



Lower Churchill Project

Internal Audit Project # 14-37

Report Name : Contracts & Compliance

Person Responsible: Pat Hussey

Auditor: Douglas Woodford

Audit Manager: Jackie Borden

Date: December 10, 2015

AUDIT REPORT

Line of Business	Lower Churchill Project
Department	Supply Chain and Quality Assurance
Audit	Contracts and Compliance
Audit Risk Level	Medium
Person Responsible	Pat Hussey – LCP Supply Chain Manager David Green – LCP Quality Manager
Copy	Paul Kennedy – Contracts Lead
Supervisor	Ron Power – General Project Manager Lance Clarke – Deputy Project Director
Auditor	Douglas Woodford
Audit Manager	Jackie Borden

EXECUTIVE SUMMARY

An audit was conducted of key contracts within the Lower Churchill Project (LCP) to ensure that they are in compliance to commercial agreement templates, post-award procedures, the change management process, and the quality assurance process.

LCP Supply Chain and Quality Assurance has demonstrated that in most cases there is strict adherence to the plans, procedures, legal templates, and due diligence governing the development, award and execution of each contract. In situations where extenuating circumstances required deviations from the plans and procedures, both Supply Chain and Quality Assurance proved to be prompt and adaptable in terms of implementing mitigating controls.

There was strict adherence demonstrated to the Change Management process. In addition, the LCP Post Contract Award Procedure appears to be an effective document that guided contract administrators with the oversight of the Contractor.

LCP QA had demonstrated that there is appropriate documentation in place to assist the LCP Quality Coordinators with their oversight of relevant Quality Exhibits, that there is general compliance to Exhibits 4 and 7, and full compliance to Exhibit 8.

While the overall findings of this audit are positive, there have been two issues identified as follows:

1. Exhibit 7 – Quality Requirements: Contractor Quality Plan & Audit Schedule – Low Risk (Impact: Minor, Probability: Unlikely).
2. Exhibit 7 – Quality Requirements: Quality Surveillance Release Notes – Medium Risk (Impact: Moderate, Probability: Unlikely).

Internal Audit would also like to highlight the excellent co-operation that we received from LCP Supply Chain and Quality Assurance. Please see attached audit report and related issue reports for further

details on the audit program that was executed as well as the issues and opportunities for improvement that were observed.

1. Objectives

- 1.1 To ensure that commercial agreements were prepared in accordance to Lower Churchill Project (LCP) Supply Chain guidelines/procedures, including that they went through an adequate review process, and that appropriate approvals were in place prior to the final contract sign off.
 - 1.2 To determine if LCP Supply Chain are in compliance to key areas of their Post Contract Award Procedure and selected areas covered in Exhibit Three (3) - Coordination Procedures.
 - 1.3 To determine if LCP Supply Chain are in compliance to the Change Management Process (under LCP Project Controls).
 - 1.4 To determine if LCP Quality Assurance (QA) is providing appropriate oversight to ensure that the contractor is in compliance with selected provisions within Exhibit 4 – Supplier Document Requirements List (SDRL), Exhibit 7 – Quality Requirements, & Exhibit 8 - Subcontractors, Manufacturers And Material Sources of the contract.
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2. Scope

The following contracts were selected for review against pertinent management plans/procedures/guidelines/templates (as outlined below):

1. CH0007-001 - Astaldi - Intake, Powerhouse, Spillway & Transition Dams
2. CH0030-001 - Andritz Hydro Canada Ltd - Supply and Install Turbines and Generators
3. CT0327-001 - Valard Construction LP - Construction of 350 kV HVdc Transmission Line - Section 1
4. LC-SB-003-001 - Nexans Norway AS - HVdc Cable Design S&I
5. CH0032-001 - Andritz Hydro Canada Ltd - Supply and Install Powerhouse Hydro-Mechanical Equipment
6. PUO-PT0301001-0001 - Seves Canada Inc. – Supply of Insulators 315 kV HvAC
7. PUO-PT0330001-0001 - Jyoti Americas LLC - Supply of Steel Towers - 350 kV HvDC

This audit did not include a comprehensive compliance review of the LCP Change Management Process (under LCP Project Controls) for each contract. It specifically reviewed, at a high level, whether or not a contract change had a Deviation Alert Notice (DAN) and Project Change Notice (PCN) initiated.

