From: linetremblay@lowerchurchillproject.ca To: edover@lowerchurchillproject.ca

Subject:

Date: Wednesday, July 22, 2015 5:05:14 PM

Attachments: .png .png

CHR 2011 rev00.pdf

AH-Letter-PM-022.pdf

Ed,

We are aware of this CHR, however, an AH letter (copy enclosed) to update it was issued on 18 June.

Regards

Line Tremblay Senior Contract Coordinator PROJECT DELIVERY TEAM Lower Churchill Project

t. **709 778-6698** f. **709 754-0787**

e. LineTremblay@lowerchurchillproject.ca

w. muskratfalls.nalcorenergy.com



Ed Over---07/22/2015 04:15:15 PM---Line, Here is the CHR

From: Ed Over/LCP/NLHydro

To: Line Tremblay/NLHydro@NLHYDRO,

Date: 07/22/2015 04:15 PM

Subject:

Line,

Here is the CHR

Ed Over

Sr. Advisor-Commercial Strategies **PROJECT DELIVERY TEAM**

Lower Churchill Project

- t. **416-252-5315 Ext. 53675**
- e. EdOver@lowerchurchillproject.ca
- w. muskratfalls.nalcorenergy.com



LOWER CHURCHILL
PROJECT

CIMFP Exhibit P-02900 CHANGE REQUEST

Page 3

Agreement No:	CH0032-001	CHR No. (Reference):	CHR 2011
	Supply and Install Powerhouse and		
	Spillway Hydro-Mechanical		
Agreement Title:	Equipment	Rev. No:	00
Company:	Muskrat Falls Corporation	CHO No.:	
Contractor/Supplier:	Andritz Hydro Canada Inc.	Date:	16-Jan-2015
		Aconex No.:	
		DAN No.:	

Description of Change Request and Reason (attach all supporting information):

Change of Interface No. I1A of Exhibit 9:

LCP letter LTR_CH0032001-009 advised AH of the delay of Interface No. I1A Upstream of Spillway ready for start of Hydro-Mechanical Works of Exhibit 9. This change will result in a schedule and cost impact to AH.

- In terms of the cost,
 - 1) The preliminary cost impact is estimated at about \$ 40,000 / day which includes project and site extension of time, financial instruments and insurance cost, cash flow interest and warranty extension of time and other costs of this nature.
 - 2) Storage costs are not included since AH is in the process of estimating these costs. AH intends to reorganize its production priorities according to the new starting date. This approach may help reducing the total cost impact related to storage and also minimize the negative effect of the storage on the final quality of the product.
 - 3) Subcontractor standby cost, equipment standby cost and site labour rate adjustments also have not been included in the above estimate due to the complexity of the quantification process which involves different parties and the occurrence is ongoing. As per Contract clause 26.8 C (ii), AH will continue the quantification of this change request, and shall provide the quantification promptly following the end of the occurrence.
- In terms of the Schedule, all the milestones dates listed in Exhibit 9 except the ones completed by now will be delayed by minimum on a day for day basis. LDs will be delayed accordingly.

Supporting information that forms part of this Change Request:

Attachment 1 – ANDRITZH-EMAIL-000859

Attachment 2 – AH Letter – PM 001

Attachment 3 - LTR-CH0032001-009

Attachment 4 – ANDRITZH-EMAIL-001207

Attachment 5 – AH Letter – PM 003

Attachment 6 - ANDRITZH-EMAIL-001243

Attachment 7 - AH Letter - PM 004

LOWER CHURCHILL
PROJECT

CIMFP Exhibit P-02900 CHANGE REQUEST

Page 4

r								
Descrip	tion of impact on Control	Schedule:						
a day fo	or day basis.	Exhibit 9 except the ones co		·	will be delayed	by minimum on		
Lump s	um price (or estimated co	st) and adjustment to the C	ontract F	rice:				
Item	Desc	Description UOM QTY Unit Price Extended Price						
	Estimation on going							
			Value o	of this Ch	ange Request:			
ORIGIN	ATOR COMPAN	IY 🛛 CONTRACTOR/SU	PPLIER					
	Title	Name		Signa	ture	Date		
	Project Manager	Mathieu Bertrand FC/L	104	Me		16-Jan-2015		
Project Commercial Manager		Nicole Hu	mil HU			16-Jan-2015		
Receive	ed by:	esablication areas	When,	- STORING	the late I will a	readily.		
	Title	Name		Signa	Date			

