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LTR-CH0031001-0293

Feb 11, 2019

Muskrat Falls Corporation
 Lower Churchill Project
 350 Torbay Road Plaza, Suite 2
 St John's NL A1E 4E1

Attention: Mr. Scott O'Brien

**Re: Supply and Install Mechanical and Electrical Auxiliaries (MF), Agreement CH0031-001
 Notice of Change – Project Extension of Time
 Ref. No. TC006-MFC-0164**

Dear Mr. O'Brien,

For the duration of the project, Contractor has been working diligently to progress the Work in collaboration with Company notwithstanding the fluidity of work front accessibility and continuing challenges interfacing with Company's Other Contractors. As discussions continue between Contractor and Company regarding the schedule outlook for the balance of the project, it is the understanding of Contractor that Company is reaching the stages to finalize a newly revised Exhibit 9 that will address the concerns raised by Contractor since early 2018. Contractor remains committed to working together with Company to establish a new schedule and execution approach that aligns with adjusted priorities that may be outlined by Company's "First Power" plan.

With reference to letter LTR-CH0031001-0278, Contractor is encouraged by Company's confirmation that milestones and associated Liquidated Damages will not be imposed. However, Contractor cannot overlook and dismiss that the evolving project schedule will result in a substantial back-loading of planned construction and commissioning activities due to deferred availability of key work areas and outstanding engineering. As detailed within Contractor letter LTR-CH0031001-0263, the actual access dates have moved substantially from those committed under the original Exhibit 9 and subsequent revision provided within CHO-CH0031001-0017. As of the issuance date for this letter, several critical interfaces remain outstanding which have been summarized within the supporting letter Attachment document.

Based upon discussions with Company, it is understood that the balance of key interfaces will experience further delays, Contractor has taken appropriate actions to mitigate where possible by reducing its workforce and adjusting shift schedules to prolong turnaround days off as a means to promote retention of Personnel. Current preliminary forecast histograms reported by Contractor detail a substantial extension of resources into the later part of 2019. This situation will result in several impacts that will increase project costs for Contractor including:

- Extension of staff resources to manage the Work past planned finish dates.
- Prolonged assignment and utilization of construction equipment and site infrastructure.
- Indirect trade crews required to operate the site and support the permanent works will be extended well past the planned demobilization date. Consideration for adjustment to the Adjusted Target Cost of Labour ("ATCL") will need to be addressed accordingly.



- Impacts to direct trade productivity due to workforce reductions and hiring untrained replacements at a later date. Finalizing the balance of remaining engineering also continues to increase productivity risk as well. Again, this labour cost impact will also need to be resolved through an adjustment of the ATCL threshold.
- Increase to the trade travel budget to account for growth of forecasted direct and indirect trade expenditures.

Once revised Exhibit 9 dates are formalized, Contractor will fully evaluate the impact on Contractor's plan and present to Company a Change Request with an extension of time analysis for the Work with associated cost impacts. In the interim, Contractor awaits further direction from Company through its pending release of a Change Order with the revised Exhibit 9 including new dates for all of Contractor's remaining Work and supporting new scope defining documents for Unit 1 and GSU transformer back-feed readiness. Contractor will continue to manage resources to minimize the commercial impact where possible while remaining focused on supporting Company and Company's other contractors in achieving First Power.

Please contact the undersigned with any questions or for further information.

Yours truly,

Tim Harrington
Project Manager, Lower Churchill Project
Cahill Ganotec, a Partnership

Attachment: Overdue Exhibit 9 Interfaces and Schedule Reforecast

Cc/ Tim Harrington, Mike Buckle, John Henley, Kumar Kandaswamy, David Burton, Paul Forsey, Laurie Hildebrand, Brad Bursey, James Parmiter, Julie Canuel, Jeff Butler

