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BY E-MAIL

June 10, 2011

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Dear Ms. Walli:

**Re: Board Staff Submission -Union Gas Limited
Applications for Jacob Pool Storage Development
Board File Nos. EB-2011-0013;EB-2011-0014;EB-2011-0015**

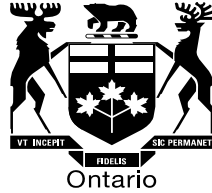
Please find attached Board staff submission with regard to the above noted applications. Please forward the following to Union Gas Limited and to all other registered parties to this proceeding.

Sincerely,

Original Signed By

Zora Crnojacki
Project Advisor – Natural Gas Applications

Attachment



ONTARIO ENERGY BOARD

STAFF SUBMISSION

UNION GAS LIMITED

Applications for

Designation and Authorization to Operate Jacob Pool (EB-2011-0013)

Leave to Construct Natural Gas Pipelines (EB-2011-0014)

Well Drilling Licences (EB-2011-0015)

June 10, 2011

The Applications

Union Gas Limited (“Union” or the “Applicant”) filed applications dated January 17, 2011, with the Ontario Energy Board (the “Board”) under sections 36.1(1), 38(1), 40(1) and 90(1) of the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B (the “Act”). Union applied for the following:

- Designation of the proposed Jacob Gas Storage Pool (the “Jacob Pool”) and authority to operate the gas storage pool, pursuant to section 36.1(1) of the Act; and subsection 38(1) of the Act, respectively. This application was assigned Board File No. EB-2011-0013.
- Leave to construct a transmission pipeline, pursuant to section 90 of the Act, to connect the proposed storage area with Union’s Dover Transmission Station; and gathering pipelines to connect wells to the compression station. This application was assigned Board File No. EB-2011-0014
- Licences to drill three injection/withdrawal wells in the proposed Jacob Pool, pursuant to section 40 of the Act. This application was assigned Board File No. EB-2011-0015.

These applications, if granted, would allow Union to develop and operate a natural gas storage area on lands located in the geographic area of the Municipality of Chatham-Kent referred to as the Jacob Pool. The proposed working capacity for Jacob Pool is 2.45 billion cubic feet of which all is targeted as market-based unregulated storage.

Proceedings to Date

The Board determined that it would hear all three applications together. A single Notice of Application with respect to all three matters was issued on March 7, 2011.

The Ministry of Natural Resources (“MNR”), Enbridge Gas Distribution Inc. (“Enbridge”) and the Kent Federation of Agriculture (“KFA”) intervened in the

proceeding. On March 29, 2011 the Board issued Procedural Order No. 1 which set the schedule for a written proceeding including a provision for intervenors to file evidence.

On April 11, 2011 the KFA filed intervenor evidence concerning landowner compensation issues which, it submitted, was appropriately within the umbrella of Issue 1.3 of the Board's Issues List which addressed the necessary lease agreements with affected landowners. On April 14, 2011 Union filed a Notice of Motion regarding the KFA proposed evidence (the "Motion"). The Motion asked for an order of the Board striking the KFA evidence from this proceeding on the grounds that the KFA evidence "is not relevant to the issues in this proceeding".

On May 3, 2011 by way of PO No. 3 and Decision on Motion the Board granted Union's Motion for an order striking the evidence filed by the KFA on April 11, 2011. The PO No. 3 also set the new schedule for the proceeding. According to the schedule written interrogatories were filed by the intervenors (the KFA and the MNR) and Board staff on May 16, 2011. Union responded to all the interrogatories on May 25, 2011.

On June 2, 2011 a Technical Conference was held at the Board offices with active participation of Union, Board staff and the MNR. The KFA and Invenergy informed the Board that they would not attend. Enbridge attended without active participation. A Transcript of the Technical Conference is on the record.

Board Staff Submissions

Board staff supports approval of these applications. Board staff has no outstanding issues or concerns regarding Union's applications. Board staff submits that the need, economics, landowner, construction and environmental issues have all been adequately addressed by Union in its evidence. In Board staff's submission, the public interest would be served if the Board were to approve Union's applications, subject to the proposed conditions that are attached as appendices to these submissions. Board staff submits that Union confirmed that it completed environmental assessment related to location,

construction and operation of the facilities related to Jacob Pool development in accordance with the requirements of the sixth edition of the Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (2011).

