


MOM-CH0007001-0090



Minutes of Meeting #038

Project:	Lower Churchill Project	Package No.:	CH0007-001
Purpose:	Weekly Progress Meeting # 038	Package Title:	Construction of Intake & Powerhouse, Spillway & Transition Dams
Location:	Muskrat Falls Project Orientation Trailer	Date / Time:	19-Nov-2014/ 2:00pm
Teleconference Call-in Number: TBA		Conference code: TBA	

Attendees:	Company: Mel Melhem (Contract Administrator) Hisham Geres (Contract Administrator) Peter Mulcahy (Cost Engineer) Ayad Kareem (Resident Engineer) Frank Allaire (QA Advisor) Neil Ferguson (Site Technical Manager) Tim Rossy (Package Engineer – Powerhouse) Paul Aucoin (Site Project Controls Manager) Gill Gfeller (QA Advisor) Terry Woodland (QA Advisor) Jason Barnes (Environmental Manager) Chris Browne (Health & Safety Lead) Louise Hough (Information Management) Steve Rumbolt (Quantity Surveyor)	Contractor (Astaldi): Giousue Pani (Methods Statements Engineer) Roger Hopkins (Contract Admin. Manager) Erasmio Bassano (Construction Management) Nathaniel Loewen (Quality Control) Shem Evans (environmental Advisor) Roger Biles (Environmental Manager) Larry Pittman (LR / HR Manager) Fabio Costa (Planner) Allan Layte (Safety Manager) Bailey Rempel (Document Control Manager) Zinool Solomon (Quantity Survey Manager)
Attendees via telephone link:		
Distribution:	COMPANY: Company Attendees, plus: Desmond Tranquilla (Site Manager) Scott O'Brien (MFG Project Manager) Andre Mosser (Package Engineer) Alphonsus Kelly (Contracts Manager) Kevin Miller (HSS Manager) John King (QA Lead) Mark McGrath (HR Labour Relations Advisor) Mike Collins (Package Lead) Mark Peddle (Quality Manager) Bill Knox (Deputy Construction Manager) Roy Collier (Deputy Area Construction Manager)	CONTRACTOR (ASTALDI): Contractor Attendees, plus: Jose Alves Pereira Neto (Project manager) Christine Bartol (Deputy H&S Manager) Marcus Linehan (Labour Relations) Michele Civiero (Chief Engineer) Georges Bader (Planner) Grace de Beer (Environmental Manager) Vittorio Robiati (Construction Manager) Quentin Cox (Deputy Safety Manager) Giuseppe Di Maita (Qty. Survey Resp.) Edy Lucchini (Deputy Project Manager) Enrico Violato (Project Controls) Shandon Jones (Lead Superint. – Powerhouse) Rick Lewis (Deputy PM) Enzo Raho (QHSE Manager)
Recorded by:	Hisham Geres / Steve Rumbolt / Mel Melhem	Signature: 



