

**Ministry of Natural Resources
and Forestry**

Legal Services Branch
3rd floor, Room 3420
99 Wellesley Street West
Toronto ON M7A 1W3
Fax: (416)314-2030
Direct Line (416) 314-2007

**Ministère des Richesses naturelles
et des Forêts**

Division des services juridiques
3^e étage, bureau 3420
99, rue Wellesley ouest
Toronto ON M7A 1W3
Téléc: (416)314-2030



Via RESS filing, e-mail and courier (2 hard-copies to Board)

Our File No. 939-11-0088

September 9, 2015

Kristen Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4
Tel.: 1-888-632-6274
Fax: 416-440-7656

RE: MNRF Written Submission
Application by Pembina Infrastructure and Logistics LP

- **Board File Number: EB-2015-0032**
- **Application for a permit to drill hydrocarbon injection/withdrawal wells and to expand its storage capacity in salt solution mined caverns in its Corunna Storage Terminal, located in the Township of St. Clair in Lambton County, within 1.6 kilometres of the Moore 3-21-XII natural gas storage pool operated by Enbridge Gas Distribution Inc.**

Dear Madam,

In accordance with the OEB's directions, please find attached the Ministry of Natural Resources and Forestry's submission with respect to the above referenced application.

Yours truly,

Demetrius Kappos
Counsel
Legal Services Branch

Encl: Attachment

c: All Parties to the Proceeding

**Pembina Infrastructure and Logistics LP
EB-2015-0032**

**Written Submission of the Ministry of
Natural Resources and Forestry**

Introduction:

On January 22, 2015 Pembina Infrastructure and Logistics LP (Pembina) applied to the Ministry of Natural Resources and Forestry (MNRF) pursuant to s. 11(2) of the *Oil, Gas and Salt Resources Act* (OGSRA) for permits to drill wells in Pembina's salt solution mined caverns within 1.6 km of Enbridge Gas Distribution Inc.'s Dow Moore Designated Storage Area in the Township of St. Clair, Lambton County. More particularly, the application seeks authorization to convert currently unused Cavern 45 in 2015 to hydrocarbon storage by abandoning the current entry well and drilling two new entry wells; and to convert 10 other unused salt solution mining caverns to hydrocarbon storage over the 15 years beyond 2015. The proposed expansion would increase on-site hydrocarbon storage capacity at the Corunna Facility from the 10 existing caverns (826,000 m³) to a total of 21 caverns (2,223,000 m³). (Reference: Application at pp. 1 and 6)

Pursuant to s. 40 of the *Ontario Energy Board Act, 1998* on February 6, 2015 the MNRF referred the application to the Ontario Energy Board (OEB) for a report to the Minister.

The OEB provided notification and stakeholder engagement directions, which we are advised have been complied with.

The Board issued three procedural orders and provided for written interrogatories and responses to same, followed by follow-up application disclosures, further interrogatories and responses to those as well.

Deficiencies in the Application:

MNRF takes issue with the completeness of Pembina's application before this Board. Even with due consideration given to the most recently filed application materials (filed on July 27, 2014), in our submission Pembina's application lacks the adequate evidentiary foundation to substantiate the requested approval. The application also faces a jurisdictional obstacle that prevents its approval in the form proposed. Each of these items of concern are discussed below.

Jurisdictional Obstacle:

A key description in the application is the following passage at p. 6:

"At this time, Pembina has not confirmed a conversion schedule for the Proposed Caverns other than Cavern 45; however, Pembina kindly requests approval from the MNR to proceed with the conversion of the Proposed Caverns for future storage operations. The same due diligence and technical practices mentioned in this application will apply to each of the 11 Proposed Caverns and as part of this Application, Pembina will undertake to file with the MNR Pembina's Application for Conversion to Storage prior to the introduction of hydrocarbon and the bringing into service of each Proposed Cavern as they are required to be converted to meet business needs."