These submissions focus on the Conditions of Approval, as proposed in Board staff interrogatories and comments by Union in responses to the interrogatories and by the MNR and Union in the Technical Conference.

Designation and Authorization to Operate Jacob Pool (EB-2011-0013)

Board staff has no concerns with the proposed boundary of the Designated Storage Area proposed by the Applicant. Regarding the authority to operate Jacob Pool, Board staff supports Union's application subject to Conditions of Approval.

Board Staff submits that the Board should impose the following four conditions on Union should it be granted approval under section 38(1) to operate the Jacob Pool: conditions 1.5, 1.6, 1.7 and 1.8. Note, a complete set of conditions proposed by Board staff for approval of application for authorization to operate Jacob Pool is included to Appendix A of this submission.

(i) Condition 1.5

Condition 1.5 deals with the maximum operating pressure that Union would be allowed to operate the Jacob Pool without seeking leave of the Board. Board staff put forward the following proposed wording for this condition in interrogatory #7:

- 1.5 Union shall not operate the Jacob Storage Pool above a maximum allowed operating pressure representing a pressure gradient of 15.8 kPa/m of depth to the top of the reservoir until leave of the Board is obtained.

In the Technical Conference (Transcript of the Technical Conference) Union explained that it planned to operate the pool at the maximum operating pressure

at 11.85 kilopascals (kPa) per metre as the surface facilities design would not allow higher pressure¹. The MNR asked if Union would accept a condition of approval that would not allow any increase of operating pressure above 11.85 kPa per metre depth without leave from the Board. Union agreed with that proposal by the MNR. Board staff agrees with 11.85 kPa per metre being a maximum operating pressure set in the condition 1.5. Accordingly Board staff submits the following wording for Condition 1.5:

1.5 Union shall not operate the Jacob Storage Pool above a maximum allowed operating pressure representing a pressure gradient of 11.85 kPa/m of depth to the top of the reservoir until leave of the Board is obtained.

(ii) Condition 1.6

To ensure the protection of water wells in the storage pool Board staff proposed wording for condition 1.6 was as follows:

1.6 Union shall ensure that the construction, operation and maintenance of the Jacob Storage Pool does not affect the quality or supply of potable water. Union shall conduct a water well test prior to and after the first cycle of gas storage and implement a Water Well Monitoring Program. In the event that the quality of the potable water is impacted by the construction, operation and maintenance of the Jacob Storage Pool, Union shall provide adequate fresh water supplies to all affected landowners until the problem is rectified.

Union explained, in response to Board staff interrogatory # 7, and again during the Technical Conference, that Union's Hydrogeologist assessment of the Jacob Pool project resulted in a recommendation to establish a base line water quality and supply conditions by a preconstruction survey. In addition the recommendation was to monitor wells during the drilling of wells. Post construction monitoring is recommended to be on a complaint basis only. Union

¹ Technical Conference, June 2, 2011, Transcript, page 21, lines 6-13 (EB-2011-0013/0014/0015)

stated that it has taken this approach for its other storage pool projects in the past and has been successful.

To reflect this approach Union proposed the following wording that is, in Board staff view, acceptable.

- 1.6 Union shall ensure that the construction, operation and maintenance of the Jacob Storage Pool does not affect the quality or supply of potable water. Union shall implement a water well monitoring program to include preconstruction monitoring and to commit to further monitoring should a complaint arise during or following construction. In the event that the quality of the potable water is impacted by the construction, operation and maintenance for the Jacob Storage Pool, Union shall provide adequate fresh water supplies to all affected landowners until the problem is rectified.

(iii) Condition 1.7

Board staff proposed June 1, 2012 as a deadline to start injection into the Jacob Pool.

- 1.7 Should Union fail to commence injection before June 1, 2012, Union shall be required to apply to the Board for an extension of the authority granted under the Board's Order and will be required to submit evidence to show why such an extension shall be granted.

Union updated its pre-filed evidence and provided information that it planned to adjust the commencement of storage operations to May 2012 from May 2011 as previously stated. Based on that update Union submitted that July 1, 2013 would be an appropriate deadline for injection commencement and that this be reflected in the condition.. Board staff takes no issue with changing the date and agrees to wording:

- 1.7 Should Union fail to commence injection before July 1, 2013, Union shall be required to apply to the Board for an extension of the authority granted under the Board's Order and will be required to submit evidence to show why such an extension shall be granted.