CIMFP Exhibit P-02900

Thread

Thread Mail No Type Subject From Recipients Status Date -ANDRITZH-CH0032 - 001 - Notification Mr Scott N/A 11/09/2014 Email Ms Mary Grace EMAIL-000859 of Delays / Possible delay to Balenzano -O'Brien milestone date (AH Letter -ANDRITZ HYDRO Nalcor Energy PM 001)



Email - ANDRITZH-EMAIL-000859

CH0032 - 001 - Notification of Delays / Possible delay to milestone date (AH Letter - PM 001)

From Ms Mary Grace Balenzano - ANDRITZ HYDRO To Mr Scott O'Brien - Nalcor Energy Mathieu Bertrand - ANDRITZ HYDRO **⊡** Cc (8) Lucio D'Alessandro - ANDRITZ HYDRO Johann Hary - ANDRITZ HYDRO Mrs Nicole Hu - ANDRITZ HYDRO Mr Bill Mavromatis - ANDRITZ HYDRO Mr Bruce Drover - Nalcor Energy Adam Kavanagh - Nalcor Energy Ms Line Tremblay - Nalcor Energy Sent Thursday, 11 September 2014 7:27:45 PM BST (GMT +01:00) Status N/A File Attachments (1) Zip Download File Name AH Letter - PM 001.pdf

Message

Hi-

Please find attached letter AH Letter - PM 001; Notification of Delays / possible delay to milestone date.

Page 6

CIMFP Exhibit P-02900

Regards, Mary Grace Balenzano Document Controller

Attributes	
Attribute 1	Letter (LTR)
Attribute 2	CH0032-001 Intake and Powerhouse Gates
NOTES	



Muskrat Falls Corporation Re: Lower Churchill Project Muskrat Falls Corporation 350 Torbay Road Plaza, Suite No. 2 St. John's, NL, A1A 4E1

September 10th, 2014

Attention: Scott O'Brien - Project Manager, Component 1

Ref: AH Letter - PM 001

Object: CH0032 - Notification of Delays / possible delay to milestone date

Dear Mr. O'Brien,

Based on actual physical progress observed to date on the spillway foundation slab, Andritz has assessed that the Exhibit 9 I1A Milestone date of 16th February 2015 is at material risk of not being maintained. Since Andritz has not yet been notified by LCP of any change to the Exhibit 9 milestone schedule, AH will continue with its current mobilization as per plan.

In the event that the I1A Milestone is delayed, this letter is to notify LCP that this change will result in a schedule and cost impact to AH that can only be thoroughly evaluated once the revised Milestone Schedule from LCP has been received.

Best regards,

Mathieu Bertrand Project Manager Andritz Hydro Ltd.

Andritz Hydro Ltd. 6100 aut. Transcanadienne Pointe-Claire, Canada, H9R 1B9 Phone: 514 428-6866 Fax:514-428-6712 Mathieu.bertrand @andritz.com www.andritz-hydro.com

Muskrat Falls Corporation

Corporate Office 500 Columbus Drive P. O. Box 15000, Stn. A St. John's, NL Canada A1B 0M4 Lower Churchill Project Operations Office 350 Torbay Road, Suite 2 St. John's, NL Canada A1A 4E1

15 December, 2014

LTR-CH0032001-0009

ANDRITZ HYDRO LTD. 6100 Trans-Canada Hwy. Pointe-Claire, Quebec H9R 1B9

Attn: Mr. Mathieu Bertrand

Subject:

Agreement CH0032-001

Supply and Install Powerhouse and Spillway Hydro-Mechanical Equipment

Exhibit 9 – Interface and Milestone Schedule - Revision

Dear Mr. Bertrand,

With respect to Interface No.I1A – Upstream of Spillway ready for start of Hydromechanical Works of Exhibit 9 – Interface and Milestone Schedule of the above-noted Agreement, Company advises that the contractual date of 16 February 2015 is currently forecasted for middle to late Q2 2015. We will be scheduling meetings with our civil contractor and yourself early in 2015 to refine the actual date.

Company requires Andritz Hydro Ltd. to take into consideration the above while planning to perform the Work.

