

**Princeton University Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE**

NCSX

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

MAY FY05

	CUMULATIVE TO DATE (from 4/1/03) (k)								ECP30 Budget Thru FY05
	Budgeted Cost		ACWP	VARIANCES					
	BCWS	BCWP		Sch Var	SPI	Cst Var	CPI		
1 - Stellarator Core Systems	23,931	22,676	23,684	-1,254	.95	-1,007	.96	29,403	
12 Vacuum Vessel Systems	5,406	4,656	4,699	-751	.86	-43	.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	915	846	879	-69	.92	-33	.96	944	
1204-VV Sys Procurements (non VVS,								257	
1206 - VV Field Weld Joint R&D	12	11	16	0	.96	-5	.71	19	
1250 - Vacuum Vessel Fabrication	2,265	1,583	1,609 (1)	-682	.70	-27	.98	3,867	
13 Conventional Coils	981	913	990	-68	.93	-78	.92	1,677	
1301 - TF Design	837	779	835	-59	.93	-57	.93	837	
1302 - PF and CS Design								-	
1350 - TF Coil Fabr Prep	83	134	155	51	1.62	-21	.86	381	
1351 - TF Coil Fabrication	61			-61				459	
1352 - PF Coil Procurement								-	
1353 - CS Structure Procurement								-	
1354 - Trim Coil Procurement								-	
1355 - WBS 13 I&C Proc & Coil Assy								-	
14 Modular Coils	15,030	14,639	15,450	-391	.97	-811	.95	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	2,837	2,625	2,739	-212	.93	-114	.96	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	752	721	868	-31	.96	-147	.83	799	
CLOSED 1407 -Mod Coil Winding Facility	2,523	2,523	2,546	0	1.00	-23	.99	2,523	
1412 - Complete Winding Facilities	310	310	466	-1	1.00	-156	.67	310	
1408-Mod Coil Winding Supplies	308	309	347	1	1.00	-38	.89	596	
1409 - Mod. Coil Test Stand	472	429	686	-43	.91	-257	.62	488	
1411-MCWF Fabrication S005242	2,296	2,236	2,265 (2)	-60	.97	-29	.99	3,420	
1413 - Mod Coil Fracture Analysis	23	23	22	0	1.00	2	1.07	23	
1451 - Mod Coil Winding	51	6	1	-44	.12	5	7.01	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 16 - Coil Services								-	
17 Cryostat and Base	194	189	272	-5	.97	-83	.69	241	
1701-Cryostat&Base Sprt Strct Dsn	194	189	272	-5	.97	-83	.69	241	

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		BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	
	1751 - Cryostat Procurement								-
	1752 - Base Support Structure Procure								-
18	Field Period Assembly	1,028	988	963	-39	.96	25	1.03	1,512
<i>CLOSED</i>	1801-Field Period Assly	61	61	61	0	1.00	0	.99	61
	1802 - FP Assy Oversight&Support	260	260	293	0	1.00	-33	.89	311
	1803- FP Assy Toolg/Constructability	375	336	264	-39	.89	72	1.27	758
	1804-FP Assy Measurement	331	331	345	0	1.00	-13	.96	382
	1808 - TF/Mod Coil Sub-Assembly								-
	1810 - Field Period Assembly								-
19	1901 - Stellarator Core Mngtt&Int	1,258	1,257	1,275	-1	1.00	-17	.99	1,502
2	Plasma Heating,Fueling & Vac	348	348	347	0	1.00	1	1.00	348
	21 - Fueling Systems								-
	22 - Torus Vacuum Pumping Systems								-
<i>CLOSED</i>	2001-VPS Gas& Cond Sys Oversight	64	64	63	0	1.00	1	1.01	64
<i>CLOSED</i>	2501 - Neutral Beam Refurbishment	284	284	284	0	1.00	0	1.00	284
3	Diagnostics	333	300	320	-33	.90	-20	.94	493
31	3101 Magnetic Diagnostics	69	36	64	-33	.52	-28	.56	206
36	36 - Edge and Divertor Diagnosti								-
38	38 - Electron Beam (EB) Mapping								-
39	3901 - Diagnostics sys Integratic	264	264	256	0	1.00	8	1.03	287
4	Electrical Power Systems	462	374	373	-88	.81	1	1.00	614
41	4101 - AC Power	81	81	81	0	1.00	1	1.01	81
43	4301 - DC Systems	143	131	129	-11	.92	3	1.02	233
44	4401 - Control & Protection	1	1	24	0	1.00	-23	.04	1
45	4501 - Power Sys Dsn & Integr	236	159	138	-77	.67	20	1.15	298
46	4601 - FCPC Bldg Mods	1	1	1	0	1.02		1.00	1
5	Central I&C Systems	36	36	33	0	1.00	3	1.09	40
51	51 - TCP/IP Infrastructure System								-
52	52 - Central Instrumentation & C								-
53	53 - Data Acquisition & Fac Com								-
54	54 - Facility Timing & Synchroniz								-
55	55 - Real Time Plasma & Power S								-
56	56 - Central Safety Interlock Syst								-
58	5801 -Central I&C Integr	36	36	33	0	1.00	3	1.09	40
6	Facility Systems	24	24	24	1.00	0	1.01	24	24
	61 - Water Systems								

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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 Integrati	9	9	9		1.00	0	1.00	9	
7 - Test Cell Prep & Machine Assy	624	602	575					725	
<i>CLOSED</i> 7101 - Shield Wall Modif	32	32	32		0	1.00	1.00	32	
7201 - Control Room Walls&Floo	48				-48			48	
7301 - Platform Design &	7	66			59	9.12	66	70	
7401 - TC Prep & Mach Assy Plai	537	504	543		-33	.94	-39	.93	
75 Machine Assembly								-	
7501 - Construction Support Crew								-	
7502 - Test Cell Facility Preparations								-	
7503 - Machine Assembly								-	
76 7601 - Tooling Design & Fabricat								-	
8 - Project Oversight & Support	5,542	5,542	5,533		1.00	10	1.00	6,348	
81 Project Management and Control	2,535	2,535	2,545		1.00	-10	1.00	2,934	
8101 - Project Management & Control	1,724	1,724	1,737		1.00	-13	.99	1,969	
8102 - NCSX MIE Management ORNL	209	209	207		1.00	2	1.01	242	
8998 - Allocations	602	602	601		1.00	1	1.00	724	
82 Project Engineering	2,537	2,537	2,517		1.00	20	1.01	2,943	
8202 - Engr Mgmt & Sys Eng Support	1,419	1,419	1,394		1.00	25	1.02	1,634	
8203 - Design Integration	669	669	658		1.00	11	1.02	722	
8204 - Systems Analysis	401	401	413		1.00	-11	.97	490	
8205 - Dimensional Control Coord.	48	48	52		1.00	-4	.92	97	
84 Project Physics	470	470	470		1.00	0	1.00	470	
<i>CLOSED</i> 8401 - Project Physcis	324	324	324		1.00	1	1.00	324	
<i>CLOSED</i> 8402 - Project Physics MIE ORNL	146	146	146		1.00	-1	1.00	146	
85 - Integrated Systems Testing								-	
Subtotal	31,301	29,903	30,889		-1,398	.96	-986	.97	37,996
Contingency/Management Reserve									3,247
DCMA QA Inspection services									75
TOTAL PROJECT									41,318

(1) Reflects add'l accrual of \$230k based on vendor's May earned value report

(2) Reflects accrual reduction of \$293k based on vendor's May earned value report