ONTARIO POWER GENERATION

Internal Audit

Darlington Nuclear Refurbishment ("DNR") – Claims and Dispute Management

December 19, 2019

Report Rating: **Generally Effective**

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1.0 EXECUTIVE SUMMARY

1.1 Report Rating and Summary of Findings

Report Rating: **Generally Effective**

No.	Finding	Risk Type	Risk Rating[1]		
			High	Moderate	Low
1	There are inconsistencies in the level of detail in OPG's CMT records and tracking of the progression of issues, claims, and disputes.	Operational		x	
2	The basis of key decisions to support OPG's agreed claim settlement amounts is not consistently documented.	Operational		x	
3	Certain requests for compensation for defective work require greater analysis of cost impacts to strengthen OPG's position and maximize recovery of settlements resolved by front line management.	Operational			x
4	The suggested contractual timeframe specified in the procedure for disputes is not always being followed and dispute escalation steps are not formally recorded.	Operational			x
Total		**4**	**-**	**2**	**2**

1.2 Background

Following planning and design, Ontario Power Generation ("OPG") moved into the execution phase on the Darlington Nuclear Refurbishment ("DNR") project as of October 2016, starting with the refurbishment of Unit 2. Oversight and coordination of a number of 'prime' contractors performing engineering, procurement and construction refurbishment work are key elements of the DNR program.

The Contract Management Team ("CMT") is ultimately responsible for DNR's claim avoidance and commercial issue management with the support of DNR's Project Management Team ("PMT"), Supply Chain ("SC"), the Law department and external counsel and experts on an as needed basis. CMT manages:

- Issues (a project event that if not corrected or resolved, may lead to a claim);
- Claims (a demand or assertion of rights by one party against another for damages sustained under the contract); and
- Disputes (where a claim gives rise to a commercial disagreement between the parties that must be resolved).

The DNR Claims and Dispute Management audit, a risk-based audit identified in Internal Audit's ("IA's") 2019 Audit Plan, was selected given the commercial importance to the DNR project, and to OPG, of having a sound process for identifying issues, and administering and resolving claims and disputes with its contractors.

[1] Please refer to Appendix A for risk rating definitions

1.3 Objective & Scope

The objective of this audit was to independently assess and validate the effectiveness of the CMT's processes surrounding dispute tracking, escalation and resolution, decision analyses, records and documentation of decisions, claims notices, and change orders.

In order to achieve the audit objective, we have reviewed the process and tested, on a sample basis, whether:

A. Claims and dispute management governance
• The processes for identifying, tracking, escalating and resolving claims and disputes was clearly defined and documented, and whether they were common across projects and were complete; • All relevant stakeholders were included in the process; and • Roles, responsibilities and accountabilities were clearly defined, documented and understood.
B. Claims and dispute management process

• Issues, disputes and/or claims were:
  ○ identified early;
  ○ promptly escalated to the responsible stakeholders for resolution; and
  ○ logged into a repository which was updated regularly for reporting purposes;
• Unresolved defective work was identified and escalated;
• The process of managing and escalating issues, disputes and/or claims complied with the applicable "dispute resolution" contractual clauses (e.g., notice requirements and dispute escalation process) and internal OPG processes;
• Technical analysis of claims and disputes was performed adequately (e.g., contract interpretation, delay analysis, quantification of damages and loss of productivity analysis);
• Executive/senior OPG management and in-house legal teams were notified/consulted during the resolution of high risk or high value disputes/claims;
• Detailed explanation and rationale for resolving and/or escalating disputes/claims was recorded and available; and
• Sufficient and qualified resources were allocated to manage issues, claims and/or disputes (including necessary technical analysis know-how).

C. Records and Document Management
• Relevant contemporaneous project documentation (e.g., daily reports, monthly reports, minutes of meetings, schedules, invoices, photos, progress reports and correspondence) was recorded and readily accessible; • All relevant documentation/records associated with an issue, dispute and/or claim (e.g. contemporaneous project documentation, dispute logs, dispute records and dispute resolution records) were recorded; and • Technology systems to support records and document management were effectively used.
D. Fraud considerations
• There were intentionally misrepresented settlement agreements through collusion with vendors.

