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BY EMAIL

July 31, 2020

Christine E. Long
Registrar and Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4
BoardSec@oeb.ca

Dear Ms. Long:

**Re: Enbridge Gas Inc. (Enbridge Gas)
Section 101 Application - Windsor Pipeline Replacement Project
OEB Staff Interrogatories
OEB File Number: EB-2020-0160**

In accordance with Procedural Order No. 1, please find attached the OEB Staff Interrogatories in the above noted proceeding. The attached document has been sent to the applicant and to all other registered parties to this proceeding.

Yours truly,

Original Signed By

Judith Fernandes
Project Advisor, Natural Gas Applications

Encl.



OEB Staff Interrogatories

Section 101 Application - Windsor Pipeline Replacement Project

Enbridge Gas Inc.

EB-2020-0160

July 31, 2020

Applicable Construction Standards (this section includes questions for the TSSA)

1-Staff-1

Ref: Exh B/Tab 1/Sch 1/p.1-3

Preamble:

Ontario Regulation 210/01 requires that all Oil & Gas pipelines in Ontario must comply with the standards, procedures and other requirements of the CSA Z662 standard. Therefore, this standard in conjunction with the Technical Safety and Standards Authority ("TSSA") Code Adoption Document form the basis of how all pipelines are designed, constructed and maintained in Ontario.

The CSA Z662 standard contains many different sections related to design, installation and maintenance of pipelines. Section 12 of this document is specific to distribution pipelines. As the proposed pipeline operates at less than 30% Specified Minimum Yield Strength, is downstream of a higher pressure supply system, is odourized, has a number of distribution stations attached to it and, has several hundred customers (residential and commercial) connected directly to the pipeline, it meets the definition of a distribution system in the CSA Z662.

Questions:

- a) Please provide a copy of Section 12 of the CSA Z662 standard, indicating the distribution pipeline provisions.
- b) Please provide a copy of the referenced TSSA Code Adoption Document.

1-Staff-2

**Ref: July 21, 2020 Technical Standards and Safety Authority (TSSA) Report
Exh B/Tab 1/Sch 5/App.C/p.,2,4 (Haddad Morgan & Associates Ltd. Letter)**

Preamble:

On July 21, 2020, the TSSA filed a report making the following statements regarding the Windsor Pipeline Replacement Project (Project):

The applicable regulation that applies to Windsor Line Replacement Project is Ontario Regulation 210/01: Oil and Gas Pipeline Systems. The applicable standard for this project is CSA Z662-15 which TSSA adopted under FS-238-18 - Oil and Gas Pipelines CAD Amendment (February 15, 2018).

A review of the raised issue on this project:

- a) Depth of cover: Depth of cover for distribution network is defined by table 12.2 of CSA Z662-15

- b) Pipeline abandonment: The requirements for abandon distribution pipeline are defined by section 12.10.3.4 of CSA Z662-15

As part of its application, Enbridge Gas provided a letter from Haddad Morgan & Associates Ltd. (Haddad Report) which makes the following statements:

- The analysis completed by Enbridge's Engineer was to Z662-15; however, there is a more current version of this standard at Z662-19.
- Provided Enbridge proceeds in accordance with Z662-19 and applies the 1.2m depth and following from TAC March 2013, the County could accept the 1.2m depth per Table 1 provided the main was encased.

Questions:

- a) Please confirm whether Enbridge Gas has based the construction of the proposed pipeline on the CSA-Z662-15 standard.
- b) If so, why does Enbridge Gas consider the CSA-Z662-15 standard the appropriate standard to follow rather than the CSA Z662-19, which the Haddad Report states is the more current version of the standard?
- c) Please provide a copy of the sections of the CSA-Z662-15 and CSA Z662-19 standards that pertain to depth of cover and pipeline abandonment.
- d) Please identify the differences, if any, between the CSA-Z662-15 and CSA Z662-19 standards with respect to depth of cover and pipeline abandonment.
- e) Has Enbridge Gas had any discussions with the TSSA regarding recommendations of the Haddad Report on the applicability of the CSA Z662-19 to the Project? If so, please provide the outcome of those discussions.
- f) **[Question for TSSA]** The TSSA letter states that the applicable standard for this Project is CSA-Z662-15. Based on the information in your possession, does the Project meet the requirements of CSA-Z662-15? More specifically, does the proposed depth of cover and pipeline abandonment proposal for the Project proposed by Enbridge Gas meet the requirements of the CSA-Z662-15 standard? Does the TSSA have any concerns with the Project as proposed by Enbridge Gas? If so, please explain.
- g) **[Question for TSSA]** Please provide the TSSA's view on the recommendation of the Haddad Report regarding the relevance of CSA Z662-19, explaining why the TSSA still considers the CSA-Z662-15 the relevant standard for this project for both the depth of cover and the pipeline abandonment.
- h) **[Question for TSSA]** The TSSA refers to Table 12.2 and Section 12.10.3.4 of the CSA Z662-15. Please provide a copy of Table 12.2 and Section 12.10.3.4 which specifically identifies the information that is being relied upon by the TSSA.
- i) Please advise whether there are any Enbridge Gas distribution pipeline construction projects in Ontario that have been or are subject to the CSA Z662-19 standard. If so, please provide a summary of these projects, explaining why these distribution pipeline projects conform to CSA Z662-19 rather than CSA-Z662-15.

