| | | rincetonUnivers | | | | | | | | | | |
|--|----------------------|-----------------|-------------------|---------------------|---------------------|-----------------|--------------------|-------------|--------------------|---------------------|--|--|
| PF | PPL COST P | JULY 2006 | | | | | | | | | | |
| | **** | Cumulative to a | | | | V05 & E | V06** | ** | | | | |
| | ULY 200 | | | | | | | | | ECP 50 | Variance E | vnlanation |
| JOLT 2000 | | | | CUMULA | TIVE TO | DATE (fro | om 4/1/0 | | xpialiation | | | |
| | | | | d Cost | | | VARIA | NCES | | Budget | | |
| | | во | sws | BCWP | ACWP | Sch Var | SPI | Cst Var | СРІ | Thru FY06 | Schedule | Cost |
| 1 - Stellarator Core S | | 42,2 | | 41,852 | | -375 | .99 | | .97 | 45.007 | | |
| 12 Vacuum Vessel Sy CLOSED 1201 - Vacuum Ves | | 8, | 863 424 | 9,043 424 | 9,149 424 | 180 0 | 1.02 | -107 | .99 1.00 | 9,413 424 | | |
| CLOSED 1202 - Vacuum Ves | ssel R&D | | 1,770 | 1,770 | 1,771 | 0 | 1.00 | 0 | 1.00 | 1,770 | | |
| 1203 - Vacuum Ves | ssel Final Dsn | | 1,270 | 1,253 | 1,183 | -17 | .99 | 70 | 1.06 | 1,270 | Drawing tree and BOM due in August. | |
| | urements (non VVSA |) | 246 | 185 | 241 | -61 | .75 | | .77 | 249 | Procurement of heating/cooling tubing and attachments deferred until October due to funding | Vertical supports titanium rod (delivered but PPPL fab on hold until fy07. NO CHANGE DURING JULY. (CPI .76 last month) |
| CLOSED 1206 - VV Field We | eld Joint R&D | | 16 | 16 | 16 | 0 | 1.03 | 0 | 1.00 | 16 | | |
| 1250 - Vacuum Ves | ssel Fabrication | | 5,136 | 5,394 | 5,515 (| 258 | 1.05 | -121 | .98 | 5,683 | VVSA #3 still planned for delivery in September consistent with level II milestone. | Title III and vendor oversight; analysis of NCR's (CPI .98 la month) |
| 13 Conventional Coils | 6 | | 2,449 | 2,337 | 2,383 | -112 | .95 | -45 | .98 | 3,023 | | |
| 1301 - TF Design | | | 966 | 965 | 973 | -1 | 1.00 | -8 | .99 | 966 | | |
| 1302 - PF Design | | | | | 21 | | | -21 | | 11 | | |
| 1303 - Central Sole | enoid Support Desigr | l | 111 | 100 | 108 | -11 | .90 | -8 | .93 | 117 | | |
| 1350 - TF Coil Fabr | r Prep | | 547 | 547 | 549 | | 1.00 | -2 | 1.00 | 547 | | |
| 1351 - TF Coil Fabr | r Supplies | | 470 | 461 | 459 | -9 | .98 | 2 | 1.01 | 470 | | |
| 1361 - TF Fabricati | on | | 356 | 265 | 274 | -91 | .74 | -10 | .96 | 913 | Tooling and wedges material procurement 2 months behind schedule. First coil delivery forecast 9 weeks late. 3rd coil delivery forecast <2 weeks late. (Ref detailed Everson schedule) (SPI .75 last month) | |
| 14 Modular Coils | | 2 | 6,336 | 25,939 | 26,936 | -397 | .98 | -997 | .96 | 27,503 | | |
| LOSED 1401 - Mod Coil Pr | | | 304 | 304 | 304 | 0 | 1.00 | 0 | 1.00 | | | |