Scope Period: The scope included activities from January 1, 2018 up to September 13, 2019 (extended to September 30, 2019), and included precursor activities form prior periods where relevant.

1.4 Conclusion

Overall, we found the DNR Claims & Dispute management process to be generally effective. Our review identified some inconsistencies in record keeping which may result in delays and the CMT's ability to retrieve relevant information to support dispute and claims activities. Taken as a whole, records may not readily provide a comprehensive progression of the lifecycle of a given disputed issue from identification to resolution. Management is working to enhance its system of record for issues, claims and dispute management, and continued effort is required including educating key stakeholders.

Positive Observations

IA interviewed multiple CMT and PMT members working across the Retube and Feeder Replacement ("RFR") and the Balance of Plant ("BOP") projects and found that:

- The CMT has experienced and knowledgeable staff with a deep understanding of the specific contracts each individual support;
- The CMT staff is integrated into the various project teams and have multiple internal touchpoints to ensure that staff are aware of project updates, potential issues and status of outstanding items;
- Senior OPG management and leadership are routinely included in project updates and informed of all ongoing items. The CMT and PMT teams ensure that they are regularly reporting 'up' and gathering feedback as necessary; and
- The DNR teams receive commercial training at the outset of their roles and are in the process of implementing a common records management software.

Findings & Recommendations

- There are differences in the level of detail and consistency in OPG's CMT records retention and tracking of the progression of issues, claims, and disputes that make obtaining a clear picture of status challenging. IA reviewed six samples[2] of tracked issues that were at different stages in the issue management process and observed that there was an absence of a comprehensive and complete 'single source of truth' document or log for all six samples that captured the complete timeline/progression of issues from initiation through resolution (when applicable). IA also identified that certain key documents (e.g. emails) were not centrally recorded and organized. Management should: 1) continue to enforce the utilization of the standardized issue tracking tool, and 2) re-assess internal manuals and guides to ensure they clearly outline the type of information, level of depth needed for internal record-keeping and retention repository for tracking of progress for issues, claims and/or disputes; and

- The basis of key decisions over OPG's commercial issue settlement amounts with vendors is not documented in detail. This may impact OPG's ability to demonstrate prudence and due diligence in negotiations with vendors when subject to external reviews. We recommend that CMT consults with its internal legal team to provide guidance on how to best preserve such information.

The findings noted in this report have been reviewed with Management and they have committed to specific action plans. Please refer to Section 2.0 for specific details of the above findings along with the associated risk impacts, audit recommendations and management action plans.

[2] Two samples from BOP (Emergency Heat Sink ("EHS") and Low Pressure Service Water / Stopple Plug ("LPSW/SP")), and four from RFR (Plastic Suits ("PS"), Retube Waste Processing Building HVAC ("RWPB HVAC"), W10W Damaged Feeder ("W10W") and Steam Door Damages ("SD").

Opportunity for Improvement

Early identification of potential project issues, disputes and/or claims could be enhanced by leveraging project data to develop and analyse existing 'early warning KPI indicators' through the use of CMT specific dashboards. Applicable KPI's may include: Contingency variances, Cost Performance Index ("CPI"), Schedule Performance Index ("SPI"), Station Condition Records ("SCR") trends by type, Change Request trends, and Delay Notice trends, among others.

2.0 DETAILED AUDIT FINDINGS

IA identified the following detailed findings and recommendations which have been risk-rated based on the definitions outlined in Appendix A.

1. There are inconsistencies in the level of detail in OPG's CMT records and tracking of the progression of issues, claims, and disputes.	**Moderate**

Industry best practices in claims and dispute management include tracking and maintaining records of important events related to an issue, dispute or claim from initiation through resolution. This is achieved by i) maintaining a 'single source of truth' that registers the progression of the issue (e.g. formal/informal escalation, decisions, meeting discussions, correspondence, resolution facts), and ii) ensuring that the corresponding records are properly retained in a standardized document management system.

