



uniongas

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May 25, 2011

BY RESS & Courier

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, Ontario
M4P 1E4

Dear Ms. Walli:

**Re: Union Gas Limited
Jacob Storage Pool
Board File # EB-2011-0013, EB-2011-0014, EB-2011-0015**

Further to the Board's letter dated May 13th, 2011, please find attached two copies of Union's responses to the Board's interrogatories.

Sincerely,

Mary Jane Patrick
Administrative Analyst, Regulatory Projects
:mjp
Encl.

cc: Neil McKay, Manager Facilities Applications
Zora Crnojacki, Project Advisor
All Intervenors

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

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

1. Reference: Pre-filed Evidence, Section 7, page 2 Paragraphs 10 and 11

According to the pre-filed evidence, Union holds all the Petroleum and Natural Gas ("P &NG") rights and Gas Storage Rights within the proposed Jacob Pool.

Please confirm that Union has the storage rights agreements with the landowners within the proposed boundaries of Jacob Designated Storage Area.

Response:

Confirmed. Union holds all of the P&NG and Gas Storage Rights within the proposed boundaries of the proposed Jacob Pool Designated Storage Area.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

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

2. Reference: Pre-filed Evidence, Section 7, page 1 Paragraphs 5 and 6

Union stated that it would extend a compensation package consistent with Union's existing Gas Storage Landowner Compensation Program.

Please describe Union's Gas Storage Landowner Compensation Program. Specifically, please set out the following: landowners in Union's pools included in the program, the history and background of the program, the purpose of the program, the structure of compensation payments, annual adjustments to amount of payments, if any, and timing of payments.

Response:

Union owns and/or operates 25 Storage Pools. Union offers a standard compensation package to all landowners in these pools.

In the last 22 years Union has negotiated four comprehensive compensation packages with our landowners. In 1989, Union negotiated a ten year package that called for rental compensation for the exclusive Oil and Gas rights under our P&NG lease and for the Gas Storage Rights under our Gas Storage Lease, (both for acres inside the Designated Storage Area ("DSA") and for land outside the DSA) as well as rental for wells on the properties. This agreement allowed for annual increases to the Gas Storage rental for lands inside the DSA effective January 1991 by an amount equal to the product of the current payment and the most recent Consumer Price Index expressed as a fraction, as published by Statistics Canada for the Period of July 1 to June 30 annually.

In 1994, the 1989 agreement was re opened. Rentals rates for the exclusive Oil and Gas rights under the P & NG Leases in the DSA, for each well in the Lessor's lands and for compensation for acreage adjacent to a DSA were re-negotiated. This agreement remained in effect until December 31, 1998.

Beginning in 1999 Union began negotiations with the Lambton County Storage Association ("LCSA") for a new compensation package. In 2004 a settlement was reached that covered the period of January 1, 1999 to December 31, 2008. In this package Union negotiated new rates for gas and oil rights under the P&NG Leases, and for storage rights under Gas Storage Leases, in both cases for land inside the DSA and for land outside the DSA. Also rates were negotiated for wells on the landowner properties and for the first time Roadway rental rates were included in the package. All of these rates were subject to annual increases equal to the Consumer Price Index.

In addition to these new rental rates going forward to the end of 2008, a retro-active payment for the period of January 1, 1999 to 2004 was also negotiated with the landowners and retroactive payments were made to all landowners.

In early 2006, nearly three years prior to the expiry of the existing agreement, Union began negotiations for the renewal of the current agreement. These negotiations took place between the LCSA negotiating committee and Union. Union negotiated for rental rates for gas and oil rights under the P&NG Lease and for storage rights under the Gas Storage Lease both for land inside and outside the DSA, as well as rental rates for wells on the property and roadways on the properties. These rates are subject to annual increases equal to the Consumer Price Index. This settlement was made effective January 1, 2009 and will expire on December 31, 2013. Upon acceptance of the settlement by the LCSA negotiating committee and their pool captains, the offer was presented to all landowners jointly by Union representatives and the LCSA leadership group. It was accepted by approximately 97% of the landowners and has been paid to all landowners.