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Item	Description	Action By	Date
1.0	SAFETY MOMENT		
	<ul style="list-style-type: none"> When working in snow, clothing will likely get wet. Ensure alternate articles of clothing are available i to remain dry and warm. Also, ensure that drying of wet clothes is done responsibly, do not place wet clothes, boots directly on or too close to heating elements. Check that window blinds also do not fall on these heating elements. 	Info	
2.0	HEALTH AND SAFETY		
2.1	<u>Statistics & Incidents Review:</u> <ul style="list-style-type: none"> See Muskrat Falls Generation weekly project statistics and incidents listed in Aconex Construction Management Email LCP-CM-EMAIL-028859. See Astaldi weekly project statistics in Aconex Construction Management Email LCP-CM-EMAIL-029346 Company noted that slips/trips/falls type incidents typically increase during winter conditions and reminded Contractor that walkways need to be cleared and sanded, general housekeeping must be maintained and work practices of the workforce must be monitored to ensure this risk is mitigated and number of such incidents are reduced.. 	Info Info	
2.31	<u>Batch Plant / Crusher:</u> <ul style="list-style-type: none"> Contractor to follow up on the completion of all items stemming from the safety audit on 28-Aug-2014 and the inspection of electrical systems on 27-Sept-2014 (See letters LTR-CH0007001-0256 and LTR-CH0007001-0286). Proper Cable trays to replace the wooden trays are ordered and will be installed once on site. Contractor stated that most electrical items were completed and will provide update on these corrections after reviewing status with its electrical subcontractor. 	Contractor Contractor Contractor	Immediately ASAP 25-Nov-2014
2.39	<u>No new items this week</u>		
3.0	ENVIRONMENT		
3.1	<u>Contractor's Deliverables:</u> <ul style="list-style-type: none"> Company has returned comments for Contractor's recent revision of the Dewatering Management Plan. Contractor to update accordingly. 	Contractor	ASAP
3.9	<u>Generators on Site:</u> <ul style="list-style-type: none"> Contractor is generating a new map of generators on site to update the CALPUFF model. 	Info	
3.27	<u>Concrete Wastewater and Washout Facilities</u> <ul style="list-style-type: none"> Contractor noted recent efforts to better manage washout pond including use of glycol ground heaters to control ice build-up. 	Info	
3.36	<u>No new items this week</u>		
4.0	QUALITY		
<p><i>Note: Contractor Quality representative noted that incorrect statements appearing in previous meeting minutes have been an ongoing issue for this section. Company agreed to endeavour to allow more time for Contractor to review the minutes before finalizing. Contractor to ensure its internal review includes all concerned parties.</i></p>			



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4.19	<p><u>Non-Conformance Reports – General Issues:</u></p> <ul style="list-style-type: none"> o At the time of this meeting; <ul style="list-style-type: none"> - Company issued Corrective Action Reports (CAR) - 5 are open - Contractor's external NCRs which remain open total 20; including 6 or 7 which have been submitted for closure. - Company issued NCRs3 remains open. o Company noted that approval of the disposition by Company of the Contractor external NCRs is and must remain the focus of resolving non-conformances. o Company noted that many of the CARs and NCRs are highlight repeating issues. In order to address the root causes of the issues brought forth through these processes and benefit from lessons learned, Contractor must incorporate the dispositions into its work processes/procedures/practices. o Contractor's internal and external audit program not started. Company requested that Contractor's supervision review the recurring items and reinforce with their teams the requirements. The disposition of an NCR should become part of the quality process so to reduce recurring items. o Company/Contractor agreed to remove from these meeting minutes some topics which are better left to detailed discussion in weekly Quality meetings; remaining items refer to most current/pressing issues. 	<p>Info</p> <p>Info</p> <p>Info</p> <p>Contractor</p> <p>Info</p>	<p></p> <p>Closed</p> <p>Closed</p> <p>Ongoing</p> <p>Closed</p>
4.21	<p><u>Spillway Embedded Parts Alignment:</u></p> <ul style="list-style-type: none"> o Contractor noted that it has performed remedial actions for some of Andritz's embedded anchors as per corrective actions identified with LCP and Andritz. o Company informed Contractor that Andritz requires all available post-pour survey data. Contractor stated that all available survey data has been sent and that any outstanding post-pour surveys were to be completed when all obstructions were removed (forms, hoarding, etc.). Contractor noted its availability to discuss this matter further. o Company inquired from Contractor as to its general level of comfort with the accuracy of survey data; Contractor responded that it is confident in its surveys as lesson learned from earlier issues have been incorporated into its processes. 	<p>Info</p> <p>Company/ Contractor</p> <p>Info</p>	<p></p> <p>Closed</p> <p></p>
4.22	<p><u>Materials Management (Handling, Warehousing & Storage):</u></p> <ul style="list-style-type: none"> o Company quality manager noted that he will not be modifying the overall materials handling plan to be site specific. (Correction from meeting #037) o Company noted that Contractor's materials and equipment scattered around site in its current state may be difficult to properly manage in the event of snowfall. 	<p>Info</p> <p>Info</p>	<p>Closed</p> <p></p>
4.25	<p><u>Field Cured Concrete Samples:</u></p> <ul style="list-style-type: none"> o Contractor noted that the field cured concrete cylinders have recently been properly stored/locked out from disturbances and that field personnel have been notified of the importance of respecting these samples. 	<p>Info</p>	<p>Closed</p>
4.26	<p><u>Notice of Inspection:</u></p> <ul style="list-style-type: none"> o Contractor is reviewing the NOI procedure; Company has noted numerous areas for improvement. 	<p>Contractor</p>	<p>Closed</p>
4.27	<p><u>Winter Concreting:</u></p> <ul style="list-style-type: none"> o Contractor has issued to Company method statements for winter 	<p>Company</p>	<p>ASAP</p>