The first three contracts listed above were examined in the context of all 4 objectives; while the last four contracts were only examined regarding objective #4, quality assurance.

A summary of the audit findings follows below.

This audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

3. Objective #1.1: Commercial Agreements – LCP Supply Chain

3.1 Background

For LCP Commercial Agreements, selected sections from the following procedures/guidelines/templates were examined:

- Prepare and Issue Contract (LCP-PT-MD-0000-SC-PR-0026-01, Rev B1)
- Guidelines for Preparing Exhibits for Agreements (LCP-PT-MD-0000-SC-PR-0031-01, Rev B1)
- Supply and Install Agreement Template (LCP-PT-MD-0000-SC-FR-1032-01, Rev B2)
- Civil Works Agreement Template (LCP-PT-MD-0000-SC-FR-2032-01, Rev B2)
- Contract Due Diligence Procedure (LCP-PT-MD-0000-SC-PR-0039-01, Rev B1)
- Capital Expenditure Authorization Procedure (LCP-PT-MD-0000-FI-PR-0001-01, Rev B1)

3.2 Analysis - CH0007-001 (*Astaldi*), CH0030-001 (*Andritz*), CT0327-001 (*Valard*)

The contracts were reviewed to ensure that they clearly followed an approved template (i.e. Supply and Install or Civil Works) and that they included standardized definitions, articles, and exhibits. They was also examined to confirm that all required due diligence was completed prior to signing of the contract and with proper approval authority. Specifically, the contracts were reviewed to ensure they contained the following elements:

- Use of a standard agreement template;
- Standard definitions as laid out in the Guidelines for Preparing Exhibits;
- Standard articles as per the appropriate agreement template;
- Standard exhibits as per the appropriate agreement template;
- Approval in accordance with the Approval Matrix for Key Procurement Recommendations;
- Properly approved requisitions in place prior to the formal signing of the contract.

All contracts reviewed contained all of the above elements. There were no exceptions noted during the testing conducted.

3.3 Conclusions

There were no findings of note related to commercial agreements for the sample of existing contracts on the LCP. Overall, each agreement was prepared in accordance to the (1) Prepare and Issue Contract, (2) Guidelines for Preparing Exhibits for Agreements, (3) Supply and Install Agreement Template, or Civil Works Agreement Template. LCP Supply Chain has an excellent contract due diligence review process as evidenced by the appropriate cold eyes review and

approval process. All contracts reviewed adhered to the approved standardized templates and contained standard definitions, articles, and exhibits.

4. Objective #1.2: Post Contract Award – LCP Supply Chain

4.1 Background

For Post Contract Award Activities, selected sections from the following procedures & Exhibit were examined:

- Procedure for Post Award Contract Administration (LCP-PT-MD-0000-SC-PR-0035-01, Rev B1)
- Exhibit 3 Coordination Procedures (LCP-PC-MD-0000-SC-FR-1035-01, Rev B2)

Additionally, the Lower Churchill Project Quality Assurance (LCP QA) group completed a functional audit of Supply Chain in May, 2014 (Document #ARS-LCG002-0003). After a review by Nalcor Internal Audit (NIA) of the LCP QA Working Paper File, it was determined that NIA could rely on LCP QA's review of records management, and as such, audit procedures were adjusted accordingly.

It was also determined that LCP QA already completed interviews with a number of Contract Administrators in order to evaluate their understanding of Supply Chain Plans/Procedures, subsequently NIA's interview schedule was adjusted accordingly.

