

**Princeton University Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORK BREAKDOWN STRUCTURE**

NCSX

**** Cumulative to date FY03, FY04 , FY05, FY06 and FY07****

FEBRUARY 2007

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

ECP 53

	Budgeted Cost	VARIANCES								Budget Thru FY07
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI		
1 - Stellarator Core Systems	49,694	49,384	51,220		-310	.99	-1,836	.96	57,483	
12 Vacuum Vessel Systems	9,561	9,567	9,695		6	1.00	-127	.99	9,650	
CLOSED 1201 - Vacuum Vessel Prelim Dsn	424	424	424			1.00	0	1.00	424	
CLOSED 1202 - Vacuum Vessel R&D	1,770	1,770	1,771			1.00	-1	1.00	1,770	
CLOSED 1203 - Vacuum Vessel Final Dsn	1,218	1,218	1,217			1.00	0	1.00	1,218	
CLOSED 1206 - VV Field Weld Joint R&D	16	16	16			1.00	0	.98	16	
CLOSED 1250 - Vacuum Vessel Fabrication	5,808	5,808	5,815			1.00	-7	1.00	5,808	
1204-VV Sys Procurements (non VVSA)	326	332	452		6	1.02	-120	.73	414	
13 Conventional Coils	3,274	3,153	3,146		-121	.96	7	1.00	3,967	
CLOSED 1301 - TF Design	970	971	970		1	1.00	1	1.00	971	
1302 - PF Design			19				-19		70	
1303 - Central Solenoid Support Design	106	117	155		11	1.10	-38	.76	106	
1350 - TF Coil Fabr Prep	547	547	536			1.00	11	1.02	547	
1351 - TF Coil Fabr Supplies	470	461	475		-9	.98	-14	.97	470	
1361 - TF Fabrication	1,181	1,057	990		-124	.90	67	1.07	1,803	
1352 - PF Coil Procurement									-	
1353 - CS Structure Procurement									-	
14 Modular Coils	31,049	30,922	32,565		-126	1.00	-1,643	.95	36,071	
CLOSED 1401 - Mod Coil Prel.Dsn	304	304	304			1.00	0	1.00	304	
CLOSED 1402 - Mod.Coil Analyses	239	239	239			1.00	0	1.00	239	
CLOSED 1404-MCWF R&D & 1st Prod Casting	2,543	2,543	2,554			1.00	-11	1.00	2,543	
CLOSED 1405-Mod Coil Winding R&D Prep	168	168	168			1.00		1.00	168	
CLOSED 1406 - Mod. Coil Winding Facility	2,263	2,263	2,263			1.00	0	1.00	2,263	
CLOSED 1407 -Mod Coil Winding Facility	2,571	2,571	2,570			1.00	2	1.00	2,571	
CLOSED 1410 MC Twisted Racetrack Fabr	1,050	1,050	1,050			1.00	0	1.00	1,050	

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CLOSED	1412 - Complete Winding Facilities		541	541	541		1.00	0	1.00	541
CLOSED	1413 - Mod Coil Fracture Analysis		28	28	28		1.00	0	1.01	28
CLOSED	1409 - Mod. Coil Test Stand		826	826	833		1.00	-7	.99	826
CLOSED	1414 - Coil Testing		675	675	639		1.00	36	1.06	675
CLOSED	1415 - Dimensional Control Testing		24	24	24		1.00	0	1.00	24
CLOSED	1419 - Winding Facility Modification		55	55	48		1.00	7	1.14	55
	Mod Coil Design Job 1403, 1416		4,592	4,325	4,280	-267	.94	45	1.01	5,617
	Job 1429 Interface R&D/Test		120	103	94	-17	.86	9	1.09	368
	1408-Mod Coil Winding Supplies		1,868	1,879	2,280	11	1.01	-401	.82	2,245
	1411-MCWF Fabrication S005242		9,211	9,423	9,471	212	1.02	-48	.99	9,844
	1451 - Mod Coil Winding (incl 1459 punch list and unplanned work)		3,910	3,845	5,122	-65	.98	-1,277	.75	6,650
	1460 - 3rd Winding Fixture		60	60	57	0	.99	3	1.05	60
15	Structures		163	171	244	8	1.05	-73	.70	348
	1501 - Structures Design		163	171	240	8	1.05	-69	.71	348
	1550 - Structures Procurement				4			-4		
16	1601 - Coil Services		8	3	3	-5	.37	0	1.07	23
17	Cryostat and Base		427	425	417	-2	1.00	8	1.02	514
	1701-Cryostat design		427	425	417	-2	1.00	8	1.02	380
	1702-Base Support structure design									133
	1751 - Cryostat Procurement									-
	1752 - Base Support Structure Procurement									1
18	Field Period Assembly		3,118	3,054	3,077	-64	.98	-23	.99	4,678