Yours truly,

Scott O'Brien

Project Manager – Muskrat Falls Generation

Project Delivery Team

Lower Churchill Project

CIMFP Exhibit P-02900

Thread

Thread

Mail No

Subject Type

From

Recipients

Status

N/A

Date

ANDRITZH-

CH0032: Response to Email EMAIL-001207 letter: LTR-CH0032001-

Balenzano -ANDRITZ HYDRO

Ms Mary Grace Nalcor Energy

Mr Bruce Drover

12/19/14

Construction Management Nalcor Energy 350 Torbay Road, Suite 2 St. John's, NL A1A 4E1 Canada



Email (Confidential)

□ Cc (3)

From

ANDRITZH-EMAIL-001207

Mr Bruce Drover - Nalcor Energy(Confidential) □ To (4)

Mr Frank Gillespie - Nalcor Energy(Confidential)

Mr Scott O'Brien - Nalcor Energy(Confidential) Ms Line Tremblay - Nalcor Energy(Confidential)

Mathieu Bertrand - ANDRITZ HYDRO(Confidential)

Lucio D'Alessandro - ANDRITZ HYDRO(Confidential) Mrs Nicole Hu - ANDRITZ HYDRO(Confidential)

CH0032-001 Intake and Powerhouse Gates

Ms Mary Grace Balenzano - ANDRITZ HYDRO(Confidential)

Sent Friday, December 19, 2014 9:49:21 PM GMT (GMT +00:00)

Attribute 1 Letter (LTR)

Attribute 2

Status N/A

CH0032: Response to letter: LTR-CH0032001-009 Subject

File Attachments (1)

Zip Download

🔼 AH Letter - PM 003.pdf

Hi-

please see attached the Andritz response to letter: LTR-CH0032001-009.

Regards, Mary Grace Balenzano **Document Controller**

Refer To Mail No From From Organization Subject



Muskrat Falls Corporation Re: Lower Churchill Project Muskrat Falls Corporation 350 Torbay Road Plaza, Suite No. 2 St. John's, NL, A1A 4E1

December 18th, 2014

Attention: Scott O'Brien - Project Manager, Component 1

Ref: AH Letter - PM 003

Object: CH0032 - Response to letter LTR-CH0032001-009

Dear Scott,

Andritz Hydro confirms receipt of LCP's letter LTR-CH0032001-009 dated December 17th, 2014 advising AH of a schedule delay.

Unless LCP objects, AH will proceed under the assumption that the contractual start date for Interface No I1A of February 16th, 2015 is now delayed to May 15th, 2015 (the mid-point of Q2). Effective immediately, AH will work with this new start date to reduce further impacts caused by this delay and align its continued site mobilization activities with this new schedule.

AH hereby notifies LCP that this delay will result in both cost and schedule impacts. AH will assess and evaluate the impacts in detail will present our assessment to LCP as soon as it is completed.

In the meantime, as discussed at the last executive meeting in November, AH requests that LCP provide a revised version of the contractual Exhibit 9 reflecting this schedule delay to provide clarity on important commercial factors such as LDs and bonuses.

Best regards,

Mathieu Bertrand Project Manager Andritz Hydro Ltd.

Andritz Hydro Ltd. 6100 aut. Transcanadienne Pointe-Claire, Canada, H9R 1B9 Phone: 514 428-6866 Fax :514-428-6712 Mathieu.bertrand @andritz.com

www.andritz-hydro.com

CIMFP Exhibit P-02900

Thread

Thread Mail No Type Subject From Recipients Status Date

ANDRITZH- Email CH0032: AH Ms Mary Grace Balenzano Mr Scott O'Brien - N/A 1/9/15 EMAIL-001243 Letter - PM 004 - ANDRITZ HYDRO Nalcor Energy

Construction Management Nalcor Energy 350 Torbay Road, Suite 2 St. John's, NL A1A 4E1 Canada



Email ANDRITZH-EMAIL-001243

To Mr Scott O'Brien - Nalcor Energy

☐ Cc (7) Mathieu Bertrand - ANDRITZ HYDRO

Lucio D'Alessandro - ANDRITZ HYDRO

Mrs Nicole Hu - ANDRITZ HYDRO
Mr Bill Mavromatis - ANDRITZ HYDRO

Mr Bruce Drover - Nalcor Energy
Mr Frank Gillespie - Nalcor Energy
Ms Line Tremblay - Nalcor Energy

From Ms Mary Grace Balenzano - ANDRITZ HYDRO

Sent Friday, January 9, 2015 9:17:01 PM GMT (GMT +00:00)

Attribute 1 Letter (LTR)

Attribute 2 CH0032-001 Intake and Powerhouse Gates

Status N/A

Subject CH0032: AH Letter - PM 004

File Attachments (1)

Zip Download

AH Letter - PM 004.PDF

Hi-

please find a letter regarding the Exhibit 9 - Interface Milestone Schedule - Revision, AH request for Change order.