Pembina clarified in its response to the first interrogatories that despite the fact that all 11 caverns at issue are within 1.6 km of a Designated Storage Area and have been properly referred to the OEB on a comprehensive well licencing application, *"...Pembina seeks approval from the OEB of the Application such that although the requisite Applications for Conversion to Storage for each Proposed Cavern will be made to the MNR for each of the ten remaining Proposed Caverns at the relevant times, the MNR could issue the requisite permits and licences without referring the applications to the OEB."*

However, it is submitted that the above suggested approach is not available to Pembina upon a proper interpretation of the OGSRA and O.Reg. 245/97.

On the clear wording of s. 11(2) of the OGSRA, a referral to the OEB is mandatory on all well drilling licence applications for which an injection point is within 1.6 km of a Designated Storage Area:

11.(2) If the point of injection proposed in an application for a permit under subsection (1) is within 1.6 kilometres of an area designated as a gas storage area under the Ontario Energy Board Act, 1998, the Minister shall refer the application to the Board for a report.

On the Applicant's own admission (above), this situation is the case with respect to all 11 proposed caverns.

Further, O.Reg. 245/97: "Exploration, Drilling and Production" under the OGSRA sets out, among other things, terms for the expiration of a well drilling licence on the first anniversary of the date of issue:

3. (1) A well licence expires on the first anniversary of its date of issue, if the well was not spudded before that date.

(2) The authority to drill that is granted in a well licence terminates on the earlier of,

- (a) the TD date of the well; and
 (b) the first anniversary of the date of issue of the licence.

. . .

1. In this Regulation,

. . .

“spud”, with respect to a well, means the commencement of actual drilling of the well’s surface casing hole using a cable tool or rotary drilling rig, but does not include activities to prepare a site for drilling the well, including installing a conductor pipe;

. . .

“TD date” means the date when the drilling of a well reaches the total depth of the well;

As a result, the proposal of the applicant that a well drilling licence be granted, covering a timeframe of some 15 years, would not be in accordance with this regulatory prohibition and is therefore not something that can be approved.

Risk Assessment Deficiency:

It was acknowledged in the application at p. 16 that there is no completed risk assessment in support of the application: *“A risk assessment will be completed as part of the design process for any installation of new and upcoming Proposed Caverns.”*

In the applicant’s response to the first interrogatories, it acknowledged its intention to complete the risk assessment *“prior to each cavern being placed into operation”* and that *“as business demands will determine the product and flow rate required in each cavern, a risk assessment cannot be performed until this information is confirmed.”*

It is submitted that this is not a valid reason to avoid completing a risk assessment. CSA Z341-14 sets out a number of requirements for the safe operation of facilities of the kind sought to be established through this approval process. The application must be vetted against its ability to satisfy these requirements.

A report dated July 24, 2015 entitled “Hazard and Quantitative Risk Assessment” was served and filed by the Applicant in support of its application. This report provides a risk assessment that addresses only accidental surface releases of hydrocarbons. It fails to address other potential hazards. For example, in the

Applicant's response to the supplemental interrogatories of the MNRF, it acknowledged (at p. 2 of its response) that *"the Risk Assessment did not take into account the natural gas storage operation operated by Enbridge (in its adjacent Designated Storage Area)"*. It should be noted that Enbridge as an Intervenor has not to date consented to the application as proposed (i.e., with all 11 proposed caverns).

Under s. 7.1: *Risk Assessment* including Annex D and s. 7.2: *Assessment of Neighbouring Activities*, there is an obligation to conduct a comprehensive risk assessment, including a consideration of both surface and subsurface hazards. On their own account, it is clear that the Applicant has not completed a satisfactory risk assessment.

Geomechanical Assessment Deficiency:

Deficiencies with respect to geomechanical assessment are seen in the dated studies described in the application at pp. 16-17:

"Pembina has completed three geomechanical assessments... of caverns near the Enbridge Storage Area... Completed in 1987, the first Study examined the interactions of Cavern 55 and Cavern 56... Completed in 1992, the second Study examined Cavern 65 for brine storage service ... Completed in 1995, the third Study examined the geomechanical stability of Dow's Caverns 61, 62, 69 and 70..."

