
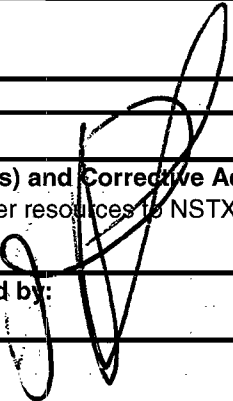
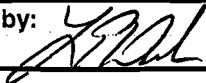
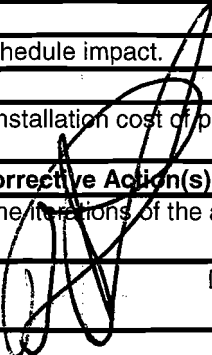



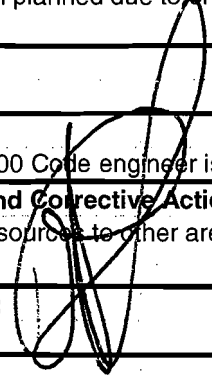
CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT								FORM APPROVED	
FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES								OMB No. 0704-0188	
1. CONTRACTOR		2. CONTRACT		3. PROGRAM		4. REPORT PERIOD			
a. NAME Princeton University-Plasma Ph		a. NAME DOE-SC-OFES-NSTX Upgrade		a. NAME NSTX Upgrade Project		a. FROM (YYYYMMDD) 2011/04/01			
b. LOCATION (Address and Z Princeton, New Jersey		b. NUMBER DE-AC02-09CH11466		b. PHASE CD-2		b. TO (YYYYMMDD) 2011/04/30			
c. TYPE M&O		d. SHARE RATIO		c. EVMS ACCEPTANCE (YYYYMMDD) NO X YES					
<b>1.3 Auxiliary Systems</b>									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	23	0	0	-23	-100%	0	0%	0.00	1.00
Cumulative:	80	28	23	-52	-65%	6	21%	0.35	1.26
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	377	375	2	1%	0.98	0.99			
Thresholds Exceeded: Current Period Schedule, Cumulative Schedule, Cumulative Cost, At Complete Cost									
<b>Explanation of Variance/Description of Problem:</b> Water systems design is limited to AutoCAD designer which has been working on NSTX Operations tasks. They are ow available to work on this work scope. Gas Injection work has been impacted by NST Moly Divertor tile work. Now that that work is done this will get priority									
<b>Impact:</b> None, this should be corrected in the next accounting period or two									
<b>Corrective Action:</b> Evaluate need and assign designer to work on this scope.									
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b> Primary cause of the schedule variance was the diversion of designer resources to NSTX operations activities which are now complete. The designer is now back on this work scope.									
Prepared by: 		Date: 5/27/2011		Approved by: 		Date: 6/2/2011			

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<b>a. NAME</b> Princeton University-Plasma Ph		<b>a. NAME</b> DOE-SC-OFES-NSTX Upgrade		<b>a. NAME</b> NSTX Upgrade Project		<b>a. FROM (YYYYMMDD)</b> 2011/04/01			
<b>b. LOCATION (Address and Zip)</b> Princeton, New Jersey		<b>b. NUMBER</b> DE-AC02-09CH11466		<b>b. PHASE</b> CD-2		<b>b. TO (YYYYMMDD)</b> 2011/04/30			
<b>c. TYPE</b> M&O		<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE (YYYYMMDD)</b> NO <input checked="" type="checkbox"/> YES					
<b>1.4 Plasma Diagnostics</b>									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	19	12	62	-7	-38%	-50	-430%	0.62	0.19
Cumulative:	515	476	576	-39	-7%	-100	-21%	0.93	0.83
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	1,785	1,901	-116	-6%	1.08	0.99			
Thresholds Exceeded: Current Period Schedule, Current Period Cost, Cumulative Cost, At Complete Cost									
<b>Explanation of Variance/Description of Problem:</b>									
This variance was caused by the additional analysis required to redesign the new MPTS VV access ports. This was underestimated but is now nearing completion for the MPTS FDR. Optical layout of the external optics was also required but not planned for and added cost to the design.									
<b>Impact:</b>									
Will increase cost to provide the VV port modification design, no significant schedule impact.									
<b>Corrective Action:</b>									
None required. Much of the additional cost is expected to be offset by lower installation cost of plasma cutting of the VV openings when compared to the estimated machined holes.									
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b>									
Primary cause was the unexpected cost of laying out the optical system and the iterations of the analysis to achieve a workable VV design.									
<b>Prepared by:</b> 		<b>Date:</b> 5/27/2011		<b>Approved by:</b> 		<b>Date:</b> 6/2/2011			

