NATIONAL ENERGY BOARD

Final Report on an Audit of the Regulated Activities of TransCanada PipeLines Limited (TransCanada or Company) For the Years 2013 through 2015

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1.0 Introduction

The National Energy Board (Board or NEB) has completed a financial regulatory audit of the regulated activities of TransCanada. The fieldwork was conducted at TransCanada's offices and by way of follow-up correspondence between 21 November 2016 and 8 December 2016.

TransCanada owns and operates a high-pressure natural gas transmission system that extends from the Alberta border across Saskatchewan, Manitoba, Ontario, through a portion of Quebec, and connects to various downstream Canadian and international pipelines (Mainline). The Mainline connects natural gas supply from the Western Canada Sedimentary Basin and beyond with markets in central Canada and the northeastern United States.

The objectives and scope of the audit, as well as observations, findings and recommendations are set out below. The following definitions are used in the context of this report:

Finding

An area of non-compliance with the *National Energy Board Act*, applicable regulations administered by the Board or Board decisions, tariff orders, directives or the terms of a toll settlement.

Recommendation

An opportunity to improve practices, or to change practices that are currently deemed to be in compliance but have the potential, based on professional judgment, to lead to non-compliance.

2.0 Audit Objectives

- 1. Determine whether the Company has complied with the *National Energy Board Act* (NEB Act), regulations and the Board's decisions, toll orders and other accounting and reporting directives.
- 2. Verify that the financial information contained in various Company applications or submissions to the Board agrees with the Company's records.
- 3. Examine whether cross-subsidies have occurred.
- 4. Obtain information on the Company's current operations, management systems, procedures and internal controls.

3.0 Audit Scope

The Board conducted the audit pursuant to the audit plan issued by the Board on 10 August 2016. The focus of the audit was an examination of TransCanada's books, records and other documents for the years 2013 to 2015. Where necessary, the Board examined information from other years for the purposes of meeting the audit objectives. Records were reviewed to ensure that operations are consistent with the Board's regulations, decisions, orders and directives.

4.0 List of Findings and Recommendations

This audit report contains no Findings and three Recommendations. The matters giving rise to these Recommendations are discussed in Section 5.0.

Recommendation 1 It is recommended that Bid Floor Procedures documentation be updated to reflect the practice of Bid Floor Personnel (BFP) posting bid floors for discretionary services.

Recommendation 2 It is recommended that TransCanada's Internal Audit Department (or an external auditing firm) perform an audit of the Bid Floor Personnel Information Policy (BFPIP) on a biennial basis. This should include auditing procedures and processes articulated in the BFPIP, as well as auditing information technology systems and system processes to ensure compliance.

Recommendation 3 It is recommended that TransCanada formalize written internal procedures for Training and Certification to ensure that personnel who interact with BFP receive BFP Training on a regular basis.

5.0 Observations

5.1 Compliance with the NEB Act, Regulations, Decisions, Orders and Directives

Plant Accounts

The Board examined TransCanada's plant asset accounts to ensure that additions, retirements and transfers from construction work in progress were recorded in accordance with the *Gas Pipeline Uniform Accounting Regulations* (GPUAR). On all capital additions reviewed, it was confirmed that the Allowance for Funds Used During Construction and depreciation expenses were recorded correctly. Similarly, the account records for all retirement projects reviewed were in compliance with the GPUAR. No concerns were noted during the examination of plant accounts.

Depreciation

The Board reviewed TransCanada's depreciation rates and confirmed that they were consistent with the rates approved by the Board in the RH-003-2011 Decision. The amounts of accumulated depreciation in the General Ledger agreed with the amounts in financial statements. No concerns were noted.

Toll Design

The Board examined TransCanada's toll design and confirmed that the tolls charged during the audit period were calculated in accordance with the methodology approved by the Board. The Board also reviewed a sample of invoices issued during the audit period and found that all invoices examined were calculated correctly and used the correct tolls. No concerns were noted.

Deferral Accounts

The Board reviewed the deferral accounts approved by the Board and their disposition to verify compliance with the Board's decisions and directives. All deferral accounts in the audit period were treated and disposed of in accordance with the Board's directions and were reconciled with TransCanada's General Ledger.

