

National Energy
Board



Office national
de l'énergie

File OF-Surv-OpAud-T211-2012-2013 01
1 May 2014

Mr. Russell K. Girling
President and Chief Executive Officer
TransCanada PipeLines Limited
450- 1st Street SW
Calgary, AB T2P 5H1
Facsimile 403-920-2200

Dear Mr. Girling:

**TransCanada PipeLines Limited and its National Energy Board-Regulated
Subsidiaries (TransCanada) - National Energy Board *Onshore Pipeline Regulations,*
1999 (OPR-99) Integrity Audit Corrective Action Plan (CAP)**

The National Energy Board (Board or NEB) has examined TransCanada's CAPs submitted by letters dated 21 March 2014 and 4 April 2014, in response to the findings identified in TransCanada's OPR-99 Final Audit Report for Integrity Management Programs (Final Report).

The Board approves the CAP proposed by TransCanada and has provided additional direction in the attached Table. This additional direction describes the requirements for TransCanada to fully address the findings identified in the Final Report.

The Board expects that TransCanada will arrange to provide the NEB with its quarterly progress updates on the CAP beginning at the end of Q2 2014.

If you require any further information or clarification, please contact the Lead Auditor, Glenn Cameron at 403-389-3385.

Once approved, the Board will assess the implementation of the corrective actions to confirm they are completed on a system-wide basis.

Yours truly,

A handwritten signature in black ink that reads "Sheri Young".

Sheri Young
Secretary of the Board

Attachment

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TransCanada Integrity Management Program Audit

Corrective Action Plan (CAP)

Integrity Management Program Audit Finding	TransCanada CAP Status	Direction by the Board
<p>Audit Sub-Element 2.1 Hazard Identification, Risk Assessment and Control - Station Piping</p>	<p>TransCanada's CAP for this audit finding is accepted as submitted.</p>	<p>None required.</p>
<p>Audit Sub-Element 3.7 Operational Control: Upset or Abnormal Operating Conditions – Overpressure Protection</p>	<p>TransCanada's CAP for this audit finding is accepted with additional direction by the Board.</p> <p>In its response to an Information Request of 8 April 2014, TransCanada committed to provide quarterly progress updates to the NEB beginning at the end of Q2 2014.</p>	<p>TransCanada shall define the details of the interim measures to be undertaken for Customer meter stations that are non-compliant with the requirements of OPR-99 and CSA Z662-11, Clauses 4.18 and 10.9.5 as specified in 3.2.1, point 4 of the 21 March 2014 CAP. TransCanada shall provide a submission for Board approval by 30 September 2015, demonstrating that the interim measures will provide an equivalent level of overpressure protection to protect the safety of its employees, the public and the environment.</p>
<p>Audit Sub-Element 4.1 Inspection, Measurement and Monitoring - Monitoring Keystone crude</p>	<p>TransCanada's CAP for this audit finding is accepted with additional direction by the Board.</p> <p>In its response to an Information Request of 8 April 2014, TransCanada committed to provide quarterly progress updates to the NEB beginning at the end of Q2 2014.</p>	<p>The Board notes that the audit finding was related to CSA Z662-11, Clause 3.2 stating the requirements to monitor for conditions that can lead to failure, not Clause 16 for sour service conditions. Concentrations of H₂S below those specified in NACE MR0175/ISO15156 may still constitute a hazard to the integrity of the pipeline. TransCanada shall commit to continue to monitor H₂S as a potential hazard in the Keystone crude.</p>

Integrity Management Program Audit Finding	TransCanada CAP Status	Direction by the Board
<p>Audit Sub-Element 4.1 Inspection, Measurement and Monitoring - Monitoring external corrosion on NGTL unpiggable pipelines.</p>	<p>TransCanada's CAP for this audit finding is accepted with additional direction by the Board.</p>	<p>TransCanada shall use recognized industry direct assessment methodologies such as those documented in the National Association of Corrosion Engineers (NACE) standard practices for direct assessment listed below, unless TransCanada presents for approval a technically acceptable methodology for all direct assessments to be conducted during implementation of the AAP that is equivalent to or better than the following:</p> <ul style="list-style-type: none"> • ANSI/NACE SP0502-2010 Pipeline External Corrosion Direct Assessment (ECDA) • NACE SP0206-2006 Internal Corrosion Direct Assessment (ICDA) for pipelines carrying dry gas. • NACE SP0110-2010 Wet Gas Internal Corrosion Direct Assessment (WG-ICDA) • NACE SP0204-2008 Stress Corrosion Cracking Direct Assessment (SCCDA) <p>TransCanada shall provide a list of the pipelines it has considered for abandonment that will be excluded from its AAP and the anticipated timeline for abandonment for each of the pipelines so identified.</p>

Integrity Management Program Audit Finding	TransCanada CAP Status	Direction by the Board
<p>Audit Sub-Element 4.1 Inspection, Measurement and Monitoring - Monitoring external corrosion on NGTL unpiggable pipelines (continued).</p>		<p>TransCanada shall provide a list of the Category 3 pipelines, with attributes including diameter, length, coating type, operating stress levels (% SMYS) and location.</p> <p>TransCanada shall notify the Board of any Category 3 pipeline reclassifications.</p> <p>TransCanada shall provide a submission detailing the operational strategy that will be initiated to address Category 3 pipelines in parallel to the AAP referred to in response to the Board's information request dated 11 April 2014.</p> <p>TransCanada shall follow the requirements for pressure reductions as stated in the Board's Order AO-002-SG-N081-001-2014 for the twenty-five (25) unpiggable NGTL pipelines that TransCanada has calculated to have the highest societal risk, as listed in the Order's Schedules A, B, C and D.</p>
<p>Audit Sub-Element 4.1 Inspection, Measurement and Monitoring - Facility pipe inspection program</p>	<p>TransCanada's CAP for this audit finding is accepted as submitted.</p>	<p>None required.</p>
<p>Audit Sub-Element 5.1 Management Review</p>	<p>TransCanada's CAP for this audit finding is accepted as submitted.</p>	<p>None required.</p>