Muon Campus AIP

Change Request Form

CR#: Cryo007

1) DATE: 8/12/14	2)WBS: Cryo1.04.04	3) Originator: Ken Domann KRD

4) WBS Description of Primary Affected Tasks: Cryo Refrigerator System

5) Technical Description & Primary Motivation for Change: This change request requests approval to add a cooling water strainer to the Cryo scope. FESS will provide management services for the contract to deliver and install this strainer at no additional cost to the AIP. This scope increase is for the M&S and installation and results in an increase of $55,200 to the Cryo budget with the corresponding reduction in contingency.

6) Assessment of Cost Impact (Use attachments if needed): See Attachments for changes.

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

8) Secondary Impact & Other Comments: N/A

9) Approvals:

AIP Project Manager:	A. Klebaner	**Date:** 8/12/2014
AIP Project Coordinator:	Mary E	**Date:** 8/12/14
AD Div Director:		**Date:**
Directorate:		**Date:**

Cryo CR007 Material Costs Delta

8/12/2014

UID	WBS	Name	Start	Finish	Original M&S	New M&S	Delta	Comments
1	**Cryo1**	**Muon Campus Cryogenics - AIP**	**6/3/13**	**6/22/17**	**$2,544,545**	**$2,587,968**	**$43,423**	
833	**Cryo1.04**	**Cryogenic plant sub systems**	**6/17/13**	**2/1/16**	**$1,761,305**	**$1,804,728**	**$43,423**	
834	**Cryo1.04.05**	**Cryo Compressor System**	**6/17/13**	**6/30/14**	**$243,205**	**$286,628**	**$43,423**	
2792	**Cryo1.04.05.08**	**Cryo Compressor System Heat Exchangers**	**8/9/13**	**5/30/14**	**$135,825**	**$179,248**	**$43,423**	
2925	Cryo1.04.05.08.11	Deliver & Install Strainer	11/3/14	11/14/14	$0	$43,423	$43,423	New activity

Cryo Pre CR007 CAP

CTC	WP		FY12	FY13	FY14	FY15	FY16	FY17	Cumulative
A1301.02.01.01 Cryo AIP General Project Oversight - 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 Oversight - 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 Oversight - FY15									
		Scheduled	0.00	0.00	3,270.33	136,811.93	0.00	0.00	140,082.26
A1301.02.01.04 Cryo AIP General Project Oversight - FY16									
		Scheduled	0.00	0.00	0.00	3,351.06	140,861.21	0.00	144,212.27
A1301.02.01.05 Cryo AIP General Project Oversight - FY17									
		Scheduled	0.00	0.00	0.00	0.00	4,070.16	126,152.68	130,222.84
A1301.03 Cryo Basic Engineering									
		Scheduled	0.00	33,093.96	236,082.70	79,899.92	82,464.36	54,940.26	486,481.21
A1301.04.01 LN2 system									
		Scheduled	0.00	4,514.95	409,013.92	0.00	0.00	0.00	413,528.87
A1301.04.02 Gas management system									
		Scheduled	0.00	57,841.53	178,224.26	0.00	0.00	0.00	236,065.78
A1301.04.03 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	107,057.24	324,392.33	0.00	1,714,582.49
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	219,430.82	1,052,644.73	350,640.69	1,693,530.17
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 Testing/Checkout									
		Scheduled	0.00	0.00	0.00	73,625.45	0.00	77,957.59	151,583.04
A1301.08 Cryo g-2 Acceptance Tests									
		Scheduled	0.00	0.00	11,968.50	110,322.21	0.00	0.00	122,290.71
A1301.09 Cryo Mu2e Acceptance Tests									
		Scheduled	0.00	0.00	0.00	0.00	0.00	106,765.15	106,765.15
Grand Total									
		Scheduled	0.00	658,342.28	3,377,060.00	730,498.63	1,604,432.78	716,456.37	7,086,790.07

Cryo Post CR007 CAP

CTC	WP		FY12	FY13	FY14	FY15	FY16	FY17	Cumulative
A1301.02.01.01 Cryo AIP General Project Oversight - 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 Oversight - 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 Oversight - FY15									
		Scheduled	0.00	0.00	3,270.33	136,811.93	0.00	0.00	140,082.26
A1301.02.01.04 Cryo AIP General Project Oversight - FY16									
		Scheduled	0.00	0.00	0.00	3,351.06	140,861.21	0.00	144,212.27
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A1301.04.03 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	162,257.82	324,392.33	0.00	1,769,783.08
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
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		Scheduled	0.00	0.00	0.00	0.00	0.00	106,765.15	106,765.15
Grand Total									
		Scheduled	0.00	658,342.28	3,377,060.00	785,699.22	1,604,432.78	716,456.37	7,141,990.66