

From: darrendebourke@lowerchurchillproject.ca
To: pharrington@lowerchurchillproject.ca
Cc: ronpower@lowerchurchillproject.ca; trinatroke@lowerchurchillproject.ca
Subject: MF Switchyard Quality Issues - GIS Bldg Piers
Date: Thursday, January 21, 2016 10:39:34 AM
Attachments: [.png](#)
[20160120-1833783630.pdf](#)

Paul,

I'd like to make you aware of some serious quality issues that we have at the MF site, wrt recently installed piers (before xmas break) for the GIS building.

I'm working diligently with our Team and Alstom to understand how this could happen and what needs to change going forward. As well to understand the extent of the issue and a practical fix that will ensure long term integrity is maintained. If any doubt, we will instruct Asltom / Pomerleau to remove and replace.

The subject areas have been temporarily braced and the area taped off to prevent entry of personnel.

Suffice it to say, I am not very happy. The pictures in the attached report will illustrate what were facing.

I will come discuss with you.

Darren DeBourke

Project Manager - HVdc Specialties

PROJECT DELIVERY TEAM

Lower Churchill Project

t. **709 570-5970** c. **709-746-9837** f. **709-754-0787**

e. DarrenDeBourke@lowerchurchillproject.ca

----- Forwarded by Darren Debourke/NLHydro on 01/21/2016 08:12 AM -----

From: Darren Debourke/NLHydro

To: "MARTIN Thierry" <thierry.martin@alstom.com>, "LAMBERT Andre" <andre.lambert@alstom.com>, "walter Feletto" <walter.feletto@alstom.com>

Cc: Ray Butler/NLHydro@NLHYDRO, Trina Troke/NLHydro@NLHYDRO, Don Lewis/NLHydro@NLHYDRO, Ken Morrison/NLHydro@NLHYDRO, Blair McNiven/NLHydro@NLHYDRO, Mark Ellis/NLHydro@NLHYDRO

Date: 01/20/2016 12:03 PM

Subject: Fw: ProntoForms - C3 - Daily Construction Report - CD0502-001 Construction of AC Substations - Muskrat Falls _ 2016-01-19 _ Neil Acreman (neiacrcr)

Folks - we have a very major issue here. Please see attached Construction Report and Photos! Quality Assurance on site is obviously non-existent. To the point where it is my view that all site work should cease until we are assured/convinced that Alstom-GE are effectively managing the Work and ensuring a quality product.

Please outline the steps that Alstom-GE will take to remedy this situation, as well what steps will be implemented to ensure this is not repeated.

Finally, I would also like to see the ITP's associated with this work and who signed off on them.

Darren DeBourke

Project Manager - HVdc Specialties

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----- Forwarded by Darren Debourke/NLHydro on 01/20/2016 11:47 AM -----

From: Ray Butler/NLHydro

To: Don Lewis/NLHydro@NLHYDRO

Cc: Darren Debourke/NLHydro@NLHYDRO, Trina Troke/NLHydro@NLHYDRO

Date: 01/20/2016 11:34 AM

Subject: Fw: ProntoForms - C3 - Daily Construction Report - CD0502-001 Construction of AC Substations - Muskrat Falls _ 2016-01-19 _ Neil Acreman (neiacrcr)

Don

From this report, we have serious problems with Quality and this is more than vibration issues!! Ensure that an NCR is raised and that a procedure is in place before any work commences.

Ray Butler

Construction Manager HVdc Specialties

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w. muskratfalls.nalcorenergy.com

----- Forwarded by Ray Butler/NLHydro on 01/20/2016 11:32 AM -----

From: <donotreply@prontoforms.com>

To: <raybutler@lowerchurchillproject.ca>

Date: 01/20/2016 11:23 AM

Subject: ProntoForms - C3 - Daily Construction Report - CD0502-001 Construction of AC Substations - Muskrat Falls _ 2016-01-19 _ Neil Acreman (neiacrcr)

A data submission has been made by: Neil Acreman (neiacrcr)

You can view this data submission here: <https://live.prontoforms.com/data/1833783630>



20160120-1833783630.pdf

DATE: 19-Jan-2016	SHIFT: 7:00 am	AREA/LOCATION: Muskrat Falls
CONTRACT: CD0502-001 Construction of AC Substations - Muskrat Falls	CONTRACTOR: Alstom Grid Canada Inc.	CONTRACT TITLE: CDO502-001

TEMPERATURE / WEATHER CONDITIONS		
Start of the Shift: 7:00 am	Mid of the Shift: 12:00 noon	End of the Shift: 5:30 pm
Temperature -4°c	Temperature -3°c	Temperature -4°c
Sunny <input type="checkbox"/> Cloudy <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Snow <input checked="" type="checkbox"/>	Sunny <input type="checkbox"/> Cloudy <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Snow <input checked="" type="checkbox"/>	Sunny <input checked="" type="checkbox"/> Cloudy <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Snow <input type="checkbox"/>

