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 / 11 / 01
b. LOCATION (Address and ZIP Code) Princeton, New Jersey	b. NUMBER DE-AC02-09CH11466		b. PHASE CD-3	b. TO (YYYYMMDD) 2013 / 11 / 30
	c. TYPE M&O	d. SHARE RATIO	c. EVMS ACCEPTANCE No X Yes (YYYYMMDI 2011 / 12 / 20	

5. Evaluation

4500 MPTS VV Modification (Labik)

	Budget	Earned	Actuals	SV in $	SV in %	CV in $	CV in %	SPI	CPI
Current:	1	1	36	0	-14%	-34	-2840%	0.86	0.03
Cumulative:	1,137	1,091	1,552	-45	-4%	-460	-42%	0.96	0.70
	BAC	**EAC**	**VAC in $**	**VAC in %**	**TCPI to BAC**	**TCPI to EAC**			
At Complete:	1,137	1,617	-480	-42%	0.04	-			

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. There is a problem with all three tFIDA high temperature vacuum windows in that the cylindrical section has a larger diameter than specified.

Impact:

Cost increases incurred from added drafting time and in some cases added field work. Schedule delays propogated through job. The tFIDA installation will require additional technican time to hand grind the port ID where intereferences occur.

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 will help the EX-vessel job.
The problem will be resolved by increasing the internal diameter of the tFIDA port at Bay L.

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 11 diagnostic vacuum interfaces at Bays L and FG, requiring alignment and welding, 10 are installed and successfully leak checked. There remains a high temperature vacuum window to be installed. Three vacum windows have been received PPPL however the cylinder ODs are all out of specification being too large. The vendor could not perform the high temperature differential pressure test therefore PPPL will perform it. The windows require AR coating for which a specification has been completed and a RFQ issued. A precision and very difficult weld will be performed after the tFIDA port is expanded and the vacuum windows coated. A shutter plate for tFIDA has been fabricated and requires vacuum preperation. The shutter plate 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. The mockup fitup portion of the job has started however the removal of the local scafolding and the installation of thermal insullation will impead the installation of the RWM coils for both BAy AL and Bay JK

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