Letter TC006-MFC-0164 Attachment - Overdue Exhibit 9 Interfaces and Schedule Reforecast

| Interface No. | Description | Contractor Comment | Per Exhibit 9 | Variance as of Feb 11th 2019 (# of days) |
|---------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------|
| I-GEN-4 | Collector Lines available for connection to GSUs (Units 1 & 2). | Contractor has no insight as to start of the collector line installations. GSU subsystem completions walkdowns have subsequently been deferred. | 2-Mar-18 | 346 |
| I-GEN-6 | External power available for backfeed to station services through GSU Units 1 & 2. | No update has been made available. Note, intake water-up will also need to be completed prior to backfeed to ensure a water source is available for operating the GSU deluge system. | 5-Nov-18 | 98 |
| I-SSB-10 | Access to Administrative and Backup Power Block adjacent to South Service Bay & Unit 1, ready for start of Work by CH0031. | Contractor only has limited access at this time. Roof needs to be completed by others to allow architectural and fireproofing work to begin in advance of electrical / mechanical outfitting. | 3-Sep-18 | 161 |
| I-UN1-11 | Access To Unit Stator Ready For CH0031 Start | Contractor has no visibility regarding timeline for this interface. | 19-Nov-18 | 84 |
| I-UN2-11 | Access To Unit Stator Ready For CH0031 Start | Contractor has no visibility regarding timeline for this interface. | 16-Feb-18 | 360 |
| I-UN3-8 | Access to Unit 3 Bay Area el. 6.5 m and el 15.5 m and ready for start of Work by CH0031. | Latest informal update from Company indicates access is now being targetted for early April 2019 | 12-Nov-18 | 91 |
| I-UN3-9 | Unit No. 3 Generator Circuit Breaker G3T3 delivered at Muskrat Falls Site and ready for start of Work by CH0031 | Generator circuit breaker is on site in storage. Installation can not proceed until U3 access is granted. | 17-Jul-18 | 209 |
| I-UN3-10 | Unit No. 3 Isolated Phase Bus delivered at Muskrat Falls Site and ready for start of Work by CH0031. | IPB is on site in storage. Installation can not proceed until U3 access is granted. Welding crew has been reassigned / demobilized. | 17-Jul-18 | 209 |
| I-UN4-8 | Access to Unit 4 Bay Area el 6.5 m and el 15.5 m and ready for start of Work by CH0031. | Latest informal update from Company indicates access is now being targetted for early May 2019. | 24-Dec-18 | 49 |
| I-UN4-9 | Unit No. 4 Generator Circuit Breaker G4T4 delivered at Muskrat Falls Site and ready for start of Work by CH0031. | Generator circuit breaker is on site in storage. Installation can not proceed until U4 access is granted. | 17-Jul-18 | 209 |
| I-UN4-10 | Unit No. 4 Isolated Phase Bus delivered at Muskrat Falls Site and ready for start of Work by CH0031. | IPB is on site in storage. Installation can not proceed until U4 access is granted. Welding crew has been reassigned / demobilized. | 17-Jul-18 | 209 |
| I-NSB-5 | Access to North Service Bay and ready for start of Work by CH0031. Reference Column Lines A25 to C27. | Contractor has been advised that Company's Other Contractors will utilize this area as a laydown for the remaining U3/U4 civil work. Access expected to be further defered to May 2019. | 7-Jan-19 | 35 |
| I-SPW-1 | Access to Spillway and ready for start of Work by CH0031. | Remaining work for the Spillway also dependent on access to U4 due to routing of utility services. | 3-Oct-17 | 496 |

Letter TC006-MFC-0164 Attachment - Overdue Exhibit 9 Interfaces and Schedule Reforecast

| Interface No. | Description | Contractor Comment | Per Exhibit 9 | Variance as of Feb 11th 2019 (# of days) |
|---------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------|
| I-NTD-1 | Access to North Transition Dam and ready for start of Work by CH0031 | Formal interface has not been issued. Contractor is coordinating with Company to gain access mid-February 2019. | 3-Oct-17 | 496 |
| I-NOD-1 | Access to North Dam and ready for start of Work by CH0031. | Formal interface has not been issued. Contractor is coordinating with Company to gain access mid-February 2019. | 1-Aug-18 | 194 |