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	<p>concreting, protection and curing.</p> <ul style="list-style-type: none"> ○ Contractor noted that arctic grade waterstops have been on site for a while (Revised Contractor Statement in MOM #037) but do not yet have manufactured arctic grade waterstop joints. ○ Company noted that Contractor is encountering challenges in maintaining proper concrete/ambient air temperature differentials and also in curing procedures. Company expressed its expectation for Contractor to address this situation with extreme urgency. Contractor informed Company that it was developing an action plan to improve this situation including communicating the importance of this topic extensively with all field personnel. 	<p>Contractor</p> <p>Contractor</p>	<p>ASAP</p> <p>Immediately</p>
4.31	<p><u>Concreting Materials Management:</u></p> <ul style="list-style-type: none"> ○ Company has issued the report on the concreting materials (including aggregates) management and temperature monitoring workshop that took place the first week of November. See letters LTR-CH0007001-0343 & 0345. ○ Contractor to provide updates on status of identified Actions items in the report 	<p>Info</p> <p>Contractor</p>	<p>ASAP</p>
5.0 HUMAN RESOURCES/LABOUR RELATIONS			
5.1	<p><u>Statistics Review:</u></p> <ul style="list-style-type: none"> ○ See Astaldi weekly report listed in Aconex Construction Management Email LCP-CM-EMAIL-002482. 	Info	
5.19	<p><u>Brass Alleys:</u></p> <ul style="list-style-type: none"> ○ Contractor informed Company that recent physical modifications to the swiping stations are to be complete shortly and that the system will be fully functional this weekend. 	Contractor	23-Nov-2014
5.23	<p><u>Craft Hiring:</u></p> <ul style="list-style-type: none"> ○ Contractor informed Company of its recent and ongoing efforts to “right-size” its organization and noted the following: <ul style="list-style-type: none"> - Cancelled the mobilization of those referred through trades union who have not yet arrived. - Upcoming layoff of 200-250 personnel within approximately 15 days; approximately 1200 personnel to remain after this layoff. - Contractor’s site infrastructure to be reassessed to accommodate the number of personnel remaining; this is to be an ongoing effort. <p>Company acknowledged Contractor’s right to take actions associated with right-sizing its organization in the effort to ensure project success.</p>	<p>Info</p> <p>Info</p>	
5.24	<p><u>Holiday Season 2014/2015:</u></p> <ul style="list-style-type: none"> ○ Contractor informed Company that there will be a general site shutdown from 20-Dec-2014 to 03-Jan-2015 with only essential site services continuing through that period. Approximately 20-30 Contractor personnel are planned to maintain essential services during this period with as many as possible to be residents of the local area which will not require accommodations at the camp. Contractor to issue a letter tomorrow. ○ Company noted that Contractor should consider the increased requirement for dewatering as winter conditions continue to onset during the holiday season and ensure sufficient personnel are available to maintain these systems (water levels rise on the cofferdams causing more water to ingress 	<p>Contractor</p> <p>Info</p>	<p>21-Nov-2014</p>