Although CMT tracks the status of commercial issues, defective work claims, and disputed items in separate 'Action Matrix' logs for each tested project bundle (RFR and BOP), review of these logs identified that key events were not consistently being recorded. While BOP uses the same log format as RFR, in some instances the log was used more so for the tracking of action items rather than the tracking of the progression of issues. Also instead of maintaining a single log, the BOP project maintains multiple file versions of the log requiring review of the various files to determine the progression of issues.

In terms of records management, IA found that the shared drive repository lacked the completeness, consistency, and uniformity expected from a claims and dispute management system. The following were noted:

- There were inconsistencies between the information contained in the 'Action Matrix' logs and the records that were being stored in CMT's electronic shared drive (e.g. a document is filed in CMT's designated shared drive folder but the information is not included in the issues log or vice versa);
- Certain relevant email correspondences were only stored in employee email inboxes. Types of information not stored in the shared drive included specific escalation confirmations, letters and reports.
- CMT's shared drive folder structures for the retention of records pertaining to tracked issues, claims, and disputes were not uniform; and
- IA reviewed two BOP (EHS and LPSW/SP) and four RFR samples (PS, RWPB HVAC, W10W and SD) of tracked issues at different stages in the issue management process. Only one tested sample from BOP had completed the optional 'Dispute Resolution Record' as set out in N-MAN-00150-00001 *Contract Dispute Resolution Process*. There was no guidance on when the document is applicable and should be used.

CMT had already self-identified that a more formal framework to manage claims and disputes was required, and had issued supporting guidance (i.e. OPG-GUID-00150-0003 - *Dispute Avoidance and Commercial Issue Management* (March 2019) and N-MAN-00150-00001-CM-DRES *Major Refurbishment Contracts Dispute Resolution Process (May 2017)*) in order to formalize the process. The CMT organization continues to educate and work with the various project teams to enhance their commercial awareness and record keeping capabilities.

Potential Cause & Impact

Potential Causes:

1. Significant reliance was placed on the experience and capability of CMT personnel to develop and organize their own working files;
2. Lack of detailed standardized guidance at earlier stages of the DNR project that outlined how:
    a. Tracked issues, claims and disputes should be tracked to maintain a comprehensive progression of the issue; and
    b. Records retention should be stored within standardized folder structures.
3. Inconsistent use of tools/logs that could facilitate the recording of progression of issues into one single 'source of truth'.

Potential Impacts:

1. Potential loss of information and/or difficulty in understanding and retrieving information pertaining to the progression of an issue, especially if there is turnover in key project personnel; and
2. Time-consuming effort in reporting details of tracked issues to OPG management.

Recommendation

Management should:

Continue to develop and refine appropriate processes, procedures and tools to more consistently track and record the progression of issues in greater depth of detail. Considerations should include:

a. Continue to enforce the use of a standardized issue tracking log to consistently track the advancement of issues; and
b. Management should re-assess the issued manuals and guides to develop more detailed record retention governance that would prescribe what, how and where information is to be recorded. The manuals and guides should clearly outline the depth of information needed for internal record-keeping and tracking of the progression of a tracked issue, dispute and/or claim.

Management Action Plan

1. The Contract Document Repository ("CDR") pilot became available for CMT use in June 2019. CMT has been populating the database with all relevant information for open items and will continue to do so. Management will reinforce expectations to consistently store documents to ensure that the entire team is aware of the requirements.

   Action Owner: Zeina Elhami, Project Director Commercial Management Refurbishment
   Target Completion Date: December 31, 2019

2. Conduct a self-assessment over the next 6-12 months to ensure standardized approach and documentation expectations are adhered to in order to support progression of commercial issues to disposition.