4.2 Analysis - CH0007-001 (Astaldi), CH0030-001 (Andritz), CT0327-001 (Valard)

Post Contract Award Procedure

Selected sections within the Post Contract Award Procedure were selected and examined for compliance. These sections included:

- Provision of Site Services;
- Documented Notice to Proceed and Mobilization Plan;
- Pre-Award to Post Award Transition (e.g. Contractor Kick-Off Meetings covering review of contract with recorded minutes);
- Registers (e.g. Security/Insurance, Change, original documentation kept secure by Treasury);
- Performance Security;
- Insurance;
- And Workers Compensation (e.g. letter of good standing from Workplace Health and Safety Compensation Commission).

Exhibit 3 – Coordination Procedures

As per the Post Contract Award Procedure, "The Contractor's duties in relation to the Contract are generally defined in Exhibit 3 Coordination Procedures. It is the Contract Administrator's (CA) responsibility to confirm that the requirements are identified and met." Further compliance testing was conducted on Exhibit 3 – Coordination Procedure of each agreement. These sections included:

- Final Execution Plan;
- Reports (e.g. weekly/monthly progress);
- Schedule Development and Control Plan, and Control Schedule Baseline Document;
- Cost Management;
- Change Register;
- And Risk Management.

4.3 Conclusions

The LCP Post Contract Award Procedure has demonstrated that it is an excellent document that aided the Contract Administrator to govern agreements. This was further demonstrated through compliance testing of Exhibit 3. Overall, LCP Supply Chain is in compliance to their Post Contract Award Procedure and selected areas covered in Exhibit 3 – Coordination Procedures, however there are still significant challenges with the Contractor for package CH0007-001.

Typical with all Agreements, there are a variety of documents that are required to be submitted by the Contractor post award. These documents are listed as part of Exhibit 3 – Coordination Procedures and Exhibit 4 - SDRL and form part of the Agreement. One of the documents noted in the CH0007-001 Agreement, as listed in the SDRL, is for the Contractor to provide an Execution Plan. The Execution Plan is a framework that details execution strategies and approaches, work plans, risk identification and mitigation plans, detailed procedures, organizational structures, logic networks, schedules and other material needed by Contractor's Personnel to develop execution details and Contractor's plans for the Work. The document is dynamic and a “living” document that adjusts as the work progresses and includes collaborative efforts between the Company and the Contractor.

The Execution Plan for CH0007-001 was submitted within the timelines noted in the Agreement and was subsequently reviewed and returned to the Contractor with comments from the Company. This plan continues to be in development and has not been finalized to date. The concern noted is that the lack of this plan could raise questions as to how the work is being planned, executed, and monitored, since there have been start-up issues with the Contractor for CH0007-001. One potential outcome is diminished Contractor performance leading to a negative impact on cost and schedule. An additional concern is that due to the ongoing issues and repeated delays with this package, milestone and deadline dates for subsequent packages could be affected, if they are dependent on completion of work by the Contractor for package CH0007-001.

Taking this into consideration, the Company has been working closely with the Contractor to ensure issues are addressed and appropriate actions have been taken to plan and initiate work, and that the correct organization and resources are in place and mobilized. In regard to the planning, execution, and monitoring of work, the package team has enacted several mitigating procedures. These include increased meetings with Contractor staff (on a daily and weekly basis), increased phone contact, visits to subcontractor sites, increased involvement in Contractor audits, increased quality surveillance, and an increased company presence at the construction site. The Company

and Contractor have also, on a number of occasions since award, established “Working Groups” that include Company and Contractor personnel to work through critical execution topics in the interest of maintaining cost and schedule. A sample of working groups that have been established include the following:

- Quality management,
- Health and safety,
- Schedule evaluation and baseline development,
- Labour management,
- Schedule optimization and refinement, and
- Productivity and production improvement.

As a result of these extensive mitigating procedures implemented by the package team, NIA has not noted any issues for this audit objective.

