



Internal Audit

Bruce Power Ring Fence Audit

March 2011

Distribution:

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1.0 EXECUTIVE SUMMARY

Internal Audit (IA) has completed its audit of the Bruce Power Ring Fence as part of OPG's ongoing commitment to the Ontario Energy Board (OEB). The purpose of this audit was to independently assess OPG's compliance with the established requirements of the Ring Fence plan (the "Plan") since the last audit conducted in 2009. IA would also evaluate the design and implementation of significant changes made to the Plan, if any, during this time period.

As part of the Bruce Lease Transaction, OPG and Bruce Power had entered into a number of service agreements, relating principally to technical services and support. These agreements would typically necessitate the exchange of information between the two companies, some of which could be considered commercially sensitive (e.g., BP outage and unit condition information not already in the public domain). To protect commercially sensitive information from unauthorized use, OPG had developed a system of internal controls to limit access to this information, referred to as a "Ring Fence". Fulfillment of Ring Fence plan requirements was essential for OPG's compliance with its Electricity Generation License. As part of OPG's ongoing commitment to the OEB, IA would conduct audits of the ring-fence plan every two calendar years with results reported to OPG Board and the OEB.

Overall, the rating assigned to this audit is generally adequate, with no significant issues related to plan compliance or instances of inappropriate use of commercially sensitive Bruce Power information noted. Throughout the audit, key stakeholders have demonstrated a high level of awareness of the Plan and the importance of complying with its requirements. A rigorous training program and structured escalation procedures were also noted and found to be operating effectively.

Several findings have been identified in this audit, including the need to implement periodic access review of network folders that potentially contain sensitive information. While periodic access review is an important monitoring control, the fact that limited number of employees had transferred to "sensitive" market operations roles during the audit period and the rigorous training in place have significantly reduced the potential impact of this issue. Management has reviewed and committed to specific action plans to address these findings. The enterprise-level impact of the audit results was assessed to be low, taking into account the nature of the findings and mitigating circumstances noted.

Please see Section 2.0 for specific details of all findings along with the associated risk impact, audit recommendations and management action plans.

IA would like to take this opportunity to thank all those who have involved for their assistance and co-operation during this audit.

Approved By:



Lou Pollieri
Vice-President & Chief Audit Executive, Internal Audit

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2.0 A UDIT FINDINGS

#	Process Activity A	udit Finding	Process Risk Rating and Implication	Recommendation	Management Action Plan
2.1	Logical access to ring-fence information.	<p>Network folders owned by Inspection & Maintenance Services ("IMS"), which potentially contain ring-fence information, are not subject to periodic access review.</p> <p>IMS employees are granted access to these folders at their managers' approval. However, in the absence of periodic review, IA noted instances where terminated or transferred employees had not been removed from the user lists in a timely manner. Although these exceptions had not created risk exposures to OPG during the examined period (see Impact Analysis below), this control deficiency should be addressed to mitigate future risks of unauthorized access.</p> <p><u>Impact Analysis:</u></p> <p>Impact of the issue is assessed to be low, due to the following mitigating circumstances noted:</p> <ol style="list-style-type: none"> Terminated employees do not present a ring-fence risk, as their network access is revoked upon termination under the existing IT process. IA inspected IMS' HR records from January 1, 2009 to December 31, 2010 and noted that only one employee had transferred to Energy Markets ("EM") during the period. However, ring-fence risk is low as the transferee's role has zero involvement with electricity market operations (note: the transferee is an office administrative assistant). Other transferees had moved to supporting roles/departments that are unlikely to benefit from commercially sensitive Bruce information. All past IMS employees had previously attended comprehensive ring-fence training, 	<p><u>Process Risk Rating:</u> Medium.</p> <p><u>Risk Implication:</u> Untimely access administration may result in unauthorized access to ring-fence information.</p>	<p>1. The Ring-Fence Administration team should follow the procedures as described in OPG-PROC-0002 to document, investigate and resolve the issue.</p> <p>Suggested solution could include IMS management performing the following:</p> <ol style="list-style-type: none"> Identify network folders and other data repositories (e.g., SharePoint Team Sites) owned by IMS that may contain ring-fence information. Perform periodic access review over these identified folders/repositories to improve the timeliness of access rights updates, particularly in handling internal transfers. 	<p><u>Action Plan:</u></p> <p>The BPRF Administrator will treat this finding as an Issue identified by Internal Audit and escalate it for resolution in accordance with the process outlined in <i>Section 1.4 – Issues and Violations</i> of the Bruce Power Ring-Fenced Information Procedure (OPG-PROC-0002).</p> <p><u>Owner:</u></p> <p>Rosemary Watson, Manager, Corporate Records and Freedom of Information</p> <p><u>Target Completion Date:</u></p> <ul style="list-style-type: none"> Issue identified and escalated – Completed (March 15, 2011). Determine corrective actions – Completed (March 15, 2011). Resolution documented on the Issues & Violations Log – Completed (March 15, 2011). IMS security access review process (of shared folders and SharePoint Sites) in place – June 30, 2011.

