

**LOWER CHURCHILL PROJECT REVIEW REPORT****9 March 2012**

The review was carried out 24-29 February 2012 and 21 members of the Nalcor and SLI teams were interviewed.

The review team members were: Derek Owen, Stan Genega and Paul Gendreau (SLI)

The purpose of the review was to identify potential gaps in Gate 3 deliverables in preparation for a Gate 3 review later in 2012.

Focus areas:

- Engineering Component 1
- Engineering Component 3
- Construction Management
- Procurement and Contracting
- Project Controls

Furthermore the review team was able to observe and comment on the effectiveness of the relationships of the two Project teams.

**Findings:****(1) Major Gate 3 Deliverables.**

The Project is not ready to proceed to Gate 3. The Project teams anticipated this status and the major areas to be addressed were understood.

Table 1.1 plans and procedures contained in the contract is not complete although a considerable number of documents are close to being 100%. These plans and procedures will need to be adjusted to reflect the introduction to the Project of the M&M procedures.

The contract deliverables list, also in contract, is being progressed by the use of a checklist but there are no target dates shown on the checklist.

Engineering documents for Gate 3 are advancing and the engineering specialists are clear on their objectives. Although a re-design of the spill way is required.

The Project schedule is being reworked to reflect the slippage in regulatory approvals and consequent delay of other activities.

The Project estimate produced in December 2011 is being worked to ensure that there is consistent back up detail. The assignment of Jason Kean to champion this effort and bring the estimate to finalization is a positive move. The estimate will require re-work to bring it in line with the new schedule. This activity should not be underestimated.

It is recommended that a detailed plan for achieving the Gate 3 goals be developed and rolled out to the groups to ensure full alignment.

**(2) Systems and Tools**

The PM+ and M&M procedures have recently been brought into the project, which is very late, and cannot be considered a best practice. This is the cause of great frustration in both teams and considering SLI extensive experience it is a very serious deficiency in their performance. Induction sessions are being

arranged and it is vital that both Nalcor and SLI are thoroughly trained in the these systems. There is considerable ground to be made up in this area. There is confusion in the teams who has responsibility for running the CPN (Commitment Package Network) meetings. In order for this process to be effective clear accountability should be established.

It was frequently mentioned that improvements in quality were not evident. Document Control process is a major bottleneck and needs to be reviewed to improve the timely flow of documents between the groups. It would perhaps be worth considering not to put revisions PA and PB in the Nalcor system but to use only the SLI system for tracking documents prior to rev 00.

There would appear to be no Project Controls systems in place that accurately measures and reports progress.

The monthly report needs a major work over to make it a useful document. Also the weekly report is too long and contains much detail, which is not relevant.

### (3) Resources

SLI have several senior positions open, which at this stage of the project is a very serious concern. Furthermore, several positions are on the third incumbent which, severely impacts team performance.

The following positions should be filled as a matter of extreme urgency.

Component #1 Project Manager, Component #1 Construction manager, Overall Construction Manager. The five vacant positions in Procurement, an individual to oversee the estimating group who has a Project Management approach as well as estimating back ground.

In several senior positions SLI have not provided personnel who have both SLI knowledge and experience and "Hydro" experience. Many have excellent "Hydro" experience and need to be supported in the SLI systems and procedures to deliver the desired level of performance.

The newly integrated scheduling team seems not to have "hydro" experience. In this case it is the Project Managers and Engineering Managers and others with experience that need to ensure the "Hydro" experience is built into the schedule. Project Managers need to take ownership of the schedule. The schedule is not owned by the schedulers.

The challenge of setting up a "new" office to execute this project was underestimated by the contractor and a considerable effort is now required to improve the performance of the team recognizing that support traditionally provided by a contractors home office is not readily available on short notice. There should be a detailed assessment made of the resources required to get to Gate 3. Gaps should be identified and innovative measures put in place to overcome potential shortfalls in available resources.

### (4) Organization/Alignment

For the focus areas that were reviewed the two project teams are not aligned. There was no demonstrated collective accountability also, there was no feeling of a collaborative working relationship. Walking the floor, there was a distinct a lack of "energy"

In the opinion of the review team this needs to be addressed with a comprehensive plan over the life of the project to ensure Project Effectiveness and Alignment is achieved and sustained as the project changes phases and new major contractors are brought on. Like any other specialist problem the Project needs outside help to achieve these objectives.

Furthermore the uncertainties surrounding the project necessitate an increase level of communication, which will form part of the Project Effectiveness Programme.

It is important to understand that Alignment starts at the very top and there must be a clear commitment from the very senior leaders to demonstrate an alignment to the goals of the Project.

The numbers and effectiveness of the meetings should be reviewed to ensure there is an optimum use of time.