

**PrincetonUniversity Plasma Physics Laboratory  
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE**

**NCSX**

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

**DECEMBER**

		CUMULATIVE TO DATE (from 4/1/03) (k)							<b>ECP 39</b>
		Budgeted Cost		ACWP	VARIANCES				Budget
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	Thru FY06
<b>1 - Stellarator Core Systems</b>		<b>33,843</b>	<b>32,492</b>	<b>32,989</b>	<b>-1,350</b>	<b>.96</b>	<b>-497</b>	<b>.98</b>	<b>44,349</b>
12		<b>7,913</b>	<b>7,171</b>	<b>7,176</b>	<b>-742</b>	<b>.91</b>	<b>-5</b>	<b>1.00</b>	<b>9,159</b>
	1201 - Vacuum Vessel Prelim Dsn	424	424	424		1.00	0	1.00	424
	1202 - Vacuum Vessel R&D	1,770	1,770	1,771		1.00	-1	1.00	1,770
	1203 - Vacuum Vessel Final Dsn	1,089	1,016	1,010	<b>-73</b>	<b>.93</b>	<b>6</b>	<b>1.01</b>	<b>1,098</b>
	1204-VV Sys Procurements (non VVSA)	1	25	23	24	25.02	2	1.10	193
	1206 - VV Field Weld Joint R&D	16	16	16		1.00	0	1.00	16
	1250 - Vacuum Vessel Fabrication	4,613	3,920	3,932 (1)	<b>-693</b>	<b>.85</b>	<b>-12</b>	<b>1.00</b>	<b>5,658</b>
13		<b>1,812</b>	<b>1,644</b>	<b>1,729</b>	<b>-168</b>	<b>.91</b>	<b>-85</b>	<b>.95</b>	<b>2,765</b>
	1301 - TF Design	946	944	963	-2	1.00	-19	.98	946
	1302 - PF and CS Design	11			-11				11
	1350 - TF Coil Fabr Prep	628	501	526	<b>-127</b>	<b>.80</b>	<b>-25</b>	<b>.95</b>	<b>743</b>
	1351 - TF Coil Fabr Supplies	216	180	222	<b>-36</b>	<b>.83</b>	<b>-42</b>	<b>.81</b>	<b>811</b>
	1361 - TF Fabrication	12	20	19					254
14		<b>20,525</b>	<b>20,147</b>	<b>20,503</b>	<b>-378</b>	<b>.98</b>	<b>-356</b>	<b>.98</b>	<b>27,311</b>
	1401 - Mod Coil Prel.Dsn	304	304	304		1.00	0	1.00	304
	1402 - Mod.Coil Analyses	239	239	239		1.00	0	1.00	239
	1403 - Modular Coil Final Design (includes job 1421 coil interface hw dsn)	3,253	3,187	3,360	-66	.98	<b>-173</b>	<b>.95</b>	<b>3,339</b>
	1416 - Mod Coil Type A&B Final Design	346	214	99	<b>-131</b>	<b>.62</b>	<b>116</b>	<b>2.17</b>	<b>756</b>
	1404-MCWF R&D & 1st Prod Casting	2,544	2,544	2,544		1.00	0	1.00	2,544
	1405-Mod Coil Winding R&D Prep	168	168	168		1.00		1.00	168
	1406 - Mod. Coil Winding Facility	2,247	2,247	2,247		1.00	0	1.00	2,247
	1407 -Mod Coil Winding Facility	2,546	2,546	2,546		1.00	0	1.00	2,546
	1408-Mod Coil Winding Supplies	783	677	750	<b>-106</b>	<b>.86</b>	<b>-73</b>	<b>.90</b>	<b>1,638</b>
	1409 - Mod. Coil Test Stand	916	916	916		1.00	0	1.00	916
	1410 MC Twisted Racetrack Fabr	1,050	1,050	1,050		1.00	0	1.00	1,050
	1411-MCWF Fabrication S005242	4,839	4,793	4,732 (2)	<b>-47</b>	<b>.99</b>	<b>60</b>	<b>1.01</b>	<b>8,098</b>
	1412 - Complete Winding Facilities	537	537	537		1.00	0	1.00	537
	1413 - Mod Coil Fracture Analysis	28	28	28		1.00	0	1.01	28
	1414 - Coil Testing	164	168	193	4	1.03	-24	.87	276
	1415 - Dimensional Control Testing	24	24	24		1.00	0	1.00	24
	1419 - Winding Facility Modification	48	48	50		1.00	-2	.96	48
	1451 - Mod Coil Winding	490	457	674	<b>-33</b>	<b>.93</b>	<b>-217</b>	<b>.68</b>	<b>2,553</b>
	1459 - MC Unplanned rework			42			<b>-42</b>		
15		<b>78</b>	<b>80</b>	<b>82</b>	<b>2</b>	<b>1.03</b>	<b>-2</b>	<b>.97</b>	<b>208</b>
	1501 - Structures Design	78	80	82	2	1.03	-2	.97	208
16	<b>16 - Coil Services</b>								<b>-</b>
17		<b>377</b>	<b>368</b>	<b>391</b>	<b>-9</b>	<b>.98</b>	<b>-23</b>	<b>.94</b>	<b>377</b>
	1701-Cryost&Base Sprt Strct Dsn	377	368	391	-9	.98	-23	.94	377
18		<b>1,527</b>	<b>1,477</b>	<b>1,491</b>	<b>-49</b>	<b>.97</b>	<b>-14</b>	<b>.99</b>	<b>2,526</b>

