



File OF-Surv-Inc-2013 148  
20 December 2013

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

Dear Mr. Girling:

**Nova Gas Transmission Ltd. (NGTL)  
NPS 24 North Lateral Extension Loop - Gas Leak  
Order SG-N081-006-2013**

On 20 October 2013, TransCanada PipeLines Limited (TransCanada) reported a leak on the NPS 24 North Lateral Extension Loop (Loop) of the NGTL system between valve sections N104 and N60. After the leak was detected, the Loop was isolated and blown down by TransCanada. TransCanada has since replaced the joint containing the leak site.

On 2 November 2013, the Loop was returned to service at 6728 kPa without providing the Board with an engineering assessment. TransCanada provided to the Board an engineering evaluation dated 7 November 2013, recommending an operating pressure of 7633 kPa.

Upon the Board's review of the engineering evaluation, TransCanada was asked to further reduce the operating pressure of the Loop. TransCanada confirmed on 10 November 2013 that it had reduced the operating pressure to 5514 kPa in valve sections N104 to N60 of the Loop.

The Board has determined the engineering evaluation submitted by TransCanada does not meet the requirement for an engineering assessment as outlined in CSA Z662-11 Clause 3.3 and Clause 10.3. In addition, the engineering evaluation submitted did not adequately demonstrate the Loop is fit for service at the pressure recommended by TransCanada.

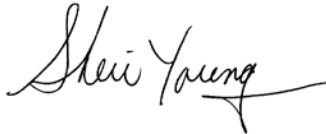
The Board is concerned that TransCanada restarted the Loop before an engineering assessment was conducted and filed with the Board. TransCanada indicated it would follow-up internally on this issue. The Board directs TransCanada to provide the Board, by 15 January 2014, with a description of its corrective actions and further information regarding the timing of the engineering assessment conducted after the discovery of leak. The information shall include, but

not be limited to, a chronology of the steps involved in determining that the Loop was fit for service. Based on the information received, the Board will determine what enforcement actions, if any, should be taken.

The safe and secure operation of pipeline infrastructure is of paramount importance to the Board. The Board has issued **Safety Order SG-N081-006-2013** (Safety Order) for all sections of the Loop, pursuant to sections 12 and 48 of the *National Energy Board Act*, which outlines the Board's precautionary measures and terms and conditions on which TransCanada may request a revision or lifting of the pressure restriction.

The attached Safety Order directs TransCanada to operate the valve sections N104 to N60 of the Loop at an operating pressure not exceeding 5514 kPa. This pressure restriction will remain in effect until Condition 6 of the Safety Order has been fulfilled. The Board must be satisfied that valve sections N104 to N60 of the Loop can be operated safely at an increased pressure and in a manner that protects people and the environment.

Yours truly,

A handwritten signature in cursive script that reads "Sheri Young". The signature is written in black ink and includes a horizontal flourish at the end.

Sheri Young  
Secretary of the Board

cc: Declan Russell, TransCanada PipeLines Limited

National Energy  
Board



Office national  
de l'énergie

**ORDER SG-N081-006-2013**

**IN THE MATTER OF** the *National Energy Board Act* (Act) and the regulations made thereunder; and

**IN THE MATTER OF** the 20 October 2013 Incident 2013-148, which occurred on the NPS 24 North Lateral Extension Loop owned by Nova Gas Transmission Ltd. (NGTL) and filed the National Energy Board (Board) under File OF-Surv-Inc-2013-148.