Bid Floor Personnel Information Policy

Following the RH-001-2014 proceeding, the Board approved the BFPIP on 14 May 2015. The BFPIP outlines the requirements and process to ensure that non-public, shipper-specific information is not accessed or used in the setting of bid floors for discretionary services on the TransCanada Mainline. The BFPIP became effective on 12 June 2015.

The Board reviewed copies of redacted reports that were provided to BFP during the audit period, retained internal communications, copies of training materials and internal audit documents related to the BFPIP. The Board also reviewed TransCanada's internal processes and procedures to ensure compliance with the BFPIP.

Instances of non-compliance with the BFPIP were not observed. Given the extensive scope of implementing the BFPIP, the Board is satisfied with the compliance processes that TransCanada has implemented in a relatively short amount of time. Nonetheless, three areas have been identified for improvement and three Recommendations are provided.

First, the Board reviewed process documentation related to bid floor procedures and reviewed internal emails provided as sample documentation. The Board noted that process documentation regarding who is responsible for the posting of bid floors is consistent for Short Term Firm Transportation service but is not consistent for Interruptible Transportation (IT) service. Bid floor processes documentation states that the

posting of bid floors for IT service should be performed by the BFP. In other bid floor procedures, Commercial East Personnel is given the responsibility to post bid floors for IT service. Sample documentation reviewed indicated that posting of bid floors was performed by Commercial East Personnel. When asked to explain the inconsistency, TransCanada responded that both BFP and Commercial East analysts can post changes to IT service bid floors, but most of the time this is done by BFP. In an effort to ensure that practice and processes are congruent, and to minimize the time between finalized bid floors and posted IT service bid floors, the Board recommends the following:

Recommendation 1: It is recommended that Bid Floor Procedures documentation be updated to reflect the practice of BFP posting bid floors for discretionary services.

TransCanada's Response:

TransCanada has updated its Bid Floor Procedures documentation to clarify that BFP have primary accountability for posting bid floors for IT service, and that Commercial East Personnel have secondary accountability and could post the bid floors for IT service when requested to do so by BFP.

Second, the Board reviewed documentation related to an audit that was performed on the BFPIP by TransCanada's Internal Audit Department and Ernst & Young. While the audit did not reveal instances of non-compliance, several observations were identified for improvement (including procedures related to retention of records, access to restricted information, access to restricted systems and monitoring of access). TransCanada has since acted on these observations and has updated all of its processes and procedures related to compliance with the BFPIP. Given the scale of implementing the BFPIP and the ongoing activities, the Board recommends the following:

Recommendation 2: It is recommended that TransCanada's Internal Audit Department (or an external auditing firm) perform an audit of the BFPIP on a biennial basis. This should include auditing procedures and processes articulated in the BFPIP, as well as auditing information technology systems and system processes to ensure compliance.

TransCanada's Response:

TransCanada will take into consideration Recommendation 2 and the results of future audits of the BFPIP or aspects of the BFPIP in the development of its annual risk-based audit plans. TransCanada confirms that an audit of the BFPIP will be initiated in 2017.

Third, the Board reviewed training materials on the subject of the BFPIP. The Board observed that TransCanada has processes in place for the content and timing of training for BFP and non-BFP. However, general training materials also indicate that specialized training would be available for personnel that may regularly interact with BFP. Content and timing of this latest training category has not been defined. When asked to provide clarification, TransCanada replied that such training happens on an ad hoc basis or 'when critical mass necessitates so'. To ensure proper training processes are in place, the Board recommends the following.

Recommendation 3: It is recommended that TransCanada formalize written internal procedures for Training and Certification to ensure that personnel who interact with BFP receive BFP Training on a regular basis.

TransCanada's Response:

TransCanada will update its written internal procedures for Training and Certification to codify periodic training requirements for personnel who interact with BFP.

5.2 Verification of Submissions

Surveillance Reporting

The Board reviewed TransCanada's surveillance reports for the audit period and reconciled the financial reporting in these reports with the Board's decisions and directions. Overall, variances between actual and forecast amounts were explained in sufficient detail. No concerns were noted.