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	<p>in the main structure areas).</p> <ul style="list-style-type: none"> Contractor noted its plan to stagger the return of its personnel returning from holidays in a manner which can be managed properly with respect to air/ground transportation, accommodations, etc. Contractor noted its intention to provide refresher sessions similar to orientation to personnel returning after the holiday season. 	Info	
5.25	<p><u>Air Transportation:</u></p> <ul style="list-style-type: none"> Contractor informed Company that it has recently signed a contract relating to its arrangements for air transportation; process and procedures are being finalized. Copy will be forwarded to Company as soon as possible. 	Contractor	ASAP
6.0	CONSTRUCTION		
6.1	<p><u>ICS:</u></p> <ul style="list-style-type: none"> Company noted slow progress with respect to ICS erection and specifically the roofing. Contractor informed Company that the roofing design has been revised in an effort to accelerate its completion. <p><u>Powerhouse & Intake:</u></p> <ul style="list-style-type: none"> Contractor provided update on Construction activities 	Info Info Info	
6.10	<p><u>Spillway:</u></p> <ul style="list-style-type: none"> Company noted further slip from the control schedule for concrete placement in the Spillway. Contractor informed Company of its intention to executed at least three pours within the coming 3-5 days. 	Info Info	
6.11	<p><u>Transition Dams & Separation Wall:</u></p> <ul style="list-style-type: none"> Contractor provided update on construction activities. Discussions on rock overbreak, loose rock and foundation preparation at the Separation Wall, Centre Transition Dam and Spillway South Pier are ongoing. Contractor noted that impacts from the collapsed rock in the Separation Wall are still being assessed and update will be provided. Company geologist will look at area with Contractor 	Info Contractor Info	ASAP
6.25	<p><u>Aggregates:</u></p> <ul style="list-style-type: none"> Contractor is evaluating a proposal to not cover aggregate stockpiles. Company noted that the Contractor's method of clearing snow from the surface of the stockpiles may affect gradation and also that aggregates have been observed to be clumped. Company requested Contractor to provide a survey of the available crushed aggregates stockpiled to verify enough is on hand for concreting while crushers are stopped for winter. 	Contractor Contractor	Immediately ASAP
6.38	<p><u>Batch Plants:</u></p> <ul style="list-style-type: none"> Company noted that the heat traced water line supplying the batch plant from the Churchill River is still not operational at time of this meeting. 	Contractor	Immediately
6.48	<p><u>Curtain Grouting:</u></p> <ul style="list-style-type: none"> Contractor is finalizing equipment purchase. Methods statement to be submitted prior to holiday shutdown 	Contractor	20-Dec-2014
6.49	<p><u>Construction Power:</u></p> <ul style="list-style-type: none"> No update provided: Contractor will review close-out status with its electrical subcontractor and provide status update. 	Contractor	25-Nov-2014



