

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

NCSX

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

JANUARY 2006

ECP 39

		CUMULATIVE TO DATE (from 4/1/03) (k)							Budget Thru FY06
		Budgeted Cost		ACWP	VARIANCES				
		BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	
1 - Stellarator Core Systems		35,229	33,880	34,362	-1,349	.96	-482	.99	44,349
12		8,145	7,465	7,565	-680	.92	-100	.99	9,159
	1201 - Vacuum Vessel Prelim Dsn	424	424	424		1.00	0	1.00	424
	1202 - Vacuum Vessel R&D	1,770	1,770	1,771		1.00	-1	1.00	1,770
	1203 - Vacuum Vessel Final Dsn	1,097	1,033	1,051	-64	.94	-18	.98	1,098
	1204-VV Sys Procurements (non VVSA)	1	25	53	24	20.85	-28	.47	193
	1206 - VV Field Weld Joint R&D	16	16	16		1.00	0	1.00	16
	1250 - Vacuum Vessel Fabrication	4,837	4,197	4,250 (1)	-640	.87	-53	.99	5,658
13		2,039	1,753	1,840	-286	.86	-87	.95	2,765
	1301 - TF Design	946	945	964	-1	1.00	-19	.98	946
	1302 - PF Design	11			-11				11
	1303 - Central Solenoid Support Design		11	8	11		3	1.40	
	1350 - TF Coil Fabr Prep	683	501	537	-182	.73	-37	.93	743
	1351 - TF Coil Fabr Supplies	353	269	289	-84	.76	-20	.93	811
	1361 - TF Fabrication	47	27	41	-20	.58	-14	.66	254
	1352 - PF Coil Procurement								-
	1353 - CS Structure Procurement								-
	1354 - Trim Coil Procurement								-
	1355 - WBS 13 I&C Proc & Coil Assy								-
14		21,322	21,015	21,287	-306	.99	-271	.99	27,311
	1401 - Mod Coil Prel.Dsn	304	304	304		1.00	0	1.00	304
	1402 - Mod.Coil Analyses	239	239	239		1.00	0	1.00	239
	1403 - Modular Coil Final Design	3,261	3,194	3,387	-67	.98	-194	.94	3,339
	1416 - Mod Coil Type A&B Final Design	473	249	127	-225	.53	122	1.96	756
	1404-MCWF R&D & 1st Prod Casting	2,544	2,544	2,544		1.00	0	1.00	2,544
	1405-Mod Coil Winding R&D Prep	168	168	168		1.00		1.00	168
	1406 - Mod. Coil Winding Facility	2,247	2,247	2,247		1.00	0	1.00	2,247
	1407 -Mod Coil Winding Facility	2,546	2,546	2,546		1.00	0	1.00	2,546
	1408-Mod Coil Winding Supplies	857	932	914	75	1.09	18	1.02	1,638
	1409 - Mod. Coil Test Stand	916	916	916		1.00	0	1.00	916
	1410 MC Twisted Racetrack Fabr	1,050	1,050	1,049		1.00	1	1.00	1,050

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	1411-MCWF Fabrication S005242	5,173	5,194	5,145 (2)	21	1.00	48	1.01	8,098
	1412 - Complete Winding Facilities	537	537	536		1.00	1	1.00	537
	1413 - Mod Coil Fracture Analysis	28	28	28		1.00	0	1.01	28
	1414 - Coil Testing	221	198	206	-23	.90	-8	.96	276
	1415 - Dimensional Control Testing	24	24	24		1.00	0	1.00	24
	1419 - Winding Facility Modification	48	48	54		1.00	-6	.88	48
	1421 - Mod Coil Interface Hardware								
	1451 - Mod Coil Winding	685	598	810	-87	.87	-212	.74	2,553
	1459 - MC Unplanned rework			43			-43		
15		78	80	82	2	1.03	-2	.97	208
	1501 - Structures Design	78	80	82	2	1.03	-2	.97	208
	1550 - Structures Procurement								-
16	16 - Coil Services								-
17		377	368	396	-9	.98	-28	.93	377
	1701-Cryost&Base Sprt Strct Dsn	377	368	396	-9	.98	-28	.93	377
	1751 - Cryostat Procurement								-
	1752 - Base Support Structure Procuren								-
18		1,614	1,550	1,555	-64	.96	-6	1.00	2,526
	1801-Field Period Assly	61	61	61		1.00	0	1.00	61
	1802 - FP Assy Oversight&Support	451	451	446	0	1.00	6	1.01	718
	1803- FP Assy Toolg/Constructability	626	599	590	-26	.96	10	1.02	933
	1804-FP Assy Measurement	442	438	458	-4	.99	-21	.96	452
	1808 - TF/Mod Coil Sub-Assembly								-
	1810 - Field Period Assembly	34		1	-34		-1		362
19	1901 - Stellarator Core Mngtt&Inte	1,654	1,648	1,636	-6	1.00	12	1.01	2,003
2	2 - Plasma Heating,Fueling & Va	349	349	347		1.00	2	1.01	349
	21 - Fueling Systems								-
	22 - Torus Vacuum Pumping Systems								-
	2001-VPS Gas& Cond Sys Oversight	64	64	63		1.00	1	1.02	64
	2501 - Neutral Beam Refurbishment	285	285	284		1.00	1	1.00	285