Regards, Mary Grace Balenzano Document Controller

Refer To Mail No From From Organization Subject



January 9th, 2015

AH -Letter- PM- 004

Muskrat Falls Corporation Re: Lower Churchill Project Muskrat Falls Corporation 350 Torbay Road Plaza, Suite No. 2 St. John's, NL, A1A 4E1

Attention: Scott O'Brien - Project Manager, Muskrat Falls Generation

Subject: CH0032-Supply and Install Powerhouse and Spillway Hydro-Mechanical Equipment

Exhibit 9 - Interface and Milestone Schedule - Revision

AH Request for Change Order

Reference(s): LCP letter LTR_CH0032001-009

Dear Mr. O'Brien,

On December 17th, 2014 Andritz Hydro received LCP letter LTR_CH0032001-009 advising us of the delay to Interface No. I1A Upstream of Spillway ready for start of Hydro-Mechanical Works of Exhibit 9. The letter also stated that LCP would schedule meetings with AH and the LCP civil contractor in early 2015 to refine the actual date. AH has since been advised via Aconex E-mail that the meeting with the LCP civil contractor is planned for February 2015.

Pursuant to Article 26 clause 26.8 c) of the Agreement, AH must request a Change Order from LCP within thirty (30) days of the occurrence that constitutes a change. AH was made aware of the change to this milestone date on December 17th, 2014, therefore the deadline for requesting a Change Order in accordance with the contract stipulations is January 16th, 2015. However, in consideration of the on-going nature of the delay and that the meeting with the civil contractor to refine the actual date will be held in February 2015, AH requests an extension to the January 16th, 2015 deadline of (30) days resulting in a new deadline of February 15th, 2015.

We are looking forward to your reply at the earliest possible.



Best regards,

Mathieu Bertrand Project Manager

Andritz Hydro Ltd.

CC: Frank Gillespie, LCP Deputy Company Representative/Area Manager Bruce Dover, LCP Package Leader - Hydro Mechanical Equipment Line Tremblay, LCP Senior Contract Administrator



June 18th, 2015

AH -Letter- PM- 022

Muskrat Falls Corporation Lower Churchill Project Muskrat Falls Corporation 350 Torbay Road Plaza, Suite No. 2 St. John's, NL, A1A 4E1

Attention: Scott O'Brien - Project Manager, Muskrat Falls Generation

Subject: CH0032. Supply and Install Powerhouse and Spillway Hydro

Mechanical Equipment

Extension of Time ("EOT") Daily Cost Preliminary -Estimate

Reference: CH0032: LCP Change Order 006 – Exhibit 9 – Milestones I1A and I1B delayed

Dear Mr. O'Brien,

Please find attached Andritz Hydro's updated preliminary estimate of the cost impact as a consequence of the delay to the start of installation activities on the spillway upstream and downstream - Milestones I1A and I1B respectively. The estimate has been updated from what was presented to LCP via CHR 2011 dated January 16th, 2015, and is expressed in two different daily rate values, one for delays occurring before site mobilization and one for delays occurring after site mobilization.

This estimate is submitted to LCP for information and planning purposes and is based on AH preliminary assessments and cost estimates provided by AH subcontractors. AH reserves its right to assess and claim all actual costs and schedule impacts resulting from LCP schedule delay.



Please feel free to contact me should you have any questions.

Yours truly,

Bill Mavromatis Project Manager

Andritz Hydro Canada Inc.

ENCLOSURE: Daily EoT Cost Estimate Table (1 page)

CC: Frank Gillespie, LCP Deputy Company Representative/Area Manager Bruce Drover, LCP Package Leader - Hydro Mechanical Equipment Line Tremblay, LCP Senior Contract Administrator Jean-Francois Harpin, AH LH Manager Operations Nicole Hu, AH Commercial Manager



Muskrat Falls Gates - Daily EOT Cost Estimate for Delay Occurring Before/After Site Mobilization