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<b>a. NAME</b> Princeton University-Plasma Ph		<b>a. NAME</b> DOE-SC-OFES-NSTX Upgrade		<b>a. NAME</b> NSTX Upgrade Project			<b>a. FROM (YYYYMMDD)</b> 2011/04/01		
<b>b. LOCATION (Address and Z</b> Princeton, New Jersey		<b>b. NUMBER</b> DE-AC02-09CH11466		<b>b. PHASE</b> CD-2			<b>b. TO (YYYYMMDD)</b> 2011/04/30		
		<b>c. TYPE</b> M&O	<b>d. SHARE RATIO</b>	<b>c. EVMS ACCEPTANCE (YYYYMMDD)</b> NO X YES					
<b>1.5 Power Systems</b>									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	111	168	56	57	51%	113	67%	1.51	3.02
Cumulative:	2,071	1,968	1,762	-103	-5%	206	10%	0.95	1.12
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	9,360	9,327	34	0%	0.97	0.98			
Thresholds Exceeded: Current Period Schedule, Current Period Cost, Cumulative Schedule, Cumulative Cost, At Complete Cost									
<b>Explanation of Variance/Description of Problem:</b> Job 500 was behind last stautising period, but will be caught up by the FDR. Positive Cost Variance is attributed to an overestimate of the design effort which erroneously included resources for the Firing Generator and Fault Detector which were taken out of this scope. In job 5200 development of the system code is taking longer than planned due to engineer being assigned temporarily to other work.									
<b>Impact:</b> None this should be corrected in the next accounting period									
<b>Corrective Action:</b> Job 5000 Design staff has been assigned to work on this scope. Job 5200 Code engineer is back on this work.									
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b> Primary cause of the schedule variance was the diversion of designer resources to other areas. The DCPS code engineer is back working on this work scope.									
<b>Prepared by:</b> 		<b>Date:</b> 5/27/2011		<b>Approved by:</b> 			<b>Date:</b> 6/2/2011		

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<b>a. NAME</b> Princeton University-Plasma Ph		<b>a. NAME</b> DOE-SC-OFES-NSTX Upgrade		<b>a. NAME</b> NSTX Upgrade Project		<b>a. FROM (YYYYMMDD)</b> 2011/04/01			
<b>b. LOCATION (Address and Z</b> Princeton, New Jersey		<b>b. NUMBER</b> DE-AC02-09CH11466		<b>b. PHASE</b> CD-2		<b>b. TO (YYYYMMDD)</b> 2011/04/30			
<b>c. TYPE</b> M&O		<b>d. SHARE RATIO</b>		<b>c. EVMS ACCEPTANCE (YYYYMMDD)</b> NO X YES					
<b>1.6 Central Instrumentation &amp; Control</b>									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	6	9	13	4	67%	-4	-42%	1.67	0.70
Cumulative:	143	88	78	-55	-38%	11	12%	0.62	1.14
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	918	916	2	0%	0.99	0.99			
Thresholds Exceeded: Current Period Schedule, Current Period Cost, Cumulative Schedule, Cumulative Cost, At Complete Cost									
<b>Explanation of Variance/Description of Problem:</b> The NSTX-U Final Design work is behind schedule. The primary reason was the resignation of the real-time plasma control engineer. Key NSTX-U engineers have had to take on unanticipated work to cover for the departed engineer. The new/replacement staff has been taxing the current staff (training), as well as being less effective than the former, experienced engineer.									
<b>Impact:</b> Impact: Low impact. The general design approach is clear, the scope of work relatively minor.									
<b>Corrective Action:</b> Re-evaluate staff work loads and priorities and assigned staff. Review design needs and assign designer.									
<b>Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):</b> The primary cause is the departure of key personnel, which has caused a ripple effect into other work areas. The scope of work that is behind schedule is relatively small. The design approach is clear, so there is little impact on the upgrade project. The design is expected to be complete prior to the FDR.									
<b>Prepared by:</b> <i>[Signature]</i>		Date: <i>5/27/2011</i>		<b>Approved by:</b> <i>[Signature]</i>		Date: <i>6/2/2011</i>			

