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Run II Upgrades PMG  
Cost Performance Report  
July 2006

# Remaining Milestones

WBS	Name	Finish	Base Fin	%	MS Class	2006				2007				2008
						1	2	3	4	1	2	3	4	1
1.4.2.1.4	TEL System Operational	8/25/06	8/25/06	0%	A			▽						
1.1.3.2.6	MI BPM system complete	8/28/06	8/18/06	0%	B			▽						
2.2.4.4.4.2.4	MI BLM System Operational	8/31/06	8/11/06	0%	B			▽						
1.3.6.8	Rapid Transfers Operational (Milestone)	9/1/06	9/1/06	0%	A			▽						
1.3.3.1.3.11	Decision to Build Pickup Tanks for Stacktail Cooling Upgrade	9/29/06	9/29/06	0%	C				▽					
2.2.4.4.4.1.6	Tevatron BLM System Operational	11/29/06	8/11/06	0%	B			▽	○					
2.2.4.4.4.3.4	Booster BLM System Operational	1/18/07	8/18/06	0%	B			▽	○					
1.3.3.1.3.13	Decision to Install Pickup Tanks for Stacktail Cooling Upgrade	5/1/07	5/1/07	0%	C							▽		
1.2.2.11	Intermediate AP2&DB Improvements Complete (Milestone)	6/29/07	6/29/07	0%	A							▽		
1.5.7	Start Summer 07 Shutdown	7/2/07	7/2/07	0%	C							▽		
1.5.8	Finish Summer 07 Shutdown	8/24/07	8/24/07	0%	C								▽	
1.6.5.7	Start Phase 5 (Milestone)	9/17/07	9/17/07	0%	A								▽	
1.2.2.12	Final AP2&DB Improvements Complete (Milestone)	9/27/07	7/27/07	0%	A								▽	○
1.6.5.8	End Project	9/27/07	9/17/07	0%	A								▽	

Investigating this

▽ Baseline Finish Date

○ Forecast Date

# Progress

WBS	Name	Actual %	Planned %	A/P %
<b>0</b>	<b>Run II</b>	<b>92.9%</b>	<b>95.0%</b>	<b>97.8%</b>
<b>1</b>	<b>Luminosity Upgrades</b>	<b>92.4%</b>	<b>95.3%</b>	<b>97.0%</b>
1.1	Protons on Pbar Target	97.9%	99.3%	98.6%
1.2	Pbar Acceptance	72.9%	78.8%	92.4%
1.3	Pbar Stacking & Cooling	99.0%	100.0%	99.0%
1.4	Tevatron High Luminosity	91.9%	96.4%	95.3%
1.5	Shutdowns	50.0%	50.0%	100.0%
1.6	Project Management	83.8%	83.7%	100.1%
<b>2</b>	<b>Maintenance &amp; Reliability</b>	<b>95.3%</b>	<b>93.6%</b>	<b>101.8%</b>
2.1	2003 White Paper/Vulnerability Report	92.2%	89.0%	103.6%
2.2	Maintenance Improvements	99.0%	100.0%	99.0%