| CLOSED 1402 - Mod.Coil An 1403 - MoCoil Fina 1421 coil interface l | l Dsn (incl job | | 239 3,644 | 239 3,489 | 239 3,495 | 0 -155 | <u>1.00</u> .96 | -6 | 1.00 | 3,688 | Finish top-level assy dwgs by end of Sept 8th. COIL INTERFACE HARDWARE DESIGN NOW THE CRITICAL PATH. PROJECT TOTAL FLOAT REDUCED TO 3.9 months from 6 months. WORKAROUND PLAN BEING DEVELOPED. (SPI .96 last month) | Cost variance attributed to Type C test results analysis and shear plate testing. |

| | PrincetonUni | | | | | | | | | | | |
|--------|---|----------------|----------------|----------------|-----------|--------------|------------|--------------|-----------|--|---|--|
| | PPPL COST PERFORMAN | | | | | | | | | | | |
| | | | ICSX | | | | | | | JULY 2006 | | |
| | **** Cumulative | | | | | | | | | | | |
| | JULY 2006 | | CUMULA | ATIVE TO | DATE (fro | om 4/1/0 | Variance E | xplanation | | | | |
| | | Budgete | ed Cost | | VARIANCES | | | | Budget | | - | |
| | | BCWS | BCWP ACWP | | Sch Var | /ar SPI Cs | | СРІ | Thru FY06 | Schedule | Cost | |
| | 1416 - Mod Coil Type A&B Final Design | 374 | 310 | 350 | -64 | .83 | -40 | .89 | 446 | Issue top-level assy dwgs and hardware details by end of FY. (SPI .84 last month) | | |
| | 1404-MCWF R&D & 1st Prod Casting | 2,544 | 2,544 | 2,544 | 0 | 1.00 | 0 | 1.00 | 2,544 | | | |
| | 1405-Mod Coil Winding R&D Prep | 168 | 168 | 168 | 0 | 1.00 | 0 | 1.00 | | | | |
| | 1406 - Mod. Coil Winding Facility | 2,264 | 2,264 | 2,264 | | 1.00 | 0 | 1.00 | , | | | |
| | 1407 -Mod Coil Winding Facility 1408-Mod Coil Winding Supplies | 2,571 1,702 | 2,571 1,463 | 2,571 1,544 | -239 | 1.00 .86 | 0 -81 | 1.00 .95 | | Type A cladding, chill plates and | CPL 05 last month | |
| | | 1,702 | 1,403 | 1,544 | -239 | .00 | -61 | .95 | 1,707 | lead hardware behind schedule but just in time to support fabrication. NO CHANGE DURING JULY. (SPI .85 last month) | | |
| CLOSED | 1410 MC Twisted Racetrack Fabr | 1,050 | 1,050 | 1,051 | 0 | 1.00 | -1 | 1.00 | 1,050 | | | |
| | 1411-MCWF Fabrication S005242 | 7,370 | 7,538 | 7,633 (| : 168 | 1.02 | -95 | .99 | 7,796 | | Vendor oversight and NCR reconciliation as well as \$39k of additional unplanned incentives. (Prelim ETC assessment=add'l \$178k of incentives above plan (within DOE risk cap of \$410k) (CPI .99 last month) | |
| | 1412 - Complete Winding Facilities | 541 | 541 | 542 | | 1.00 | -1 | 1.00 | | | | |
| | 1413 - Mod Coil Fracture Analysis | 28 | 28 | 28 | 0 | 1.01 | 0 | 1.01 | | | | |
| | 1409 - Mod. Coil Test Stand 1414 - Coil Testing | 826 675 | 826 675 | 826 676 | 0 | 1.00 1.00 | 0 -1 | 1.00 1.00 | | | | |
| | 1415 - Dimensional Control Testing | 24 | 24 | 24 | 0 | .99 | 0 | .99 | | | | |
| CLOSED | 1419 - Winding Facility Modification | 55 | 55 | 48 | | 1.00 | 7 | 1.14 | 55 | | | |