5. Objective # 1.3: Change Management – Supply Chain

5.1 Background

For Change Requests/Change Orders, selected sections from the following procedures/plan were examined:

- Procedure for Change Request (LCP-PT-MD-0000-CA-PR-0001-01, Rev B4)
- Procedure for Change Order (LCP-PT-MD-0000-CA-PR-0002-01, Rev B3)
- Change Management Plan (LCP-PT-MD-0000-PM-PL-0002-01, Rev B3)

5.2 Analysis - CH0007-001 (Astaldi), CH0030-001 (Andritz), CT0327-001 (Valard)

Change Requests

Change requests were sampled and examined for compliance. This included reviewing:

- Change Request Forms;
- Backup documentation such as Field Work Orders, Schedules, etc.;
- And Change Registers.

Change Orders

Change orders were sampled and examined for compliance. This included reviewing:

- Change Order Authorization forms;
- Proper approval of Change Order Authorizations;
- Change Order forms;

- Proper approval of Change Orders,
- And Change Registers.

Change Management Process

The Change Management Process was reviewed to ensure that:

- DANs were in place where appropriate;
- Any DANs were created prior to the related Change Request or Change Order Authorization;
- PCNs were in place where appropriate;
- Any PCNs were created prior to the related Change Order.

5.3 Opportunity for Improvement

1. When documenting change requests and change orders, it is suggested that the Contract Administrator record the applicable DAN # on the Change Request Form and the PCN # on the Change Order Form. By doing this, other reviewers immediately know that these changes did proceed through the LCP Change Management Process (under Project Controls) and can furthermore use the number to look up the DAN or PCN within the LCP Tracker more efficiently. This was discussed at the Exit Meeting with Supply Chain and was accepted.

5.4 Conclusions

Compliance with change procedures is strong across all three contracts sampled for testing in this area. The change management process on all packages is working very effectively. The process is followed in order and clearly documented, giving good traceability from change request, to change order authorization, to change order. Proper authorizations were always in place for the samples tested. Where necessary, changes can be traced to the LCP Tracker system via DAN or PCN, which is evidence of sharing of information across the Supply Chain and Change Management functions.

6. Objective #1.4 - Quality Assurance

6.1 Background

For Quality Assurance, selected sections/info from the following Exhibits was examined:

- Exhibit 4 – Supplier Documents Required List
- Exhibit 7 - Quality Requirements (LCP-PT-MD-0000-SC-FR-1039-01, Rev B2)
- Exhibit 8 – Subcontractors, Manufacturers and Material Sources

6.2 Analysis - CH0007-001 (Astaldi), CH0030-001 (Andritz), CT0327-001 (Valard), CH0032-001 (Andritz), LC-SB-003-001(Nexans), PT0301-001 (Seves), PT0330-001 (Jyoti)

LCP Quality Assurance General Documentation

During the planning stages of this audit interviews were conducted with the Quality Assurance Manager regarding previous audit work conducted in this area by LCP Quality Assurance. At this time it was noted that there had been ongoing issues with quality requirements on certain packages. As such, the scope of the audit was expanded to include a review of the quality process. It was determined that the LCP QA group has a number of key documents to ensure Contractor compliance to Exhibits (e.g. Exhibit 7) of the contract. These key documents include:

- Quality Assurance Surveillance for Supply of Equipment and Materials (LCP-PT-MD-0000-QM-PR-0008-01).
- Quality Assurance Surveillance Plan (QASP), as required. These QASPs, as outlined in the Quality Assurance Surveillance for Supply of Equipment and Materials are optional and at the discretion of the LCP Quality Manager.
- Work Instruction for the Review of Inspection & Test Plans (ITP) (LCP-PT-MD-0000-QM-WI-0001-01).

Each document was methodical, and served as detailed instruction for the LCP Quality Coordinators to execute appropriate quality assurance.