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6.52	<p><u>Laydown & Staging Areas:</u></p> <ul style="list-style-type: none"> Company reminded Contractor to respect the allocation of laydown areas site-wide and ensure the Contractor does not encroach onto areas allocated to Company's other Contractors. Company to respond to concession regarding additional laydown space imminently. 	Info Company	Closed 25-Nov-2014
6.53	<p><u>Winter Readiness:</u></p> <ul style="list-style-type: none"> Coordination is ongoing between Company and Contractor. 	Info	
6.54	<p><u>Quarries:</u></p> <ul style="list-style-type: none"> Company informed that a new Form to document the material being taken from quarries. The new Form will be issued to Contractor shortly. This form should be used for material being taken from GD8. 	Company	ASAP
7.0	ENGINEERING		
7.39	<p><u>Site Queries:</u></p> <ul style="list-style-type: none"> As of 11-Nov-2014, 1 Site Query (#132) was outstanding related to the North Transition Dam. FWO #17 will be issued to cover the required excavation for footing NBWSF-03. 	Company	20-Nov-2014
7.42	<p><u>Concession Requests:</u></p> <ul style="list-style-type: none"> As of 11-Nov-2014, 3 Concession Requests were outstanding; one related to office space in the company laydown, 2 related to ICS clashes; Responses will be returned to Contractor. 	Company	ASAP
7.44	<p><u>Document Control:</u></p> <ul style="list-style-type: none"> Corrective Actions related to the document control audit in June 2014 have been conditionally approved. Contractor to update on implementing the corrections. Contractor introduced its new Document Control Manager, Ms. Bailey Rempel. 	Contractor Info	ASAP Closed
7.46	<p><u>ICS Execution Plan:</u></p> <ul style="list-style-type: none"> Company stated that it received and is reviewing the ICS Execution Plan. Company noted that an ICS readiness meeting between Company and Contractor is scheduled for tomorrow. 	Company Info	ASAP Closed
7.53	<p><u>Contractor Engineering Staff:</u></p> <ul style="list-style-type: none"> Contractor informed Company of the recent arrival of a Senior Draftsperson and the recent recruitment of a provincially licensed and registered Professional Engineer. Electrical engineer is on Site and Contractor is interviewing for a mechanical engineer. 	Info Info	Closed Closed
7.54	<p><u>Engineering Management Plan:</u></p> <ul style="list-style-type: none"> Procedures to be finalized and submitted for review before next meeting. 	Contractor	24-Nov-2014
7.55	<p><u>Registration, Licensure and Permit to Practice in NL:</u></p> <ul style="list-style-type: none"> Company noted that coordination between Contractor and provincial engineering and architecture licensing/permitting authorities is ongoing. 	Info	
7.56	<p><u>Mix Designs:</u></p> <ul style="list-style-type: none"> Company requested a summary table of what was submitted to the Laboratory to compare with the report that was provided. 	Contractor	24-Nov-2014



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7.59	<p><u>Concrete Temperature Monitoring:</u></p> <ul style="list-style-type: none"> o Contractor's proposal for monitoring concrete temperatures using Concrete-Mote was part of discussions in the workshop on Material Management held on 4th & 5th of Nov-2014. Contractor to submit required information as noted in report. o It was proposed that Contractor provide a live web site where concrete temperatures are posted and kept updated for monitoring. 	<p>Info</p> <p>Contractor / Company</p>	TBD
7.60	<p><u>Concrete Testing Analysis:</u></p> <ul style="list-style-type: none"> o Company noted that coordination with Contractor is required to ensure that the required statistical analyses for strength test results being reported from the laboratory is being conducted in a satisfactory manner. 	Closed	
7.61	<p><u>Engineering Change Notices:</u></p> <ul style="list-style-type: none"> o Contractor noted that it issued a letter response to the Change Request (CHR-CH0007001-0020) and SIN #016. Company will review and respond next week on technical items in the letter. Contract Admin. will cover commercial issue in the letter response. 	Company	25-Nov-2014
7.62	<p><u>Management Meeting:</u></p> <p>As discussed between both parties a Management Meeting will be on a monthly basis to review various issues, with first meeting scheduled for 26 & 28 Nov-2014. Agenda will be issued next week for the first meeting.</p>	Info	Closed
7.63	<p><u>Draft Tube Formwork:</u></p> <p>The following summarize the status of the draft tube formwork and items required from Contractor:</p> <ul style="list-style-type: none"> • Design calculation for formwork and design criteria. Contractor to submit for review as soon as received. • Formwork shop drawings indicating geometry, arrangement of joints and ties. The formwork drawings submitted to Company were for reviewed and returned. • Assembly and Erection drawings including details for spreaders, bracing, supports. 79 formwork drawings have been submitted to Company for review. • ITP requirements. Contractor to coordinate with Company's QA for requirements. • Factory assembly and geometry verification before shipping to site. Contractor to submit information upon receipt from their subcontractor. • Transportation logistics plan. Contractor will be submitting shortly <p>A letter / report recapping above discussions with a photos report from a site visit to CEI shop in Kansas will be issued shortly.</p>	<p>Contractor</p> <p>Company</p>	<p>ASAP</p> <p>21-Nov-2014</p>
7.64	<p><u>Miscellaneous Engineering Issues:</u></p> <ul style="list-style-type: none"> o Spillway Temporary Bridge. The 3 drawings received were rejected. Company requested that handrail be designed against impact. o Contractor to submit the shop-drawings for Misc. Steel. A lot of drwgs are expected. o Meeting was held last week with Contractor's ICS architect to review design 	<p>Contractor</p> <p>Info</p> <p>Contractor</p>	<p>ASAP</p> <p>Closed</p>



