



Muon Campus AIP
Change Request Form

CR#: Cryo023

1) DATE: 8/17/17	2) WBS: Cryo1	3) Originator: Ken Domann <i>K/D</i>
-------------------------	----------------------	---

4) WBS Description of Primary Affected Tasks: Muon Campus Cryogenics - AIP

5) Technical Description & Primary Motivation for Change: In July 2017, Finance revised the indirect and fringe rates for labor. This resulted in a Cryo AIP budget increase of \$10,606 with a corresponding decrease in contingency.

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>[Signature]</i>	Date: 8-17-2017
AIP Project Coordinator:	<i>[Signature]</i>	Date: 8/17/17
AD Div Director:	_____	Date: _____
Directorate:	_____	Date: _____

Cryo CR023 Pre CR CAP

Control Account: WBS (4)		FY13	FY14	FY15	FY16	FY17	FY18	Cumulative
Cryo1.02.01.01 Cryo AIP General Project Oversight - FY13	Scheduled	51,346.42	0.00	0.00	0.00	0.00	0.00	51,346.42
Cryo1.02.01.02 Cryo AIP General Project Oversight - FY14	Scheduled	3,594.06	129,557.05	0.00	0.00	0.00	0.00	133,151.10
Cryo1.02.01.03 Cryo AIP General Project Oversight - FY15	Scheduled	0.00	2,134.07	30,214.73	0.00	0.00	0.00	32,348.80
Cryo1.02.01.04 Cryo AIP General Project Oversight - FY16	Scheduled	0.00	0.00	3,820.92	170,506.37	0.00	0.00	174,327.29
Cryo1.02.01.05 Cryo AIP General Project Oversight - FY17	Scheduled	0.00	0.00	0.00	5,329.44	162,348.00	0.00	167,677.44
Cryo1.02.01.07 Cryo AIP Gen Proj OS - FY15 Supp	Scheduled	0.00	0.00	74,049.03	0.00	0.00	0.00	74,049.03
Cryo1.02.01.09 Cryo AIP General Project OS - FY18	Scheduled	0.00	0.00	0.00	0.00	0.00	26,722.06	26,722.06
Cryo1.02.01.10 Cryo Final Safety Documents	Scheduled	0.00	0.00	0.00	0.00	43,874.33	1,268.26	45,142.58
Cryo1.03 Cryo Basic Engineering	Scheduled	33,093.96	236,082.70	0.00	0.00	0.00	0.00	269,176.66
Cryo1.04.01 LN2 system	Scheduled	4,514.95	409,013.92	0.00	0.00	0.00	0.00	413,528.87
Cryo1.04.02 Gas management system	Scheduled	57,841.53	178,224.26	0.00	0.00	0.00	0.00	236,065.78
Cryo1.04.03 ODH system	Scheduled	0.00	49,757.63	0.00	0.00	0.00	0.00	49,757.63
Cryo1.04.04 Cryo Refrigerator system	Scheduled	149,077.19	1,134,055.74	152,524.20	0.00	0.00	0.00	1,435,657.13
Cryo1.04.05 Cryo Compressor System	Scheduled	59,453.27	367,138.94	0.00	0.00	0.00	0.00	426,592.21
Cryo1.04.06 Cryo Interconnect Piping	Scheduled	225,594.62	512,339.28	0.00	0.00	0.00	0.00	737,933.91
Cryo1.04.07 Cryo Interconnect Electrical & Controls	Scheduled	46,627.36	119,526.30	0.00	0.00	0.00	0.00	166,153.66
Cryo1.04.08 Cryogenic Fluids	Scheduled	0.00	0.00	261,857.93	0.00	0.00	0.00	261,857.93
Cryo1.05.01 MU2e Interface Connection	Scheduled	0.00	70,813.93	320,085.24	704,422.87	125,292.07	15,615.62	1,236,229.74
Cryo1.05.02 g-2 interface connection	Scheduled	27,198.92	0.00	0.00	0.00	0.00	0.00	27,198.92
Cryo1.06 Cryo Safety Documents	Scheduled	0.00	155,311.42	0.00	0.00	0.00	0.00	155,311.42
Cryo1.07 Testing/Checkout	Scheduled	0.00	0.00	65,416.12	0.00	37,673.46	31,071.60	134,161.18
Cryo1.08 Cryo g-2 Acceptance Tests	Scheduled	0.00	11,968.50	102,502.33	0.00	0.00	0.00	114,470.83
Cryo1.09 Cryo MU2e Acceptance Tests	Scheduled	0.00	0.00	0.00	0.00	0.00	97,400.62	97,400.62
Cryo1.10 Cryo Distribution Box (CDB)	Scheduled	0.00	0.00	322,703.66	1,105,006.77	491,188.15	212,076.91	2,130,975.49
Cryo1.14 MC-1 Refrigerator Upgrades	Scheduled	0.00	0.00	0.00	155,882.14	133,317.14	0.00	289,199.28
Grand Total	Scheduled	658,342.28	3,375,923.74	1,333,174.17	2,141,147.60	993,693.14	384,155.06	8,886,436.00

