CLASSIFICATION (When Filled In)

CONTRACT PERFORMANCE REPORT

FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES

FORM APPROVED
OMB No. 0704-0188

1. CONTRACTOR	2. CONTRACT	3. PROGRAM	4. REPORT PERIOD
a. NAME Fermi National Accelerator Laborat	a. NAME	a. NAME NOvA Project	a. FROM (YYYYMMDD) 2008/12/01
b. LOCATION (Address and ZIP Batavia, Illinois	b. NUMBER	b. PHASE	b. TO (YYYYMMDD) 2008/12/31
	c. TYPE / d. SHARE RATIO	c. EVMS ACCEPTANCE (YYYYMMDD NO X YES	

2.1.1 Site Preparation Package

	BCWS	BCWP	ACWP	SV in $	SV in %	CV in $	CV %	SPI	CPI
Current:	13,820	13,820	23,000	0	0%	-9,180	-66%	1.00	0.60
Cumulative	356,366	295,126	235,707	-61,239	-17%	59,419	20%	0.83	1.25
	BAC	EAC	VAC in $	VAC in %	CPI to BAC	CPI to EAC			
At Comple	11,530,402	11,533,958	-3,557	0%	0.99	0.99			

Thresholds Exceeded: Current Period Cost, Cumulative Schedule

Explanation of Variance/Description of Problem:

The Current Period has a Cost Performance Index (CPI) of 0.60 . There are two significant root causes that contributed to this variance. A root cause is the execution of the work in a manner not anticipated when the performance measurement baseline was developed. The acceleration of work scheduled for February 2009 to November 2008 was done to advance the schedule of this critical path activity. In addition, the actual costs for the work performed were more than twice the budgeted cost of the work scheduled. This cost is associated with the University of Minnesota's fees which are based on a percentage amount of the work scope. By accelerating the work activities, the associated fees were also increased. In addition, in December 2008, it became apparent that the FESS/Engineering costs were misapplied to the Site and Building R&D (WBS 1.1) control account.

The Cumulative CPI is 1.25 which indicates that the cumulative work scheduled to date has been accomplished for a cost less than estimated in the performance measurement baseline. This is due, in part, to a better understanding of the work scope and a design cost from the architectural/engineering firm (Burns and McDonnell) less than anticipated. In addition, it appears that there is a discrepancy between the accrual information and the work completed. This is due, in part, to the complex reporting scenarios involving the Cooperative Agreement, Fermilab and the NOvA Project. The Cumulative SPI is 0.83 which indicates that the cumulative work schedule to date is taking longer to accomplish that estimated in the performance measurement baseline. A significant contributor to this variance is coordination required between this control account and the WBS 2.1.2 control account. While the Site Prep Package includes the rock excavation of the below grade components for the Far Detector Building, the final dimensions and location of the excavation must be coordinated with the design of the Far Detector Building. This coordination is taking longer than scheduled.

Impact:

The impact of the schedule variance is expected to result in the completion of the Design Phase of the Site Preparation Package being completed later than scheduled due to the design coordination required with the Far Detector Building (WBS 2.1.2) control account. The cost variance is expected to return closer to the performance measurement baseline as the accrual information is refined and the costs associated with the misapplied FESS/Engineering costs are corrected.

Corrective Action:

1. The WBS 2.1.2 project team will continue to monitor the cost variances in coming months for possible correctable actions. This includes improved coordination of accrual reports with the University of Minnesota team.

2. In order to better track the schedule performance, the performance measurement technique (PMT) for the Construction Phase EDIA support for WBS 2.1.2.3 and WBS 2.1.2.4 will be modified to better reflect the anticipated execution of this work. Discussions with the NOvA Project Controls group are underway to determine the choice of a better PMT.

3. The Control Account Manager will work with NOvA Projects Controls to correct the misapplied FESS/Engineering costs. This is expected to occur in March 2009.

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

The integration of the design of Site Preparation Package with the Far Detector Building package has led to schedule variances that are expected to remain. Inaccurate accrual information and misapplied FESS/Engineering costs have contributed to cost variances. Selection of a level of effort performance measurement technique combined with early start dates has produced unreliable schedule information.

Prepared by:	Date:	Approved by:	Date:
S. Dixon	2/23/2009		