

**CLASSIFICATION (When Filled In)**

CONTRACT PERFORMANCE REPORT FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES								FORM APPROVED OMB No. 0704-0188	
<b>1. CONTRACTOR</b>		<b>2. CONTRACT</b>			<b>3. PROGRAM</b>			<b>4. REPORT PERIOD</b>	
a. NAME Fermi National Accelerator Lab		a. NAME			a. NAME NOvA Project			a. FROM (YYYYMMDD) 2008/12/01	
b. LOCATION (Address and City) Batavia, Illinois		b. NUMBER			b. PHASE			b. TO (YYYYMMDD) 2008/12/31	
		c. TYPE	d. SHARE RATIO		c. EVMS ACCEPTANCE (YYYYMMDD) NO X YES				
<b>1.7 DAQ R&amp;D</b>									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	0	2,053	1,593	2,053	100%	460	22%	N/A	1.29
Cumulative:	214,243	216,297	778,955	2,053	1%	-562,658	-260%	1.01	0.28
	BAC	EAC	VAC in \$	VAC in %	CPI to BAC	CPI to EAC			
At Complete:	1,383,728	1,936,262	-552,534	-40%	1.93	1.01			
Thresholds Exceeded: Current Period Schedule, Cumulative Cost									
Explanation of Variance/Description of Problem: There was a 100% schedule variance due to the return of computing division personnel to the hardware project. The baseline schedule did not have this happening until February 2009. The cumulative cost variance decreased slightly in this period, though it is still large and will likely be so for the remainder of the R&D period. This is the result of prototype parts being slightly less expensive than those initially selected. The majority of the cumulative variance was in several areas. The amount of debugging that was necessary on the first version of the DAQ hardware was more extensive than anticipated. The initial version of the device was more complicated than originally anticipated. Some of this variance may be reclaimed in that there will be less development needed since the hardware has a more standard interface rather than a custom implementation. The DAQ software variance is still under investigation for a complete accounting. More is expected to come of these investigations in the next report.									
Impact: Delays in the availability of the system for the Integration Prototype Near Detector (IPND) may occur in 2009. This would impact other Level 2 WBS tasks, so the delays are being evaluated in this context.									
Corrective Action: All efforts are being closely monitored for their earned value to prevent such a large variance from being created again. Monthly Contract Performance Reports will help, variance analysis will help since the current variance will not go away. Effort will be made to augment the DAQ software effort from collaboration scientists that is off project, which would reduce some cumulative cost variance. Effort must be made to assure that Fermilab efforts are not able to outspend the budgeted cost without triggering a full report. The CAM is now aware that Computing Division effort reports exist and can be supplied by Project Controls. Potential delays will be discussed with other CAMs in Technical Board meetings. A change request may be required if the consistent underestimation of the effort continues. This would represent a substantial draw on contingency.									
Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s): There was a small amount of reported progress that was ahead of the baseline schedule and slightly less expensive than had been budgeted in this control account for the current period. The full understanding of the cumulative variance and the development of a plan for completion of the milestones of the control account are under active development. Additional efforts of the collaboration members may help to alleviate some of the variance and reduce future costs.									
Prepared by: Leon Mualem				Date: 2/10/2009		Approved by:		Date:	