Cryo CR023 Post CR CAP

Control Account:WBS (4)	Resource:TYPE	Results	FY13	FY14	FY15	FY16	FY17	FY18	Cumulative
Cryo1.02.01.01 Cryo AIP General Project Oversight - FY13		Scheduled	51,346.42	0.00	0.00	0.00	0.00	0.00	51,346.42
Cryo1.02.01.02 Cryo AIP General Project Oversight - FY14		Scheduled	3,594.06	129,557.05	0.00	0.00	0.00	0.00	133,151.10
Cryo1.02.01.03 Cryo AIP General Project Oversight - FY15		Scheduled	0.00	2,134.07	30,214.73	0.00	0.00	0.00	32,348.80
Cryo1.02.01.04 Cryo AIP General Project Oversight - FY16		Scheduled	0.00	0.00	3,820.92	170,506.37	0.00	0.00	174,327.29
Cryo1.02.01.05 Cryo AIP General Project Oversight - FY17		Scheduled	0.00	0.00	0.00	5,329.44	164,828.19	0.00	170,157.64
Cryo1.02.01.07 Cryo AIP Gen Proj OS - FY15 Supp		Scheduled	0.00	0.00	74,049.03	0.00	0.00	0.00	74,049.03
Cryo1.02.01.09 Cryo AIP General Project OS - FY18		Scheduled	0.00	0.00	0.00	0.00	0.00	26,722.06	26,722.06
Cryo1.02.01.10 Cryo Final Safety Documents		Scheduled	0.00	0.00	0.00	0.00	44,593.61	1,268.26	45,861.87
Cryo1.03 Cryo Basic Engineering		Scheduled	33,093.96	236,082.70	0.00	0.00	0.00	0.00	269,176.66
Cryo1.04.01 LN2 system		Scheduled	4,514.95	409,013.92	0.00	0.00	0.00	0.00	413,528.87
Cryo1.04.02 Gas management system		Scheduled	57,841.53	178,224.26	0.00	0.00	0.00	0.00	236,065.78
Cryo1.04.03 ODH system		Scheduled	0.00	49,757.63	0.00	0.00	0.00	0.00	49,757.63
Cryo1.04.04 Cryo Refrigerator system		Scheduled	149,077.19	1,134,055.74	152,524.20	0.00	0.00	0.00	1,435,657.13
Cryo1.04.05 Cryo Compressor System		Scheduled	59,453.27	367,138.94	0.00	0.00	0.00	0.00	426,592.21
Cryo1.04.06 Cryo Interconnect Piping		Scheduled	225,594.62	512,339.28	0.00	0.00	0.00	0.00	737,933.91
Cryo1.04.07 Cryo Interconnect Electrical & Controls		Scheduled	46,627.36	119,526.30	0.00	0.00	0.00	0.00	166,153.66
Cryo1.04.08 Cryogenic Fluids		Scheduled	0.00	0.00	261,857.93	0.00	0.00	0.00	261,857.93
Cryo1.05.01 MU2e Interface Connection		Scheduled	0.00	70,813.93	320,085.24	704,422.87	127,069.01	15,615.62	1,238,006.67
Cryo1.05.02 g-2 interface connection		Scheduled	27,198.92	0.00	0.00	0.00	0.00	0.00	27,198.92
Cryo1.06 Cryo Safety Documents		Scheduled	0.00	155,311.42	0.00	0.00	0.00	0.00	155,311.42
Cryo1.07 Testing/Checkout		Scheduled	0.00	0.00	65,416.12	0.00	38,254.64	31,071.60	134,742.36
Cryo1.08 Cryo g-2 Acceptance Tests		Scheduled	0.00	11,968.50	102,502.33	0.00	0.00	0.00	114,470.83
Cryo1.09 Cryo MU2e Acceptance Tests		Scheduled	0.00	0.00	0.00	0.00	0.00	97,400.62	97,400.62
Cryo1.10 Cryo Distribution Box (CDB)		Scheduled	0.00	0.00	322,703.66	1,105,006.77	494,326.28	212,076.91	2,134,113.62
Cryo1.14 MC-1 Refrigerator Upgrades		Scheduled	0.00	0.00	0.00	155,882.14	135,227.01	0.00	291,109.15
Grand Total		Scheduled	658,342.28	3,375,923.74	1,333,174.17	2,141,147.60	1,004,298.74	384,155.06	8,897,041.60