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<i>CLOSED</i>	1801-Field Period Assy	65	65	64		1.00	0	1.00	65
	1802 - FP Assy Oversight Support	969	968	870	-1	1.00	98	1.11	1,458
	1803- FP Assy Tooling/Constructability	900	873	1,078	-27	.97	-205	.81	994
	1804-FP Assy Measurement	564	564	559		1.00	5	1.01	564
	1805 - FP Assy Hardware & Fixt Procurement	3	2	7	-1	.73	-4	.35	193
	1806 - FP Assy Specs and Drawings	89	32	20	-57	.36	12	1.62	221
	1810 - Field Period Assembly plus 1859 unplanned work	528	550	478	23	1.04	72	1.15	1,183
19	1901 - Stellarator Core Mngt & Integr	2,095	2,089	2,074	-6	1.00	15	1.01	2,232
2 - Plasma Heating, Fueling & Vac Sys		348	348	348		1.00	0	1.00	348
<i>CLOSED</i>	2001-VPS Gas& Cond Sys Oversight	64	64	63		1.00	1	1.01	63
<i>CLOSED</i>	2501 - Neutral Beam Refurbishment	285	285	285		1.00	0	1.00	285
3 - Diagnostics		833	766	876	-67	.92	-110	.87	877
31	3101 Magnetic Diagnostics	474	407	540	-67	.86	-133	.75	492
39	3901 - Diagnostics sys Integration	359	359	337	0	1.00	22	1.07	385
4 - Electrical Power Systems		722	724	720	2	1.00	4	1.01	714
41	4101 - AC Power	109	109	107		1.00	2	1.02	93
43	4301 - DC Systems	382	383	370	1	1.00	13	1.04	382
44	4401 - Control & Protection	82	83	81	1	1.01	2	1.03	82
45	4501 - Power Sys Dsn & Integr	148	148	161		1.00	-13	.92	155
46	4601 - FCPC Bldg Mods	1	1	1		1.00		1.00	1
5 - Central I&C Systems		46	46	33		1.00	13	1.38	46
58	5801 -Central I&C Integr	46	46	33		1.00	13	1.38	46
6 - Facility Systems		24	24	24		1.00	0	1.01	24
	6163 - Facility Systems Support FY04	15	15	15		1.00	0	1.01	15
<i>CLOSED</i>	6501 - Facility Systems Integration	9	9	9		1.00	0	1.00	9

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7 - Test Cell Prep & Machine Assy	942	942	953	0	1.00	-12	.99	965	
<i>CLOSED</i> 7101 - Shield Wall Modif	33	33	33		1.00	0	1.00	33	
7301 - Platform Design &	76	76	76		1.00	0	1.00	75	
7401 - TC Prep & Mach Assy Planning	833	833	845	0	1.00	-12	.99	857	
8 - Project Oversight & Support	9,788	9,783	10,043	-5	1.00	-260	.97	11,086	
81 Project Management and Control	4,566	4,566	4,633		1.00	-67	.99	5,127	
8101 - Project Management & Control	2,777	2,777	2,749		1.00	28	1.01	3,108	
8102 - NCSX MIE Management ORNL	457	457	520		1.00	-63	.88	497	
8998 - Allocations	1,332	1,332	1,364		1.00	-32	.98	1,522	
82 Project Engineering	4,752	4,747	4,940	-5	1.00	-193	.96	5,488	
8202 - Engr Mgmt & Sys Eng Support	2,483	2,476	2,530	-7	1.00	-54	.98	2,798	
8203 - Design Integration	930	930	936		1.00	-6	.99	1,097	
8204 - Systems Analysis	1,071	1,071	1,209		1.00	-138	.89	1,220	
8205 - Dimensional Control Coord.	259	265	264	6	1.02	1	1.00	333	
8210 - Project Rebaseline Estimating	9	5	1	-4	.53	4	7.37	40	
84 Project Physics	470	470	470		1.00	0	1.00	471	
<i>CLOSED</i> 8401 - Project Physics	324	324	324		1.00	0	1.00	325	
<i>CLOSED</i> 8402 - Project Physics MIE ORNL	146	146	146		1.00	-1	1.00	146	
Subtotal	62,398	62,017	64,218	-381	.99	-2,201	.97	71,541	
Contingency set-aside for cumulative cost variance								2,201	
FY07 Contingency free balance								414	
DCMA QA Inspection services								75	
TOTAL PROJECT								74,232	