- j) Would Enbridge Gas be willing to agree to a depth of cover of 1.2m for the construction of the proposed pipeline? If so, what would be the incremental costs associated with the 1.2m depth of cover?

1-Staff-3

Ref: Exh B/ Tab 1/Sch 5/App B/p.22,23

Preamble:

Enbridge Gas provided a memo from Wood PLC on the applicability of the depth of bury standards in Figure 4 and Table 1 of the TAC guidelines which states the following:

In our experience, municipalities we have dealt with have not, to date, referenced the above standards. For new or replacement plant installations, municipalities have deferred to the utility company's standard depth of bury. The exception to this practice has been at a location of an actual or anticipated future conflict, where additional depth of bury has been required.

Further, it is often the case that the bury depth of utilities constructed within the undeveloped portion of a road allowance will *increase* following the placement of the pavement structure (granular subbase, base and asphalt) associated with road widening, which can result in an increased bury depth of 500 mm or more, depending on the road profile, drainage and pavement design. Consequently, a depth of bury of 1.0m within a pre-existing road right of way could be expected to result in a depth of bury in the order of 1.5m or more following widening of the roadway.

Questions:

- a) Does Enbridge Gas agree with the comments made by Wood PLC regarding the depth of cover requirements should the widening of the roadway occur?
- b) **[Question for TSSA]** Please provide the TSSA's view on the comments made by Wood PLC.

1-Staff-4

Ref: Exh A/Tab 2/Sch 1/p.5,6

Preamble:

According to Enbridge, Essex County has premised their position regarding the depth of cover upon the transmission line provisions of the CSA Z662 code rather than the distribution provisions and upon a misinterpretation and application of the Transportation

Association of Canada's *Underground Utility Installations Crossing Highway Rights-of-Way* (the TAC Manual).

Despite the TAC Manual only suggesting a depth of cover of 1.5m beneath the traveled portion of the road way, Essex County has requested a depth of cover of 1.5 meters anywhere within 6m of the travelled edge of the road way.

Questions:

- a) Please provide a copy of the CSA Z662 standard, clearly indicating the transmission line provisions.
- b) Does the TAC Manual apply to both gas transmission and distribution pipelines?
- c) Please confirm whether the construction of any previous Enbridge Gas distribution pipelines in Ontario have been subject to the provisions of the TAC Manual.
- d) Please explain in what circumstances Enbridge Gas would agree that the provisions of the TAC Manual would be applicable.

1-Staff-5

Ref: Exh B/ Tab 1/Sch 5/App C/p.

Preamble:

The Haddad Report made the following observations:

- The higher end of the load analysis presented by Enbridge Gas yields results in excess of that following the prescribed loading criterion set forth by the Bridge Code's CL-625ONT vehicle or any evaluation vehicle defined in CAN/CSA S6.
- Consideration, with respect to soil response, does not included areas that have been disturbed and are formed with non-native soil to form the road, driveways and road shoulders over the years, to name a few instances of disturbance.

Question:

- a) Please provide Enbridge Gas' interpretation of the significance of these observations in the context of the current proceeding.

Road User Agreement and the Franchise Agreement

1-Staff-6

Ref: Exh B/Tab 1/Sch 7/p.1

Preamble:

Essex County advised that the terms and conditions regarding the construction of the pipeline would be formalized in a Road User Agreement (RUA) and would act as the permit outlining the location of the pipeline and any construction activities which would require the consent of Essex County.