   Action Owner: Kelly Forbes, Manager, Commercial Management, Refurbishment
   Target Completion Date: December 15, 2020

2. The basis for key decisions to support OPG's agreed claim settlement amounts is not consistently documented.	**Moderate**

N-MAN-00150-00001-CM-DRES *Major Refurbishment Contracts Dispute Resolution Process* and OPG-GUID-00150-000 *Dispute Avoidance and Commercial Issue Management* require that records of the facts, positions and rationale of OPG decisions analyses are preserved.

IA reviewed two BOP (EHS and LPSW/SP) and four RFR (PS, RWPB HVAC, W10W and SD) tracked issues and found that only one sample (LPSW/SP) had a record (internal OPG email) documenting the key decisions supporting OPG's agreement to a settlement amount. We were not provided with records documenting the progression of OPG's settlement position for the other BOP and RFR samples.

Potential Cause & Impact

Potential Cause:

Detailed decision analysis records represent commercially sensitive information, and no formal guidance was established to inform the level of detail to retain for record retention.

Potential Impact:

OPG may not be able to explain the commercial rationale supporting the settlement of claims when subject to external reviews.

Recommendation

Develop appropriate processes and procedures that document the rationale and positioning of OPG's settlement claims. When appropriate, such information may be labelled as "Privileged and Confidential". Other considerations should include:

1. Developing privileged and confidential standardized forms that need to be completed by CMT outlining its negotiation and settlement strategy and outcome, and developing detailed governance that would outline this process; and
2. Consulting with OPG's Legal group for guidance on how best to record such confidential information.

Management Action Plan

Working with Law, CMT was already in the process of developing a decision template to record settlement of issues at the time of the audit, which will be finalized and issued by Q1 2020. The template includes a summary of dollar value, problem statements, purchase order references, and timelines. Any required changes to guidance documents and support will be assessed.

Action Owner: Kelly Forbes
Target Completion Date: January 30th, 2020

3. Certain requests for compensation for defective work require greater analysis of cost impacts to strengthen OPG's position and maximize recovery of settlements resolved by front line management.	**Low**

According to industry best practices [e.g. as per guidance from the Association for the Advancement of Cost Engineering ("AACE"), the Project Management Institute ("PMI"), and other industry literature], owners should provide a clear establishment of cause-and-effect between defective work and downstream impacts usually captured within a 'delay analysis' and 'quantification of damages' as part of a dispute and/or formal claim.

IA reviewed OPG's requests for compensation and claims for defective work, issued to the vendor in the selected BOP and RFR samples, and noted that some compensation requests lacked a level of depth for a more comprehensive quantification compared to industry standards. Specifically, 3 of the sampled requests for compensation (EHS, RWPB HVAC, and SD) were initiated by OPG. Although negotiations for these requests were still in-progress at the time of our audit testing, they each lacked cost impact analyses that could have been presented to strengthen OPG's position when settlement discussions were first initiated with vendors.

For instance, CMT would present the rationale of OPG's position in letters or emails to the vendors with little to no quantification of estimated damages. When present, the quantification of damages consisted of Microsoft Excel tables with little to no backup provided and/or accompanying 'delay analysis' to substantiate the claim.

Also, there are no internal resources with specialized claims analysis and preparation expertise to review, critique, formulate and/or prepare claims in a systematic and consistent method.

Potential Cause & Impact

Potential Causes:

1. External claims consultants are utilized for high risk and complex issues and not required for smaller items; and
2. CMT is a 'commercial team' and not a 'claims' team. As such, CMT does not necessarily have the in-depth specialized expertise in preparing and presenting a comprehensive request for compensation claim. We note that no training is provided to CMT specifically in the field of claims analysis and preparation.

Potential Impacts:

1. OPG could be identifying smaller compensation amounts than it is potentially entitled to; and
2. If project teams are negotiating with vendors at the 'working level' without proper analysis of loss, and if / when issues become formal claims, introducing formal analysis may be less impactful and may create more tension.

