

BASELINE CHANGE PROPOSAL (BCP)

1) BCP Number: CDF 002		2) BCP Title: Project Cost Reduction	
3) Budget Number:		4) Title: Run IIb CDF Detector Project	
5) Date Received (Field Office):		Date Received (Program Office):	
6) Change Designation: Project Cost Reduction	7) BCP Level: Level 0 [] Level 2 [] Level 1 [<input checked="" type="checkbox"/>] Level 3 []		8) Directed Change? Yes [] No [<input checked="" type="checkbox"/>]
	10) Point of Contact: Paul Philp		9) Program: SC-25, Office of High Energy Physics
11) Phone: (630) 840-4481		12) FAX: (630) 840-3285	
14) Change Description:		13) Location: SCFSO	
<p>This change proposal will reduce the cost of the Run IIb CDF Detector Project by \$2.2 million from the currently allocated \$10.4 million to \$8.2 million. This reduction resulted from value engineering cost savings and completion of subsystems within budget without significant usage of contingency.</p> <p>There is no change in project schedule and scope with this request. As of the end of April, the project was 60 percent complete based on costs, and the contingency was 120 percent of the Estimate To Complete (ETC). The project is on schedule and under budget.</p>			
15) Change Justification: (If Directed Change specify authority and documentation)			
<p>The project cost was significantly reduced by the completion of significant portions of the project to date at or below their estimated cost. In particular, the completed silicon detector subsystem was delivered below the budgeted cost. The calorimeter upgrades were completed very near their estimate. Large contingency was allocated in order to cover possible shortfalls in foreign contributions. These foreign contributions were delivered without any utilization of the allocated contingency. Additional cost savings were obtained by value engineering. The most significant of these was from the elimination of the replacement for the silicon data acquisition hardware after reevaluation of the performance reach of existing hardware. Also, there was a Time to Digital Converter value engineering that resulted from an adoption of a new strategy for drift chamber readout at high luminosity. Finally, contingency needs were reevaluated based on the work remaining. A bottoms up contingency analysis for the project was performed for the remaining tasks which has the ETC of \$2.6M. The analysis indicates that 35% of the ETC (\$0.9M) would be an adequate level of contingency.</p> <p>The major cost savings were from:</p> <ul style="list-style-type: none"> • Completion of silicon detector subsystem \$0.3M • Silicon data acquisition hardware value engineering \$1.0M • TDC value engineering \$0.4M • Project Administration \$0.5M 			

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The costs and contingency for the current baseline and this change request are summarized below:

	May 2005 baseline (\$K)	Proposed baseline (\$K)	Savings (\$K)
1.1 Silicon	1,341	1,341	
1.2 Calorimeter	468	468	
1.3 Data Acquisition	4,732	4,732	
1.4 Administration	744	744	
Contingency	3,090	911	2,179
Total	10,375	8,196	2,179

16) Impact of Non-Approval:

Should this baseline change not be approved, the project would continue to hold a very large contingency until the project is completed.

17) Impact on DOE Cost Baseline:

The total MIE costs are reduced by \$2.2 million.

	May 2005 Baseline	Proposed	Change from May 2005
MIE Base (\$M)	7.3	7.3	0.0
MIE Contingency (\$M)	3.1	0.9	-2.2
Total MIE (\$M)	10.4	8.2	-2.2

18) Impact on Funding Profile (BA):

The requested changes to the DOE MIE funding profile reflecting cost reduction are shown below.

	Prior FY	FY04	FY05	FY06	Total
Baseline (\$K)	6,969	1,673	1,732	0	10,374
Proposed (\$K)	6,969	1,227	0	0	8,196
Change (\$K)	0	-446	-1,732	0	-2,178

19) Explanation of Impact on Cost and Funding Baseline:

The TEC is reduced by \$2.2 million without any impact on scope or schedule.

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20) Impact on Schedule Baseline:

None.

Milestone (No. and Description)	Baseline (Month/Year)	Proposed (Month/Year)	Change
CD-4	11/06	11/06	0 weeks

21) Explanation of Impact on Schedule Baseline:

Not applicable.

22) Impact on Scope Baseline:

None.

23) Explanation of Impact on Scope Baseline:

Not applicable.

24) Other Impacts (Health, Safety, Environment, etc.)

None

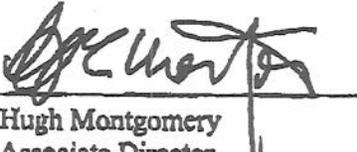
25) Interim or Corrective Actions:

A revised Project Execution Plan has been prepared to incorporate these changes.

BASELINE CHANGE PROPOSAL (BCP)

LABORATORY DISPOSITION - LEVEL 3

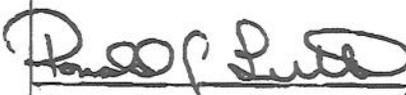
Patrick Lukens _____ Date _____
 Run IIb CDF Project Manager
 Fermi National Accelerator Laboratory

 _____ Date 6/24/05
 Hugh Montgomery
 Associate Director
 Fermi National Accelerator Laboratory

FIELD DISPOSITION - LEVEL 2

26) Members Recommendations

 _____ Date 6-23-05
 Paul Philp
 Run II Project Director
 Fermi Site Office

 _____ Date 6/24/05
 Joanna Livengood
 Fermi Site Office Manager

PROGRAM DISPOSITION - LEVEL 1

27) Advisors (Specialized Support, as required) Recommendations

 _____ Date 6/24/05
 Michael Procario
 Run IIb Program Manager
 Office of High Energy Physics

 _____ Date 6/24/05
 Aesook Byon-Wagner
 Acting Director, Facilities Division
 Office of High Energy Physics

ACQUISITION EXECUTIVE - LEVEL 1

Disposition Approved Endorsed Rejected Comments:

 _____ Date 6/24/05
 Robin Staffin
 Associate Director
 Office of High Energy Physics