In the result, the applicant is relying on dated geomechanical assessments of seven existing caverns whereas the application relates to 11 other proposed caverns.

The applicant in its response to the first round of interrogatories confirmed that it *"has not updated the geomechanical assessment since the studies conducted in 1995"* and that it was *"currently exploring options to update the geomechanical assessment"* and only after doing so would it be able to make a *"decision whether or not a new geomechanical assessment is warranted under the circumstances."* We have more recently been advised by the applicant, in its response to MNRF's supplemental interrogatories, at p. 4 of its response, that the applicant has engaged a consultant to conduct *"an additional Geomechanical Assessment for the entire Corunna Facility"*.

The applicant in its response to the supplemental interrogatories of the MNRF indicated at p. 3 in response to queries pertaining to minimum operating standards from the CSA Z341-14 (including minimum cavern spacing ratio (s. 6.2.2) and maximum/minimum operating pressures and withdrawal rates (s. 7.6)) that *"These studies were not a common practice or required during the time of drilling or mining at the Corunna facility."* It is submitted that this response is not an appropriate justification for failing to establish compliance with the current

standards. Based on the evidence before this Board, it is MNRF's submission that the applicant has not demonstrated that the application complies with the geomechanical assessment requirements.

Conclusion:

In conclusion, it is MNRF's submission that the application as proposed should not be approved at this time.

Pembina faces a jurisdictional obstacle with respect to the proposed structured future approvals for well drillings within 1.6 km of a Designated Storage Area and which are sought to be drilled beyond one year from approval.


There are also two areas of technical deficiency. The risk assessment is deficient as it fails to comprehensively identify and address all hazards, both surface and subsurface. The geomechanical assessment is dated and does not fully address the applicable current CSA Z341-14 standards.

Relief Requested:

MNRF concludes that Pembina's application as proposed has jurisdictional obstacles and is not adequately supported by comprehensive reports. Accordingly, MNRF submits that the application should not be approved at this time.

All of which is respectfully submitted.

Yours truly,

A handwritten signature in black ink, consisting of a stylized, overlapping loop and a long, sweeping horizontal stroke extending to the right.

Demetrius Kappos
Counsel
Legal Services Branch
Ministry of Natural Resources and Forestry

c.: Persons on the attached list (by email)

Applicant Contacts

Melissa Lundy
 Regulatory Advisor
 Pembina Infrastructure and Logistics LP
 3800, 525 – 8th Avenue S.W.
 Calgary, AB T2P 1G1
 Tel.: 403-231-3153
 Fax: 403-237-0254
 e-mail: mlundy@pembina.com

Terra Soroka
 Regulatory Advisor
 Pembina Infrastructure and Logistics LP
 3800, 525 – 8th Avenue S.W.
 Calgary, AB T2P 1G1
 Tel.: 403-231-2399
 Fax: Not provided
 e-mail: tsoroka@pembina.com

List of Intervenors

Christine Rogers
 Aamjiwnaang First Nation
 978 Tashmoo Avenue
 Sarnia, ON N7T 7H5
 Tel.: 519-366-8410
 Fax: Not Provided
 crogers@aamjiwnaang.ca

Andrew Mandyam
 Director
 Enbridge Gas Distribution Inc.
 500 Consumers Rd.
 Toronto, ON M2J 1P8
 Tel.: 416-495-5499
 Fax: 416-495-6072
 egdregulatoryproceedings@enbridge.com

Patrick McMahon
 Manager, Regulatory Research and Records
 Union Gas Limited
 50 Kiel Drive North
 P.O. Box 2001
 Chatham, ON N7M 5M1
 Tel.: 519-436-5325

Fax: 519-436-4641
pmcmahon@uniongas.com