(iv) Condition 1.8

Board staff proposed Condition 1.8 to address the requirements for adequate insurance coverage for environmental and other risks and potential impacts of Jacob Pool operation:

- 1.8 Union shall, after the date on which the Board grants an order pursuant to Section 38(1) of the *Ontario Energy Board Act, 1998* (“the Act”) and before commencement of drilling operations or pipeline construction to use the Designated Storage Area (“DSA”) for storage, and thereafter while the DSA or any part thereof is being used for storage operations, obtain and maintain in full force and effect insurance coverage, including but not limited to, liability and pollution coverage, in the amount that is determined to be adequate by an independent party with expertise in adequacy of insurance coverage for environmental and other risks and potential impacts of gas storage operations in southwestern Ontario. Union shall file with the Board documentation proving that the insurance coverage has been obtained as required by this condition.

In the Technical Conference and in response to the interrogatory # 7 Union indicated that it generally accepted the terms outlined in Condition 1.8 however stated that it may not be necessary. Union stated that the amount of coverage it currently has in place should be considered adequate because Union is a long standing storage operator that already has developed its insurance coverage to ensure adequate coverage is available to address the liability and environmental concerns. Union proposed the following modified wording to Condition 1.8:

- 1.8 After the date on which the Board grants an order pursuant to Section 38(1) of the Ontario Energy Board Act, 1998 and before commencement Of drilling operations or pipeline construction to use the DSA for storage, and thereafter while the DSA or any part thereof is being used for storage operations, Union shall obtain and maintain in full force and effect insurance coverage for its operations at the Jacob Pool including, but not limited to, liability and pollution coverage. Union shall notify the Board once insurance coverage has been obtained for the Jacob Pool in accordance with this condition.

Board staff considers this modification to the wording of Condition 1.8 reasonable and acceptable. Board staff does not have any concerns with the wording of the

condition omitting the requirement for determining the coverage by an independent party.

Board staff's proposed conditions of approval for the designation and operation of the Jacob Pool are attached as Appendix A to this submission.

Leave to Construct Natural Gas Pipelines (EB-2011-0014)

Union's application for leave-to-construct includes 4.7 kilometres of NPS 8 pipeline and the 1.83 kilometres of NPS 8 and 6 gathering pipelines. Board staff has no concerns with the proposed pipelines and supports Union's application subject to Conditions of Approval attached to Appendix B of these submissions.

Union's Jacob Pool project is proposed to be developed and operated as Union's unregulated business with storage services provided to the market and Union's shareholders bearing the costs of the project development and operation. Union's evidence is that Union's ratepayers would not incur any adverse rate impacts as a result of Jacob Pool development and operation.

Board staff notes that, according the Natural Gas Electricity Interface Review ("NGEIR") decision in EB-2005-0551 Union is required to functionally separate its regulated and unregulated storage operations. This is set out in Condition 1.5.

- 1.5 Within 15 months of the final in-service date, Union shall file with the Board Secretary a Post Construction Financial Report. The Report shall indicate the actual capital costs of the project and an explanation for any significant variances from the estimated costs.

In response to Board staff interrogatory # 12, and in the Technical Conference, Union argued that the Condition 1.5 is not appropriate because Jacob Pool is an unregulated storage project. Board staff submits, that, for the reason of appropriate accounting transparency between regulated and unregulated storage activities, that Condition 1.5 should be included in a leave to construct order should the Board approve the application.

Board staff's proposed conditions of approval for the leave to construct the pipeline facilities associated with the Jacob Pool are attached as Appendix B to this submission.

Well Drilling Licences (EB-2011-0015)

Board staff supports Union's request that a favourable report of the Board, under subsection 40(1) of the Act, be provided to the to the Minister of Natural Resources to whom the Applicant has applied for licences to drill two (3) injection/withdrawal wells within the proposed Jacob Pool (" a favourable report"), subject to Board staff proposed conditions attached to Appendix C of these submissions.

Board staff notes that Union, in response to Board staff interrogatory # 14, accepted all of the conditions proposed by Board staff to be attached to a favourable report.