5.3 Cross-Subsidization

Inter-Company Transactions

The Board examined all inter-company transactions over \$100,000 between TransCanada and its affiliates for the audit period. This examination included a reconciliation of the transactions reported in year-end surveillance reports with the amounts in the General Ledger. Based on this examination, no concerns or discrepancies were noted.

Cost Allocation

TransCanada's current Cost Allocation Policy (Policy) was examined. As TransCanada is organized functionally where certain services are provided to multiple lines of business, shared costs are allocated among the various businesses through the Policy. The intent of the Policy is to directly charge costs to lines of business where possible and practical.

When it is not possible and practical, costs are allocated using an appropriate cost allocation driver, such as time/activity analysis, head office full time equivalents, or gross property, plant and equipment. No concerns were raised during the Board's examination of the Policy.

Code of Business Ethics and Code of Conduct

The Board examined TransCanada's Code of Business Ethics (COBE) and Code of Conduct and tested their application. The COBE applies to all employees, directors and officers of TransCanada and its wholly owned subsidiaries. All employees are required to undergo an annual training and certification exercise stating that they support and are in agreement with the COBE, and are not aware of any violations of the COBE. Employees are asked to report any violations of the COBE so that the issue can be investigated and appropriately addressed.

The Mainline Code of Conduct establishes standards and conditions for interaction between the Mainline and its affiliates. The Mainline is required to file an Exception Report with the Board within 60 days after the end of each quarter, which includes a description of any material non-compliance with the Code of Conduct and an explanation of steps taken to correct such non-compliance. No concerns were noted with respect to these documents.

5.4 Obtaining Information

Internal Audit

The Board reviewed TransCanada's internal audit process and the audit reports prepared during 2013 to 2015. TransCanada's Internal Audit Department is governed by the Internal Audit Charter, which sets out its mission and responsibilities. The Department develops a risk-based annual audit plan based on interviews with leaders in the company about significant risks they see and potential mitigation. The draft annual plan is circulated to executive management for review and then submitted to the Audit Committee of the Board of Directors for approval.

After each internal audit, a draft report is presented to the applicable management group for comment. Any recommendations are assigned a priority rating (P1, P2 or P3), depending on the dollar impact and likelihood of the risks occurring. P1 and P2 items require a response from management and are tracked in a data base, along with a timeframe for corrective action. P3 items do not require a management response and are not tracked. Internal Audit ensures that the corrective actions are completed within the set timeframes or follows up until they are completed.

In the audit period, 29 internal audits were performed. The Board confirmed that all the P1 and P2 items were accepted by management and all corrective actions identified were

completed and signed off. TransCanada has a well-established internal audit process and no concerns were identified.

Service Reliability

The Board reviewed the Mainline's service reliability performance over the audit period. TransCanada prepares and posts several operational reports and notices to communicate capacity impacts and outage information to its shippers for both planned maintenance activities and unplanned events. The planned maintenance bulletins are posted under non-critical notices via the NrG on-line bulletin board. These bulletins are posted weekly and provide an estimate of capacity over the 10 days following the bulletin.

TransCanada defines service reliability based on the number of days that firm transportation service is restricted on the Timely Nomination Cycle¹. Based on this definition, the Mainline had an annual firm service reliability of 99.99 per cent in 2013, 99.98 per cent in 2014, and 100 per cent in 2015. It had two incidents over those years that affected service: the Lachenaie compressor station failure in 2013 and the Otterburne line break on the Emerson Extension in 2014.

Customer Service

TransCanada measures customer satisfaction with its services through daily interaction with shippers by frontline staff and through the annual TransCanada survey and the NEB Pipeline Services Survey. Frontline staff assists customers with contract, billing, nominations and allocation issues, and receive feedback on systems, processes and the overall customer service experience. Customer Account Managers also assist customers with various matters, such as explaining new service options and how to transact business.

TransCanada's annual survey asks customers about their satisfaction with TransCanada's staff, transactional and transportation services, the Call Centre and other points of interaction between customers and TransCanada. The survey results indicated that customers were satisfied with these areas, although satisfaction with transportation services has declined over the audit period.