Exhibit 4 (SDRL), Exhibit 7 (Quality) & 8 (Subcontractors, Manufacturers and Material Sources)

Seven LCP Quality Coordinators were interviewed to determine their understanding of the above noted documentation and the package specific requirements under Exhibit 7 of the agreements. It was determined, that in all cases, each LCP Quality Coordinator had a thorough understanding of the plans/procedures/guidelines outlined above and related Exhibit's (e.g. 4, 7, 8, etc.).

Internal audit reviewed the following sections within Exhibit 4, 7, and 8.

- a) Exhibit 4 – SDRL,
- b) Exhibit 7 - Contractor Quality Plan (receipt/content and approval by LCP),
- c) Exhibit 7 - Contractor Quality Audits & Management Reviews (e.g. Receipt of Contractor's Audit Plan, Schedule and Reporting),
- d) Exhibit 7 - Inspection and Test Plans (e.g. Receipt & Approval by LCP),
- e) Exhibit 7 - Quality Release Notes (e.g. Approval), if applicable,
- f) Exhibit 7 - Expediting Release Notes (e.g. Approval), if applicable
- g) Exhibit 8 – Material Packing Slips & Payment Certificates

6.1 Opportunities for Improvement

1. In general, it appears that any actions that arise from a Contractor Audit are reported on the Contractor's NCR Register, which is reported within the Contractor Monthly Progress Report. An NCR can be generated by an audit, but it is not limited to it. It is suggested, for clarity, if there are items on the Contractor's NCR Register that were generated by an audit,

- the audit number be identified within the register as well. This will allow traceability from the register to the audit report in Aconex.
2. In general, there are other types of Contractor Audit Issues besides an NCR such as a Corrective Action (CA) and Preventive Action (PA). It is suggested that LCP QA obtain the Contractor's Audit Register relating to these issues as well. This will ensure that LCP Management has a full picture of any ongoing issues.
 3. Specifically for CT0327-001 (Valard), it was observed that under Exhibit 7, section 8.3 – Quality Audits and Management Reviews, that the Contractor must submit their Audit Plan no later than 2 weeks after the Effective Date. However, this has not been included within Exhibit 4 – Supplier Document Requirements List (SDRL). It is suggested that on a go forward basis, that LCP QA ensure that this requirement under Exhibit 7 (Contractor Audit Plan) be added also to the Exhibit 4 – SDRL.
 4. There is no formal process documented in any of the LCP QA plans or procedures to address how to fast track material in light of scheduling constraints. As this can be a common issue on complex projects, developing a formal procedure or general guidelines may be warranted.

6.2 Conclusions

It was determined that LCP QA had excellent plans/procedures in place to assist the LCP Quality Coordinators govern Exhibits 4 and 7 of the agreement. Each LCP Quality Coordinator demonstrated a good working knowledge of Exhibits 4 and 7 and those plans/procedures mentioned above. LCP QA demonstrated contractor oversight via quality auditing, review of Suppliers/Contractors submitted documentation, and Supplier/Contractor meetings and Third Party Surveillance. Coverage included areas such as The International Organization for Standardization (ISO), the Contractors' Quality Plan, ITPs, and relevant QA Exhibits in the agreement. In some cases, LCP Quality Coordinators participated in the Contractor's own audits of the Supplier Group. Despite these practices, there are challenges with Package PT0330-001 (Jyoti) in relation to Exhibit 7 requirements. For more detail on these challenges please see the related issue report.

7. Final Comments

LCP Supply Chain had demonstrated that there is strict adherence to the plans, procedures, legal templates, and due diligence governing the development and award of each contract. There was also strict adherence demonstrated to the Change Request, Change Authorization, and Change Order Procedures with appropriate approvals obtained through the Capital Expenditure Authorization Procedure. In addition, the LCP Post Contract Award Procedure appears to be an effective document that guided contract administrations with the oversight of the Contractor, more specifically Exhibit 3 – Coordination Procedures.