Recommendation

1. Develop specialized training and detailed job aids relating to the analysis, quantification and preparation of claims (roles and responsibilities, methods, templates, tools) so that more detailed cost impact analyses are presented to vendors when discussions are first initiated; and
2. Consider recruiting a dedicated claims specialist internally, training existing staff or engage through external consultants in order to consistently review, respond and/or prepare claims across OPG.

Management Action Plan
Management will: 1. Expand on the information and guidance provided in the *Dispute Avoidance and Commercial Issue Management Guide* on analysis and preparation of analysis for items that could become claims or disputes; 2. Develop a broadened communication/formal rollout plan for the process around *Dispute Avoidance and Commercial Issue Management Guide* to include both the CMT team and the broader support teams in projects, project controls, and finance; and 3. Consider recruiting a dedicated claims specialist based on the needs of the project with input from OPG Legal. Action Owner: Zeina Elhami Project Director Commercial Management Refurbishment, Aimee Collier, Assistant General Counsel Target Completion Date: February 27, 2020

4. The suggested contractual timeframe specified in the procedure for disputes is not always being followed and dispute escalation steps are not formally recorded.	**Low**

BOP and RFR contracts have suggested timeframes to escalate and resolve disputes when first referred to a party.

IA reviewed two BOP samples (EHS and LPSW/SP) of tracked issues at different stages in the dispute process to test if the specified escalation process in the contract was followed. Under both circumstances, it was found that the 30-day timeframe suggested in the contract was not adhered to by OPG, and that escalation of a disputed issue to the next level occurred after the 30-day period. Based on our findings from the selected BOP samples, the actual escalation timeframes ranged between 47 and 322 days.

IA also reviewed four RFR samples (PS, RWPB HVAC, W10W and SD) of tracked issues at different stages in the dispute process to test if the contract clause was followed. Under both circumstances, it was found that the suggested 10-day timeframes were not followed and escalation occurred after the 10 day period. Based on our findings from the selected RFR samples, the actual escalation timeframes ranged between 22 and 126 days.

The observations above were based on a review of available records (letters, emails, project documents). Management had indicated that significant time is required for parties to review more technically complex issues to develop analyses, formulate sufficient responses and positions before escalation. In many instances, issues were *informally* escalated to the next level as there were regular project meetings which involved leadership from OPG and the vendors.

Potential Cause & Impact

Potential Causes:

1. Management has stated that the contractually suggested timeframe for escalation may not be practical given that significant time may be required for parties to review the disputed issue, develop analysis and formulate a sufficient response and position; and
2. Management also stated that the contract language states that these are suggested timeframes and not obligatory timeframes (as evidenced by the use of the language “may” instead of “shall”).

Potential Impact:

Non-compliance to suggested timeframes could pose a risk for vendors to claim that OPG was not abiding by the contractual dispute resolution procedures for a given dispute that may go to arbitration.

Recommendation

Consult with Legal to understand the implications of not strictly abiding by the contractual dispute resolution procedures.

Management Action Plan
1. OPG has consulted with the Law Division and has been advised that the contractual dispute resolution procedures are discretionary for both OPG and vendors and therefore any risks associated with not strictly adhering to such timeframes are low; 2. CMT will continue to assess, on a claim by claim basis, whether to strategically escalate commercial issues formally using the contractual dispute resolution process; and 3. CMT will continue to monitor the limitations periods on issues and potential claims and any impact the contractual dispute resolution process may have on the applicable statutory limitation period. This is the more significant timeframe and risk issue where potential disputes or claims are concerned. Action Owner: Zeina Elhami, Project Director Commercial Management Refurbishment Target Completion Date: Completed

APPENDIX A – RISK RATING DEFINITIONS FOR AUDIT FINDINGS

Finding: *Noted deficiency with potential impacts to the achievement of business unit/process area objectives, assessed using the following criteria:*

