

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

NCSX

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

OCTOBER 2006

		CUMULATIVE TO DATE (from 4/1/03) (k)								ECP 52
		Budgeted Cost			VARIANCES				Budget Thru FY07	
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI		
1 - Stellarator Core Systems		45,552	45,472	46,675		-80	1.00	-1,203	.97	56,654
12 Vacuum Vessel Systems		9,557	9,511	9,556		-45	1.00	-45	1.00	9,677
	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	1,219			1.00	-1	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	5,809	5,809	5,821			1.00	-12	1.00	5,808
	1204-VV Sys Procurements (non VVSA)	321	275	305		-45	.86	-30	.90	441
13 Conventional Coils		2,919	2,827	2,772		-92	.97	55	1.02	4,331
	CLOSED 1301 - TF Design	970	970	970			1.00	0	1.00	971
	1302 - PF Design			19				-19		132
	1303 - Central Solenoid Support Design	106	106	136			1.00	-30	.78	106
	1350 - TF Coil Fabr Prep	547	547	536			1.00	11	1.02	547
	1351 - TF Coil Fabr Supplies	470	459	453		-11	.98	6	1.01	470
	1361 - TF Fabrication	825	744	657 (3)		-81	.90	87	1.13	1,797
	1352 - PF Coil Procurement									276
	1353 - CS Structure Procurement									32
14 Modular Coils		28,030	28,129	29,296		99	1.00	-1,167	.96	34,127
	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
	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 (incl job 1421 coil interface hw dsn and 1416)	3,890	3,890	4,000		1	1.00	-110	.97	4,376
	1408-Mod Coil Winding Supplies	1,745	1,681	1,819		-64	.96	-138	.92	1,948

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		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	Thru FY07	
	1431 - Mod Coil Interface hardware								699	
	1411-MCWF Fabrication S005242	8,405	8,515	8,508 (2)	110	1.01	7	1.00	9,844	
	1451 - Mod Coil Winding (incl 1459 punch list and unplanned work)	2,691	2,721	3,690	29	1.01	-969	.74	5,910	
	1460 - 3rd Winding Fixture	12	34	18	23	2.95	16	1.92	63	
15	Structures	109	109	117		1.00	-8	.93	708	
	1501 - Structures Design	109	109	113		1.00	-4	.96	218	
	1550 - Structures Procurement			4			-4		490	
16	1601 - Coil Services	3	3	3		1.00	0	1.07	174	
17	Cryostat and Base	425	425	417		1.00	8	1.02	485	
	1701-Cryostat&Base Sprt Strct Dsn	425	425	417		1.00	8	1.02	482	
	1751 - Cryostat Procurement								-	
	1752 - Base Support Structure Procurement								3	
18	Field Period Assembly	2,485	2,444	2,538	-41	.98	-94	.96	4,937	
	<i>CLOSED</i> 1801-Field Period Assy	65	65	64		1.00	0	1.00	65	
	1802 - FP Assy Oversight Support	734	734	709		1.00	25	1.04	1,338	
	1803- FP Assy Tooling/Constructability	885	856	976	-29	.97	-121	.88	1,170	
	1804-FP Assy Measurement	551	551	554		1.00	-3	1.00	564	
	1805 - FP Assy Hardware & Fixt Procurement	1	1		0	1.02	1		305	
	1806 - FP Assy Specs and Drawings	27	38		11	1.42	38		210	
	1810 - Field Period Assembly	222	199	234	-23	.90	-35	.85	1,285	
19	1901 - Stellarator Core Mngt & Integr	2,025	2,025	1,977		1.00	47	1.02	2,215	
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	776	736	797	-41	.95	-61	.92	875	
31	3101 Magnetic Diagnostics	428	388	475	-41	.91	-87	.82	500	
39	3901 - Diagnostics sys Integration	348	348	321		1.00	26	1.08	375	
4	Electrical Power Systems	721	721	711		1.00	10	1.01	722	
41	4101 - AC Power	108	108	107		1.00	1	1.01	108	
43	4301 - DC Systems	382	382	370		1.00	12	1.03	382	
44	4401 - Control & Protection	82	82	81		1.00	2	1.02	82	

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		Budgeted Cost			VARIANCES				Thru FY07
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	
45	4501 - Power Sys Dsn & Integr	148	148	152		1.00	-4	.97	148
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	0	1.02	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	0	1.04	0	1.00	9
7 - Test Cell Prep & Machine Assy		938	942	947	5	1.00	-5	.99	974
	<i>CLOSED</i> 7101 - Shield Wall Modif	32	33	33	1	1.02	0	1.00	33
	7301 - Platform Design &	75	76	76	1	1.02	0	1.00	75
	7401 - TC Prep & Mach Assy Planning	831	834	839	3	1.00	-5	.99	866
8 - Project Oversight & Support		9,181	9,181	9,175		1.00	6	1.00	11,002
81	Project Management and Control	4,284	4,284	4,270		1.00	14	1.00	5,228
	8101 - Project Management & Control	2,612	2,612	2,598		1.00	13	1.01	3,196
	8102 - NCSX MIE Management ORNL	438	438	443		1.00	-5	.99	496
	8998 - Allocations	1,234	1,234	1,228		1.00	5	1.00	1,536
82	Project Engineering	4,427	4,427	4,435		1.00	-8	1.00	5,303
	8202 - Engr Mgmt & Sys Eng Support	2,326	2,326	2,326		1.00	-1	1.00	2,781
	8203 - Design Integration	868	868	862		1.00	6	1.01	1,036
	8204 - Systems Analysis	992	992	1,004		1.00	-12	.99	1,216
	8205 - Dimensional Control Coord.	241	241	242		1.00	-1	1.00	270
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		57,586	57,470	58,710	-115	1.00	-1,240	.98	70,643
Contingency set-aside for cumulative cost variance									1,240
FY07 Contingency free balance									2,273
DCMA QA Inspection services									75
TOTAL PROJECT									74,232
(2) Reflects an additional \$137k cost accrual based on the vendor's October earned value report									
(3) No accrual adjustments for October									