

PrincetonUniversity Plasma Physics Laboratory  
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

**NCSX**

\*\*\*\* Cumulative to date FY03 & FY04 \*\*\*\*

JANUARY FY04

	CUMULATIVE TO DATE (from 4/1/03) (\$k)							Budget Baseline (\$k)	EAC (\$k)	Vari
	Budgeted Cost			VARIANCES						
	BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI			
<b>1 - Stellarator Core Systems</b>	<b>6,280</b>	<b>6,280</b>	<b>6,627</b>		<b>1.00</b>	<b>-347</b>	<b>.95</b>	<b>16,090</b>	<b>16,090</b>	
11 In-Vessel Components										
1101 - Limiter Advanced Concep Design										
1102 - Limiter Prelim & Final Design										
12 Vacuum Vessel Systems	<b>1,724</b>	<b>1,724</b>	<b>1,700</b>		<b>1.00</b>	<b>24</b>	<b>1.01</b>	<b>3,351</b>	<b>3,351</b>	
1201 - Vacuum Vessel Dsn	424	424	424		1.00	0	1.00	424	424	
1202- Vacuum Vessel R&D	1,153	1,153	1,153		1.00	1	1.00	1,564	1,564	
1203- Vacuum Vessel Final Dsn	147	147	123		1.00	24	1.19	511	511	
1204- VV Insulation,H/C,Supports								81	81	
1250- Vacuum Vessel Fabrication								771	771	
13 Conventional Coils	<b>255</b>	<b>255</b>	<b>179</b>		<b>1.00</b>	<b>76</b>	<b>1.43</b>	<b>470</b>	<b>470</b>	
1301- Conventional Coils Prel Design	255	255	179		1.00	76	1.43	385	385	
1303- TF/PF Coil Final design								84	84	
14 Modular Coils	<b>3,746</b>	<b>3,746</b>	<b>4,201</b>		<b>1.00</b>	<b>-454</b>	<b>.89</b>	<b>9,588</b>	<b>9,588</b>	
1401 - Mod. Coil Design (casting&winding)	303	303	304		1.00	-1	1.00	303	303	
1402 - Mod.Coil Analyses	239	239	239		1.00	0	1.00	239	239	
1403- Mod. Coil Final Design	214	214	575		1.00	-362	.37	1,142	1,142	
1404- Mod Coil Winding Form R&D	950	950	987		1.00	-37	.96	2,242	2,242	
1405- Mod. Coil R&D prep	168	168	168		1.00		1.00	168	168	
1406- Mod. Coil Winding R&D	1,084	1,084	1,118		1.00	-34	.97	1,581	1,581	
1407- MC Winding Facilities	632	632	653		1.00	-21	.97	1,981	1,981	
1408-Mod Coil Winding Supplies	30	30	30		1.00		1.00	660	660	
1409- Mod. Coil Test Stand	127	127	125		1.00	3	1.02	262	262	
1410- Mod Coil Prototype Winding			2				-2	195	195	
1411- Mod Coil Winding Form Fab								814	814	
15 1501 - Structures Design	46	46	3		1.00	43	17.49	228	228	
16 1601 - Coil Services Design										
17 1701 - Cryostat & Base Support Struct D	12	12	19		1.00	-7	.65	173	173	
18 Field Period Assembly	<b>91</b>	<b>91</b>	<b>68</b>		<b>1.00</b>	<b>23</b>	<b>1.34</b>	<b>1,316</b>	<b>1,316</b>	
1801 - Field Period Assembly Design	61	61	61		1.00		1.00	61	61	
1802- FP Assy Oversight&Support	23	23	3		1.00	20	8.67	219	219	
1803- FP Assy Tooling /Constructability	4	4	1		1.00	2	2.59	541	541	
1804- FP Assy Measurement Sysys	4	4	3		1.00	1	1.29	496	496	
19 1901 - Stellarator Core Management&In	<b>405</b>	<b>405</b>	<b>458</b>		<b>1.00</b>	<b>-53</b>	<b>.88</b>	<b>965</b>	<b>965</b>	
<b>2 - Plasma Heating, Fueling &amp; Vac System</b>	<b>237</b>	<b>237</b>	<b>221</b>		<b>1.00</b>	<b>16</b>	<b>1.07</b>	<b>308</b>	<b>308</b>	