| | 1451 - Mod Coil Winding (incl 1459 unplanned work) | 1,957 | 1,850 | 2,628 | -107 | .95 | -778 | .70 | 2,517 | Winding tasks approx 2 weeks behind schedule. Critical path float reduced from 6 to 5.6 months for winding ops. Limited manpower due to vacations has focused work on critical path tasks. 3rd winding fixture to be installed to maximize efficiency. (Ref weekly winding status) (SPI .95 last month) | shop support 2 man months higher than plan due to non- recurring Type A fixture fab. | |
| | ructures | 82 | | | 15 | 1.19 | | .81 | | | | |
| | 1501 - Structures Design | 82 | 98 | 117 | 15 | 1.19 | -19 | .84 | 139 | | | |
| | 1550 - Structures Procurement | • | - | 4 | | 1.00 | -4 | 1.00 | - | | | |
| 16 | 16 - Coil Services | 3 | 3 | 3 | | 1.00 | 0 | 1.00 | 3 | | | |

| | | nUniversity F | | | | | | | | | |
|---------|--|-----------------|-----------------|-----------------|-----------|---------------------|------------|--------------------|--------------------|---|--|
| | PPPL COST PERFOR | | | | REAKDO | OWN S | TRUC | TURE | | | |
| | | | CSX | | | | | | | JULY 2006 | |
| | **** Cumula | | | | | | | | | | |
| | JULY 2006 | | CUMULA | ATIVE TO | DATE (fro | om 4/1/0 | Variance E | xplanation | | | |
| | | Budgete | ed Cost | | VARIANCES | | | | Budget | | |
| | | BCWS | BCWP | ACWP | Sch Var | SPI | Cst Var | СРІ | Thru FY06 | Schedule | Cost |
| 17 Cr | ryostat and Base | 451 | 421 | 420 | -31 | .93 | 0 | 1.00 | | | |
| | 1701-Cryost&Base Sprt Strct Dsn | 451 | 421 | 420 | -31 | .93 | 0 | 1.00 | 487 | Base support structure prelim design on hold until FY07. (last month SPI .99) | |
| | eld Period Assembly | 2,125 | 2,094 | 2,178 | -31 | .99 | -84 | .96 | 2,433 | | |
| | 1801-Field Period Assly 1802 - FP Assy Oversight&Support | 65 598 | 65 598 | | 0 | 1.00 1.00 | 0 -21 | 1.00 .97 | 65 664 | | |
| | 1803- FP Assy Tooling/Constructability | 798 | 801 | 867 | 3 | 1.00 | -66 | .92 | | Design reviews tentatively planned to begin early October | Seismic and structural analysis for station 2 half period assembly. (CPI .94 last month) |
| | 1804-FP Assy Measurement | 546 | 545 | 533 | -1 | 1.00 | 12 | 1.02 | 549 | | |
| | 1810 - Field Period Assembly | 119 | 86 | 95 | -33 | .72 | -9 | .91 | 200 | Metrology issues impacting schedule. Layout of diagnostic loops slipped by 1 1/2 months. (SPI .81 last month) | |
| 19 | 1901 - Stellarator Core Mngtt&Integr | 1,918 | 1,918 | 1,881 | 0 | 1.00 | 38 | 1.02 | 2,007 | | • • |
| | isma Heating, Fueling & Vac Sys | | | 348 | 1 | 1.00 | 1 | 1.00 | 348 | | |
| | 2001-VPS Gas& Cond Sys Oversight 2501 - Neutral Beam Refurbishment | 64 285 | 64 285 | 63 285 | 1 | 1.01 1.00 | 1 0 | 1.02 1.00 | 63 285 | | |
