

11/18/2003

## BASELINE CHANGE PROPOSAL (BCP)

1) BCP Number: <b>CDF 001</b>		2) BCP Title: <b>Project Rebaseline</b>	
3) Budget Number:		4) Title: <b>Run IIb CDF Detector Project</b>	
5) Date Received (Field Office):		Date Received (Program Office):	
6) Change Designation: <b>Scope Reduction</b>	7) BCP Level: Level 0 [ ] Level 2 [ ] Level 1 [ <input checked="" type="checkbox"/> ] Level 3 [ ]	8) Directed Change? Yes [ ] No [ <input checked="" type="checkbox"/> ]	9) Program: <b>SC-20, Office of High Energy Physics</b>
10) Point of Contact: <b>Paul Philp</b>		12) FAX: <b>(630)840-3285</b>	
11) Phone: <b>(630) 840-4481</b>		13) Location: <b>FAO</b>	
14) Change Description:			
<p>The MIE cost of the baseline is reduced by \$14.6 million from \$25 million to \$10.4 million.</p> <p>There is no change in the scheduled date of Critical Decision 4 "Project Completion." The scheduled date for Critical Decision 3b is delayed by three months.</p> <p>The proposal drops the construction of the replacement silicon vertex detector. Some tasks that fell within the silicon vertex detector subproject related to trigger, data acquisition, and radiation monitoring will be moved to the data acquisition subproject and used with the current silicon vertex detector.</p>			
15) Change Justification: (If Directed Change specify authority and documentation)			
<p>At the time of Critical Decision 3, the acquisition executive chose to split the critical decision into two parts, 3a and 3b. CD-3a approved limited construction for one year with the intention that Tevatron luminosity performance could be evaluated before proceeding to CD-3b and full construction.</p> <p>In June 2003, Fermilab submitted the plan for the luminosity upgrades. The Office of Science conducted a review of the submitted plan in July 2003. Based on the plan and the conclusions from the DOE review, the director of Fermilab with advice from the Fermilab Program Advisory Committee decided that the best option to maximize the physics of Run II was not to take a long shutdown which would be necessary for the installation of the replacement silicon vertex detector. It was also determined that the current silicon vertex detector had a good probability of survival due to the lower integrated luminosity projection compared to what was known at the time of CD-3a approval in February 2003. This decision was endorsed by the High Energy Physics Advisory Panel (HEPAP) at its September 29, 2003 meeting.</p>			
16) Impact of Non-Approval:			
<p>Should this baseline change not be approved there are two possible outcomes. The silicon vertex detector would be built but never be installed. Alternatively if built and installed, approximately a year of data-taking would be lost while it was installed and commissioned. With the original Tevatron luminosity projection, this would have been necessary due to the radiation damage to the silicon vertex detector and lost data-taking time would have been compensated by a higher integrated luminosity delivered by the accelerator. But based on the current luminosity projection, the expected damage to the silicon vertex detector is not high enough to justify for the construction of the replacement of silicon vertex detector or such a long shutdown.</p>			

11/18/2003

## BASELINE CHANGE PROPOSAL (BCP)

BCP Number: CDF - 001	BCP Title: Project Rebaseline				
<b>17) Impact on DOE Cost Baseline:</b>					
	Baseline (June 2003)	Proposed	Change		
Estimated cost (\$M)	17.4	7.7	-9.7		
Contingency (\$M)	7.6	2.7	-4.9		
<b>Total MIE (\$M)</b>	<b>25.0</b>	<b>10.4</b>	<b>-14.6</b>		
<b>18) Impact on Funding Profile (BA):</b>					
Approval of this Baseline Change Proposal will result in the following funding profile.					
	Prior FY	FY04	FY05	FY06	Total
Old Baseline (\$K)	6,969	8,396	8,500	1,113	24,978
New Baseline (\$K)	6,969	1,673	1,732	0	10,374
Change (\$K)	0	-6,723	-6,768	-1,113	-14,604
<b>19) Explanation of Impact on Cost and Funding Baseline:</b>					
The project cost is reduced by \$14.6M due to the cancellation of the silicon vertex detector. The project funding profile for FY 2004, FY2005 and FY2006 has been adjusted accordingly.					
<b>20) Impact on Schedule Baseline:</b>					
Milestone (No. and Description)	Baseline (Month/Year)	Proposed (Month/Year)	Change		
CD-3b	9/03	12/03	3 months		
CD-4	11/06	11/06	0 months		

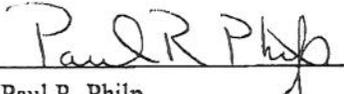
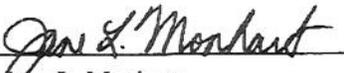
11/18/2003

## BASELINE CHANGE PROPOSAL (BCP)

BCP Number: CDF- 001	BCP Title: Project Rebaseline
21) Explanation of Impact on Schedule Baseline:  There is no change in the Project Completion, CD-4, date. The CD-3b approval milestone has been delayed to December 2003 to allow the extra time needed to adequately prepare the BCP and CD-3b approval documents. The remaining milestones for the silicon vertex detector subsystem will be eliminated from the project baseline schedule.	
22) Impact on Scope Baseline:  The scope of the baseline no longer contains the completion of the silicon vertex detector.	
23) Explanation of Impact on Scope Baseline:  The project activities will now be limited to the non-silicon subsystems plus the completion of approximately 5% of the full silicon vertex detector subsystem as a closeout activity.	
24) Other Impacts (Health, Safety, Environment, etc.) None	
25) Interim or Corrective Actions:  None	

11/18/2003

BASELINE CHANGE PROPOSAL (BCP)

BCP Number: CDF-001		BCP Title: Project Rebaseline	
<b>FIELD DISPOSITION - LEVEL 2</b>			
26) Members		Recommendations	
			
Paul R. Philp Run II Project Director Fermi Area Office		11-26-03 Date	
			
Jane L. Monhart Fermi Area Office Manager		11-26-03 Date	
<b>PROGRAM DISPOSITION - LEVEL 1</b>			
27) Advisors (Specialized Support, as required)		Recommendations	
			
Michael P. Procario Run IIb Program Manager Office of High Energy Physics		12/8/03 Date	
			
Aesook Byon-Wagner Senior Program Officer Office of High Energy Physics		12/1/03 Date	
<b>ACQUISITION EXECUTIVE - LEVEL 1</b>			
Disposition [ ] Approved [ ] Endorsed [ ] Rejected		Comments:	
			
Robin Staffin Associate Director Office of High Energy Physics		_____ Date	