

PrincetonUniversity Plasma Physics Laboratory  
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

**NCSX**

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

**OCTOBER FY03**

	Current Period			CUMULATIVE TO DATE (from 4/1/03)							Budget Baseline	EAC	Vari
	Budgeted Cost			Budgeted Cost			VARIANCES						
	BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI			
<b>PPPL and ORNL</b>													
<b>1 - Stellarator Core Systems</b>	<b>386</b>	<b>384</b>	<b>460</b>	<b>4,390</b>	<b>4,389</b>	<b>4,465</b>	<b>-1</b>	<b>1.00</b>	<b>-76</b>	<b>.98</b>	<b>15,374</b>	<b>15,374</b>	
<b>11 In-Vessel Components</b>					<b>0</b>		<b>0</b>		<b>0</b>				
1101 - Limiter Advanced Concep Design					0		0		0				
1102 - Limiter Prelim & Final Design													
<b>12 Vacuum Vessel Systems</b>	<b>49</b>	<b>35</b>	<b>76</b>	<b>1,232</b>	<b>1,218</b>	<b>1,259</b>	<b>-14</b>	<b>.99</b>	<b>-41</b>	<b>.97</b>	<b>3,249</b>	<b>3,249</b>	
1201 - Vacuum Vessel Dsn				424	424	424	0	1.00	0	1.00	424	424	
1202- Vacuum Vessel R&D	39	24	37	797	783	796	-14	.98	-13	.98	1,424	1,424	
1203- Vacuum Vessel Final Dsn	10	10	39	10	10	39	0	.99	-28	.27	460	460	
1250- Vacuum Vessel Fabrication											941	941	
<b>13 Conventional Coils</b>	<b>40</b>	<b>19</b>	<b>23</b>	<b>132</b>	<b>110</b>	<b>114</b>	<b>-22</b>	<b>.84</b>	<b>-4</b>	<b>.96</b>	<b>648</b>	<b>648</b>	
1301- Convental Coils Prel Design	40	19	23	132	110	114	-22	.84	-4	.96	336	336	
1303- TF/FF Coil Final design											311	311	
<b>14 Modular Coils</b>	<b>208</b>	<b>228</b>	<b>299</b>	<b>2,611</b>	<b>2,631</b>	<b>2,702</b>	<b>21</b>	<b>1.01</b>	<b>-71</b>	<b>.97</b>	<b>8,952</b>	<b>8,952</b>	
1401 - Mod. Coil Design (casting&winding)				303	303	303	0	1.00	0	1.00	303	303	
1402 - Mod Coil Analyses				239	239	239	0	1.00	0	1.00	239	239	
1403- Mod. Coil Final Design	34	37	147	34	37	147	3	1.08	-110	.25	860	860	
1404- Mod Coil Winding Form R&D	55	55	36	619	619	600	0	1.00	19	1.03	1,672	1,672	
1405- Mod. Coil R&D prep				168	168	168	0	1.00	0	1.00	168	168	
1406- Mod. Coil Winding R&D	83	73	81	914	904	912	-10	.99	-8	.99	1,546	1,546	
1407- MC Winding Facilities	36	54	35	304	321	303	17	1.06	18	1.06	1,627	1,627	
1408-Mod Coil Winding Supplies				30	30	30	0	1.00	0	1.00	582	582	
1409- Mod. Coil Test Stand		10			10		10		10		161	161	
1410- Mod Coil Prototype Winding											234	234	
1411- Mod Coil Winding Form Fab											1,560	1,560	
<b>15 1501 - Structures Design</b>	<b>17</b>	<b>31</b>		<b>17</b>	<b>31</b>	<b>12</b>	<b>14</b>	<b>1.85</b>	<b>18</b>	<b>2.50</b>	<b>264</b>	<b>264</b>	
<b>16 1601 - Coil Services Design</b>													
<b>17 1701 - Cryostat &amp; Base Support Struct Dsn</b>				<b>12</b>	<b>12</b>		<b>0</b>	<b>1.00</b>	<b>12</b>		<b>161</b>	<b>161</b>	
<b>18 Field Period Assembly</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>63</b>	<b>63</b>	<b>64</b>	<b>0</b>	<b>1.00</b>	<b>-1</b>	<b>.99</b>	<b>1,117</b>	<b>1,117</b>	
1801 - Field Period Assembly Design				61	61	61		1.00	0	1.00	62	62	
1802- FP Assy Oversight&Support	2	2	3	2	2	3	0	1.00	-1	.79	175	175	
1803- FP Assy Tooling /Constructability											606	606	
1804- FP Assy Measurement Systs											273	273	
<b>19 1901 - Stellarator Core Management</b>	<b>70</b>	<b>70</b>	<b>59</b>	<b>324</b>	<b>324</b>	<b>314</b>	<b>0</b>	<b>1.00</b>	<b>11</b>	<b>1.03</b>	<b>984</b>	<b>984</b>	