The purpose of these negotiated settlements is to provide just and equitable compensation to all of our landowners, whether they are LCSA members or any other affiliation. Amending agreements have been signed with many landowners that will allow payments to be made in January of each year; however there are exceptions where landowners are paid throughout the year on existing contract dates.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

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

3. Reference: Pre-filed Evidence, Section 7, page 1 Paragraphs 5 and 6

Union specified that it will offer to all Jacob Pool landowners compensation that includes combined P&NG and Gas Storage Lease rentals for inside acres of \$115.68 per acre and of \$34.73 per acre for outside acres. Union defines outside acres as the acreage held by a single deed or lease are severed by the Designated Storage Area (“DSA”) boundary resulting in some acres being inside the DSA and some acres being outside the

- a. Please describe the status of the offers made for compensation and the acceptance, or not, by the Jacob Pool landowners.
- b. If any landowners declined Union’s offer for compensation what approach will Union take to deal with such situations.
- c. What are Union’s plans for a further follow up with these landowners?
- d. What other options are available to Union, if its offers are not accepted and there is still no agreement between Union and these landowners?

Response:

Union has not yet made an offer of increased compensation to the landowners inside the proposed Designated Storage Area. Union will, no later than 30 days prior to injection, make an offer which is consistent with all Union’s operating storage pools. Once the offer has been made, Union will meet with any of the landowners and answer any questions they may have with regards to the compensation package and the terms and conditions. Union will stay in constant contact with the landowner to answer any questions regarding the offer of compensation. Notwithstanding Union’s offer of compensation, a landowner has the right to appeal the increased level of compensation to the Board under Section 38 of the Ontario Energy Board Act.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

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

4. Reference: Pre-filed Evidence, Section 7, page 2 Paragraph 13

Union's pre-filed evidence outlines an approach which Union intends to take with respect to the Jacob Pool landowners who have acreage inside the existing Unit Area and currently receive annual P&NG rental payments. Specifically, Union proposed that, after the approval and prior to injection into the Jacob Pool, Union would negotiate and execute Amending Agreements that set out the payment structure for compensation that will match Union's Gas Storage Landowner Compensation Program.

- a. Please describe the rationale for this approach.
- b. Has Union considered other approaches and if so what are the reasons to select this particular approach?

Response:

- a. Please refer to Union's response to Board Staff interrogatory # 3
- b. Union has not considered changing its approach for this storage pool.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

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

5. Reference: Pre-filed Evidence, Section 3, page 1 Paragraphs 2 and 3

Union's evidence indicates that the Jacob Pool is one of several gas reservoirs within the Dover 7-5-VE Field.

- a. Please explain any prospects and plans for Union to develop other reservoirs within the Dover 7-5-VE Field as gas storage pools.
- b. What would be the estimated incremental capacity and anticipated time-line to develop any additional pools in the Dover 7-5-VE Field?

Response:

- a. Other reservoirs within the Dover 7-5-VE field may be suitable for storage. Further development of the Dover 7-5-VE field for natural gas storage will depend upon the success of the Jacob Pool development, the suitability of other reservoirs for natural gas storage, commercial considerations and market conditions.
- b. The amount of incremental natural gas storage capacity within the Dover 7-5-VE field is not known and will depend upon the results of further geological and geophysical analysis. The timeline to develop incremental storage capacity within the Dover 7-5-VE field is not known.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

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

6. Reference: Pre-filed Evidence, Section 5, page 1 Paragraph 1-3

Regarding the planned delta pressuring of the Jacob Pool in year 1 and year 2, please:

- a. Comment Union's position if Board staff propose a condition of approval that would not allow increasing the operating pressure above that corresponding to the pressure gradient of 15.8 kPa/m of depth to the top of the reservoir until leave of the Board is obtained.
- b. Discuss the options for future increases in deliverability of the Jacob Pool.

Response:

- a. Union can accept this proposed condition of approval.
- b. Economic feasibility would be a primary driver in any future decision to increase deliverability within the Jacob Pool. Future increases in deliverability could be accomplished through additional well drilling or through additional compression. Union does not currently have any plans to complete any of these upgrades.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

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

7. Please comment on the attached Board staff draft conditions of approval provided in Attachment 1 to these Interrogatories. Please note that these conditions are standard conditions and are a draft version subject to additions or changes depending Board staff's further review of the evidence in this case.

