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From:	Emiliano Mancini
То:	Richard Noble (Richard.Noble@ca.ey.com); David Steele
Subject:	briefing with Craig - Valard performance
Date:	Tuesday, May 26, 2015 2:47:00 PM
Attachments:	image001.png
	Nick Ternasky Internview April 9v2 2015.pdf

Hi,

Following up on the debriefing with Craig on Monday, please see my additional comments on Valard performance (I thought I would review this with you first).

0.35 SPI is for Valard's dc line contract "CT0327 - Construction of 350 kV HVdc Transmission Line -Section 1". That contract is part of LITL and the SPI figure was provided during the interviews with Nick T (Project Control Lead for Valard). Attached is the minute of that meeting held on April 9 (SPI 0.35 is highlighted in yellow).

I think Craig was not fully aware of that issue because no reference to Valard's poor schedule performance was made in Nalcor's monthly reports... On the other hand, in Valard's monthly reports of Dec 2014 and Jan 2015, the contractor reported construction delays due to issues with access roads (which led to poor SPI). That is also recorded in Valard's risk register.

Obviously, Nalcor try to manage issues with contractors and implement corrective actions, however the OC should get more visibility on the key disconnects between contractor's and Nalcor's reports.

Regards,



Emiliano Mancini | Manager | Advisory Services

Ernst & Young LLP Ernst & Young Tower, 222 Bay Street, P. O. Box 251, Toronto, ON M5K 1J7 Canada Phone: +1 416 943 4418 | Cell Phone: +1 647 455 0371 EY/Comm: 1636262 | <u>Emiliano.Mancini@ca.ey.com</u>

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E&Y Cost and Schedule Review Nick Ternasky – Interview April 9, 2015

(Interview conducted by Emiliano Mancini, E&Y; Interview notes recorded by Alison Ball, Nalcor Energy Internal Audit)

Role:

- Joined project two years ago; originally joined as a planner
- Nuclear background and prior project manager experience
- Currently project controls lead for C4
- 30plus years of project controls experience
- Main contract is Valard overlaps LTA and LITL

General:

- Valard: 30% complete on the AC Line and minimal for DC Line
- Unit price contract
- For Valard, on initial issuance of contract, a kickoff meeting is held which allows LCP to review reporting requirements for cost and schedule
- Schedule is cost loaded; costs get loaded into PM+ at a line item level
- Nick set the schedule as a baseline
- Nick built a fairly extensive tracker to measure progress working in different parts of the line
- Nick does an extract from the schedule essentially a cost flow (based on Valard's schedule input)
- Entire cost of contract loaded in schedule
- CPI is not as meaningful for unit price; will use SPI (ie planned 12 units but only completed 8); uses it for dollars as well
- SPI on AC line is 1.3
- Typical performance for transmission line is an initial dip in performance and then there is a recovery
- SPI for DC line is .35; struggling with weather and road conditions
- Intent to finish by end of 2015 but room available to delay process; if this happens, we may need to rebaseline
- Nick is waiting to see if there is an upswing on productivity
- Nick tracks commodities planned vs actual
- There is a critical path on both lines
- DC line has 3 work fronts and each is being treated as a critical path;
- Nick is more concerned if they have achieved progress on a dollar value; not as concerned if they are working out of sequence (ie moving along the line)
- Critical path can get fuzzy given the nature of transmission lines (may need to move and work along the line)

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- Once stringing path is started, it must follow a critical path
- DC line overhead line from MF to coast of Labrador; start at Shoal Cove and continue to Soldier's Pond
- AC Line dual lines in 100 m right of way
- Nick provides coverage over LTA and LITL via Valard contract
- Nick receives monthly schedule from client; Nick populates his schedule and then Nick provides
 % complete updates to T. Chudy for IPS
- Tom inputs schedule changes manually; not a electronic rollup directly from contractor's schedule
- Tom determines progress based on a calculation comparing contractor progress to the % of each contract that is linked to a specific asset being constructed
- Nick uses Primevera as well
- Weighting currently is solely from parts 1 and 2 from the DC Line; parts 3, 4,5 will start later this year
- George calculates FFC based on information provided from Nick and team
- For C4, variance analysis is analyzed weekly
- Discussions held frequently; working in field with Valard so LCP is aware of challenges
- Work with Valard to determine necessary corrective actions (move part of team from one line to other line)
- Evalulate all options available to ensure schedule is achieved as well as ensuring contractor is satisfying their business needs (will help to establish corrective actions that work for both sides)
- Nick took a copy of contractor's entire schedule; % of completion based on towers constructed
- In field, QC provides documentation to indicate tower construction is complete
- Nick will analyze updated schedules from Valard to what his projected schedule is showing in Primevera; not concerned with small deviations
- Valard schedule is Level 4; reasonable level to track in Primevera from Nick's perspective
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- For trending and forecasting, Nick evaluates deviations based on end date; also reviews commodity activity
- Nick would make a judgement on progress based on his evaluation of current situation
- Nick indicated that there is embedded float in Valard's schedule; Valard is adjusting internal float in order to maintain end date (not visable in schedule)
- ETC from a cost standpoint ran from PM+; issues that occur in the field feed the change mgmt.
 process
- May not be able to quantify immediately as they require information from contractor or supplier
- C4 Overland transmission construction (Valard) (responsible for all of C4), clearing, access development (multiple contractors) contracts varied from unit price to T&M

- Interacts with individuals from LTA
- Parts of LTA and LITL overlap C3 and C4
- Tracking schedule by contract
- Uses TILOS graphs (built himself in Excel) to integrate right of away clearing and tower construction to determine where right of way clearing does not support construction
- Costs from these variances above may result in a change to commitment and ultimately FFC
- Nick would input to Tom for right of way clearing and construction; integration does exist in IPS (even though at Level 2)
- IPS provides bigger picture to manage overall schedule

Overall comments:

- Nick is constantly looking for step changes and areas for improvement
- Nick likes the way that the schedule is integrated yet separate; different contracting strategies further support separate schedules