| 3 - Dia | agnostics | | | 776 | -24 | .97 | -59 | .92 | 757 | | |
| | 3101 Magnetic Diagnostics | 409 | 384 | 461 | -24 | .94 | -76 | .83 | | MC C-wound loops impacted by oven repairs necessary for heat shrinking of MI tubing. Termination box fab deferred to FY07 due to funding. (SPI .95 last month) | |
| | 3901 - Diagnostics sys Integration ctrical Power Systems | 333 757 | 333 722 | 316 723 | 0 -34 | 1.00 .95 | 17 -1 | 1.06 1.00 | 345 757 | | |
| | 4101 - AC Power | 107 | 108 | 107 | -54 | 1.01 | 0 | 1.00 | | All electrical power systems wo FY06 to be spent finalizing | k on hold until FY07. Balance of subsystem requirements. |
| | 4301 - DC Systems | 382 | 382 | 382 | 0 | 1.00 | 0 | 1.00 | 382 | | CPI .74 last month ((ecp49)) |
| | 4401 - Control & Protection | 82 | 83 | 83 | 0 | 1.00 | 0 | 1.00 | 82 | | |
| | 4501 - Power Sys Dsn & Integr 4601 - FCPC Bldg Mods | 184 1 | 148 1 | 149 1 | -36 | .80 1.00 | -1 | .99 1.00 | 184 1 | | |
| 111 | tral I&C Systems | . · · · | | 33 | 0 | 1.00 | 8 | 1.24 | 46 | | |
| 58 | 5801 -Central I&C Integr | 41 | 41 | 33 | 0 | 1.00 | 8 | 1.24 | 46 | | |
| | cility Svstems 6163 - Facility Systems Support FY04 62 - Cryogenic Systems 63 - Utility Systems | 24 15 | 24 15 | 24 15 | | 1.00 1.00 | 0 | .99 1.01 | 24 15 - - | | |
| | 6501 - Facility Systems Integration | 0 | 0 | 9 | | 1.00 | 0 | 06 | - 9 | | |
| CLOSED | osor - racinty systems integration | 938 | 941 | 949 | 4 | | U, | .96 .99 | 938 | | |

| PPPL COST PERFORM | University F | | | | | | TURE | | | |
|--|--------------|------------|-------------------|-----------|--------------|----------|--------------|------------|----------|--|
| | JULY 2006 | | | | | | | | | |
| **** Cumula | tive to date | FY03, P | - - Y04 , F | Y05 & F | Y06** | ** | | | | |
| JULY 2006 | | | | DATE (fro | | Variance | Explanation | | | |
| | Budgete | | _ | | VARIA | | | Budget | | |
| | BCWS | BCWP | ACWP | Sch Var | SPI | Cst Var | СРІ | Thru FY06 | Schedule | Cost |
| 7201 - Control Room Walls&Floors | BCWS | BCWP | ACWP | Sch Var | 351 | CSI Var | CPI | | Conodato | 0000 |
| 7301 - Platform Design & | 75 | 76 | 76 | 1 | 1.02 | 0 | 1.00 | - 75 | | |
| 7401 - TC Prep & Mach Assy Planning | 831 | 833 | 841 | 2 | 1.00 | -8 | .99 | - | | |
| - Project Oversight & Support | 8,357 | 8,356 | | 0 | 1.00 | -334 | .96 | 8,766 | | |
| 81 Project Management and Control | 3,930 | , | | 1 | 1.00 | | .99 | 4,126 | | |
| 8101 - Project Management & Control | 2,479 | 2,478 | , | 0 | 1.00 | | .98 | , | | Variance improved from last month's -47k (vacations) |
| 8102 - NCSX MIE Management ORNL | 399 | 399 | 403 | 0 | 1.00 | -4 | .99 | 429 | | |
| 8998 - Allocations | 1,052 | 1,052 | 1,061 | 0 | 1.00 | -9 | .99 | 1,109 | | |