			Da	ily Estimate	Г	-						
				for delay								
Ra				irring before					1			
nk	Category	Description Claim Item		Mobilization		HCA		HAL		Hemi	C	anmec
1	Non-site	Office Staff extension of time	\$	17 087	\$	12 154	\$	2 591	\$	2 343		
2	Non-site	Equipment Warranty extension of time	\$	10 318	\$	5 790	\$	3 486	\$	1 042		
3	Non-site	Insurance, Bonds and LoC extension of time	\$	4 017	\$	4 017						
4	Non-site	Interest associated with Payment Milestone	\$	378	\$	321	\$	56				
5	Site	Escalation for rental or purchased site items	\$	96	\$	96						
6	Site	Site Staff (rate adjustment only applies for before mobilization)	\$	663	\$	243	\$	188	\$	233		
		Site Indirect Labour (rate adjustment only applies for before										
7	Site	mobilization)	\$	471	\$	471						
		Site Direct Labour rate adjustment (exclu Canmec mechanical				-						
8	Site	installation labor)	\$	667	\$	667						
		Loss of Synergy between CH0030 and CH0032 (if CH0030 has					P					
9	Site	not mobilized)	\$	8 842	\$	8 842						
10	Site	Site Staff T&L escalation	\$	112	\$	33	\$	52	\$	27		
11	Site	Site infrastructure/tooling extension of time	\$	67	\$	67						
12	Site	Site running costs (Phone, internet, vehicle and crane rental)	\$	+	\$							
13	Non-site	Subcontractor / Canmec EOT claim cost	\$	13 664							\$	13 664
14	Non-site	Home office Overhead	\$	2 819	\$	1 635	\$	319	\$	182	\$	683
		Subtotal before 15% markup	\$	59 199	\$	34 334	\$	6 692	\$	3 826	\$	14 347
15	Non-site	15% Markup on all above items except Items #1,6, 7, 8 & 9	\$	4 720	\$	1 794	\$	587	\$	188	\$	2 152
		Total	\$	63 919	\$	36 128	\$	7 279	\$	4 014	\$	16 499

	dela	r Estimate for ny occurring after Site						
Description Claim Item		obilization	HCA	HAL		Hemi		anmec
Office Staff extension of time	\$	17 087	\$ 12 154	\$ 2 591	\$	2 343		
Equipment Warranty extension of time	\$	10 318	\$ 5 790	\$ 3 486	\$	1 042		
Insurance, Bonds and LoC extension of time	\$	4 017	\$ 4 017					
Interest associated with Payment Milestone	\$	378	\$ 321	\$ 56				
Escalation for rental or purchased site items (incl. subcontractor)	\$	96	\$ 96					
Site Staff extension of time	\$	22 775	\$ 8 328	\$ 6 460	\$	7 987		
Site Indirect Labour extension of time	\$	9 950	\$ 9 950					
Site Direct Labour rate adjustment	\$	667	\$ 667					
Loss of Synergy between CH0030 and CH0032 (if CH0030 has not								
mobilized)	\$	8 842	\$ 8 842					
Site Staff T&L escalation	\$	112	\$ 33	\$ 52	\$	27		
Site infrastructure/tooling extension of time	\$	67	\$ 67					
Site running costs (Phone, internet, vehicle and crane rental)	\$	517	\$ 517					
Subcontractor / Canmec EOT claim cost	\$	16 444					\$	16 444
Home office Overhead	\$	3 715	\$ 2 513	\$ 632	\$	570	\$	
Subtotal before 15% markup	\$	94 983	\$ 53 294	\$ 13 277	\$	11 968	\$	16 444
15% Markup on all above items except Items #1,6, 7, 8 & 9	\$	5 349	\$ 2 003	\$ 634	\$	246	\$	2 467
Total	\$	100 332	\$ 55 297	\$ 13 911	\$	12 214	\$	18 910

Notes:

- a. The above EOT daily cost assessment is a pre-estimate only. The claim will be based on the actual hours and costs incurred.
- b. The above EOT daily cost estimate is based on the blended daily cost per calendar day.
- c. Site labour rate adjustment for the Collective Agreement beyond May 2018 is estimated above and will be reimbursed by LCP based on the Collective Agreement issued for the period May 1, 2018 going forward.
- d. Site labour T&L has been excluded which shall be reimbursed based on actual cost incurred.
- e. Goose Bay storage for anchors beyond Jun 30, 2015 will be addressed by a change order.
- f. Site staff and indirect labour hardship (disruption) is not included above.
- g. Assuming Installation climatic conditions remain as per C1 Baseline plan
- h. Canmec price excludes1) Protection and temporary storage of equipment; 2) financial and insurance cost.