Downtime / Non-Productive Time - (associated with Manpower and Equipment)
Control Building

- Crew has all the temporary backfill removed from the footings at grid lines 3.5 to 3.1 and is ready for the formwork installation but Pomerleau don't have any carpenters here to work at it

MANPOWER / TRADE	NUMBER	HOURS WORKED	
		Standard	Overtime
Alstom	2	10	
Pomerleau Staff / Management	6	10	
Pom (OE's)	2	10	
POM (Carpenters)	2	0	
POM (Labourers)	2	10	
Pom (Teamsters)	2	10	
POM (Civil Tech's)	0	0	
POM (Cement Finishers)	1	0	
EFC Inc.	0	0	
Acier Select	0	0	

EQUIPMENT			HOURS		COMMENTS
TYPE	NO	LOCATION	WORK	IDLE	
Zoom Boom, unit # 10322834	Pomerleau	Switchyard & Converter Station	10	0	Working at both 501 & 502 (Moving materials)
Pump Truck , unit # 56-08-02	Pomerleau	Switchyard / Converter station	0	0	Not in use today
950G Loader, unit # 30-03-01	Pomerleau	Switchyard/ Converter station	10	0	Clearing snow site wide
Johndeer Skid Steer , unit # 1161226	Pomerleau	Switchyard 502	0	0	Not in use today
Water truck, unit # 24-11-01	Pomerleau	All station	0	0	Parked and will not be used any more this winter
Cat Roller, unit # 460201	Pomerleau	Switchyard 502 / Converter station	0	0	Parked, not in use
RTC Crane , unit # 52-08-01	Pomerleau	Switchyard 502 / Converter station	10	0	Working at Valve hall (Pole 1) Installing Exterior Cladding (wall panels)
Boom Truck, unit # 52-09-03	Pomerleau	Converter station / Switchyard	0	0	Parked , not in use
336D Cat Excavator, unit # 35-11-21	Pomerleau	Switchyard / Converter station	0	0	Parked , not in use
RTC crane, unit # 80110	Pomerleau	Switchyard 502 / Converter station	10	0	Working with Acier at pole 2 Valve Hall (Erecting steel) not in use today
350G johndeer excavator, unit # E350-02	Pomerleau	Converter station / Switchyard	0	0	Parked , not in use
308E Cat excavator, unit # 18847	Pomerleau	Switchyard 502 / Converter station	10	0	Snow clearing at Control building
Zoom Boom, unit # 10190926	Pomerleau	Switchyard / Converter Station	0	0	Parked , not in use today

EQUIPMENT			HOURS		COMMENTS
TYPE	NO	LOCATION	WORK	IDLE	MECHANICAL / WAIT / OTHER
228US Komatsu excavator , unit # 35-15-02	Pomerleau	Converter station / Switchyard	0	0	Parked , not in use
Cat rock truck, unit # 26-15-03	Switchyard 502	Switchyard 502 / converter station	0	0	Parked , not in use
380 Komatsu loader	Pomerleau	Converter Station / Switchyard	0	0	Parked, not in use today
Bobcat Excavator (E32), unit # 10402345	Pomerleau	Converter station / Switchyard	0	0	Parked , not in use
Drum Roller (BW145D-40) , unit # 10003688	Pomerleau	Switchyard 502 / Converter station	0	0	Parked , not in use
D5 Dozer (Tracker), unit # 40-04-01	Pomerleau	Switchyard / Converter	0	0	Parked , not in use
Cat Rock Truck, unit # 26-13-01	Pomerleau	Switchyard / Converter station	0	0	Parked , not in use
80 ft JLG Man Lift, unit # 10018401	Pomerleau	Converter station	10	0	Installing exterior cladding, wall panels at Pole 1 building
86 ft JLG Man Lift, unit # 1116277	Acier Select	Converter station / Valve Hall	10	0	Erecting steel
66 ft JLG Man Lift, unit # 1221276	Acier Select	Converter station / Valve Hall	10	0	Erecting steel
86 ft JLG Man Lift, unit # 10010752	Acier Select	Converter station / Valve Hall	10	0	Erecting steel
45 ft JLG Man lift, unit # 10039439	Acier Select	Converter station / Valve Hall	10	0	Erecting steel
45 ft, JLG Man lift, unit # 10028523	Acier Select	Converter station / Valve Hall	10	0	Erecting steel
50 ft Scissor Lift, unit # 1019511	Acier Select	Converter station	0	0	Parked , not in use

A day is considered lost if at least 50% of the work force is idle. Note the reason in this report.