**BEFORE** the Board on 19 December 2013.

**WHEREAS** the Board regulates the operation of the natural gas pipeline system owned and operated by NGTL pursuant to Certificate GC-113 including, as part of that system, the NPS 24 North Lateral Extension Loop (Loop);

**AND WHEREAS** NGTL is a wholly owned subsidiary of TransCanada PipeLines Limited (TransCanada), and NGTL is the owner of the Alberta System facilities;

**AND WHEREAS** TransCanada is required to comply, or cause NGTL to comply, with all the conditions contained in Certificate GC-113, pursuant to section 1 of Certificate GC-113;

**AND WHEREAS** an August 2013 Magnetic Flux Leakage (MFL) In-line Inspection (ILI) tool run found several features in valve sections N104 to N60 of the Loop that the ILI vendor reported as requiring immediate investigation;

**AND WHEREAS** TransCanada incurred a leak on the Loop on 20 October 2013;

**AND WHEREAS** after the leak was detected, TransCanada replaced the joint containing the leak site and reduced the operating pressure in valve sections N104 to N60 of the Loop;

**AND WHEREAS** the Board has examined TransCanada's engineering evaluation dated 7 November 2013 in regards to the leak;

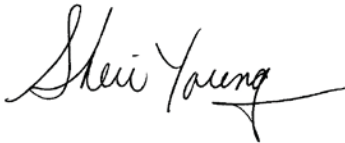
**AND WHEREAS** the Board is of the view that precautionary measures are necessary for public safety and protection of the environment;

**NOW THEREFORE**, pursuant to sections 12 and 48 of the Act, the Board orders the following safety measures:

1. TransCanada shall operate the valve sections N104 to N60 of the Loop at an operating pressure not exceeding 5514 kPa (Pressure Restriction), until such time as the Board may approve an increase in operating pressure.
2. No later than 31 December 2013, TransCanada shall file with the Board written confirmation that it has implemented the Pressure Restriction. The written confirmation shall include confirmation that both the local and the control centre set-points for shutdown and control of the operation and isolation valves have been adjusted according to CSA Z662-11 Clauses 4.18 and 10.9.5 to reflect the Pressure Restriction.
3. No later than 31 December 2013, TransCanada shall file with the Board a plan for an above ground leak detection survey for all sections of the Loop. The plan shall include, but not be limited to, rationale for selecting the method, duration, and frequency of the leak detection survey.
4. Within 30 days after the date of this Order, TransCanada shall file with the Board, a corrosion condition monitoring plan specific to all sections of the Loop. The plan shall include, but not be limited to, TransCanada's planned monitoring activities and rationale for selecting these specific activities.
5. Within 30 days after this Order, with respect to all sections of the Loop, TransCanada shall file with the Board:
  - a. A description of TransCanada's findings related to Stress Corrosion Cracking (SCC) which shall include, but not be limited to, the location of SCC, date found, dimensions and whether SCC was found within corrosion.
  - b. A SCC condition monitoring plan which shall include, but not be limited to, remedial measures implemented, planned monitoring activities and TransCanada's rationale for selecting these measures and activities.
6. TransCanada shall, at least 30 days prior to a planned increase in operating pressure in valve sections N104 to N60 of the Loop, file with the Board a written request seeking approval to increase the operating pressure set out in Condition 1 of this Order. The request shall include an engineering assessment, as per CSA Z662-11 Clause 3.3 and shall also include the following information:
  - a. Validation results for the August 2013 MFL ILI tool results, in the form of a unity plot with a supporting table comparing ILI tool data with field obtained data;
  - b. A list of features that are identified for repair as per CSA Z662-11 Clause 10.10.2, features on the list TransCanada repaired from the list and TransCanada's rationale for not repairing any feature on the list; and
  - c. A revised corrosion condition monitoring plan specific to valve sections N104 to N60 of the Loop. The plan shall include, but not be limited to, TransCanada's planned monitoring activities and rationale for selecting these specific activities.

7. If TransCanada derates the operating pressure of the loop set out in Condition 1 due to a pipeline integrity related issue, TransCanada shall notify the Board within 2 days after the derating. The notice shall include the rationale for reducing the pressure.
8. Within 30 days after this Order, TransCanada shall file with the Board an engineering assessment, as per CSA Z662-11 Clause 3.3, that determines a reduced operating pressure for the remaining sections of the Loop are fit for service.

NATIONAL ENERGY BOARD

A handwritten signature in black ink, appearing to read "Sheri Young", with a stylized flourish at the end.

Sheri Young  
Secretary of the Board