Response:

Union has three comments on the Board's proposed conditions for EB-2011-0013 – Operation of the Jacob Storage Pool:

- a. Condition 1.7 – The pre-filed evidence, Section 5, paragraph 1, contains erroneous information with respect to the timing of the proposed Jacob Pool development. Storage operations are planned to commence at the Jacob Pool as early as May 2012 (not May 2011 as stated in the pre-filed evidence). By placing the facilities in-service no later than August 3, 2012 (not July 1, 2011 as stated in the pre-filed evidence) and delta-pressuring the pool to 9,150 kPaa bottom hole, the necessary cushion gas can be injected and the entire working capacity of the reservoir can be utilized in 2012 (not 2011 as stated in the pre-filed evidence). Given this updated information, Union requests that Condition 1.7 should be updated to read:

"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."

- b. Condition 1.8 requires Union to obtain insurance *"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 has no objections to obtaining insurance; however, since there were no questions or concerns identified, Union submits there should be no requirement for Union to obtain an assessment of the appropriate amount of coverage from an independent third party.

Union has been safely operating storage in Ontario since 1942, and Union currently owns and/or operates 25 storage pools. If approved, the Jacob Pool will be the 26th storage pool Union operates. Union's insurance coverage for the Jacob Pool project will be incorporated into Union's existing insurance policies, and Union does not intend to have a separate policy that would cover only the Jacob Pool. Union's insurance group continuously reviews the coverage required for Union's operations and adjusts the coverage as required.

Union, as a long standing storage operator, has developed and modified its insurance coverage to ensure that adequate coverage is available to address liability and environmental concerns. Union submits that based on its experience it has a better understanding of what insurance levels are required for the construction and operation of a storage pool than an independent third party.

Union therefore requests that the proposed condition 1.8 be amended to read as follows:

“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.”

- c. Union’s Hydrogeologist has reviewed the Jacob Storage Pool project and has recommended a water well monitoring program that includes base line preconstruction water well monitoring and to monitor wells, during and post construction on a complaint basis only. Union’s past storage pool projects have taken this approach and have indicated that ground water impacts have not occurred. Therefore, Union requests a change to the Conditions of Approval, Authorization to Inject, Store and Remove Gas, Condition 1.6 to read:

“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.”

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

Leave to Construct Application (EB-2011-0014)

8. Reference: Pre-filed Evidence, Section 2, page 2 Paragraph 6

Union stated that the storage capacity added by Jacob Pool development will be "...consistent with the sale of rest of Union's ex-franchise storage".

Regarding the cost of the project development, including the capital costs of pipelines and other facilities, please confirm that all the costs will be incurred by Union's shareholders and that Union's ratepayers will not incur any undue adverse rate impacts as a result of the Jacob Pool Gas Storage Project development and operation.

Response:

All the costs will be incurred by Union's unregulated business and Union's ratepayers will not incur any rate impacts as a result of the Jacob Pool Gas Storage Project development and operation.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

Leave to Construct Application (EB-2011-0014)

9. Reference: Pre-filed evidence Section 7, Page 3, Paragraphs 14-17

Regarding the negotiations for permanent and temporary easements, please describe the status of negotiations of those easements and the anticipated timeline for obtaining the required land rights for pipeline location and construction.

Response:

Union has obtained signed options for easements for all known permanent and temporary transmission easements for the pipeline construction. Union will exercise the options after Ontario Energy Board approval and prior to commencement of construction.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

Leave to Construct Application (EB-2011-0014)

10. Reference: Pre-filed Evidence, Section 6, page 1, Paragraph, and Section 6 Schedule 2,

Union stated in the pre-filed evidence that a Summary of Comments received from government agencies and landowners during their review of Environmental Report will be filed “when available” in Section 6, Schedule 2.

- a. Please file a summary table and copies of documentation with comments received from landowners, OPCC and any other party to date.
- b. Please include a description on how Union plans to address any outstanding issues or concerns raised in the project public consultation process.

Response:

- a/b. Please see Attachment # 1.