21 2001 - VPS, Gas & Cond sys Design/Oversig	60	60	63		1.00	-3	.96	60	60	
25 2501 - Neutral Beam Refurbishment	177	177	158		1.00	19	1.12	247	247	
<b>3 - Diagnostics</b>	<b>180</b>	<b>180</b>	<b>186</b>		<b>1.00</b>	<b>-6</b>	<b>.97</b>	<b>234</b>	<b>234</b>	
39 3901 - Diagnostics systems Integration	180	180	186		1.00	-6	.97	234	234	
<b>4 - Electrical Power Systems</b>	<b>138</b>	<b>138</b>	<b>139</b>		<b>1.00</b>	<b>-1</b>	<b>.99</b>	<b>1,081</b>	<b>1,081</b>	
41 4101- AC Power								9	9	
43 4301- DC Systems	25	25	8		1.00	17	3.25	741	741	
44 4401- Control & Protection								89	89	
45 4501- Power Sys Dsn & Integr	112	112	130		1.00	-18	.86	216	216	
46 4601- FCPC Bldg Mods	1	1	1		1.00		1.00	26	26	
<b>5 - Central I&amp;C Systems</b>	<b>4</b>	<b>4</b>	<b>16</b>		<b>1.00</b>	<b>-12</b>	<b>.25</b>	<b>13</b>	<b>13</b>	
58 5801 - Central I&C Integration & Oversig	4	4	16		1.00	-12	.25	13	13	
<b>6 - Facility Systems</b>	<b>20</b>	<b>20</b>	<b>22</b>		<b>1.00</b>	<b>-3</b>	<b>.87</b>	<b>42</b>	<b>42</b>	
61 6163- Facility Systems FY03 support	10	10	13		1.00	-3	.78	32	32	
65 6501 - Facility Systems Integration	9	9	9		1.00		1.00	9	9	
<b>7 - Test Cell Preparation and Machine A</b>	<b>278</b>	<b>278</b>	<b>225</b>		<b>1.00</b>	<b>53</b>	<b>1.24</b>	<b>591</b>	<b>591</b>	
71 7101 - Shield Wall Modifications Design	32	32	32		1.00		1.00	32	32	
72 7201- Control Room Walls/Floors								48	48	
73 7301- Platform Design&Fab								88	88	
74 7401- TC Prep & Mach Assy Planning	246	246	193		1.00	53	1.28	423	423	
<b>8 - Project Oversight and Support</b>	<b>2,062</b>	<b>2,062</b>	<b>2,117</b>		<b>1.00</b>	<b>-56</b>	<b>.97</b>	<b>3,616</b>	<b>3,616</b>	
81 Project Management and Control	<b>905</b>	<b>905</b>	<b>927</b>		<b>1.00</b>	<b>-23</b>	<b>.98</b>	<b>1,623</b>	<b>1,623</b>	
8101 - Project Management and Control	657	657	683		1.00	-26	.96	1,118	1,118	
8102 - NCSX MIE Management ORNL	99	99	95		1.00	3	1.03	179	179	
8998 - Allocations	149	149	149		1.00	0	1.00	327	327	
82 Project Engineering	<b>862</b>	<b>862</b>	<b>865</b>		<b>1.00</b>	<b>-3</b>	<b>1.00</b>	<b>1,611</b>	<b>1,611</b>	
8202 - Engineering Mgmt & Sys Engr Suppo	504	504	502		1.00	1	1.00	922	922	
8203 - Design Integration	264	264	288		1.00	-24	.92	436	436	
8204 - Systems Analysis	95	95	75		1.00	20	1.27	253	253	
84 Project Physics	<b>295</b>	<b>295</b>	<b>325</b>		<b>1.00</b>	<b>-30</b>	<b>.91</b>	<b>382</b>	<b>382</b>	
8401 - Project Physcis	243	243	254		1.00	-10	.96	310	310	
8402 - Project Physics MIE ORNL	51	51	71		1.00	-20	.72	72	72	
<b>Subtotal</b>	<b>9,198</b>	<b>9,198</b>	<b>9,553</b>		<b>1.00</b>	<b>-355</b>	<b>.96</b>	<b>21,973</b>	<b>21,973</b>	
<b>Management Reserve</b>								<b>1,845</b>	<b>1,845</b>	
<b>TOTAL PPPL/ORNL FUNDING</b>								<b>23,818</b>	<b>23,818</b>	

FY04 BA = 15,921

FY03 Cost = 5,942

FY03 Carryover = 1,955

23,818