LCP QA had demonstrated that there is appropriate documentation in place to assist the LCP Quality Coordinators with their oversight of relevant quality Exhibits, that there is general compliance to Exhibits 4 and 7, and full compliance to Exhibit 8. In addition, the LCP QA Group has demonstrated that there are LCP Quality Audits being conducted on the Contractor, with “value-add” findings. Despite the number of challenges that LCP QA has had with package PT0330-001 (Jyoti) the group has demonstrated a degree of due diligence to identify, escalate, and resolve these challenges through meetings with LCP Supply Chain, and most recently a Contractor Audit of package PT0330-001 (Jyoti) that focused on the Contractor’s understanding and compliance to Exhibit 4, 7, 8 etc. of the agreement.

While the overall findings of this audit are positive, there have been two issues identified, all of which are outlined in more detail within the attached Audit Issue Reports. Internal Audit would also like to highlight the excellent co-operation that we received from the LCP Supply Chain and Quality Assurance. Documents were received in a timely manner from Contract Administrator(s) and Quality Coordinators. Interview requests were always quickly accommodated and there was always a good two way dialogue around any concerns or issues.

AUDIT ISSUE #1: Exhibit 7 – Quality Requirements: Contract Quality Plan & Audit Schedule

Line of Business	Lower Churchill Project
Department	Supply Chain and Quality Assurance
Audit	Contracts and Compliance
Issue Risk Level	Low
Person Responsible	Pat Hussey – LCP Supply Chain Manager David Green – LCP Quality Manager
Copy	Paul Kennedy – Contracts Lead
Supervisor	Ron Power – LCP Project Manager Lance Clarke – Deputy Project Director
Auditor	Douglas Woodford
Audit Manager	Jackie Borden

As per Exhibit 4 - SDRL and Exhibit 7 – Quality Requirements, a variety of documentation is required to be submitted by the contractor during the post award phase of the contract. The following observations were noted:

1 Jyoti (Package# PT0330-001):

A Quality Plan was submitted by the Contractor and approved by the LCP Package Team, and although it does contain some of the minimum requirements under the Exhibit, it does not appear to provide enough detail. It is not in accordance to Exhibit 7 – Quality Requirements, Section 7.2 – Quality Plan Content, (f) Detailed Descriptions.

It has been determined that the Contractor Quality Plan was reviewed and accepted by the LCP at a time when the agreement was awarded to Jyoti Americas LLC. At this time it was deemed suitable for its intended scope and purpose. When this agreement was amended later to add Gulf Jyoti International LLC, located overseas, the package became more complex and now the Contractor Quality Plan may include deficiencies.

The LCP has already been mitigating these deficiencies; these measures include, but are not limited to:

- Subsequent LCP quality audits and surveillance visits were conducted and gaps in the plan were identified by the LCP;
- LCP Third Party Quality Surveillance was increased for monitoring of tower fabrication at all overseas locations;
- The LCP has ensured that a LCP Overland Transmission Line Construction Execution Plan is in place;
- An LCP Overland Transmission Line Inspection Handbook was also in place;
- To date the LCP have conducted a review and sign off of over 7,600 Installation Records; and
- A qualified and competent team is in place performing construction quality surveillance 7 days a week on all aspects of the Overland Transmission Line construction work.

2 Valard (Package# CT00327-001):

An Audit Plan has not been submitted by the Contractor and approved by the LCP Package Team,

subsequently, the Contractor is not in compliance to Exhibit 7 – Quality Requirements, Section 8.3 – Quality Audits & Management Reviews.

It has been determined that LCP Management has sent a letter to Valard dated June 3, 2015 requesting the plan, and during July LCP QA do intend on conducting a quality audit of the Contractor.