<b>2 - Plasma Heating, Fueling &amp; Vac System</b>		<b>3</b>		<b>204</b>	<b>204</b>	<b>206</b>	<b>0</b>	<b>1.00</b>	<b>-2</b>	<b>.99</b>	<b>305</b>	<b>305</b>	
# 2001 - VPS Gas & Cond sys Design/Oversight			3	57	58	60	0	1.00	-3	.96	57	57	
# 2501 - Neutral Beam Refurbishment				146	146	146	0	1.00	0	1.00	247	247	
<b>3 - Diagnostics</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>163</b>	<b>163</b>	<b>165</b>	<b>0</b>	<b>1.00</b>	<b>-3</b>	<b>.98</b>	<b>233</b>	<b>233</b>	
39 3901 - Diagnostics systems Inter	7	7	10	163	163	165	0	1.00	-3	.98	233	233	
<b>4 - Electrical Power Systems</b>		<b>5</b>		<b>116</b>	<b>116</b>	<b>121</b>		<b>1.00</b>	<b>-5</b>	<b>.96</b>	<b>1,161</b>	<b>1,161</b>	
41 4101- AC Power											63	63	
43 4301- DC Systems				2	2	2		1.00		1.00	622	622	
44 4401- Control & Protection											143	143	
45 4501- Power Sys Dsn & Integr			5	112	112	117		1.00	-5	.96	278	278	
46 4601- FCPC Bldg Mods				1	1	1		1.00		1.00	55	55	
<b>5 - Central I&amp;C Systems</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>13</b>	<b>13</b>	<b>19</b>		<b>1.00</b>	<b>-6</b>	<b>.69</b>	<b>25</b>	<b>25</b>	
58 5801 - Central I&C Integration & C	1	1	7	13	13	19		1.00	-6	.69	25	25	
<b>6 - Facility Systems</b>	<b>3</b>	<b>3</b>		<b>12</b>	<b>12</b>	<b>9</b>		<b>1.00</b>	<b>3</b>	<b>1.33</b>	<b>41</b>	<b>41</b>	
61 6163- Facility Systems FY03 sup		3	3	3	3			1.00	3		32	32	
65 6501 - Facility Systems Integration				9	9	9		1.00		1.00	9	9	
<b>7 - Test Cell Preparation and Machine As</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>187</b>	<b>187</b>	<b>186</b>		<b>1.00</b>	<b>1</b>	<b>1.01</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 Pla	24	24	23	155	155	154		1.00	1	1.01	423	423	
<b>8 - Project Oversight and Support</b>	<b>232</b>	<b>236</b>	<b>189</b>	<b>1,508</b>	<b>1,513</b>	<b>1,466</b>	<b>5</b>	<b>1.00</b>	<b>47</b>	<b>1.03</b>	<b>3,465</b>	<b>3,465</b>	
<b>81 Project Management and Control</b>	<b>121</b>	<b>125</b>	<b>87</b>	<b>627</b>	<b>632</b>	<b>594</b>	<b>5</b>	<b>1.01</b>	<b>38</b>	<b>1.06</b>	<b>1,472</b>	<b>1,472</b>	
8101 - Project Management and Control	99	104	70	486	491	457	5	1.01	34	1.07	1,118	1,118	
8102 - NCSX MIE Management ORNL	11	11	10	69	70	69	0	1.00	1	1.01	179	179	
8998 - Allocations	11	11	7	71	71	68	0	1.00	3	1.05	176	176	
<b>82 Project Engineering</b>	<b>99</b>	<b>99</b>	<b>73</b>	<b>618</b>	<b>618</b>	<b>592</b>	<b>0</b>	<b>1.00</b>	<b>26</b>	<b>1.04</b>	<b>1,611</b>	<b>1,611</b>	
8202 - Engineering Mgmt & Sys Engr Su	57	57	49	353	353	344	0	1.00	8	1.02	922	922	
8203 - Design Integration	23	23	22	202	202	200	0	1.00	2	1.01	436	436	
8204 - Systems Analysis	19	19	3	64	64	47	0	1.00	16	1.34	253	253	
<b>84 Project Physics</b>	<b>12</b>	<b>12</b>	<b>29</b>	<b>263</b>	<b>263</b>	<b>280</b>	<b>0</b>	<b>1.00</b>	<b>-17</b>	<b>.94</b>	<b>382</b>	<b>382</b>	
8401 - Project Physics	9	9	21	219	219	232	0	1.00	-12	.95	310	310	
8402 - Project Physics MIE ORNL	3	3	7	44	44	48	0	1.00	-5	.90	72	72	
<b>Subtotal</b>	<b>652</b>	<b>656</b>	<b>696</b>	<b>6,593</b>	<b>6,598</b>	<b>6,638</b>	<b>4</b>	<b>1.00</b>	<b>-40</b>	<b>.99</b>	<b>21,195</b>	<b>21,195</b>	
<b>Contingency</b>											<b>2,357</b>	<b>0</b>	<b>2,357</b>
<b>Management Reserve</b>											<b>266</b>	<b>2,623</b>	
<b>TOTAL PPPL/ORNL FUNDING</b>											<b>23,818</b>	<b>23,818</b>	