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		and a number of them are still within the ring-fence as needed by current roles. Their awareness of the ring-fence rules reduces the likelihood of them committing violated acts.			
2.2	Maintenance of Ring-Fenced Systems List.	<p>A formal review of the Ring-Fenced Systems List (the "List") has not been performed periodically to validate whether the List is still current.</p> <p>IA reviewed and noted that some systems on the List appear to be obsolete, or no longer contain information that required to be ring-fenced (e.g., information of low commercial sensitivity or dated prior to the Bruce Lease Transaction). Based on discussions with Ring-Fence Administrator, some of these obsolete systems are retained for record keeping purposes with no active users assigned.</p> <p>Keeping irrelevant systems on the List could expose OPG to unnecessary regulatory risks, as these systems might be held against the same rigor that should only apply to legitimate ring-fenced systems. For instance, the validation of system users against ring-fence membership has not been consistently performed for these systems, either at the initial grant of rights or quarterly thereafter, as this is unnecessary.</p> <p><u>Impact Analysis:</u></p> <p>Impact of the issue is assessed to be low, as the subject systems do not contain current ring-fence information.</p>	<p><u>Process Risk Rating:</u></p> <p>Low.</p> <p><u>Risk Implication:</u></p> <p>Keeping ring-fence status on irrelevant systems increases administrative cost and potentially exposes OPG to regulatory risks if defined ring-fence rules could not be met.</p>	<p>1. System Contacts should validate the Ring-Fenced Systems List on an annual basis. The following is recommended to be performed:</p> <ol style="list-style-type: none"> The Ring-Fence Administration team should remind System Owners and relevant Line Management of this annual validation requirement via email. Systems Contacts should validate the list and inform the Ring-Fence Administration team of any necessary changes, or confirm that no changes are required. Should obsolete systems be kept on the List for record maintenance purposes, the inapplicability of certain ring-fence requirements (e.g., quarterly access review) should be specified. 	<p><u>Action Plan:</u></p> <p>The BPRF Administrator will send a request for positive confirmation to all BPRF System Contacts annually reminding them of their accountability as per Bruce Power Ring-Fenced Information Procedure (OPG-PROC-0002), requesting that they review the ring-fenced systems within their accountability and advise if the systems still contain ring-fenced information. Dependent on the responses received, the BPRF Administrator would update the Systems List accordingly.</p> <p><u>Owner:</u></p> <p>Rosemary Watson, Manager, Corporate Records and Freedom of Information</p> <p><u>Target Completion Date:</u></p> <ul style="list-style-type: none"> Request for positive confirmation sent to System Contacts via email by April 15, 2011. Completion of review and updates by June 15, 2011, and annually thereafter.

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2.3	Completion of training requirements	<p>EM employees are required to complete Bruce Power Ring Fence training upon employment and annually thereafter within pre-defined timeframes. Instances of late completion must be escalated to the Ring-Fence Administrator as per current governance.</p> <p>IA's testing indicated that mandatory training was not completed on time for 4 out of 25 individuals selected, due to trainee's delay or tracking error. Although delays were generally short and timely corrective actions were noted, these instances had not been escalated to the Ring -Fence Administrator and EM's senior management as per current governance requirement.</p> <p><u>Impact Analysis:</u></p> <p>Impact of these exceptions is assessed to be low, as EM has an internal escalation procedure whereby the EM Coordinator continuously follows up with the subject employees and notifies their supervisors, until successful completion of all outstanding training requirements. All subject employees have now completed the training. Also, none of these EM employees have access to ring-fenced systems.</p>	<p><u>Process Risk Rating:</u></p> <p>Low.</p> <p><u>Risk Implication:</u></p> <p>Late completion of training requirements may result in non-compliance with governance.</p>	<p>1. The Ring-Fence Administration team should follow the procedures as described in OPG-PROC-0002 to document, investigate and resolve the finding.</p> <p>Suggested solution could include reviewing and clarifying expectations with EM Coordinator regarding the escalation procedures specified in Appendix C of OPG-PROC-0002.</p>	<p><u>Action Plan:</u></p> <p>The BPRF Administrator will treat this finding as a violation identified by Internal Audit and escalate it for resolution in accordance with the process outlined in <i>Section 1.4 – Issues and Violations</i> of the Bruce Power Ring-Fenced Information Procedure (OPG-PROC-0002).</p> <p>The requirement to provide quarterly compliance reports to the BPRF Administrator will be reviewed and assessed for value added.</p> <p>Revise OPG-PROC-0002 as applicable.</p> <p><u>Owner:</u></p> <p>Rosemary Watson, Manager, Corporate Records and Freedom of Information</p> <p><u>Target Completion Date:</u></p> <ul style="list-style-type: none"> • Violation identified and escalated, with resolution documented on the Issues & Violations Log by April 15, 2011. • Requirements reviewed and Document Change Request (DCR) on PROC filed by April 15, 2011. • Procedures revised and issued as required by September 15, 2011.