OPCC Review Summary

Jacob Storage Pool Project

AGENCY	COMMENT	RESPONSE
Ministry of Transportation Letter dated January 13, 2011	Letter has been forwarded to the London office. London office to provide any comments.	Not Required
Ministry of Transportation Email dated January 18, 2011	The MTO has reviewed the information provided by Union and have no concerns. Permits will not be required from MTO.	Not Required
Technical Standards & Safety Authority (TSSA) Letter dated March 8, 2011	The project and specifications provided meet the requirements of Ontario Regulation on Oil and Gas Pipeline Systems (O,Reg. 210/01). Notify Mr. Charlie Landriault, Regional Supervisor prior to conducting the pressure test.	Not Required
Lower Thames Valley Conservation Authority (LTVCA) Letter dated March 10, 2011	The Authority's Development and Alteration to Watercourses portion of their Regulation will apply. An application will be required. Proposed structures must be flood proofed to a minimum elevation of 177.4 metres to protect against damages from flooding. Be advised that the project falls within an area of a Highly Vulnerable Aquifer (HVA) and Significant Groundwater Recharge Area (SGRA). An application will be required prior to any work taking place within and or adjacent to a watercourse.	Meeting with LTVCA, Valerie Towsley, Resource Technician March 29, 2011 Union met with the LTVCA to review the Project and necessary permitting. Union proposes to obtain all necessary permits and sees no difficulty in obtaining these permits. Union recognizes the Project falls within an area of HVA and SGRA, no permits are necessary.
Ministry of Tourism and Culture (MTC) Letter dated March 15, 2011	MTC provided a number of recommendations when structuring Environmental Reports with respect to Cultural Heritage Resources and their review.	Letter dated March 24, 2011 Union understands the new Environmental Guidelines define a more comprehensive assessment of cultural heritage resources however the ER was prepared under the May 2003

EB-2011-0013

EB-2011-0014

EB-2011-0015

Attachment # 1 to BS IR # 10

Filed: May 25, 2011

		<p>edition. Future ER's will be prepared following the new environmental guidelines.</p> <p>Archaeological and Heritage Assessment Reports have been completed and forwarded to the appropriate MTC office.</p>
<p>Municipality of Chatham-Kent Letter dated April 12, 2011</p>	<p>Technical Advisory Committee has the following comments:</p> <p>1) Prior to construction apply for all required permits or written consent.</p> <p>2) Applications for building permits are required for compressor station.</p> <p>3) Contact Fire Services should you wish to review updates to the Emergency Response Plan.</p> <p>4) Contact Planning Services should you require 911 numbers.</p>	<p>Note Required</p>

Ministry of
Transportation

Ministère des
Transports

Operations Office
Corridor Management and Property Section
301 St. Paul St, 2nd Floor
St. Catharines, Ontario L2R 7R4
Phone - (905) 704-2916; Fax - (905) 704-2777

EB-2011-0013

EB-2011-0014

EB-2011-0015

Attachment # 1 to BS IR # 10

Filed May 25, 2011



January 13, 2011

Union Gas
P.O. Box 2001,
50 Keil Drive North
Chatham, Ontario
N7M 5M1

Att: D.F. (Doug) Schmidt
Principal Environmental Planner

RE: Union Gas Limited – Jacob Storage Pool Project

Thank you for your letter of January 10 2011 regarding the above noted subject.

Please be advised that I have forwarded your letter to our London Office (Ken Teasdale, Senior Project Manager). Ken or his staff member will review the proposed work and provide any comments directly to Ms. Zora Crnojacki (Chairman, OPCC) and to yourself.

If you required further information, please do not to hesitate to contact me.

Thank you.

Yours truly

A handwritten signature in black ink, appearing to read "D. Peeling".

Doug Peeling
Senior Policy Adviser

c:- K. Teasdale

Schmidt, Doug

From: Morrisey, John (MTO) [John.Morrisey@ontario.ca]
Sent: January 18, 2011 4:15 PM
To: CrnojaZo@oeb.gov.on.ca
Cc: Schmidt, Doug
Subject: Union Gas Limited - Jacob Storage Pool Project

Ontario Pipeline Coordination Committee
Ontario Energy Board,
2300 Yonge Street.,
26th Floor, Suite 2601
Toronto, ON
M4P 1E4

Attn: Ms. Zora Crnojacki – Coordinator

Re: Union Gas Limited – Jacob Storage Pool Project

The Ministry of Transportation (MTO) has reviewed the information provided by Union Gas for the above-noted project. MTO have no concerns with the project as the work falls beyond MTO's limit of permit control. Permits will not be required from the MTO prior to construction.

Should you require anything further, please do not hesitate to contact me.

Regards,

John Morrisey
Corridor Management Planner
Corridor Management Section
West Region
Phone 519-873-4597
Fax 519-873-4600
email john.morrisey@ontario.ca



EB-2011-0013
EB-2011-0014
EB-2011-0015
Attachment # 1 to PSIR # 10
Filed: May 25, 2011
14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772
www.tssa.org

March 8, 2011

File: CF

Mr. D. F. Schmidt
Principal Environmental Planner
Union Gas Limited
P. O. Box 2001
Chatham, ON N7M 5M1

Re: Union Gas Limited – Jacob Storage Pool Project.