The RUA would be approved by Essex Council and adopted by by-law. Enbridge Gas states that the Franchise Agreement specifically delegated the ability to approve the location of a proposed pipeline to the Road Superintendent or other officer. Requiring approval of Essex Council is contrary to the express provision of the 1957 Agreement. According to Enbridge this RUA would appear to be an attempt to modify the 1957 Franchise Agreement without regard to the Municipal Franchises Act or this Board's Model Franchise Agreement.

Questions:

- a) Please provide a copy of the most recent version of the RUA presented to Enbridge Gas by Essex County.
- b) Please identify the specific aspects or provisions of the RUA that Enbridge Gas considers to be a modification of the existing Franchise Agreement and explain why Enbridge Gas disagrees with these modifications. In Enbridge's view, is the RUA a supplement to the Franchise Agreement, or an unrelated document?
- c) Please identify the provisions of the RUA that Enbridge Gas has agreed to or is willing to agree to.
- d) Has Enbridge Gas entered into RUAs with other municipalities/counties? If so, please explain how these RUAs differ from the existing franchise agreements with these municipalities/counties?
- e) Please confirm that the existing Franchise Agreement has been in place without modification since 1957. Why has the Franchise Agreement not been renewed?

1-Staff-7

Ref: Exh B/Tab 1/Sch 1/p.15

Preamble:

At this point, discussions with Essex have concluded without a signed RUA or other approval for the work to proceed.

Questions:

- a) Has Enbridge Gas had any further discussions/negotiations with Essex County since the application was filed? If so, please provide any updates.

Increased Construction Costs

1-Staff-8

Ref.: Exh B/Tab 1/Sch 4/ p.1

Preamble:

Enbridge Gas has estimated the cost for removing the abandoned pipeline and for providing the additional depth of cover at 1.5m as compared to the costs provided in the Leave to Construct Application. The combined potential increased cost is approximately \$13.1 million, consisting of \$5.9 million for the removal of the pipeline and \$7.2 million for the additional depth of cover.

Question:

- a) Has Enbridge Gas engaged in any discussions with Essex County regarding sharing these additional costs? If so, what is Enbridge Gas' understanding of Essex County's position on cost sharing? If not, why not?

1-Staff-9

Ref.: Exh B/Tab 1/Sch 1/ p.15

Preamble:

Enbridge Gas requested that this proceeding be conducted expeditiously such that a decision is issued at the earliest opportunity and in any event prior to August 15, 2020 in order to avoid additional construction, demobilization and mobilization charges.

Question:

- a) Please comment on the implications of a decision being rendered in October or November of 2020.

Impact of Potential Road Widening

1-Staff-10

Ref: Exh B/Tab 1/Sch 5/App C/p.1

Preamble:

The Haddad Report of May 7, 2020 states:

Both parties note the proposed construction will be located outside the current main roadway driving path but will come within 2m of the existing road edge. However, it is our understanding that the County Road 46 will experience road widening over the course of

the pipelines life placing the proposed service within the drive path. Moreover, the existing shoulder is considered a travelled portion based on use of this region for maintenance activities and other motorist access needs.

Question:

- a) Please explain whether, in Enbridge Gas' view, the shoulder of the road should be considered part of the traveled portion of the road?

1-Staff-11

Ref: Exh B/Tab 1/Sch 7/p.7

Preamble:

Essex County was of the view that the location should accommodate a potential road widening of County Road 46 west of Manning Road for approximately 5.9 kms. Enbridge Gas moved the running line such that it was more than 6m from the edge of the traveled portion of the roadway to avoid a future conflict in this area.

Questions:

- a) Is this the only potential road widening that Enbridge Gas is aware of?
- b) When is this road widening expected to occur?
- c) Will the existing pipeline in this area be removed by Enbridge Gas? If, so, please explain why.
- d) If the existing pipeline is to be removed by Enbridge Gas, please confirm whether:
 - i. Removal is part of the 21.8 km of line that Essex County is requesting that Enbridge Gas remove. If not, please confirm how many kilometres of existing line in this area will be removed by Enbridge Gas.
 - ii. Costs to remove this part of the line are part of the \$5.9 million costs estimated for the removal of the pipeline. If not, please provide the additional costs of undertaking the removal of the pipeline in this area.
- e) Has Essex County confirmed that the movement of this part of the line beyond 6m from the edge of the traveled portion of the roadway is an acceptable solution? If so, please provide details.
- f) Does the movement of this part of the line require Enbridge Gas to obtain any new easements (temporary and/or permanent)? If so, has Enbridge Gas obtained any new land rights that it requires?
- g) Is Enbridge Gas aware of any other potential road widening plans that would place any other part/s of the proposed service beneath the traveled portion of the road? If so, what is Enbridge Gas proposing to do with respect to the location of these parts of the line?

