CONTRACT PERFORMANCE REPORT
FORMAT 5 - Explanations and Problem Analysis

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR	2. CONTRACT		3. PROGRAM		4. REPORT PERIOD
a. NAME Princeton University-Plasma Physics Lab	a. NAME DOE-SC-OFES-NSTX Upgrade		a. NAME NSTX Upgrade Project		a. FROM (YYYYMMDD) 2013 / 12 / 01
b. LOCATION (Address and ZIP Code) Princeton, New Jersey	b. NUMBER DE-AC02-09CH11466		b. PHASE CD-3		b. TO (YYYYMMDD) 2013 / 12 / 31
	c. TYPE M&O	d. SHARE RATIO	c. EVMS ACCEPTANCE No x Yes (YYMMDD) 2011 / 12 / 20		

5. Evaluation

4500 MPTS VV Modification (Labik)

	Budget	Earned	Actuals	SV in $	SV in %	CV in $	CV in %	SPI	CPI
Current:	0	16	11	16	-	5	33%	-	1.49
Cumulative:	1,137	1,108	1,563	-29	-3%	-455	-41%	0.97	0.71
	BAC	EAC	VAC in $	VAC in %	TCPI to BAC	TCPI to EAC			
At Complete:	1,137	1,604	-467	-41%	0.03	-			

Explanation of Variance/Description of Problem:

MPTS has been impacted by slow drafting computers, slow conversion of models to drawings, shifts of welding resources to machine work, limited resources for fabrication of tooling, and the Open House. Increases of costs due to drafting time are unrecoverable. Delays in schedule are unrecoverable. Shifts in priorities delayed testing in the braze shop. Inefficiencies due to computers resulted in large increases in drafting time and therefore costs. Additional test cell technician time required for fitup, tooling, alignment, and welding. Overall the sever constraints in available geometry at Bay L requiring a cap design instead of a wire seal design resulted in a large number of diagnostics being added to the job scope since the machining had to be completed before the cap was welded into the vacuum vessel.

Impact:

Cost increases incurred from added drafting time and in some cases added field work. Schedule delays propogated through job.

Corrective Action:

Shop has made every effort to continue on both Bay F/G, Bay L, and small part fabrication. Therefore the vacuum interface components will likely not delay first pumpdown for leakcheck at the end of the year. Drafting computer has been improved with faster unit. This willhelp the EX-vessel job.

Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):

MPTS VV has made significant progress toward project goals. Ex-VV MPTS work is in progress and is complete enough to ensure that VV work will be acceptable. Inefficiencies and delays increased job cost and delayed schedule. Of the 15 vacuum interfaces at Bays L and FG, requiring alignment and welding, 14 are installed and successfully leak checked.
Three high temperature vacuum windows were delivered to PPPL. One for tFIDA and two spares. The windows were subjected to a high temperature differential pressure test, the normal 1.2 atmosphere test and leak checked. The AR coating vendor has been selected and the PO will be issued after some up front deliverables are sent to PPPL. THe AR turnaround time should be 2 weeks after receipt of order. The AR coating order is divided into two parts to preclude any damge to all three windows during shipment since the time to procure and fabricate was 6 months. The AR coated window will be re leak checked and then welded into the vacuum interface previously installed. A shutter plate for tFIDA was fabricated, and will be aligned and welded onto the shaft of the rotary feedthrough previously installed. The RWM coil external to the vacuum vessel Bays A&L is estimated and a WAF generated and will be tracked under job #4501. The impact of the remaining work is expected to be less than the current ETC. The vacuum interfaces are expected to be completed in Jan 2014 and the RWM coil installed and electrically tested in March of 2014.

Prepared by: George Labik — Digitally signed by George Labik DN: cn=George Labik, o, ou, email=glabik@pppl.gov, c=US Date: 2014.01.24 17:16:33 -05'00'

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