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	<p>and permit for occupancy. Contractor sent all required info to architect for finalization of its design.</p> <ul style="list-style-type: none"> Roofing system was changed to allow for faster installation and subcontractor for roofing is expected on site by end of November 2014. 	Info	
8.0	PROJECT CONTROLS / SCHEDULE		
8.1	<p><u>Schedule:</u> No new discussions this week. Item 8.1 reserved for new discussions on schedule</p>		
8.16	<p><u>Cost Management:</u></p> <ul style="list-style-type: none"> Company noted that Contractor's submitted earned value report will be returned with comments and that the future submission of this report is expected to be submitted in a new format as part of the Contractor's monthly project report. 	Contractor	Ongoing
8.22	<p><u>Progress/Productivity Reporting:</u></p> <ul style="list-style-type: none"> Company provided format for curves to be provided. Both parties will meet to discuss requirements and finalize. 	Info	
8.23	<p><u>Status of Engineering Deliverables & Procurement:</u></p> <ul style="list-style-type: none"> Company noted that in spite of discussions with Contractor, 1 e-mail and 2 letters regarding Contractor providing weekly status on engineering deliverables and status on procurement activities, Contractor did not provide this information. Contractor informed that an internal meeting between the Project Controls (Scheduling) and Engineering will be arranged to review this matter and Contractor will provide an update to the Company. 	Contractor Contractor	Ongoing Week of 24-Nov-2014
9.0	COMMERCIAL		
9.5	<p><u>Change Management:</u></p> <ul style="list-style-type: none"> Change Requests (CHR), FWO's and status of Payment Certificates will be discussed in Commercial meetings (typically on Saturdays) between both Parties. Company noted that Contractor is not responding to the FWO's & CHR's in a timely fashion, with most of these are still outstanding. Contractor stated that they have increased the contract department personnel and an administrator will join shortly. Contractor will be providing responses to some CHR in this Saturday's commercial meeting and a path forward on CHRs related to ECNs. 	Info Contractor	Ongoing
9.9	<p><u>Payment Certificates:</u></p> <ul style="list-style-type: none"> Contractor submitted Craft and Staff costs for week ending 15-Nov-2014 for review. 	Info	
9.11	<p><u>Contract Change Order #001 – Emergency Work at Mackenzie Brook Bridge:</u></p> <ul style="list-style-type: none"> Company will be issuing shortly Change Order #4 to cover agreed and finalize costs. 	Company	25-Nov-2014
9.15	Regarding SIN #9 – Removal of loose rock at Centre Transition Dam. Contractor to issue Change Request for the work to include its estimate of the work.	Contractor	ASAP



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9.16	<u>Correspondence:</u> <input type="checkbox"/> Contractor and Company will continue to respond to each other's communication to properly close any open letters.	Info	Closed
10.0	Events Impacting Costs and/or Schedule		
Contractor requested that this Section be removed from the Weekly Progress Meeting as it involves Commercial and Contractual issues. Contractor will provide a listing of existing items and any new weekly updates separately after the meeting.			
11.0	Various		
10.1	<u>Weekly Progress Meeting:</u> <ul style="list-style-type: none"> Next meeting on 25-Nov-2014 Location: Muskrat Falls Project Orientation Trailer 	Info	Ongoing

The Contractor hereby agrees that he / she (Contractor's Representative) has reviewed and agrees with the content and accuracy of these Minutes of Meeting.

Signature: _____

Name (Print): JOSE ALVES

Date: _____

Roger J. Hopkins

HOPKINS

01. DECEMBER 2014