



File OF-Surv-Gen-T217 01  
File OF-Surv-Gen-T217 03  
12 April 2017

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Dear Ms. Sharko and Mr. Olthafer:

**Trans-Northern Pipelines Inc. (TNPI)  
Application for Review and Variance and Stay  
Amending Safety Order AO-002-SO-T217-03-2010 (ASO) as it Applies to the  
Nanticoke to Oakville Section of the TNPI Pipeline System (NtO Pipeline)**

The National Energy Board (Board) has considered TNPI's 4 January 2017 application for review and variance, and stay, of the ASO<sup>1</sup> as it applies to the NtO Pipeline, which consists of the NPS 16 Nanticoke to Hamilton Junction (NtH) section and the NPS 10 Hamilton Junction to Oakville (HtO) section. TNPI's application sets out the background facts, the grounds for the requested variance, the request for a stay and the relief requested.

*Review Decision*

The Board is of the view that there is a doubt as to the correctness of the ASO as it applies to the NtO Pipeline because it is not certain that the Board considered TNPI's 12 September 2016 filing when the Board decided to issue Amending Safety Order AO-001-SO-T217-03-2010. In light of the Board's decision, it is not necessary for the Board to consider TNPI's request for a stay or the other grounds of TNPI's application for review and variance.

*Variance and Relief*

The Board has considered TNPI's request to vary the ASO to move the NtO Pipeline from Schedule B to Schedule A of the ASO so that the NtO Pipeline may operate at 90% of its authorized Maximum Operating Pressure (MOP). For greater certainty, TNPI states that it does

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<sup>1</sup> The Board issued Amending Safety Order AO-001-SO-T217-03-2010 on 20 September 2016, and issued technical corrections in Amending Safety Order AO-002-SO-T217-03-2010 on 24 October 2016.

not request to operate at the lower of 90% of the MOP or 10% below the highest pressure reached within 90 days prior to the issuance of the ASO.

The Board is of the view that the information filed with the Board does not support TNPI operating the NtO Pipeline at 90% of the MOPs set out in Lines 5 and 6 of Schedule B of the ASO. TNPI's 6 June 2014 Application with respect to the NtO Pipeline, and subsequent filings, provided information based on a pressure of 1170 psi (8066 KPa) for the NtH section and 1285 psi (8860 KPa) for the HtO section.

Therefore, the Board has decided to vary the ASO to move the NtO Pipeline from Schedule B to a new Schedule D, subject to the new condition 8 and varied conditions 4 and 7. Conditions 8.c. and 8.e. are similar to Condition 2 which previously governed the NtO Pipeline. Condition 8.d. requires TNPI to conduct in-line inspections, if it has not already done so, as recommended by TNPI's consultant in its 6 June 2014 Application. Condition 8.d. also requires TNPI to conduct an inertial measurement unit (IMU) in-line inspection to collect and update its bending strain information. In addition, Condition 8.d. requires TNPI to conduct an ultrasonic wall thickness measurement in-line inspection for better characterization of the lamination features. Conditions 8.a. and 8.b. govern the pressure restriction such that TNPI may operate the NtH section at 7260 KPa (90% of 8066 KPa) and the HtO section at 7974 KPa (90% of 8860 KPa).

Amending Safety Order AO-003-SO-T217-03-2010 is attached.

Yours truly,

*Original signed by*

Sheri Young  
Secretary of the Board



**ORDER AO-003-SO-T217-03-2010**

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

**IN THE MATTER OF** pipeline incidents and non-compliances which have occurred on the Trans-Northern Pipelines Inc. (TNPI) pipeline system;

**IN THE MATTER OF** an application for review and variance pursuant to subsection 21(1) of the NEB Act; and

**IN THE MATTER OF** National Energy Board (Board) file OF-Surv-Gen-T217 01 and OF-Surv-Gen-T217 03.

**BEFORE** the Board on 11 April 2017.

**WHEREAS** the Board regulates the construction and operation of the TNPI pipeline system;

**AND WHEREAS** on 20 September 2016, the majority of the Board issued a letter decision and Amending Safety Order AO-001-SO-T217-03-2010;

**AND WHEREAS** on 24 October 2016, the Board issued Amending Safety Order AO-002-SO-T217-03-2010 to make corrections to Schedule B as requested by TNPI;

**AND WHEREAS** the Board, by letter dated 9 December 2016, varied Condition 3.c. of AO-002-SO-T217-03-2010 to extend the filing deadline for the first Engineering Assessment required by Condition 3.c. from 31 December 2016 to 30 June 2017;

**AND WHEREAS** TNPI requested pursuant to subsection 21(1) of the NEB Act a review and variance, and stay, of Amending Safety Order AO-002-SO-T217-03-2010 as it applies to the Nanticoke to Oakville section (NtO Pipeline) of the TNPI System;

**AND WHEREAS** the NtO Pipeline comprises two segments, namely, the NPS 16 Nanticoke to Hamilton Junction segment and the NPS 10 Hamilton Junction to Oakville segment which appear on, respectively, Lines 5 and 6 on Schedule B of Amending Safety Order AO-002-SO-T217-03-2010;

**AND WHEREAS** it is not certain that the Board considered TNPI's 12 September 2016 filing when it issued Amending Safety Order AO-001-SO-T217-03-2010 and therefore the Board finds that there is a doubt as to the correctness of Amending Safety Order AO-002-SO-T217-03-2010 as it applies to the NtO Pipeline;

