP Assy Toolg/Constructability	284	233	207	-51	.82	26	1.13	758
1804-FP Assy Measurement	322	322	330	0	1.00	-8	.97	382
1808 - TF/Mod Coil Sub-Assembly								-
1810 - Field Period Assembly								-
19 1901 - Stellarator Core Mngtt&Int	1,218	1,218	1,237		1.00	-19	.98	1,502
2 - Plasma Heating,Fueling & Vac S348	348	347		0	1.00	1	1.00	348
21 - Fueling Systems								-
22 - Torus Vacuum Pumping Systems								-
CLOSED 2001-VPS Gas& Cond Sys Oversight	64	64	63	0	1.00	1	1.01	64
CLOSED 2501 - Neutral Beam Refurbishment	284	284	284	0	1.00	0	1.00	284

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		Budgeted Cost		ACWP	VARIANCES				Budget
		BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	Thru FY05
3 - Diagnostics		303	289	297	-14	.96	-8	.97	493
31	3101 Magnetic Diagnostics	44	31	42	-14	.70	-12	.73	206
36	36 - Edge and Divertor Diagnosti								-
38	38 - Electron Beam (EB) Mapping								-
39	3901 - Diagnostics sys Integratio	258	258	255	0	1.00	3	1.01	287
4 - Electrical Power Systems		411	351	346	-60	.85	5	1.02	614
41	4101 - AC Power	81	81	81	0	1.00	1	1.01	81
43	4301 - DC Systems	123	109	101	-15	.88	7	1.07	233
44	4401 - Control & Protection	1	1	24	0	1.00	-23	.04	1
45	4501 - Power Sys Dsn & Integr	204	159	138	-45	.78	20	1.15	298
46	4601 - FCPC Bldg Mods	1	1	1	0	1.02		1.00	1
5 - Central I&C Systems		35	35	33	0	1.00	2	1.06	40
51	51 - TCP/IP Infrastructure System								-
52	52 - Central Instrumentation & Cc								-
53	53 - Data Acquisition & Fac Comj								-
54	54 - Facility Timing & Synchroniz								-
55	55 - Real Time Plasma & Power S								-
56	56 - Central Safety Interlock Syst								-
58	5801 -Central I&C Integr	35	35	33	0	1.00	2	1.06	40
6 - Facility Systems		24	24	24	1.00	0	1.01	24	
	61 - Water Systems								
	6163 - Facility Systems Support FY04	15	15	15		1.00	0	1.01	15
	62 - Cryogenic Systems								-
	63 - Utility Systems								-
<i>CLOSED</i>	6501 - Facility Systems Integratic	9	9	9		1.00	0	1.00	9
7 - Test Cell Prep & Machine Assy		548	546	546	-2	1.00	0	1.00	725
<i>CLOSED</i>	7101 - Shield Wall Modif	32	32	32	0	1.00		1.00	32
	7201 - Control Room Walls&Floo	35			-35				48
	7301 - Platform Design &		26		26		26		70
	7401 - TC Prep & Mach Assy Plar	482	488	514	6	1.01	-26	.95	575
75 Machine Assembly									-
	7501 - Construction Support Crew								-
	7502 - Test Cell Facility Preparations								-
	7503 - Machine Assembly								-
76 7601 - Tooling Design & Fabricat									-
8 - Project Oversight & Support		5,353	5,352	5,342	-1	1.00	10	1.00	6,348
81 Project Management and Control		2,444	2,442	2,447	-2	1.00	-5	1.00	2,934
	8101 - Project Management & Control	1,671	1,669	1,671	-2	1.00	-3	1.00	1,969
	8102 - NCSX MIE Management ORNL	201	201	202	0	1.00	-1	1.00	242
	8998 - Allocations	573	573	575	0	1.00	-2	1.00	724
82 Project Engineering		2,439	2,439	2,424	0	1.00	15	1.01	2,943
	8202 - Engr Mgmt & Sys Eng Support	1,367	1,367	1,349	0	1.00	18	1.01	1,634
	8203 - Design Integration	657	657	651	0	1.00	6	1.01	722
	8204 - Systems Analysis	380	380	385	0	1.00	-5	.99	490
	8205 - Dimensional Control Coord.	36	36	40	0	1.00	-4	.91	97
84 Project Physics		470	470	470	0	1.00	0	1.00	470
<i>CLOSED</i>	8401 - Project Physcis	324	324	324	0	1.00	1	1.00	324
<i>CLOSED</i>	8402 - Project Physics MIE ORNL	146	146	146	0	1.00	-1	1.00	146
	85 - Integrated Systems Testing								-
Subtotal		29,588	28,736	29,416	-852	.97	-680	.98	37,996
Contingency/Management Reserve									3,259
TOTAL PROJECT									41,255