| 82 Project Engineering | 3,957 | 3,957 | 4,238 | 0 | 1.00 | -280 | .93 | 4,171 | | CPI.94 last month |
| 8202 - Engr Mgmt & Sys Eng Support | 2,133 | 2,133 | 2,204 | 0 | 1.00 | -71 | .97 | 2,241 | | C1 testing report. |
| 8203 - Design Integration | 802 | 802 | 830 | | 1.00 | -28 | .97 | 826 | | |
| 8204 - Systems Analysis | 776 | 776 | 961 | 0 | 1.00 | -185 | .81 | 826 | | Unplanned integrated modelin analysis. Fiscal year07 appea significantly under budgeted. |
| 8205 - Dimensional Control Coord. | 246 | 246 | 242 | 0 | 1.00 | 4 | 1.02 | 278 | | |
| 84 Project Physics | 470 | - | - | 0 | 1.00 | 0 | 1.00 | 470 | | |
| COSED 8401 - Project Physics | 324 146 | 324 146 | | 0 | 1.00 1.00 | 0 0 | 1.00 1.00 | 324 146 | | |
| LOSED 8402 - Project Physics MIE ORNL | 140 | 140 | 140 | 0 | 1.00 | 0 | 1.00 | 140 | | |
| Subtotal | 53,433 | 53,003 | 54,615 | -429 | .99 | -1,611 | .97 | 56,643 | | |
| Contingency/Management Reserve | | | | | | | | 500 | | |
| Incremental Funding | | | | | | | | 1,291 | | |
| 1% hold back on FY06 BA | | | | | | | | (172) | | |
| DCMA QA Inspection services | | | | | | | | 75 | | |
| TOTAL PROJECT | | | | | | | | 58,337 | | |
| (1) Reflects accrual DECREASE of \$155 k | based on MTM | s earned | value ren | ort | | | | , | | |
| (2) Reflects accrual DECREASE of \$ 68 | | | 1 | | | | | | | |

| Princ PPPL COST PER | cetonUniversity | | | | | | TUDE | 1 | | | |
|--|---------------------|----------------------|------------------|---------------|---------|--------------|--------------|------------------|-----------------------|----------------|--|
| | | | | TEAND | | SIRUC | IURE | | JULY 2006 | | |
| | | NCS) | | | | | | | JULT 2000 | | |
| | mulative to date |) FY03, I | | | | | | | | | |
| JULY 2006 | | CUMUL | ATIVE TO | DATE (fr | om 4/1/ | 03) (k) | | ECP 45 | Variance E | xplanation | |
| | Budg | eted Cost | | | VARIA | NCES | | Budget | | | |
| | BCWS | BCWP | ACWP | Sch Var | SPI | Cst Var | СРІ | Thru FY06 | Schedule | Cost | |
| Thru FY2004 | 20,64 | | 19,744 | -988 | 0.95 | | 1.00 | | | | |
| Thru Oct | 20,63 | | 20,917 | 195 | 1.01 | -85 | 1.00 | | | | |
| | 21,81 | | 22,158 | 94 | 1.00 | | 0.99 | | | | |
| Thru DECEMBER | 23,81 | | 23,434 24,639 | -771 -1556 | 0.97 | -392 -329 | 0.98 0.99 | | | | Continents loss and variance (ft/) |
| Thru JANUARY (ecp-21) Thru Feb (ecp-24) | 25,86 | | 24,639 26,285 | -1556 -781 | 0.94 | | 0.99 | | | | Contingency less cost variance (\$K) % free contingence |
| Thru Mar (ecp-29) | 28,44 | 0 27,282 | 28,004 | -1158 | 0.96 | -722 | 0.97 | | | | |
| Thru Apr (ecp-30) | 29,5 | | 29,416 | -852 | 0.97 | -680 | 0.98 | | | | |
| Thru May (ecp-30) | 31,3 | 29,903 | 30,889 | -1398 | 0.96 | -986 | 0.97 | | | | |