Board staff's proposed conditions of approval for the well drilling licences for the Jacob Pool are attached as Appendix C to this submission.

All of which is respectfully submitted.

Appendix A

**BOARD STAFF PROPOSED CONDITIONS OF APPROVAL
DESIGNATION AND AUTHORIZATION TO OPERATE JACOB POOL
EB-2011-0013**

**Union Gas Limited
Jacob Pool Storage Project**

EB-2011-0013

Authorization to Inject, Store and Remove Gas

**Board Staff Proposed
Conditions of Approval**

- 1. Operation of the Jacob Storage Pool**
 - 1.1 Union Gas Limited ("Union) shall rely on the evidence filed with the Board in the EB-2011-0013; EB-2011-0014 and EB-2011-0015 proceeding. Union shall comply with applicable laws, regulations and codes to the satisfaction of the responsible agency pertaining to the construction, operation and maintenance of the proposed project and should evaluations conducted in accordance with those applicable laws, regulations and codes identify any risk and/or specify any remedial work, shall implement, complete and maintain such works prior to commencement of any injection.
 - 1.2 Union shall design, construct, operate, maintain and abandon the wells and facilities in accordance with the CSA Z341.1-10 Storage of Hydrocarbons in Underground Formations and in accordance with the *Oil, Gas and Salt Resources Act* and its regulations and operating standards.
 - 1.3 Union shall protect the integrity of the reservoir and ensure the safe operation of the Jacob Storage Pool by complying with the requirements of the Provincial Operating Standard, CSA Standard Z341.1-10 and any other applicable laws, regulations and codes.
 - 1.4 Union shall advise the Board's designated representative of any proposed material change or abnormal events in construction or restoration procedures that are reported to authorities. In the event of an emergency, the Board shall be informed immediately after the fact.
 - 1.5 Union shall not operate the Jacob Storage Pool above a maximum allowed operating pressure representing a pressure gradient of 15.8 kPa/m of depth to the top of the reservoir until leave of the Board is obtained.
 - 1.6 Union shall ensure that the construction, operation and maintenance of the Jacob Storage Pool does not affect the quality or supply of potable water. Union shall implement a water well monitoring program to include

preconstruction monitoring and to commit to further monitoring should a complaint arise during or following construction. In the event that the quality of the potable water is impacted by the construction, operation and maintenance for the Jacob Storage Pool, Union shall provide adequate fresh water supplies to all affected landowners until the problem is rectified.

- 1.7 Should Union fail to commence injection before July 1, 2013, Union shall be required to apply to the Board for an extension of the authority granted under the Board's Order and will be required to submit evidence to show why such an extension shall be granted.
- 1.8 After the date on which the Board grants an order pursuant to Section 38(1) of the Ontario Energy Board Act, 1998 and before commencement of drilling operations or pipeline construction to use the DSA for storage, and thereafter while the DSA or any part thereof is being used for storage operations, Union shall obtain and maintain in full force and effect insurance coverage for its operations at the Jacob Pool including, but not limited to, liability and pollution coverage. Union shall notify the Board once insurance coverage has been obtained for the Jacob Pool in accordance with this condition.

2. **General**

- 2.1 For the purposes of these conditions conformity of the Applicant with CSA Z341-10, the *Oil, Gas and Salt Resources Act*, and the *Provincial Operating Standard* shall be to the satisfaction of the Ministry of Natural Resources.
- 2.2 The authority granted under this Order to Union is not transferable to another party, without leave of the Board.
- 2.3 The Board's designated representative for the purpose of these conditions shall be the Manager, Natural Gas Applications.

3 **Just and Equitable Compensation**

- 31 Union shall offer to pay landowners and/or tenants just and equitable compensation for any damages, including present and future crop damage arising from: drilling of injection/withdrawal wells; installation of gathering pipelines; access road construction.

