



Muon Campus AIP
Change Request Form

CR#:Cryo011

1) DATE: 2/4/15	2) WBS: Cryo1	3) Originator: Ken Domann <i>KAD</i>
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4) WBS Description of Primary Affected Tasks: Muon Campus Cryogenics AIP

5) Technical Description & Primary Motivation for Change: This change request documents the changes to escalation calculations caused by entering new resource rates into Cobra that incorporated past experience on resource costs. It was not initially understood that Cobra does not automatically recalculate based on these new rates and therefore the old escalation values were not revised. The total change to the ~~Beam Transport~~ ^{Cryo} budget is \$15,999.

6) Assessment of Cost Impact (Use attachments if needed): See attached.

7) Assessment of Schedule Impact (Use attachments if needed): N/A

8) Secondary Impact & Other Comments: N/A

9) Approvals:

AIP Project Manager:	<i>Ken Domann</i>	Date: <u>2/4/15</u>
AIP Project Coordinator:	<i>Mary E. ...</i>	Date: <u>2/5/15</u>
AD Div Director:	_____	Date: _____
Directorate:	_____	Date: _____

Cryo Pre CR011 CAP

Control Account		FY12	FY13	FY14	FY15	FY16	FY17	Cumulative
A1301.02.01.01 Cryo AIP General Project OS - FY13	Scheduled	0.00	51,346.42	0.00	0.00	0.00	0.00	51,346.42
A1301.02.01.02 Cryo AIP General Project OS - FY14	Scheduled	0.00	3,594.05	129,557.05	0.00	0.00	0.00	133,151.10
A1301.02.01.03 Cryo AIP General Project OS - FY15	Scheduled	0.00	0.00	2,134.07	30,214.73	0.00	0.00	32,348.80
A1301.02.01.04 Cryo AIP General Project OS - FY16	Scheduled	0.00	0.00	0.00	3,106.86	128,186.95	0.00	131,293.81
A1301.02.01.05 Cryo AIP General Project OS - FY17	Scheduled	0.00	0.00	0.00	0.00	3,675.39	116,470.08	120,145.47
A1301.03 Cryo Basic Engineering	Scheduled	0.00	33,093.96	236,082.70	70,985.99	71,268.80	49,000.83	460,432.28
A1301.04.01 Cryo LN2 system	Scheduled	0.00	4,514.95	409,013.92	0.00	0.00	0.00	413,528.87
A1301.04.02 Cryo Gas management system	Scheduled	0.00	57,841.53	178,224.26	0.00	0.00	0.00	236,065.78
A1301.04.03 Cryo ODH system	Scheduled	0.00	0.00	49,757.63	0.00	0.00	0.00	49,757.63
A1301.04.04 Cryo Refrigerator System	Scheduled	0.00	149,077.19	1,134,055.74	157,480.87	313,192.75	0.00	1,753,806.54
A1301.04.05 Cryo Compressor System	Scheduled	0.00	59,453.27	367,138.94	0.00	0.00	0.00	426,592.21
A1301.04.06 Cryo Interconnect Piping	Scheduled	0.00	225,594.62	512,339.28	0.00	0.00	0.00	737,933.91
A1301.04.07 Cryo Interconnect Electrical & Controls	Scheduled	0.00	46,627.36	119,526.30	0.00	0.00	0.00	166,153.66
A1301.05.01 Mu2e Interface Connection	Scheduled	0.00	0.00	70,813.93	206,847.51	1,009,844.31	312,773.87	1,600,279.62
A1301.05.02 g-2 Interface Connection	Scheduled	0.00	27,198.92	0.00	0.00	0.00	0.00	27,198.92
A1301.06 Cryo Safety Documents	Scheduled	0.00	0.00	155,311.42	0.00	0.00	0.00	155,311.42
A1301.07 g-2 Cryo Checkout	Scheduled	0.00	0.00	0.00	65,416.12	0.00	69,534.72	134,950.84
A1301.08 Cryo g-2 Acceptance Tests	Scheduled	0.00	0.00	11,968.50	102,502.33	0.00	0.00	114,470.83
A1301.09 Cryo Mu2e Acceptance Tests	Scheduled	0.00	0.00	0.00	0.00	0.00	97,719.37	97,719.37
Grand Total	Scheduled	0.00	658,342.28	3,375,923.74	636,554.41	1,526,168.20	645,498.87	6,842,487.50

Cryo Post CR011 CAP

Control Account	Results	FY12	FY13	FY14	FY15	FY16	FY17	Cumulative
A1301.02.01.01 Cryo AIP General Project OS - FY13	Scheduled	0.00	51,346.42	0.00	0.00	0.00	0.00	51,346.42
A1301.02.01.02 Cryo AIP General Project OS - FY14	Scheduled	0.00	3,594.05	129,557.05	0.00	0.00	0.00	133,151.10
A1301.02.01.03 Cryo AIP General Project OS - FY15	Scheduled	0.00	0.00	2,134.07	30,214.73	0.00	0.00	32,348.80
A1301.02.01.04 Cryo AIP General Project OS - FY16	Scheduled	0.00	0.00	0.00	3,106.86	130,736.21	0.00	133,843.07
A1301.02.01.05 Cryo AIP General Project OS - FY17	Scheduled	0.00	0.00	0.00	0.00	3,754.32	116,470.08	120,224.40
A1301.03 Cryo Basic Engineering	Scheduled	0.00	33,093.96	236,082.70	70,985.99	73,406.86	49,000.83	462,570.34
A1301.04.01 Cryo LN2 system	Scheduled	0.00	4,514.95	409,013.92	0.00	0.00	0.00	413,528.87
A1301.04.02 Cryo Gas management system	Scheduled	0.00	57,841.53	178,224.26	0.00	0.00	0.00	236,065.78
A1301.04.03 Cryo ODH system	Scheduled	0.00	0.00	49,757.63	0.00	0.00	0.00	49,757.63
A1301.04.04 Cryo Refrigerator System	Scheduled	0.00	149,077.19	1,134,055.74	157,480.87	315,558.09	0.00	1,756,171.89
A1301.04.05 Cryo Compressor System	Scheduled	0.00	59,453.27	367,138.94	0.00	0.00	0.00	426,592.21
A1301.04.06 Cryo Interconnect Piping	Scheduled	0.00	225,594.62	512,339.28	0.00	0.00	0.00	737,933.91
A1301.04.07 Cryo Interconnect Electrical & Controls	Scheduled	0.00	46,627.36	119,526.30	0.00	0.00	0.00	166,153.66
A1301.05.01 Mu2e Interface Connection	Scheduled	0.00	0.00	70,813.93	206,847.51	1,018,711.31	312,773.87	1,609,146.62
A1301.05.02 g-2 Interface Connection	Scheduled	0.00	27,198.92	0.00	0.00	0.00	0.00	27,198.92
A1301.06 Cryo Safety Documents	Scheduled	0.00	0.00	155,311.42	0.00	0.00	0.00	155,311.42
A1301.07 g-2 Cryo Checkout	Scheduled	0.00	0.00	11,968.50	102,502.33	0.00	0.00	114,470.83
A1301.08 Cryo g-2 Acceptance Tests	Scheduled	0.00	0.00	0.00	65,416.12	0.00	69,534.72	134,950.84
A1301.09 Cryo Mu2e Acceptance Tests	Scheduled	0.00	0.00	0.00	0.00	0.00	97,719.37	97,719.37
Grand Total	Scheduled	0.00	658,342.28	3,375,923.74	636,554.41	1,542,166.80	645,498.87	6,858,486.10