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**DECEMBER**

		CUMULATIVE TO DATE (from 4/1/03) (k)							<b>ECP 39</b>
		Budgeted Cost		ACWP	VARIANCES				Budget
		BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI	Thru FY06
	1801-Field Period Assly	61	61	61		1.00	0	1.00	61
	1802 - FP Assy Oversight&Support	418	402	418	-17	.96	-17	.96	718
	1803- FP Assy Toolg/Constructability	584	566	564	-18	.97	3	1.00	933
	1804-FP Assy Measurement	441	438	447	-4	.99	-10	.98	452
	1810 - Field Period Assembly	22	10	1	-11	.48	10	18.03	362
<b>19</b>	<b>1901 - Stellarator Core Mngtt&amp;Inte</b>	<b>1,611</b>	<b>1,605</b>	<b>1,617</b>	<b>-6</b>	<b>1.00</b>	<b>-12</b>	<b>.99</b>	<b>2,003</b>
<b>2</b>	<b>2 - Plasma Heating,Fueling &amp; Va</b>	<b>349</b>	<b>349</b>	<b>347</b>		<b>1.00</b>	<b>2</b>	<b>1.01</b>	<b>349</b>
	2001-VPS Gas& Cond Sys Oversight	64	64	63		1.00	1	1.02	64
	2501 - Neutral Beam Refurbishment	285	285	284		1.00	1	1.00	285
<b>3</b>	<b>3 - Diagnostics</b>	<b>544</b>	<b>471</b>	<b>533</b>	<b>-72</b>	<b>.87</b>	<b>-62</b>	<b>.88</b>	<b>770</b>
<b>31</b>	<b>3101 Magnetic Diagnostics</b>	<b>252</b>	<b>180</b>	<b>241</b>	<b>-72</b>	<b>.71</b>	<b>-61</b>	<b>.75</b>	<b>425</b>
<b>39</b>	<b>3901 - Diagnostics sys Integration</b>	<b>291</b>	<b>291</b>	<b>292</b>	<b>0</b>	<b>1.00</b>	<b>-1</b>	<b>1.00</b>	<b>345</b>
<b>4</b>	<b>4 - Electrical Power Systems</b>	<b>645</b>	<b>583</b>	<b>648</b>	<b>-62</b>	<b>.90</b>	<b>-65</b>	<b>.90</b>	<b>742</b>
<b>41</b>	<b>4101 - AC Power</b>	<b>107</b>	<b>107</b>	<b>107</b>		<b>1.00</b>	<b>0</b>	<b>1.00</b>	<b>107</b>
<b>43</b>	<b>4301 - DC Systems</b>	<b>265</b>	<b>271</b>	<b>330</b>	<b>6</b>	<b>1.02</b>	<b>-59</b>	<b>.82</b>	<b>314</b>
<b>44</b>	<b>4401 - Control &amp; Protection</b>	<b>55</b>	<b>59</b>	<b>71</b>	<b>4</b>	<b>1.07</b>	<b>-12</b>	<b>.83</b>	<b>55</b>
<b>45</b>	<b>4501 - Power Sys Dsn &amp; Integr</b>	<b>217</b>	<b>145</b>	<b>138</b>	<b>-72</b>	<b>.67</b>	<b>7</b>	<b>1.05</b>	<b>265</b>
<b>46</b>	<b>4601 - FCPC Bldg Mods</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>1.00</b>	<b>0</b>	<b>.77</b>	<b>1</b>
<b>5</b>	<b>5 - Central I&amp;C Systems</b>	<b>33</b>	<b>33</b>	<b>33</b>		<b>1.00</b>	<b>0</b>	<b>1.00</b>	<b>33</b>
<b>58</b>	<b>5801 -Central I&amp;C Integr</b>	<b>33</b>	<b>33</b>	<b>33</b>		<b>1.00</b>	<b>0</b>	<b>1.00</b>	<b>33</b>