Based on feedback received through discussion with shippers and in the NEB Pipeline Services Survey, TransCanada has undertaken a project to replace the Mainline suite of applications. Phase 1 of the project replaced the Mainline invoicing system in July 2016. The next phase is a replacement of the Mainline transactional systems, including NrG Highway, over the next two to three years.

Feedback received from a few customers the Board contacted during the audit confirmed that they are satisfied with TransCanada's frontline staff, transactional systems and the reliability of the Mainline. However, they are less satisfied with the collaborative

¹ The first nomination cycle on the day before the gas flows.

processes, especially as they relate to negotiating contentious issues that have come before the Board over the past few years.

Capacity Allocation

The procedures for nominations and for allocating available capacity were reviewed. On a test basis, it was confirmed that TransCanada follows the provisions of the tariff accurately and transparently with shippers.

Shipper Credit

The Board reviewed TransCanada's policy and practice for assessing and managing shipper credit. The credit files of selected Mainline customers were chosen for examination of the supporting documentation relating to the Mainline's credit decisions and the financial assurance required. No concerns were noted.

Insurance

TransCanada has a variety of insurance policies, including Property (which includes business interruption), General Liability, Auto Liability, Aviation Liability, Marine Cargo Liability, Directors and Officers Liability. The two main insurance policies are Property and General Liability. TransCanada's Commercial General Liability policy includes coverage for sudden and accidental pollution events.

Insurance policies applicable to the Mainline fall under TransCanada Corporation's corporate insurance program; as a result, it involves multiple layers of insurance and multiple insurers. There are no specific policies applicable only to the Mainline. TransCanada explained that a stand-alone program for the Mainline would not be prudent, reasonable, or normal.

All premium allocations are done by the insurance companies. TransCanada does not decide how to allocate its premiums to its subsidiaries or business units. Property premiums are allocated through a rate applied to insurable values, on a replacement cost basis. Each \$100 of property value is applied a rate. Liability premiums are allocated in a number of ways, which the insurer decides as appropriate. These include allocations based on the number of kilometres of pipeline, revenue and payroll, high consequence areas, pipeline diameter and whether the pipeline carries liquids or natural gas.

There were no insurable claims under any of the policies during the audit period.

Pipeline Integrity Expenditures

All expenditures to maintain the integrity of the Mainline are flowed through to shippers. Operating integrity costs are part of the revenue requirements that were used to establish tolls for each year of the audit period. Under the applicable methodology, all variances

between actual and forecast revenue requirement items are recorded in the Long Term Adjustment Account, net of incentive mechanism adjustments.

Actual and forecast amounts for Integrity and Insurance Deductible expenditures for 2013 to 2015 from the year-end surveillance reports are shown in the table below:

Year	Actual (\$000) ²	Forecast (\$000)	Variance (\$000)	%
2013	67,148	98,424	(31,276)	-31.8%
2014	66,299	100,000	(33,701)	-33.7%
2015	97,527	107,729	(10,202)	-9.5%

TransCanada explained that the variances between actual and forecast amounts were due to undertaking fewer Stress Corrosion Cracking digs and other integrity work than planned due to changes in scope once in-line inspections were completed. Also, due to lower throughput on the system, TransCanada is able to lower the operating pressure as a mitigation method in place of other more costly methods.

In addition to the above expenditures, TransCanada capitalized the following amounts for integrity work.

Year	Capital (\$000)
2013	42,561
2014	94,709
2015	71,116

Abandonment Funding

TransCanada's abandonment funding policies, landowner communication tools and related documentation were examined. TransCanada has fully complied with the Board's abandonment funding requirements to date. It has notified landowners of the current NEB Abandonment Cost Estimate review process and its website includes information for landowners, such as trust agreements, reporting forms, frequently asked questions and links to the NEB website. No concerns with TransCanada's abandonment funding policies or tools were noted.

6.0 Conclusion

The Board has no Findings that would require a Corrective Action Plan from TransCanada. The Recommendations are provided for TransCanada to consider. If implemented, the Board is of the view that the effectiveness of the relevant processes and procedures would be improved.

² Amounts include costs for Insurance Deductibles.