



File OF-SURV-INC-2012-145
30 August 2013

Mr. Russell K. Girling
President and Chief Executive Officer
TransCanada PipeLines Limited
450 – 1st Street SW
Calgary, AB T2P 5H1
Facsimile 403-920-2412

Dear Mr. Girling:

**TransCanada PipeLines Limited (TransCanada)
Battery Incidents across the Canadian Pipeline Operations**

In 2012, TransCanada reported nine incidents involving a fire or explosion of batteries. Previously, in 2009 and 2011, TransCanada reported another two incidents of battery explosions. There were no injuries or environmental impact as a result of the failures.

During the National Energy Board's (Board or NEB) investigation of these incidents, NEB staff issued a number of information requests to TransCanada. After reviewing TransCanada's responses, the Board has the following concerns that TransCanada must address as part of the attached Safety Order SG-T211-003-2013:

1. TransCanada is unable to document that it has implemented appropriate practices for checking electrolyte levels in all battery types.
2. TransCanada is unable to document that it has a standard for battery containment that is appropriate with respect to vent size in preventing the build-up of hydrogen.
3. TransCanada is also unable to document that the temperature inside the containment boxes is in the range recommended by the Canadian Electrical Code Rule 26-546 and IEEE Standard 484.

The attached Order requires that TransCanada file with the Board (1) a description of its current procedures to investigate incidents; (2) an explanation of the root cause of the battery explosions; and (3) a description of its revised procedures for battery maintenance and testing. The Order outlines the terms and conditions directed at improving TransCanada's reliable operation of the batteries. Therefore, the corrective actions will become part of the current audit follow up.

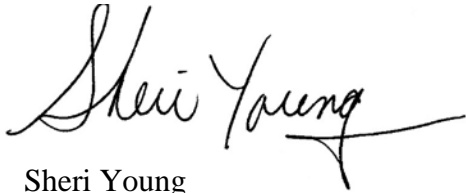
.../2

TransCanada is reminded that the Board requires pipeline companies to take all available actions to anticipate, prevent, manage and mitigate potentially dangerous conditions associated with their pipelines.

If you have any questions concerning this matter, please contact:

- Milton Castro-Nunez at (403) 299-3644, or via email at milton.castro-nunez@neb-one.gc.ca
- Claudia Astudillo at (403) 616-7537, or via email at claudia.astudillo@neb-one.gc.ca

Yours truly,

A handwritten signature in black ink that reads "Sheri Young". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Sheri Young
Secretary of the Board

Attachment

cc: Mr. Gregory A. Lohnes, Executive Vice-President – Operations and Major Projects,
Facsimile 403-920-2200



ORDER SG-T211-003-2013

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

IN THE MATTER OF the 11 incidents which occurred in 2009, 2011 and 2012 on several TransCanada PipeLines Limited compressor stations in Ontario, Saskatchewan and Alberta and filed with the National Energy Board (Board) under Files OF-Surv-Inc-2009-100, OF-Surv-Inc-2011-168, OF-Surv-Inc-2012-080, OF-Surv-Inc-2012-083, OF-Surv-Inc-2012-084, OF-Surv-Inc-2012-090, OF-Surv-Inc-2012-091, OF-Surv-Inc-2012-093, OF-Surv-Inc-2012-095, OF-Surv-Inc-2012-128 and OF-Surv-Inc-2012-145.

BEFORE the Board on 29 August 2013.

WHEREAS the Board regulates the operation of the TransCanada PipeLines Limited (TransCanada) compressor/meter stations in Ontario, Saskatchewan and Alberta;

AND WHEREAS TransCanada incurred incidents involving a fire or explosion in its compressor/meter stations in 2009, 2011 and 2012;

AND WHEREAS the Board requires TransCanada to demonstrate reliable operation and maintenance of the batteries used in its pipeline operations;

AND WHEREAS TransCanada has committed to use manufacturer's specifications, the Battery Council International Battery Service Manual and Institute of Electrical and Electronics Engineers (IEEE) Standards 450 and 1188;

AND WHEREAS the Board is conducting an investigation pursuant to sections 12 and 48 of the Act to promote the safe continuing operation of the compressor/meter stations in the TransCanada pipeline system including NOVA Gas Transmission Ltd. and Foothills Pipe Lines Ltd.;

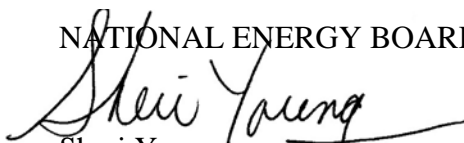
AND WHEREAS the Board is of the view that precautionary measures are necessary for public safety and protection of the environment;

.../2

NOW THEREFORE, pursuant to section 48 of the Act, the Board hereby orders the following:

1. Unless the Board otherwise directs, within 30 days of the date of this Order, TransCanada shall file with the Board:
 - a. A description of its current procedure to investigate incidents;
 - b. An explanation of the root cause of the battery explosions;
 - c. A revised version of the procedure for *APU and PPU Cranking System Testing and Test Run Inspection* that reflects:
 - i. the IEEE Standard 450 with reference to practices for testing, maintenance, inspection, record keeping and trending analysis of battery tests;
 - ii. the vent size on the battery containment boxes prevent hydrogen build-up as required by Canadian Electrical Code Rule 26-546 and IEEE Standard 484; and
 - iii. the temperature inside the battery containment boxes remains in the range required by Canadian Electrical Code Rule 26-546 and IEEE Standard 484;and
 - d. A revised version of the procedure for *Cold Cranking Amps Battery Systems Maintenance for Metering Stations and Communication Sites* that reflects:
 - i. the IEEE Standard 450 with reference to practices for testing, maintenance, inspection, record keeping and trending analysis of battery tests;
 - ii. the vent size on the battery containment boxes prevent hydrogen build-up as required by Canadian Electrical Code Rule 26-546 and IEEE Standard 484; and
 - iii. the temperature inside the battery containment boxes remains in the range required by Canadian Electrical Code Rule 26-546 and IEEE Standard 484.

NATIONAL ENERGY BOARD


Sheri Young
Secretary of the Board