



U.S. ATLAS HL-LHC UPGRADE PROJECT BASELINE CHANGE PROPOSAL (BCP)

1) BCP Number: NSF-045A	2) BCP Title: LAr COVID-19 Impact May 2021-February 2022		
3) WBS Number: 6.4	4) WBS Title: LAr Electronics		
5) Date Submitted to Project Office:			
6) Change Designation: Priority [] Routine [X]	7) BCP WBS Level: Level 0 [] Level 2 [] Level 1 [X] Level 3 [X]	8) Directed Change? Yes [] No [X]	9) Funding Source: NSF
10) Contact: Penka Novakova Institution: BNL Email: penka@bnl.gov			
11) Change in response to [X] COVID-19 constraints, [] increased or realized risk(s) or [] effect of uncertainties If realized risk(s), list of risk IDs:			
12) Exception to 2-month BCP freeze period			
<ul style="list-style-type: none"> a) Large procurement updates should be allowed without this restriction [] b) All technical work that depend on the feedback or result from on-going or earlier tasks. [] c) Changes needed in response to collaboration needs. [] d) Changes in response to COVID-19 constraints. [X] 			
13) Change Description: The impacts of COVID-19 for the period May 2021-February 2022 are implemented in the RLS, including <ul style="list-style-type: none"> • Delays due to access restrictions or late delivery of components • Resource increases due to reduced work efficiency Only impacts due to COVID-19 are recorded, not impacts due to technical or other difficulties.			
14) Change Justification: This change is needed to keep track of the COVID-19 impacts and to remain able to track the project performance through EVM metrics.			
15) Impact of Non-Approval: Earned value management metrics extracted from schedule status reports will not be useful to track performance.			

U.S. ATLAS HL-LHC UPGRADE PROJECT BASELINE CHANGE PROPOSAL (BCP)

BCP Number: NSF-045A	BCP Title: LAr COVID-19 Impact May 2021-February 2022							
16) Impact on Cost Baseline:	Baseline (AY\$)	Proposed (AY\$)	Change (AY\$)					
	\$19,452,231	\$19,552,432	\$100,202					
17) Impact on Cost Baseline (AY\$):								
Row Labels	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Grand Total
After	583,577	1,807,961	2,704,462	3,485,288	3,198,489	6,384,818	1,387,837	19,552,432
6.04.01 FE Electronics	330,882	1,215,392	1,989,978	1,989,921	469,474	157,275		6,152,923
6.04.02 FEB2	123,501	230,517	287,102	651,787	2,112,264	3,216,174	844,579	7,465,925
6.04.03 BE Electronics	129,194	362,052	427,382	843,579	616,750	3,011,369	543,259	5,933,585
Before	583,577	2,007,321	4,937,101	1,529,474	4,153,882	5,962,614	278,262	19,452,231
6.04.01 FE Electronics	330,882	1,235,415	3,640,298	409,053	467,883	80,331		6,163,861
6.04.02 FEB2	123,501	300,654	562,867	505,179	2,783,806	2,999,634	123,681	7,399,322
6.04.03 BE Electronics	129,194	471,252	733,936	615,241	902,193	2,882,649	154,581	5,889,047
Grand Total	1,167,153	3,815,282	7,641,563	5,014,762	7,352,371	12,347,432	1,666,100	39,004,663
Diff								
6.04.01 FE Electronics	-	(20,023)	(1,650,320)	1,580,868	1,592	76,944	-	(10,939)
6.04.02 FEB2	-	(70,137)	(275,765)	146,608	(671,541)	216,540	720,898	66,603
6.04.03 BE Electronics	-	(109,200)	(306,554)	228,338	(285,443)	128,720	388,677	44,538
Total	-	(199,360)	(2,232,638)	1,955,814	(955,393)	422,204	1,109,575	100,202
18) Explanation of Impact on Cost Baseline:								
There is a \$100,202 cost increase which is due to escalation.								
Sum of Value	Column Labels							
Row Labels	DIRECT	FRINGE	OVERHEAD	ESC	Grand Total			
After	15,658,963	1,240,625	966,215	1,686,628	19,552,432			
6.04.01 FE Electronics	4,971,317	516,894	364,415	300,297	6,152,923			
6.04.02 FEB2	5,934,191	568,507	45,964	917,262	7,465,925			
6.04.03 BE Electronics	4,753,455	155,224	555,836	469,070	5,933,585			
Before	15,669,597	1,243,867	969,842	1,568,924	19,452,231			
6.04.01 FE Electronics	4,982,442	520,139	368,212	293,069	6,163,861			
6.04.02 FEB2	5,934,191	568,507	45,964	850,659	7,399,322			
6.04.03 BE Electronics	4,752,964	155,221	555,666	425,197	5,889,047			
Grand Total	31,328,560	2,484,492	1,936,057	3,255,553	39,004,663			
Diff								
6.04.01 FE Electronics	(11,125)	(3,245)	(3,797)	7,228	(10,939)			
6.04.02 FEB2	(0)	(0)	-	66,603	66,603			
6.04.03 BE Electronics	491	3	170	43,873	44,538			
Total	(10,634)	(3,242)	(3,626)	117,704	100,202			
19) Impact on Schedule Baseline:								
The delays to the project delivery dates are (in working days):								
<ul style="list-style-type: none"> • 6.4 LAr: FEB2 (6.4.2) 5m, BEE hardware (6.4.3.1) 6.5m, BEE firmware (6.4.3.2) 6.5m 								
20) Explanation of Impact on Schedule Baseline:								
The delays are due to lab access limitations and reduced work efficiency due to COVID-19 constraints.								