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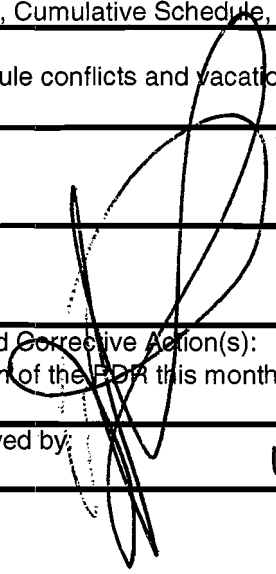
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<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>			<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>	
a. NAME Princeton University-Plasma Phys		a. NAME DOE-SC-OFES-NSTX Upgrade			a. NAME NSTX Upgrade Project			a. FROM (YYYYMMDD) 2011/04/01	
b. LOCATION (Address and ZIP) Princeton, New Jersey		b. NUMBER DE-AC02-09CH11466			b. PHASE CD-2			b. TO (YYYYMMDD) 2011/04/30	
c. TYPE M&O		d. SHARE RATIO			c. EVMS ACCEPTANCE (YYYYMMDD) NO X YES				
<b>2485 Vacuum Pumping System (Blanchard)</b>									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	1	2	19	1	55%	-17	-922%	1.55	0.10
Cumulative:	64	59	91	-5	-8%	-32	-54%	0.92	0.65
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	388	422	-34	-9%	1.11	0.99			
Thresholds Exceeded: Current Period Schedule, Current Period Cost, Cumulative Schedule, Cumulative Cost, At Complete Cost									
Explanation of Variance/Description of Problem: <i>SCOPE OF PROJECT IS GREATER THAN ORIGINAL ESTIMATE</i>									
Impact: <i>NO IMPACTS OTHER COST OF ADDITIONAL SCOPE</i>									
Corrective Action: <i>THERE ARE FUTURE EQUIP COST SAVINGS (FY13) THAT SHOULD OFFSET</i>									
Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s): <i>SEE ABOVE</i>									
Prepared by: <i>W. Blanchard</i>		Date: <i>5.16.11</i>		Approved by: <i>[Signature]</i>			Date: <i>6/2/11</i>		

*VARIANCE*

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b. LOCATION (Address and ZIP) Princeton, New Jersey		b. NUMBER DE-AC02-09CH11466			b. PHASE CD-2			b. TO (YYYYMMDD) 2011/04/30	
		c. TYPE M&O	d. SHARE RATIO		c. EVMS ACCEPTANCE (YYYYMMDD) NO X YES				
3400 Gas Delivery System Mods (Blanchard)									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	17	0	0	-17	-100%	0	0%	0.00	1.00
Cumulative:	32	3	3	-29	-91%	-1	-26%	0.09	0.79
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	102	106	-4	-4%	1.01	0.97			
Thresholds Exceeded: Current Period Schedule, Cumulative Schedule, Cumulative Cost, At Complete Cost									
Explanation of Variance/Description of Problem: <i>WORK HAS BEEN DONE IN MAY '11 AND WILL CORRECT THIS VARIANCE FOR THE MOST PART.</i>									
Impact: <i>NONE</i>									
Corrective Action: <i>WORKING ON DESIGN AT PRESENT</i>									
Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):									
Prepared by: <i>W. Blanchard</i>		Date: <i>5-16-11</i>		Approved by: <i>[Signature]</i>		Date: <i>5/2/2011</i>			

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a. NAME Princeton University-Plasma Phys		a. NAME DOE-SC-OFES-NSTX Upgrade		a. NAME NSTX Upgrade Project			a. FROM (YYYYMMDD) 2011/04/01		
b. LOCATION (Address and ZIP) Princeton, New Jersey		b. NUMBER DE-AC02-09CH11466		b. PHASE CD-2			b. TO (YYYYMMDD) 2011/04/30		
c. TYPE M&O		d. SHARE RATIO		c. EVMS ACCEPTANCE (YYYYMMDD) NO X YES					
5200 DCPS (Hatcher)									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	40	41	28	2	4%	13	32%	1.04	1.48
Cumulative:	388	312	245	-76	-20%	67	21%	0.80	1.27
	BAC	EAC	VAC in \$	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	2,493	2,463	30	1%	0.97	0.98			
Thresholds Exceeded: Current Period Schedule, Current Period Cost, Cumulative Schedule, Cumulative Cost, At Complete Cost									
Explanation of Variance/Description of Problem: Variance is due to unavailability of necessary personnel due to schedule conflicts and vacation schedules.									
Impact: Should not impact completion of PDR									
Corrective Action: None									
Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s): The variance should "self-correct" with the completion of the PDR this month. No further action required.									
Prepared by: R.E. Hatcher				Date: 6/6/2011		Approved by: 		Date: 6/10/2011	