RECOMMENDATIONS

It is recommended that:

1. LCP QA consider examining other packages within Component 4 to determine if the complexity or risk has changed, and if this has affected the existing Quality Plan, therefore warranting increased surveillance.
2. LCP QA obtain all required post-award documentation:
 - At the LCP QA option, obtain a revised Contractor Quality Plan from Jyoti.
 - Obtain a revised Contractor Quality Audit Plan from Jyoti.
 - Obtain the Contractor Quality Audit Plan from Valard.
3. LCP QA follow through on their scheduled Quality Audit for Valard in July 2015.

AUDIT ISSUE #2: Exhibit 7 – Quality Requirements: Quality Surveillance Release Notes

Line of Business	Lower Churchill Project
Department	Supply Chain and Quality Assurance
Audit	Contracts and Compliance
Issue Risk Level	Medium
Person Responsible	Pat Hussey – LCP Supply Chain Manager David Green – LCP Quality Manager
Copy	Paul Kennedy – Contracts Lead
Supervisor	Ron Power – LCP Project Manager Lance Clarke – Deputy Project Manager
Auditor	Douglas Woodford
Audit Manager	Jackie Borden

As per Exhibit 7 – Quality Requirements & Exhibit 4 (SDRL – Supplier Documents Requirement List), a variety of documentation is required to be submitted by the contractor during the post award phase of the contract. The following observation was noted:

A Quality Surveillance Release (QSR) and an Expediting Release Notice is required for all fabricated equipment and materials, before the material can be shipped from the fabrication facility. The contractor is required to provide several critical documents before the QSR is issued. To date, there have been no Quality Surveillance Release or Expediting Release Notices completed for any material received from Jyoti, which is not in accordance to Exhibit 7 – Quality Requirements, section 13.0 – Quality Surveillance and Expediting Release Notes.

It has been determined that these documents are required under Exhibit 7 – Quality Requirements; and Exhibit 4 – Supplier Documents Required List. Therefore, the package team is relying on the Q05 – Certificate of Conformance as enough documentation to release the material. Ultimately, the material is then received through the Marshalling Yard, the material proceeds to construction, and the payment certificate approval form is signed off and the vendor is paid.

To compensate for these above challenges, LCP QA has enacted other mitigating controls to manage quality surveillance on Jyoti, including, but are not limited to:

- Ensuring that all relevant and critical NCRs and CARs are closed out;
- That all relevant and critical inspection and test points shown on the Supplier’s Accepted Inspection and Test Plan have been completed and signed off by all parties;
- Although, not submitted with the QSR all required documentation is fully completed and reviewed for compliance.
- There are eight third party inspections spread across all three of Jyoti’s facilities providing additional quality surveillance.

- The LCP Package Engineer, Lead Engineer, and Quality Coordinator have visited all three of these facilities as of March 2014, at intervals of 1-2 months, to verify raw material and witness destructive testing, meet with inspectors, and to meet with the supplier to address any issues.
- There have been several LCP Quality Audits conducted on Jyoti.

The risk for this issue was deemed to be medium (Impact: Moderate, Likelihood: Unlikely). While poor quality erected steel could have a impact on cost and schedule, the LCP Package Team has enacted sufficient mitigating controls to ensure appropriate quality material is used in the towers. In addition to this, an additional transmission line (TL267) is being built which will support the LITL (Labrador Island Transmission Link). In the event that there is a power outage due to a failure within the Labrador Island Transmission Link, the TL267 will maintain the voltage/load, subsequently minimizing any power distribution to customers.

RECOMMENDATIONS

It is recommended that:

- 1 LCP QA continue with the additional quality surveillance measures they have enacted for this package, due to Contractor challenges, daily oversight and monitoring is required.
- 2 LCP QA ensure that the Contractor understands the requirements under Exhibit 7 – Quality Requirements, Section 13 – Quality Surveillance and Expediting Release Notes and that on a go forward basis a QSR is completed prior to expediting of material.
- 3 In light of schedule constraints, align with Supply Chain on minimum documentation required for the QSR, this will aid in fast tracking the material if a schedule constraint does exit.