| Thru June (ecp-30) | 32,7 | | 32,719 | -1378 | 0.96 | | 0.96 | | | | |
| Thru July (ecp-36) | 35,2 | | 34,276 | -1524 | 0.96 | | 0.98 | | | | |
| Thru Aug (ecp-36) | 36,9 | | 36,416 | -1434 | 0.96 | | 0.97 | | | | |
| Thru Sep (ecp-36) Thru S | Sep (ecp-36) 38,56 | 2 36,721 | 38,314 | -1841 | 0.95 | -1593 | 0.96 | BCWR | contingency remaining | | |
| PARS for OCT | 1,71 | 0 3,061 | 1,485 | -90 | 0.94 | -17 | 0.98 | for October only | | | |
| Thru Oct (ecp-39) | 40,2 | 72 39,782 | 39,799 | -490 | 0.99 | -17 | 1.00 | 42,943 | 9600 | 22.4% | without cost variance |
| PARS for NOV | 1,67 | 3 1,060 | 1,394 | -613 | 0.63 | -334 | 0.76 | | | 22.3% | incl cost variance |
| Thru NOV (ecp-39) | 41,94 | 5 40,842 | 41,193 | -1103 | 0.97 | -351 | 0.99 | 41,883 | 9600 | 22.9% | without cost variance |
| PARS for DEC | 1,27 | | 1,331 | -378 | 0.70 | -435 | 0.67 | , | | 22.1% | incl cost variance |
| Thru DEC (ecp-39) | 43,21 | | 42,524 | -1481 | 0.97 | | 0.98 | 40.987 | 000 | 23.4% | without cost variance |
| PARS for JAN | 43,21 | | 42,524 | - 1401 | 0.97 | -780 | 0.98 | 40,967 | 5000 | 21.5% | incl cost variance |
| | | | | | | | | | | | |
| Thru JAN (ecp-39) | 44,85 | | · · · · | 1 1 | 0.97 | 1 | 0.98 | 39,393 | 9600 | 24.4% | without cost variance |
| PARS for FEB | 1,47 | 1 1,431 | 2,001 | -40 | 0.97 | -570 | 0.72 | | | 22.2% | incl cost variance |
| Thru FEB (ecp-39) | 46,32 | 44,763 | 46,172 | -1560 | 0.97 | -1409 | 0.97 | 37,962 | 9600 | 25.3% | without cost variance |
| PARS for MAR | 1,90 | 0 1,587 | 1,860 | -313 | 0.84 | -273 | 0.85 | | | 21.6% | incl cost variance |
| Thru MAR (ecp-043) | 48,22 | 46,350 | 48,032 | -1873 | 0.96 | -1682 | 0.96 | 37,255 | 8720 | 23.4% | without cost variance |
| PARS for APR | 1,24 | | 1,712 | 50 | 1.04 | -415 | 0.76 | - , ,- | | 18.9% | incl cost variance |
| Thru APR (ecp-043) | 49,47 | | 49,744 | -1823 | 0.96 | | 0.96 | 35,958 | 8720 | 24.3% | without cost variance |
| PARS for MAY | | | 1,661 | 1213 | 2.18 | -2037 | 1.35 | 55,550 | | 18.4% | incl cost variance |
| Thru MAY (ECP-45) | 50,49 | | | | 0.99 | - | 0.97 | 24.000 | 0171 | 23.8% | |
| | , | | | | | 1 | | 34,269 | 817 | 19.4% | without cost variance |
| PARS for JUNE | 1,37 | . , | 1,581 | -8 | 0.99 | -214 | 0.86 | 00.000 | 0474 | 24.8% | incl cost variance |
| Thru June (ECP-45) PARS for JULY | 51,87 | , | 52,986 1,629 | -618 189 | 0.99 | -1734 123 | 0.97 | 32,902 | | 24.8% 19.6% | without cost variance incl cost variance |
| Thru July (ECP-49 & 50) | 53,43 | | | | 0.99 | | 0.97 | 31,448 | | 25.0% | without cost variance |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | , | , | | | | | 31,448 | 1014 | 19.9% | |
| FY | '06 subtotal= 14,87 | 1 14,689 | 16,300 | -182 | 0.99 | -1611 | 0.90 | | | 13.3% | incl cost variance |



