

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

NCSX

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

JUNE FY05

		CUMULATIVE TO DATE (from 4/1/03) (k)							ECP30
		Budgeted Cost			VARIANCES				Budget
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	Thru FY05
1	- Stellarator Core Systems	25,069	23,851	25,208	-1,218	.95	-1,357	.95	29,403
	12 Vacuum Vessel Systems	5,710	5,135	5,175	-575	.90	-41	.99	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	937	855	910	-82	.91	-55	.94	944
	1204-VV Sys Procurements (non VVSA)	3			-3				257
	CLOSED 1206 - VV Field Weld Joint R&D	16	16	16		1.00	0	1.00	19
	1250 - Vacuum Vessel Fabrication	2,540	2,048	2,054 (1)	-492	.81	-6	1.00	3,867
	13 Conventional Coils	1,116	994	1,140	-121	.89	-146	.87	1,677
	1301 - TF Design	837	791	908	-47	.94	-118	.87	837
	1302 - PF and CS Design		20		20		20		-
	1350 - TF Coil Fabr Prep	147	184	232	37	1.25	-48	.79	381
	1351 - TF Coil Fabrication	131			-131				459
	14 Modular Coils	15,552	15,031	16,157	-521	.97	-1,126	.93	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	2,919	2,678	2,824	-241	.92	-146	.95	3,141
	CLOSED 1404-MCWF R&D & 1st Prod Casting	2,534	2,534	2,552	0	1.00	-18	.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	2,250	0	1.00	-36	.98	2,214
	CLOSED 1410 MC Twisted Racetrack Fabr	799	775	1,016	-24	.97	-240	.76	799
	CLOSED 1407 -Mod Coil Winding Facility	2,523	2,523	2,546	0	1.00	-23	.99	2,523
	CLOSED 1412 - Complete Winding Facilities	310	310	526	0	1.00	-216	.59	310
	1415 - Dimensional Control Testing		7	6			1	1.11	
	1408-Mod Coil Winding Supplies	339	329	353	-9	.97	-23	.93	596

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		Budgeted Cost			VARIANCES				Budget
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	Thru FY05
	1409 - Mod. Coil Test Stand	483	437	769	-46	.91	-332	.57	488
	1411-MCWF Fabrication S005242	2,593	2,489	2,575 (2)	-104	.96	-86	.97	3,420
CLOSED	1413 - Mod Coil Fracture Analysis	23	23	28	0	1.00	-5	.83	23
	1451 - Mod Coil Winding	104		1	-104		-1		377
15	Structures	35	35	36	0	1.00	-1	.97	35
	1501 - Structures Design	35	35	36	0	1.00	-1	.97	35
16	16 - Coil Services								-
17	Cryostat and Base	206	189	312	-17	.92	-123	.60	241
	1701-Cryostat&Base Sprt Strct Dsn	206	189	312	-17	.92	-123	.60	241
	1751 - Cryostat Procurement								-
	1752 - Base Support Structure Procurement								-
18	Field Period Assembly	1,125	1,119	1,065	-7	.99	53	1.05	1,512
CLOSED	1801-Field Period Assly	61	61	61	0	1.00	0	.99	61
	1802 - FP Assy Oversight&Support	273	273	319	0	1.00	-46	.86	311
	1803- FP Assy Toolg/Constructability	450	444	332	-7	.99	111	1.34	758
	1804-FP Assy Measurement	341	341	353		1.00	-12	.97	382
19	1901 - Stellarator Core Mngtt&Integr	1,326	1,349	1,322	23	1.02	27	1.02	1,502
2	2 - Plasma Heating,Fueling & Vac Sys	348	348	347	0	1.00	1	1.00	348
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
3	3 - Diagnostics	347	322	335	-25	.93	-13	.96	493
31	3101 Magnetic Diagnostics	77	52	73	-25	.68	-21	.72	206
36	36 - Edge and Divertor Diagnostics								-
38	38 - Electron Beam (EB) Mapping								-
39	3901 - Diagnostics sys Integration	270	270	262		1.00	7	1.03	287
4	4 - Electrical Power Systems	513	402	399	-111	.78	3	1.01	614
41	4101 - AC Power	81	81	81	0	1.00	1	1.01	81
43	4301 - DC Systems	167	145	154	-22	.87	-9	.94	233
44	4401 - Control & Protection	1	1	24	0	1.00	-23	.04	1
45	4501 - Power Sys Dsn & Integr	262	173	138	-89	.66	35	1.25	298
46	4601 - FCPC Bldg Mods	1	1	1		1.00	0	.98	1

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Budgeted Cost				VARIANCES				Budget		
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5 - Central I&C Systems	37	37	33	0	1.00	4	1.12	40		
58 5801 -Central I&C Integr	37	37	33	0	1.00	4	1.12	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								-		
CLOSED 6501 - Facility Systems Integration	9	9	9		1.00	0	1.00	9		
7 - Test Cell Prep & Machine Assy	652	628	597	-24	.96	31	1.05	725		
CLOSED 7101 - Shield Wall Modif	32	32	32	0	1.00		1.00	32		
7201 - Control Room Walls&Floors	48			-48				48		
7301 - Platform Design &	25	86	4	60	3.40	81	19.84	70		
7401 - TC Prep & Mach Assy Planning	547	510	560	-37	.93	-50	.91	575		
75 Machine Assembly								-		
76 7601 - Tooling Design & Fabrication								-		
8 - Project Oversight & Support	5,749	5,749	5,776	0	1.00	-27	1.00	6,348		
81 Project Management and Control	2,639	2,639	2,667	0	1.00	-27	.99	2,934		
8101 - Project Management & Control	1,789	1,789	1,809		1.00	-19	.99	1,969		
8102 - NCSX MIE Management ORNL	217	217	216	0	1.00	1	1.00	242		
8998 - Allocations	633	633	642	0	1.00	-9	.99	724		
82 Project Engineering	2,640	2,640	2,639	0	1.00	0	1.00	2,943		
8202 - Engr Mgmt & Sys Eng Support	1,473	1,473	1,472	0	1.00	2	1.00	1,634		
8203 - Design Integration	683	683	666	0	1.00	17	1.03	722		
8204 - Systems Analysis	424	424	440	0	1.00	-16	.96	490		
8205 - Dimensional Control Coord.	60	60	62	0	1.00	-2	.97	97		
84 Project Physics	470	470	470		1.00	0	1.00	470		
CLOSED 8401 - Project Phycsis	324	324	324		1.00	1	1.00	324		
CLOSED 8402 - Project Physics MIE ORNL	146	146	146		1.00	-1	1.00	146		
85 - Integrated Systems Testing								-		
Subtotal	32,740	31,362	32,719	-1,378	.96	-1,357	.96	37,996		
Contingency/Management Reserve								3,247		
DCMA QA Inspection services								75		
TOTAL PROJECT								41,318		
(1) Reflects add'l accrual of \$656k based on MTM's June earned value report										
(2) Reflects accrual reduction of \$282k based on EIO's June earned value report										