

Date : 3/3/2015 9:19:13 AM  
From : "Quinton, Diana"  
To : "Bown, Charles W."  
Cc : "English, Tracy"  
Subject : KMs - Independent Engineer's November 2014 Report  
Attachment : Independent Engineer.docx;

Here is messaging regarding the IE report, released on the Muskrat Falls website yesterday. We have not received any inquiries on this (neither has Nalcor).

Energy group has reviewed, and I have provided to Milly and Craig.

Diana Quinton  
Director of Communications  
Natural Resources  
Government of Newfoundland and Labrador  
709-729-5282

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## Natural Resources

### March 2, 2015

### Independent Engineer's November 2014 Report

#### Summary:

The latest site visit report by MWH Canada has been posted on the Muskrat Falls Project website. The IE has made several visits to the Muskrat Falls construction sites. In 2014 the IE visited all the sites in July and completed its last visit in November. The Minister may be asked to comment on the findings of the Independent Engineer's latest visit in November.

#### Key Messages:

- We welcome the work of the Independent Engineer and we have reviewed the latest report.
- Overall, it is an accurate reflection of the work being undertaken on the Lower Churchill Project as of November 2014. Many of the points raised were noted in the Provincial Government's Oversight Committee report released in December.
- In the coming weeks, the Provincial Government will be releasing the Oversight Committee report for Q4 2014. A further update on the project's progress will be provided at that time.

#### Background (from Nalcor):

##### Safety and Environmental Performance

- At all sites, the construction works are being carried out in compliance with very high standards of safety and environmental criteria.

##### Schedule

- The work on the HVac transmission line is on schedule.
- During the IE site visit concrete works were underway for the spillway structure. **While this work is behind schedule**, there has been substantial progress with the concrete abutment and piers.

Note: Astaldi Canada's progress on the Integrated Cover System (ICS) for the powerhouse construction is behind schedule. At the time of the IE site visit, the ICS was partially completed over two of the four bays. It was understood that closed-in shelter will be provided for Bays 1 and 2 by January 2015 and Astaldi and Nalcor would consider options regarding Units 3 and 4. Other winter protection methods may be employed. Astaldi will make a final decision regarding Units 3 and 4 in January 2015. **(The ICS over bays 1&2 were completed in January 2015. Astaldi has made a decision not to cover units 3 and 4.)**

##### Delivery Team

It was evident that Lower Churchill Management Corporation (LCMC) has the construction management team in place and they are well positioned to continue the work in 2015.

LCMC are actively working with Astaldi to identify and implement production improvements to maintain the schedule for river diversion in 2016 and first power in 2017. LCMC is managing the Muskrat Falls Project to ensure the project is managed in the best interest of NL ratepayers and all NL residents.

*See note below on actions taken by LCMC and Astaldi which are designed to improve production, productivity and regain the schedule to ensure there is no impact on the first power milestone date. These items were noted in the Q3 2014 Government*

**Question: What actions are being undertaken to address the schedule slippage by Astaldi Canada on the Muskrat Falls Generating Facility?**

The slippage to date has not had an impact on the key Project Milestones or critical path.

Nalcor is working closely with Astaldi Canada to address their work progress. These actions being taken by both Nalcor and Astaldi are designed to improve production, productivity and regain the schedule to ensure there is no impact on the first power milestone date.

Astaldi is responsible to take all necessary actions to address any variances between planned and actual progress on the Powerhouse & Intake and Spillway & Gates Contract. The contract format requires Astaldi to meet certain milestones or pay liquidated damages; this only could occur if/when a milestone is not achieved.

There are mitigating measures being taken on a number of fronts with this contract.

These include:

- Nalcor and Astaldi leadership have regular dialogue to address any issues that may affect-progress.
- Astaldi is mobilizing additional management resources and Nalcor is supporting and providing additional project oversight.
- Astaldi is taking initiatives to improve performance.
- Astaldi has mobilized additional plant material and equipment required for concrete placement.
- Additional equipment is being procured where required.
- Working groups have been formed to address key focus areas including the Integrated Cover System (ICS), Powerhouse/Intakes, Winterization, Spillway, and Productivity.
- Continual review of methods to capitalize on opportunities where they exist i.e., combining pours, prefabrication opportunities, more work in the winter months than planned.

**Construction***Muskrat Falls Generation:*

- Cofferdam performance throughout the past winter and summer has been excellent.
- The activities and construction works observed during the site visit were all in accordance with good construction practice standards.
- The final rock excavation faces of each generator unit bays were inspected. The blasting at each location is excellent and the resulting rock conditions are suitable for the planned installations. Concrete placement for the transition dam between the powerhouse excavation and the spillway was at an advanced stage.
- The foundation preparation work for the powerhouse north service bay is being carried out to an acceptable standard.

*HVAc Transmission:*

- The quality of the line clearing and transmission tower construction work is very good. All work is being carried out in a very safe manner, in accordance with Nalcor/LCMC safety guidelines and regulations.

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