Dear Mr. Schmidt

This is in response to your letter of January 10, 2011 regarding the referenced project. I reviewed the Azimuth Environmental Consulting Inc. Report dated January 2011 (File No. AEC 09-266) and the Design and Pipe Specifications attached to your submission.

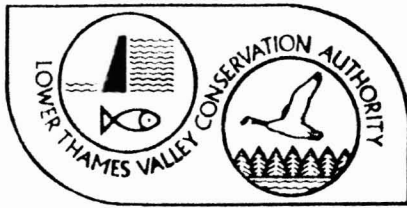
The project and the technical specifications provided meet the requirements of the Ontario Regulation on Oil and Gas Pipeline Systems (O. Reg. 210/01). Mr. Charlie Landriault, Regional Supervisor, telephone 519 728 0264, indicated he would like to be notified prior to conducting the pressure testing of the system, in order to have the opportunity to witness this part of the work.

Sincerely,

Oscar Alonso, P. Eng.
Fuels Safety Engineer
Tel. 416 734 3353
e-mail: oononso@tssa.org

c: Zora Crnojacki, Chair, OPCC, OEB
Charlie Landriault

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CHAIRMAN
Brian King
Municipality of Chatham-Kent

VICE-CHAIRMAN
Stan Lidster
Township of Southwold



March 10, 2011

BY E-MAIL ONLY – 1 PAGE

Union Gas
50 Keil Drive North, Box 2001
Chatham, ON N7M 5M1

Attn: **Doug Schmidt**

Re: **Jacob Storage Pool Project**
Community of Dover
Municipality of Chatham-Kent

Please be advised that staff have reviewed the information provided to this office with respects to the above noted project site and its relation to the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation, R.S.O. 152/06 under the Conservation Authorities Act. After reviewing our files and mapping, staff determined that the Authority's Development and Alteration to Watercourses portion of the regulation will apply. The issue of concern is flooding, watercourse crossings and erosion. An application from this office is required prior to any works/construction taking place in flood prone areas or within and/or adjacent to any watercourses (includes municipal drains).

The above noted lands may be subject to flooding under regulatory storm conditions. Any proposed structure(s) must be flood proofed to a minimum elevation of 177.4 metres Canadian Geodetic Datum for the lowest opening(s) into the structure(s) to protect against damages from flood waters.

Please be advised that the subject property is located in an area with a Highly Vulnerable Aquifer [HVA] and a Significant Groundwater Recharge Area [SGRA] as identified through the Lower Thames Valley Proposed Assessment Report in the Thames, Sydenham and Region Source Protection Region. For further information regarding this matter and how it may affect any proposed development please refer to the Thames, Sydenham and Region Source Protection website at www.sourcewaterprotection.on.ca.

The Authority is also an acting agent for the Department of Fisheries and Oceans with regards to the Federal Fisheries Act. If any shoreline/in-water works are proposed, an application from this office will be required prior to any works/construction taking place within and/or adjacent to the water.

I trust this is satisfactory, but if you should have any questions, or require more information, please call the office.

Yours truly

Valerie Towsley
Resource Technician

c.c. Eric Westerberg, Drainage Department, Municipality of Chatham-Kent
Don Burgess, Building Department, Municipality of Chatham-Kent



Ministry of Tourism and Culture

Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel. 416 314-7147
Fax: 416 314-7175

Ministère du Tourisme et de la Culture

Unité des services culturels
Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto ON M7A 0A7
Tél. : 416 314-7147
Télec. : 416 314-7175

March 15, 2011

D.F. Schmidt (EMAIL ONLY)
Union Gas
P.O. Box 2001, 50 Keil Dr. N
Chatham, ON N7M 5M1

Project: Jacob Storage Pool Project, Environmental Report for OEB Application
Location: Former Township of Dover, Municipality of Chatham-Kent
MTC File: 36EA026

Dear Mr. Schmidt,

Thank you for providing the Ministry of Tourism and Culture (MTC) with the Environmental Report, dated January, 2011, for the above mentioned project.

MTC's interest in this undertaking relates to our mandate of conserving, protecting and preserving Ontario's heritage. MTC would, therefore, be interested in remaining on the circulation list and being informed of the project as it proceeds through the next phases of the Ontario Energy Board's (OEB) application process.

We have reviewed the Environmental Report and have the following comments and recommendations to better address cultural heritage.