**U.S. ATLAS HL-LHC UPGRADE PROJECT
BASELINE CHANGE PROPOSAL (BCP)**

BCP Number: NSF-045A		BCP Title: LAr COVID-19 Impact May 2021-February 2022	
21) Impact on Scope Baseline:			
Item	Baseline	Proposed	Change
22) Explanation of Impact on Scope Baseline: N/A			
23) Risk Analysis for the proposed change: N/A			
24) Explanation of Risk Analysis for the proposed change: The COVID-19 risk is owned by NSF.			
25) Other Impacts: (Health, Safety, Environment, etc.) Safety measures have been put in place everywhere following the locally mandated protocols. The good health of all participating personnel remains our top priority.			
26) Interim or Corrective Actions:			


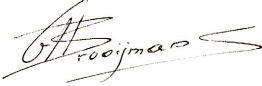


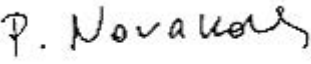





Acknowledged by Control Account Manager

U.S. ATLAS HL-LHC UPGRADE PROJECT BASELINE CHANGE PROPOSAL (BCP)

BCP Number: NSF-045A

BCP Title: LAr COVID-19 Impact May 2021-February 2022

PROJECT DISPOSITION – LEVEL 3

27) REVIEW	RECOMMENDATIONS:
U.S. ATLAS HL-LHC Upgrade Project Manager J. Kotcher 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC Upgrade Deputy Project Manager G. Brooijmans 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC Technical Coordinator H. Evans 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC NSF Principal Investigator M. Tuts 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC Project Controls Manager P. Novakova 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC Risk Manager C. Meyer 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC L2 Manager Name/Title 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC Deputy L2 Manager Name/Title 	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22
U.S. ATLAS HL-LHC L3 Manager Name/Title  	Disposition <input checked="" type="checkbox"/> Approve [] Reject DATE: 3/16/22

AGENCY DISPOSITION - LEVEL 1

28) Federal Project Director, BHSO
Robert Caradonna

Disposition Approve Reject Concur

DATE:

DOE Program Manager
Ted Lavine

Disposition Approve Reject Concur

DATE:

DOE Acquisition Executive
J. Stephen Binkley

Disposition Approve Reject

DATE:

NSF Program Officer
Mark Coles

Disposition Approve Reject

Mark Coles

DATE: March 17, 2022

NSF Grants and Agreements or Contracts Officer
TBD

Disposition Approve Reject

DATE:

29) Explanation (If Action is Approved with Conditions, or Not Concurred Upon)