

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 Fermi National Accelerator		a. NAME			a. NAME NOVA Project			a. FROM (YYYYMMDD) 2009/02/01	
b. LOCATION (Address and City) Batavia, Illinois		b. NUMBER			b. PHASE			b. TO (YYYYMMDD) 2009/02/28	
		c. TYPE	d. SHARE RATIO		c. EVMS ACCEPTANCE (YYYYMMDD) NO X YES				
1.5 PVC Module R&D									
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	CPI
Current:	286,736	25,200	0	-261,535	-91%	25,200	100%	0.09	N/A
Cumulative	829,196	550,292	1,041,055	-278,904	-34%	-490,763	-89%	0.66	0.53
	BAC	EAC	VAC in \$	VAC in %	CPI to BAC	CPI to EAC			
At Complete	1,589,549	2,085,520	-495,971	-31%	1.89	1.00			
Thresholds Exceeded: Current Period Schedule, Current Period Cost, Cumulative Schedule, Cumulative Cost									
Explanation of Variance/Description of Problem:									
<p>The dollarized current schedule variance comes from the delay in building molds for many of the manifold parts. This delay occurred because the design of the manifold raceways required significant re-engineering in collaboration with the molder to achieve acceptable plastic flow and cooling rates in the mold. This re-design effort set back the schedule to finish the design of the other manifold parts by approximately three months from the February 09 early start date.</p> <p>Cumulative cost variance comes from the same causes reported previously: 1) Disruption caused by the FY08 funding setting the NOVA budget to zero. Infrastructure for the Integration Prototype Near Detector (IPND) construction & some injection molds were ordered and invoiced, but then unbudgeted labor was used to disassemble & store the materials. Most of the materials will be used to build the IPND tooling & parts but the value will not be earned until used. \$100K in materials and labor will not be recovered. 2) Injection molds costs (\$200K) have been incurred for the manifold cover, fiber raceways, optical connectors, and side seals value will not be earned until final parts are accepted. 3) ~\$100 K from an error in not scheduling work on the Fullsize Structural Prototype (FSAP). 4) Additional costs of ~ \$10K incurred in storing the completed FSAP modules in rented trailers at Argonne until the space for their assembly became available. 5) Two errors were discovered and will be remedied: the Factory Manager salary, scheduled in WBS 2.5 but charged to 1.5, and an inconsistency between the RLS rates and Minnesota accounting with respect to vacation and sick days</p>									
Impact:									
<p>If no other major re-design efforts are necessary, this will delay the time of building the first IPND module by approximately 1 month, from scheduled 5 June 2009 to current forecast of 5 July 2009. However, if no other delays are incurred from downstream processes, the IPND can be completed at its scheduled time at the end Oct 09 with an accelerated production schedule.</p>									
Corrective Action:									
<p>We are investigating methods to accelerate building the IPND modules if that is necessary to meet the planned schedule. The accounting errors have been found and forms are progressing to fix them.</p>									
Monthly Summary (to include technical causes of VARs, Impacts) and Corrective Action(s):									
<p>The technical cause of this month's variance is the engineering back-up caused by the design modifications required by the raceway molds. We have only one part-time engineer who is also teaching classes. This will delay the schedule of beginning the IPND production. Because of the interactive nature of the manifold parts, it is not practical to add another engineer to this project. With a stable funding profile, we can, for the construction phase of the manifold part re-design, buy release time for engineer's teaching.</p>									
Prepared by: Heller				Date: 27-Mar-09		Approved by:		Date:	