1. Summary of the proposed Jacob Storage Pool Project

The purpose of the Jacob Storage Pool Project is to address the increasing demand for natural gas storage services. In order to meet this demand, Union Gas is proposing the development of a new natural gas storage pool just west of Chatham, Ontario. Utilizing an underground geological feature for natural gas storage, the project would involve the drilling of wells into the pool as well as the construction of gathering pipelines, access roads, a compression station and a transmission pipeline.

The Environmental Report submitted to MTC documents the environmental assessment process undertaken by Union Gas and Azimuth Environmental Consulting, Inc. to identify the preferred transmission pipeline route alignment, the assessment of the impact of the storage pool facilities and the detailed impact mitigation study.

To develop the Jacob Storage Pool for natural gas storage, new facilities are required to be developed / constructed which include:

- a. Drilling of horizontal injection / withdrawal wells;
- b. Upgrade existing wells;
- c. Construction of access roads to the injection / withdrawal wells; and
- d. Construction of gathering pipelines and a compressor station to supply the transmission pipeline that will access the Panhandle Transmission Pipeline.

The preferred transmission pipeline identified in the Environmental Report would transport natural gas between Union Gas' existing Dover Transmission Station located on Town Line Road just north of Belle Rose Line to a new compressor station to be constructed at the corner of Jacob Road and Maple Line.

MTC COMMENTS / RECOMMENDATIONS

2. General

- a. The title of this project on the title page is "Jacob Pool Storage" but throughout the document "Jacob Storage Pool" is also used. For clarity's sake, it is recommended that one project title be used consistently.

3. Under Section 3.4.1 Archaeology/Heritage:

- a. The title of this section should be amended to read "Cultural Heritage Resources." Archaeological resources are only one kind of cultural heritage resource. Descriptions of environmental features should consider all cultural heritage resources, including archaeological resources, built heritage and cultural heritage landscapes as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*. This recommended wording should be used consistently throughout the Environmental Report.
- b. A stage one and a separate stage two archaeological assessment were conducted for the study area. As of Friday, March 11th, 2011, neither the stage one nor the stage two archaeological assessment reports for the Jacob Pool Storage Project had been submitted to MTC. These reports must be submitted to MTC for review by an Archaeology Review Officer. Please note that MTC may have additional comments while reviewing these reports.

A stage one and two archaeological assessment report for parts of Lots 4 and 5, Concessions 4 and 5 has been submitted, reviewed and accepted by MTC. This assessment was of the preferred site and two alternatives sites for a proposed test well to be drilled as part of this project. No archaeological remains were discovered during the course of the archaeological survey of the preferred site for the proposed test well. This assessment should be referenced here.

MTC supports Union Gas' commitment to completing a stage two archaeological assessment for all gathering lines and the transmission line. This assessment should also address areas that will be impacted by the proposed undertaking that have not been previously subject to an archaeological assessment, including temporary roads/detours, work areas, access roads, etc. MTC recommends that this assessment be completed prior to the commencement of the detailed design.

- c. The description of the cultural heritage resources within the study area is limited to only the archaeological potential of the study area. Descriptions of environmental features and potential effects resulting from the proposed undertaking should consider all cultural heritage resources, including built heritage and cultural heritage landscapes in addition to archaeology, as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*.
- d. The *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (2006) state that the preliminary assessment of the heritage potential in the study area must be carried out prior to the selection of a preferred alternative and may include a field examination of the study area to assist in the identification of significant historical, architectural and heritage resources.

MTC recommends that the Environmental Report be amended to describe the process employed in screening for cultural heritage resources within the study area as well as the results of this screening, the potential impacts to identified cultural heritage resources and proposed strategies for mitigating impacts to identified cultural heritage resources.

If any cultural heritage resources are located within the study area and may be impacted by the proposed undertaking, a heritage impact assessment should be undertaken. The Heritage Impact

Assessment (HIA) is a tool to help identify the cultural heritage value of any individual built heritage resources or cultural heritage landscapes that are located within the project area. Additionally, the report provides recommendations on how to avoid, limit or mitigate impacts to these resources. Generally, an HIA includes:

- i. Historical research, site analysis and evaluation
- ii. Identification of the significance and heritage attributes of the property
- iii. Description of the proposed development / site alteration
- iv. Measurement of impacts
- v. Consideration of alternatives, mitigation and conservation methods
- vi. Implementation and monitoring schedules
- vii. Summary statement and conservation recommendations

One hard copy and one digital copy of the HIA should be sent to MTC for review by a Heritage Planner. The HIA should also be forwarded to local municipalities for their review and comment and should also be available, upon request, to local heritage organizations with an interest in the project. The report and its recommendations should inform decisions in the pipeline development planning stage.