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**AND WHEREAS** the Board has decided to vary Conditions 4 and 7 and Schedule B, and add a new Condition 8 and new Schedule D, to the Amending Safety Order AO-002-SO-T217-03-2010, with respect to the NtO Pipeline;

**AND WHEREAS** Condition 5 in Amending Safety Order AO-002-SO-T217-03-2010 continues to apply to the NtO Pipeline;

**AND WHEREAS** Amending Safety Order AO-002-SO-T217-03-2010 continues to apply to the pipelines that are listed in Schedules A and C, and in lines 1 to 4 and 7 to 12 in Schedule B;

**NOW THEREFORE** pursuant to subsection 21(1), paragraph 12(1)(b), subsection 20(1) and subsection 48(1.1) of the NEB Act, the Board orders the following:

1. The Board hereby varies Conditions 4 and 7 in Amending Safety Order AO-002-SO-T217-03-2010 as set out in the following table:

Condition	Delete	Replace	Add
4	"For each of the pipeline sections listed in Schedules A, B, and C"	"For each of the pipeline sections listed in Schedules A, B, C and D"	
4.a.vi.	"1.a., 2.a. and 3.a."	"1.a., 2.a., 3.a. and 8.a."	
7			"7.e. TNPI shall include the requirements of condition 8 in its quarterly updates to the Commitment Plan."

2. The Board hereby varies Amending Safety Order AO-002-SO-T217-03-2010 by deleting Lines 5 and 6 in Schedule B and adding Schedule D. The varied Schedule B and new Schedule D are attached to this order.

3. The Board hereby varies Amending Safety Order AO-002-SO-T217-03-2010 by adding Condition 8 which follows:

8. For each pipeline section listed in Schedule D:

- a) TNPI shall immediately restrict the operating pressure to 90% of the TNPI 2014 Application Pressure;
- b) The restricted pressure implemented pursuant to Condition 8.a. shall not be exceeded at any point in the pipeline sections listed in Schedule D;
- c) TNPI shall file with the Board, within 60 days after the date of issuance of AO-003-SO-T217-03-2010, a report which includes the following information:

- i. the new restricted MOPs for each section as directed in Condition 8. a.;
  - and
  - ii. all applicable overpressure protection system set points at the restricted pressure set in Condition 8. a.
- d) TNPI shall conduct in 2017, unless already conducted in 2016, in-line inspections (ILI) using the following technologies: magnetic flux leakage (MFL), caliper, inertial measurement unit (IMU) system, ultrasonic crack detection (UTCD) and ultrasonic wall thickness measurement;
- e) TNPI shall file with the Board a yearly Engineering Assessment, on or before 28 February 2018 and 31 December 2018 and on 31 December of each year thereafter that demonstrate the fitness for service of the pipeline sections listed in Schedule D at the reduced pressure as directed in Condition 8. a. The Engineering Assessment must include, but not be limited to:
- i. the results of the ILI as directed in Condition 8.d;
  - ii. revised defect growth rates since 2010;
  - iii. time-to-failure calculations, commencing February 2018 and ending when the pressure restriction has been lifted for each section of pipeline listed in Schedule D.

NATIONAL ENERGY BOARD

*Original signed by*

Sheri Young  
Secretary of the Board

**SCHEDULE B**  
**AO-003-SO-T217-03-2010**

**Trans-Northern Pipelines Inc.**  
**Variation to Safety Order AO-002-SO-T217-03-2010**

**Schedule B - Pressure Reduction of 30% of Authorized MOP (as Specified)**

Line Number	Line Section	Outside Diameter (mm)	Wall Thickness (mm)	Authorized MOP (KPa)	Reduced MOP (KPa) (70% MOP)
1	NPS 10 Montreal to Ste Rose	273.1	7.8	8275	5793
2	NPS 10 Dorval Lateral	273.1	6.35	9653	6757
3	NPS 10 Farran's Point to Cummer Junction	273.1	7.8	8275	5793
4	NPS 10 Cummer Junction to Oakville	273.1	7.8	8275	5793
5	<del>NPS 16 Nanticoke to Hamilton</del>	406	6.35, 7.14	8094,9067	5665,6347
6	<del>NPS 10 Hamilton Junction to Oakville</del>	273.1	7.8	9067,8860	6347,6202
7	NPS 10 Clarkson Lateral	273.1	7.8	8275	5793
8	NPS 20 Clarkson Junction to Toronto Airport Loop	508	7.14	8274	5793
9	NPS 16 Oakville to Clarkson Loop	406	7.14	9067	6347
10	NPS 10 Toronto Airport Lateral	273.1	6.35	8894	6226
11	NPS 8 CAFAS Lateral	219.1	6.35	6412	4488
12	NPS 10 Montreal Feeder System	273.1			70% MOP

**SCHEDULE D**  
**AO-003-SO-T217-03-2010**

**Trans-Northern Pipelines Inc.**  
**Variation to Safety Order AO-002-SO-T217-03-2010**

**Schedule D - Pressure Reduction to 90% of the TNPI 2014 Application Pressure (as Specified)**

Line Number	Line Section	Outside Diameter (mm)	Wall Thickness (mm)	Authorized MOP (KPa)	TNPI 2014 Application Pressure <sup>1</sup> (KPa)	Reduced MOP (KPa) (90% MOP)
1	NPS 16 Nanticoke to Hamilton Junction	406	6.35, 7.14	8094,9067	8066	7260
2	NPS 10 Hamilton Junction to Oakville	273.1	7.8	9067,8860	8860	7974

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<sup>1</sup> TNPI's 6 June 2014 Application with respect to the Nanticoke to Oakville section of the TNPI System and subsequent filings.