# M&S Spending through July '06

M&S Spending		v4 Plan Estimate			FY06	Inception to Date		% Plan used	% FY06 Budget Used
		(then yr\$)				Obl+RIP	Obligations	Obl+RIP	ITD
		FY06	FY07	Total					
0	<b>Run II Upgrades</b>	4,146	242	18,132	2,314	16,643	17,284	91%	73%
1	<b>Luminosity Upgrades</b>	2,772	242	13,870	1,719	12,739	13,409	91%	66%
1.1	<b>Protons on Target</b>	398	0	1,856	438	1,687	1,816	91%	77%
1.1.1	Slip Stacking	0	0	416	0	406	406	97%	
1.1.2	Pbar Target and Sweeping	12	0	54	21	33	38	61%	82%
1.1.3	MI Upgrades	316	0	1,073	381	907	950	84%	90%
1.1.4	Booster-MI Cogging	0	0	0	0	0	0		
1.1.5	OTR	0	0	172	-1	254	255	146%	
1.1.6	Operational Improvements for Protons	70	0	140	37	87	167	62%	
1.2	<b>pbar Acceptance</b>	454	233	1,409	195	1,073	1,147	74%	63%
1.2.1	LiLens	271	0	514	76	378	508	73%	47%
1.2.2	AP2 and DB Acceptance	184	233	895	119	695	639	74%	82%
1.3	<b>pbar Stacking and Cooling</b>	623	0	5,080	496	4,647	4,852	92%	72%
1.3.1	S&C Task Force	0	0	0	0	0	0		
1.3.2	Debuncher Cooling	0	0	0	0	0	0		
1.3.3	Stacktail Upgrade	1	0	916	46	922	922	101%	100%
1.3.4	Recycler Commissioning	0	0	375	2	297	297	79%	100%
1.3.5	Electron Cooling	0	0	2,535	43	2,551	2,554	101%	91%
1.3.6	Rapid Transfers	26	0	580	56	538	586	92%	53%
1.3.7	Additional Recycler Upgrades	233	0	311	149	154	216	48%	69%
1.3.8	Additional E-Cool Upgrades	146	0	146	200	186	277	137%	72%
1.3.9	Pbar Stack Rate Task Force	217	0	217	0	0	0	0%	
1.4	<b>Tevatron High Luminosity</b>	1,188	9	5,324	585	5,224	5,456	98%	57%
1.4.1	Beam Studies and Simulation	81	0	119	47	88	87	74%	102%
1.4.2	Active BBC	505	0	1,115	289	1,201	1,442	106%	54%
1.4.3	Increased Helix Separation	387	7	1,267	36	1,052	1,083	83%	13%
1.4.4	Luminosity Leveling	110	0	110	137	134	102	125%	135%
1.4.5	Improved Controls and Diagnostics	0	0	2,168	7	2,180	2,186	100%	53%
1.4.6	Tevatron Vacuum Improvements	41	0	235	26	254	254	108%	100%
1.4.7	Tevatron Alignment	64	2	309	43	316	304	100%	141%
1.6	<b>Management</b>	108	0	201	5	107	138	53%	
2	<b>Reliability Upgrades</b>	1,374	0	4,262	594	3,904	3,875	92%	100%
2.1	2003 White Paper/Vulnerability Report	1,085	0	2,601	313	2,360	2,351	91%	94%
2.2	<b>Reliability Upgrades</b>	289	0	1,662	281	1,544	1,525	93%	107%

# Effort for July 2006

Adjusted FTE		Division				Totals	Plan
		AD	TD	PPD	CD		3 MO rolling ave.
<b>Run II Upgrades</b>		<b>19.0</b>	<b>1.8</b>	<b>7.7</b>	<b>6.0</b>	<b>34.5</b>	<b>39.4</b>
1	<b>Luminosity Upgrades</b>	<b>18.1</b>	<b>1.4</b>	<b>0.6</b>	<b>6.0</b>	<b>26.1</b>	<b>36.7</b>
1.1	<b>Protons on Target</b>	<b>5.5</b>	<b>0.0</b>	<b>0.0</b>	<b>6.0</b>	<b>11.5</b>	<b>13.4</b>
1.2	<b>pbar Acceptance</b>	<b>3.9</b>	<b>0.9</b>	<b>0.6</b>	<b>0.0</b>	<b>5.4</b>	<b>2.8</b>
1.3	<b>pbar Stacking and Cooling</b>	<b>2.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.4</b>	<b>3.4</b>
1.4	<b>Tevatron High Luminosity</b>	<b>5.5</b>	<b>0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>6.0</b>	<b>13.9</b>
1.6	<b>Management</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.8</b>	<b>3.2</b>
2	<b>Reliability Upgrades</b>	<b>0.9</b>	<b>0.4</b>	<b>7.1</b>	<b>0.0</b>	<b>8.4</b>	<b>2.7</b>

Investigating the discrepancy

BLM efforts are greater than planned in July

## Change Requests

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- CR 48 – Move 1.2.2.11 – Intermediate AP2 and Deb Improvements complete MS (Ready for Signature).
  - Moves this class A MS out 12 months. This is due to the delay in the completion of the Injection Kicker Mods. (ceramic beam tube fabrication).
- CR 49 – New Booster Brentford Transformer (Ready for signature)
  - Adds about \$301k of M&S to buy a new Booster Brentford Transformer and purchase a spare.