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3 - Diagnostics	576	489	585		-87	.85	-95	.84	770
31 3101 Magnetic Diagnostics	279	192	291		-87	.69	-99	.66	425
36 36 - Edge and Divertor Diagnostics									-
38 38 - Electron Beam (EB) Mapping									-
39 3901 - Diagnostics sys Integratio	297	297	294		0	1.00	3	1.01	345
4 - Electrical Power Systems	664	571	667		-93	.86	-96	.86	742
41 4101 - AC Power	107	107	107			1.00	0	1.00	107
43 4301 - DC Systems	279	271	346		-8	.97	-75	.78	314
44 4401 - Control & Protection	55	59	74		4	1.07	-15	.80	55
45 4501 - Power Sys Dsn & Integr	222	133	138		-89	.60	-5	.96	265
46 4601 - FCPC Bldg Mods	1	1	1		0	1.30		1.00	1
5 - Central I&C Systems	33	33	33			1.00	0	1.00	33
51 51 - TCP/IP Infrastructure System									-
52 52 - Central Instrumentation & Co									-
53 53 - Data Acquisition & Fac Comp									-
54 54 - Facility Timing & Synchroniza									-
55 55 - Real Time Plasma & Power Su									-
56 56 - Central Safety Interlock Syste									-
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									-
6501 - Facility Systems Integratio	9	9	9			1.00	0	.96	9
7 - Test Cell Prep & Machine As	897	905	933		8	1.01	-28	.97	915
7101 - Shield Wall Modif	32	32	32			1.00	0	1.00	32
7201 - Control Room Walls&Floors									-
7301 - Platform Design &	71	72	76		1	1.01	-4	.95	71

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		BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	
	7401 - TC Prep & Mach Assy Plan	794	801	825	7	1.01	-24	.97	812
75									-
	7501 - Construction Support Crew								-
	7502 - Test Cell Facility Preparations								-
	7503 - Machine Assembly								-
76	7601 - Tooling Design & Fabricati								-
8	- Project Oversight & Support	7,080	7,081	7,221	1	1.00	-140	.98	8,665
81		3,348	3,348	3,405	0	1.00	-57	.98	4,126
	8101 - Project Management & Control	2,154	2,154	2,172	0	1.00	-18	.99	2,588
	8102 - NCSX MIE Management ORNL	310	310	313	0	1.00	-3	.99	429
	8998 - Allocations	884	884	920	0	1.00	-36	.96	1,109
82		3,263	3,263	3,347	1	1.00	-83	.98	4,069
	8202 - Engr Mgmt & Sys Eng Support	1,813	1,813	1,852	0	1.00	-39	.98	2,241
	8203 - Design Integration	731	731	714	0	1.00	16	1.02	826
	8204 - Systems Analysis	570	570	640	0	1.00	-70	.89	724
	8205 - Dimensional Control Coord.	149	149	140	0	1.00	9	1.07	278
84		470	470	470		1.00	0	1.00	470
	8401 - Project Phycis	324	324	324		1.00	0	1.00	324
	8402 - Project Physics MIE ORNL	146	146	146		1.00	0	1.00	146
	85 - Integrated Systems Testing								-
	Subtotal	44,852	43,332	44,171	-1,520	.97	-840	.98	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 \$59k based on MTM's earned value report								
	(2) Reflects accrual increase of \$ 73 k based on EIO's earned value report								