1-Staff-12

Ref: Exh B/Tab 1/Sch 5/p.2,3

Preamble:

At the request of the Essex County, Enbridge Gas completed a detailed engineering analysis of the stresses that would be transferred to the pipeline under the most severe loading conditions permissible by law in Ontario and found that the pipeline could withstand these stresses with a large margin of safety at the proposed 1m depth of cover.

This exercise was completed again with an independent third party, Wood PLC, that also concluded the pipeline could be safely operated under the most severe loadings expected.

Question:

- a) Is it Enbridge Gas' view that the proposed 1m depth is sufficient if further future road widening occurs within this 29 km stretch of County Road 46 that results in the pipeline being under the traveled portion of the roadway?

Consents from Affected Municipalities

1-Staff-13

**Ref: Exh B/Tab 1/Sch 1/p.4
Exh B/Tab 1/Sch 7/p.8,9**

Preamble:

Following receipt of its leave to construct approval, Enbridge Gas moved forward seeking consent with Municipal and County partners to install approximately 29 kms of the proposed NPS 6 distribution pipeline along County Road 46...

In addition to obtaining the consent from Essex County, Enbridge Gas also required consents from the Town of Lakeshore, as the pipeline design would be within close proximity to watermains owned and maintained by the Town of Lakeshore.

As a condition of their consent for the installation of the pipeline, the Town of Lakeshore required a minimum horizontal separation of 1.5m between its watermains and the pipeline, for safety and integrity reasons. Enbridge Gas understands the watermains were installed several decades ago and are vulnerable to leaks or breakage with the construction of another utility at the same depth.

The Town of Lakeshore has also advised Enbridge Gas of its concerns regarding the pipeline depth of 1.5m (requested by the County) and the impact that it would have on the safety and integrity of the existing watermain.

Questions:

- a) Please provide evidence of discussions and/or comments provided by Town of Lakeshore (Lakeshore) regarding its concerns with the installation of the proposed pipeline at a depth of 1.5m meters and the separation between the pipeline and the watermain.
- b) Does Enbridge Gas's proposal for a depth of cover of 1m address the minimum horizontal separation of 1.5m that Lakeshore requires between its watermain and the proposed pipeline?
- c) If the proposed pipeline were to be installed with a depth of cover of 1.2m, would Enbridge Gas be able to maintain the required horizontal separation of 1.5m that Lakeshore requires between its watermain and the proposed pipeline? Please explain and please provide the views of Lakeshore on this potential option.
- d) To the best of Enbridge Gas' knowledge, who would be liable for the cost to fix any damages/leaks that occur on Lakeshore's water mains as a result of Enbridge Gas having to install at a depth of 1.5m.
- e) Please identify the length of the line that would be in close proximity to these watermain.
- f) If there have been further discussions with Lakeshore since the application was filed, please provide a summary of these discussions and an indication of when Enbridge Gas expects to receive consent.
- g) Has Enbridge Gas obtained required consents from the Town of Tecumseh? If not, please provide a detailed explanation of any discussions and when Enbridge Gas expects to receive consent.

Location of the Existing Pipeline

1-Staff-14

Ref: Exh B/Tab 1/Sch 7/App.A./p.3

Preamble:

As part of the application, Enbridge Gas has provided an Administrative Report from the Essex County Engineer to the County Council, which states the following:

The existing pipeline, is located approximately 9m outside the existing edge of pavement and is to some extent installed in the municipal right of way with approximately 20% in private easements.

Questions:

- a) Please confirm whether Enbridge Gas agrees with the description of the location of the existing pipeline provided in the Administrative Report. If not, please provide a description of the location of the existing pipeline along County Road 46.
- b) Is any portion of the existing pipeline located within 6m of the traveled portion of roadway?
- c) Has Enbridge Gas considered whether the installation of the entire new pipeline more than 6m from the existing travelled portion of County Road 46 is feasible? If not, please explain why this has not been considered. If this has been considered, please explain why this has not been pursued and provide an estimate of the additional associated costs.