1. Health, Safety, Security and Emergency Response (Incidents, Near Miss, Conditions, Inspections, Observations, JSA, Tailboards, Area of Risk, etc.)

Daily pre-shift toolbox topics

- Slips, trips and falls
- FLRA & Stepback cards
- Mustard and meeting points
- Equipment Pre and post shift inspections
- Proper PPE
- Spotters for heavy equipment
- Ensure proper use of yellow and red caution tape
- Lighting around work site
- Ensure proper communication and hand signals are used for heavy equipment
- Ensure all crews are using proper and inspected rigging
- Be aware of slippery conditions around work site, sand work areas

2. Environment (Conditions, spills, water crossings, wildlife, etc.)

None to report

3. Work Done and Progress

Control Building (Heat and hoarding)

- Pomerleau had one labourer and one carpenter there today working on the hoarding over the footings from grid lines 3.1 to 3.5, axis A, B & C
- Crew were going to set up a temporary shelter that they could move along as they went with the formwork but then decided against it, they are now going to construct a temporary hoarding over the entire length of the footings from grid lines 3.1 to 3.5, by doing this, it will provide shelter for the full duration of the formwork and cement pour

GIS Building (Formwork removal)

Fox Construction continuing with the formwork removal from the bottom of the top slab and P1 columns at grid line 15 & 16

- Crew were working between grid lines 8 & 9 today and they also removed the formwork off the P 1 columns at grid lines 15 & 16, axis A, B & C
- After the forms were removed from these columns , it was discovered that three of the six got missed during the pour, 15, 16 axis A & 16 on axis C

- All parties are aware of this situation and Alstom did issue an NCR and we are waiting for a response on their procedure for the way they will fix and pour these columns
- See attached pictures

4. Instructions to Contractors (Site Instructions SI - Field Work Orders FWO - Quality Concerns)

GIS Building (P1 columns)

Waiting on Pomerleau to provide Procedure to Alstom on how they will execute the repairs

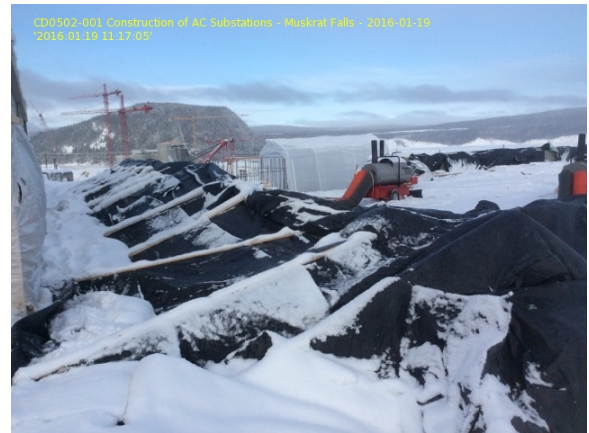
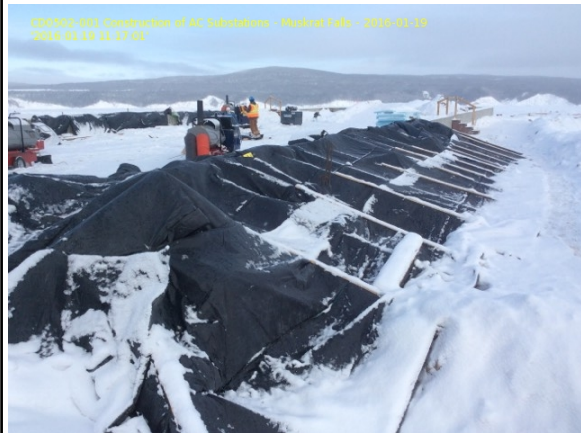
5. Owner Supplied Materials (availability, defects, repairs, concerns,etc.)

None to report

6. Others (unusual events, visitors, delays, work stoppages, stand by, etc.)

Due to lack of manpower (carpenters & labourers) , work on the GIS and Control building is moving very slow

7. Photos with captions (used to highlight work underway and unusual conditions)



Control Building (Pomerleau working on the hoarding from grid lines 3.1 to 3,5, in preparation for the formwork)



GIS Building (Fox Construction removing formwork from the bottom of the top slab between grid lines 8 & 9)









GIS Building (P1 columns at grid lines 15 & 16 axis A and 16 at axis C)

Distribution:

- Area Construction Manager
 - Resident Engineer
 - Contract Administrator
 - Lead Inspector
 - Document Control (File)
 - Other
- Other:

ATTACHMENTS INCLUDED

	TITLE	NAME	SIGNATURE	DATE
Prepared by:	Inspector	Neil Acreman		20-Jan-2016
Reviewed by:	ACC	Peter Sturge		20-Jan-2016