	High Risk	Moderate Risk	Low Risk
Financial	• Potential loss or financial impact =>5% of the sample population's value, or the department's OM&A budget if the former is unavailable.	• Potential loss or financial impact >=2% and <5% of the sample population's value, or department's OM&A budget if the former is unavailable.	• Potential loss or financial impact <2% of the sample population's value, or department's OM&A budget if the former is unavailable.
Operational Excellence	• Governance non-compliance or lack of/inadequate controls that may impact achievement of business or project objectives. • Errors in or insufficient internal reporting that drives senior management decision making. • Test results where =>25% of the sample had deficiencies in the execution of a key control.	• Governance non-compliance or lack of/inadequate controls with alternate controls in place to mitigate the impact to business or project objectives. • Errors in or insufficient internal reporting that could affect management decision. • Test results where >=10% and <25% of the sample had deficiencies in the execution of a key control.	• Governance compliance with procedural concerns or documentation issues which could impact OPG's ability to demonstrate appropriate due diligence. • Errors in or insufficient internal reporting that has minimal decision making impact. • Test results where <10% of the sample had deficiencies in the execution of a key control.
Safety & Social License	• Regulatory non-compliance. • Deficiencies that could result in: ○ Fatality, permanent disability, or lost time injury; ○ Data loss or unavailability of critical systems; ○ Security is compromised in sensitive / multiple areas; or ○ Fraud / theft.	• Insufficient evidence to support regulatory compliance. • Deficiencies that could result in: ○ Minor injury with no lost time; ○ Temporary data loss or unavailability of non-critical systems; ○ Security is compromised; or ○ Fraud / theft with some mitigating controls.	• Documentation improvements to support regulatory compliance. • Deficiencies that could result in incidents that do not require medical treatment.

Opportunity for improvement: *Observation with no risk impact that is provided to management for consideration to improve efficiency of processes and documentation (e.g. automation, duplication of activities).*

OVERALL REPORT RATING SCALE

An overall audit rating is assigned based on the number of observations identified for the audit and their assigned risk rating:

	Number of Findings			
Finding Risk Rating	**1**	**2**	**3 - 4**	**=> 5**
High	Requires Improvement	Not Effective	Not Effective	Not Effective
Moderate	Generally Effective	Generally Effective	Requires Improvement	Not Effective
Low	Effective	Effective	Generally Effective	Requires Improvement

APPENDIX B – PROCESS OWNER & DISTRIBUTION LIST

Distribution:

Dietmar Reiner
SVP Chief Project Officer

Carla Carmichael
VP Project Assurance & Contract Management

cc:

Ken Hartwick	President & Chief Executive Officer
John Mauti	SVP & Chief Financial Officer
Michael Allen	SVP Unit 2 Nuclear Refurbishment
Shelley Babin	SVP Law & General Counsel
Steve Gregoris	SVP Darlington
Alex Kogan	Chief Controller & Accounting Officer
Barbara Kerr	VP Controllership
Gary Rose	Deputy Site VP, Refurbishment
Marc Paiment	Project Director RFR, Refurbishment
Scott Guthrie	Senior Director BOP, Refurbishment
Zeina Elhami	Project Director Commercial Management Refurbishment
Ken Hamilton	Project Director TG, Refurbishment
Jim Robertson	Project Director TG, Refurbishment
Adam Chiarandini	Director Enterprise Risk Management
Janice Ding	Director Internal Audit
Zar Khansaheb	Director Operations & Maintenance, Darlington Nuclear
Evguenia Prokopieva	Assistant General Counsel, Nuclear Law Division
Boris Vulanovic	Director Operations & Maintenance, Refurbishment
Gillian Tooke	Project Director Commercial Mgmt Nuclear, Nuclear Projects
Paul Ross	Project Director Subsequent Unit Planning, Refurbishment
Jennifer Vulanovic	Director Project Assurance Commercial Management
Kelly Forbes	Manager Commercial Management, Refurbishment
Anthony Ling	Senior Manager Internal Audit
Audrey Lowry	Performance Improvement Officer, Refurbishment