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To: scotto@lowerchurchillproject.ca; pharrington@lowerchurchillproject.ca; lanceclarke@lowerchurchillproject.ca
Cc: jasonkean@lowerchurchillproject.ca; gbennett@nalcoreenergy.com; clarencehewitt@lowerchurchillproject.ca
Subject: *Confidential: Fw: S011-L010-200-170330-00222 NORTH SPUR Design & Request for Hydro Geological Studies 25 Nov 2013
Date: Tuesday, November 26, 2013 4:48:37 PM
Attachments: [S011-L010-200-170330-00222 NORTH SPUR Design and Request for Hydro Geological Studies 25 Nov 2013.pdf](#)

Scott - please review - we will need to respond to this formally when we figure out our approach.

Lance / Paul - this design-related missive from SLI has certain undertones that I do not like. It reflects the "attitude" that I am sensing lately from Normand and Bernard Gagne related to the notion that SLI are exemplary designers. I plan on writing some formal letters very soon documenting the design deficiencies that I have seen and am continuing to see with SLI.

You will note that Bernard Gagne and another individual were copied on this.



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----- Forwarded by Ron Power/NLHydro on 11/26/2013 04:42 PM -----

From: Wanda Ryder/LCP/NLHydro
To: Ron Power/NLHydro@NLHydro, Clarence Hewitt/NLHydro@NLHYDRO, Normand Bechard/LCP/NLHydro@NLHYDRO, LCPDCC/NLHydro@NLHydro,
Cc: "Gagné, Bernard" <Bernard.Gagne@snclavalin.com>, benoit.mathieu@snclavalin.com
Date: 11/26/2013 09:56 AM
Subject: S011-L010-200-170330-00222 NORTH SPUR Design & Request for Hydro Geological Studies 25 Nov 2013

NORTH SPUR - Design and Request for Hydro Geological Studies 25-Nov-2013

SLI Rec. No.: S011-L010-200-170330-00222

Good morning, Ron:

Please refer to subject letter regarding NORTH SPUR - Design and Request for Hydro Geological Studies 25-Nov-2013.

Document Control, please register.

Regards,

Wanda

Wanda Ryder
Sr. Administrative Assistant - Project Controls
PROJECT DELIVERY TEAM
Lower Churchill Project
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You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?



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25 November 2013

SLI REFERENCE No.: 505573-0000-30CC-I-1448
LC Ref. No: S011-L010-200-170330-00222
NALCOR REFERENCE No.:

Nalcor Energy
Hydro Place, 500 Columbus Drive
P.O. Box 12800, St. John's, NL, A1B 0C9 CANADA

ATTENTION: Ron Power, General Project Manager

**Subject: Lower Churchill, Phase 1 Development
Agreement LC-G-002
Engineering, Procurement and Construction Management (EPCM) Services
NORTH SPUR – Design and Request for Hydro Geological Studies**

Dear Ron:

Following the "Cold Eye Review" completed by Hatch on the North Spur design, they recommended to perform a 3D Model of the North Spur Hydrogeology, see Hatch Report MFA-HE-2800-GT-RP-0001-01 Rev A1, 07-Oct-2013. We would like to clarify our position on the subject. Our design is completed and based on past studies, reports and more recently results from the Investigation Campaign done during the summer of 2013.

Drawings and Specifications are ready to go for bidding which documents clearly show our strategy on how to handle the North Spur by stabilization works on existing slopes, by controlling groundwater pressures and by creating an upstream impervious barrier. Our design is also based on a follow-on program that shall take place during and after construction during 1st impoundment and during and after final impoundment, in order to apply the observational method to its full advantage.

In addition to observing and monitoring during impoundment phased our specifications call for include "if required" works, such as additional relief wells in the inferior and intermediate aquifers, as well as placement of Geomembrane on the top of North Spur or additional erosion protection control near Kettle Lakes area. As it will be clearly demonstrated in our Design Report, the observation and monitoring activities in conjunction with the optional works already specified result in a design that meets all the requirements in terms of safety and stability.

We do not disagree with a new study and 3D Model since those results can be used as a tool to better understand the behavior of the North Spur, but it is not considered required in order to go forward with construction. The modeling should be performed by the Project Design Team since they have a thorough knowledge of the geological conditions and have already interpreted the



data that would be used to feed the model.. The Design Team is also better prepared to analyze the results and identify discrepancies that can route to wrongful conclusions. Those conclusions can create debate and even expert declaration that can create doubt around North Spur and finally resulting in an adverse situation to Nalcor which would be difficult to manage with the public. This is why we recommend that the modeling be done by the Project Design Team. Finally, if the 3D analysis results in major changes for the design already submitted for Tenders, direct involvement of the Project Design Team will minimize negative impacts on the Tender process and eventually on the construction contract.

If Nalcor feels that a Third Party involvement would add credibility to the process, we propose that they be involved as adviser/reviewer during the study.

In the event you maintain your decision to give the modeling to a Third Party, we will collaborate and give as requested all the necessary supports so to ensure the quality of the model.

Hoping this is satisfactory to you.

If you have any questions or concerns, please feel free to contact me.

Sincerely,

SNC-LAVALIN INC.

A handwritten signature in blue ink, appearing to read 'Normand Béchard', written over the printed name and title.

Normand Béchard
Sr. SLI Manager & Construction Advisor

Cc: Bernard Gagné, Benoit Mathieu