<b>6</b>	<b>6 - Facility Systems</b>	<b>24</b>	<b>24</b>	<b>24</b>		<b>1.00</b>	<b>0</b>	<b>.99</b>	<b>24</b>
	6163 - Facility Systems Support FY04	15	15	15		1.00	0	1.01	15
	62 - Cryogenic Systems								-
	63 - Utility Systems								-
	6501 - Facility Systems Integration	9	9	9		1.00	0	.96	9
<b>7</b>	<b>7 - Test Cell Prep &amp; Machine As</b>	<b>897</b>	<b>899</b>	<b>932</b>	<b>2</b>	<b>1.00</b>	<b>-33</b>	<b>.96</b>	<b>915</b>
	7101 - Shield Wall Modif	32	32	32		1.00	0	1.00	32
	7201 - Control Room Walls&Floors								-
	7301 - Platform Design &	71	72	76	1	1.01	-4	.95	71
	7401 - TC Prep & Mach Assy Plan	794	795	824	1	1.00	-29	.97	812
<b>8</b>	<b>8 - Project Oversight &amp; Support</b>	<b>6,886</b>	<b>6,886</b>	<b>7,018</b>	<b>1</b>	<b>1.00</b>	<b>-131</b>	<b>.98</b>	<b>8,665</b>
<b>81</b>		<b>3,252</b>	<b>3,252</b>	<b>3,311</b>	<b>0</b>	<b>1.00</b>	<b>-58</b>	<b>.98</b>	<b>4,126</b>
	8101 - Project Management & Control	2,101	2,101	2,127	0	1.00	-26	.99	2,588
	8102 - NCSX MIE Management ORNL	295	295	302	0	1.00	-7	.98	429
	8998 - Allocations	856	856	882	0	1.00	-26	.97	1,109
<b>82</b>		<b>3,164</b>	<b>3,164</b>	<b>3,237</b>	<b>1</b>	<b>1.00</b>	<b>-73</b>	<b>.98</b>	<b>4,069</b>
	8202 - Engr Mgmt & Sys Eng Support	1,760	1,760	1,796	0	1.00	-36	.98	2,241
	8203 - Design Integration	719	719	711	0	1.00	8	1.01	826
	8204 - Systems Analysis	551	551	607	0	1.00	-55	.91	724
	8205 - Dimensional Control Coord.	133	133	124	0	1.00	10	1.08	278
<b>84</b>		<b>470</b>	<b>470</b>	<b>470</b>		<b>1.00</b>	<b>0</b>	<b>1.00</b>	<b>470</b>
	8401 - Project Physcis	324	324	324		1.00	0	1.00	324
	8402 - Project Physics MIE ORNL	146	146	146		1.00	0	1.00	146

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**DECEMBER**

	CUMULATIVE TO DATE (from 4/1/03) (k)								<b>ECP 39</b>
	Budgeted Cost		ACWP	VARIANCES				Budget	
	BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	Thru FY06	
<b>Subtotal</b>	<b>43,219</b>	<b>41,738</b>	<b>42,524</b>	<b>-1,482</b>	<b>.97</b>	<b>-786</b>	<b>.98</b>	<b>55,848</b>	
<b>Contingency/Management Reserve</b>								<b>1,295</b>	
<b>Incremental Funding</b>								<b>1,291</b>	
<b>1% hold back on FY06 BA</b>								<b>(172)</b>	
<b>DCMA QA Inspection services</b>								<b>75</b>	
<b>TOTAL PROJECT</b>								<b>58,337</b>	
(1) Reflects no adjustment based on MTM's June earned value report									
(2) Reflects accrual decrease of \$ 72 k based on EIO's June earned value report									