Appendix B

BOARD STAFF PROPOSED CONDITIONS OF APPROVAL

LEAVE TO CONSTRUCT APPLICATION

EB-2011-0014

**Union Gas Limited
Jacob Pool Storage Project
Leave to Construct Application
EB-2011-0014
Board Staff Proposed Draft
Conditions of Approval**

1 General Requirements

- 1.1 Union Gas Limited ("Union") shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2011-0013; EB-2011-0014 and EB-2011-0015 proceeding except as modified by this Order and these Conditions of Approval.
- 1.2 Unless otherwise ordered by the Board, authorization for Leave to Construct shall terminate December 31, 2012, unless construction has commenced prior to that date.
- 1.3 Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee ("OPCC") review.
- 1.4 Union shall advise the Board's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.
- 1.5 Within 15 months of the final in-service date, Union shall file with the Board Secretary a Post Construction Financial Report. The Report shall indicate the actual capital costs of the project and an explanation for any significant variances from the estimated costs.

2 Project and Communications Requirements

- 2.1 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Natural Gas Applications.
- 2.2 Union shall designate a person as project engineer and shall provide the name of the individual to the Board's designated representative. The project engineer will be responsible for the fulfillment of the Conditions of Approval on the construction site. Union shall provide a copy of the Order and Conditions of Approval to the project engineer, within seven days of the Board's Order being issued.

- 2.3 Union shall give the Board's designated representative and the Chair of the OPCC ten days written notice in advance of the commencement of the construction.
- 2.4 Union shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board's Order.
- 2.5 Union shall file with the Board's designated representative notice of the date on which the installed pipelines were tested, within one month after the final test date.
- 2.6 Union shall furnish the Board's designated representative with five copies of written confirmation of the completion of construction. A copy of the confirmation shall be provided to the Chair of the OPCC.

3 Monitoring and Reporting Requirements

- 3.1 Both during and after construction, Union shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 3.2 The interim monitoring report shall confirm Union's adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.
- 3.3 The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

4 Easement Agreements

- 4.1 Union shall offer the form of agreement approved by the Board to each landowner, as may be required, along the route of the proposed work.

5 Other Approvals

- 5.1 Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

APPENDIX C

BOARD STAFF PROPOSED CONDITIONS OF APPROVAL

**LICENCES TO DRILL WELLS IN JACOB DESIGANTED GAS STORAGE
POOL**

EB-2011-0015

Jacob Pool Development Project

Union Gas Limited EB-2011-0015

Board Staff Proposed Conditions of Approval

Wells Drilling Licences Application

1. General Requirements

- 1.1. Union Gas Limited ("Union") shall rely on the evidence filed with the Board in EB-2011-0013; EB-2011-0014 and EB-2011-0015 proceeding and comply with applicable laws, regulations and codes pertaining to the construction of the proposed wells.
- 1.2. Authorization for the issuance of the drilling licences is limited to twelve months from the date of the Board's Report to the Ministry of Natural Resources.
- 1.3. The authority granted under this Order to Union is not transferable to another party without leave of the Board. For the purpose of this condition another party is any party except Union Gas Limited.

2. Construction Requirements

- 2.1 Union shall construct the facilities and restore the land in accordance with its Application and evidence and the undertakings given to the Board, except as modified by this Order and these Conditions of Approval.
- 2.2 Union shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the Board, and as follows:
 - i) Union shall make reasonable efforts to keep the affected landowner as well as adjacent landowners and their respective tenant farmers, or their designated representatives, informed of its plans and construction activities; and
 - ii) the installation of facilities and construction shall be coordinated so as to minimize disruption of agricultural land and agricultural activities.

- 2.3 Union shall, subject to the recommendation by an independent tile contractor and subject to the landowners approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.
- 2.4 Union, shall implement all the recommendations of the Jacob Storage Pool Environmental Management Plan in the pre-filed evidence.

3. **Monitoring and Reporting Requirements**

- 3.1 Both during and after construction, Union shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union shall attach a log of all complaints to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 3.2. The interim monitoring report shall confirm Union adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.
- 3.3 The final monitoring report shall describe the condition of the rehabilitated land and the effectiveness of the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

4. **Project and Communication Requirements**

- 4.1 For the purposes of these conditions, conformity of the Applicant with CSA Z341-10, shall be to the satisfaction of the Ministry of Natural Resources.
- 4.2 Union shall designate one of its employees as project manager who will be responsible for the fulfilment of these conditions, and shall provide the employee's name to the Ministry of Natural Resources, the Board and to all appropriate landowners.
- 4.3 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Natural Gas Applications.