4. Under Section 6.3.1 Potential Environmental Effects:

- a. The Environmental Report should be amended to reflect concerns for potential impacts to cultural heritage resources. Cultural heritage resources are not addressed in this section at present.

Descriptions of environmental features, potential effects resulting from the proposed undertaking and discussion of mitigation strategies should consider all cultural heritage resources, including built heritage and cultural heritage landscapes in addition to archaeology, as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*.

- b. The Environmental Report states that at the northeast corner of Belle Rose Line and Town Line Road is an abandoned house that may require removal as a result of the proposed undertaking. MTC recommends that the Environmental Report be amended to further describe this house and determine whether it is a potential cultural heritage resource.

According to provincial criteria for screening for impacts to built heritage resources, buildings and structures 40 or more years old should be evaluated for their potential cultural heritage value or interest. If it is determined that the building or structure is a potential heritage resource, a heritage impact assessment (described above) should be undertaken.

For your reference, I have attached to this letter MTC's checklist "Screening for Impacts to Built Heritage and Cultural Heritage Landscapes."

5. Under Section 6.3.2 Possible Mitigation / Restoration Measure

- a. MTC supports the statement in the Environmental Report that measures will be taken to protect sites where unforeseen sites are excavated. Activities will be immediately ceased to avoid damage to "unforeseen archaeological sites or paleontological sites." MTC recommends the "paleontological sites" be removed from the discussion of archaeological sites as, according to *Ontario Regulation 170/04* under the *Ontario Heritage Act*, an archaeological site is "any property that contains an artifact or any other physical evidence of past human use or activity that is of cultural heritage value or interest," whereas a paleontological site would involve fossils and not an anthropological element.
- b. Areas of archaeological potential are not limited to areas in proximity to watercourses, as reported in the Environmental Report, but are also those areas within 100m of historic transportation routes. An examination of the study area in the historical atlas for the Township of East Dover reveals that there were multiple early transportation routes (i.e. roads) throughout the study area as well as settlement by the time the atlas was produced ca. 1880. For your reference, I have attached to this letter the MTC checklist "Criteria for Determining Archaeological Potential."

- c. Descriptions of environmental features, potential effects resulting from the proposed undertaking and discussion of mitigation strategies should consider all cultural heritage resources, including built heritage and cultural heritage landscapes in addition to archaeology, as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*.

6. Under Section 8.5 Archaeology and Heritage Resources:

- a. The title of this section should be amended to read "Cultural Heritage Resources." Archaeological resources are only one kind of cultural heritage resource. Descriptions of environmental features should consider all cultural heritage resources, including archaeological resources, built heritage and cultural heritage landscapes, as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*. This recommended wording should be used consistently throughout the Environmental Report.
- b. The Environmental Report states that "the area associated with the road allowances and agricultural land is considered to be low to moderate archaeological potential." According to provincial criteria for determining archaeological potential, areas within 100m of historic transportation routes and within 300m of primary water sources are considered to have potential for archaeological resources. The study area meets both these criteria. For your reference, I have attached to this letter the MTC checklist "Criteria for Determining Archaeological Potential."
- c. A stage one and a separate stage two archaeological assessment were conducted for the study area. As of Friday, March 11th, 2011, neither the stage one nor the stage two archaeological assessment reports had been submitted to MTC. These reports must be submitted to MTC for review by an Archaeology Review Officer. Please note that MTC may have additional comments while reviewing these reports.

A stage one and two archaeological assessment report for parts of Lots 4 and 5, Concessions 4 and 5 has been submitted, reviewed and accepted by MTC. This assessment was of the preferred site and two alternatives sites for a proposed test well to be drilled as part of this project. No archaeological remains were discovered during the course of the archaeological survey of the preferred site for the proposed test well. This assessment and its results should be referenced in this section.

MTC supports Union Gas' commitment to completing a stage two archaeological assessment along the preferred route. This assessment should also address areas that will be impacted by the proposed undertaking that have not been previously subject to an archaeological assessment, including temporary roads/detours, work areas, access roads, etc. MTC recommends that this assessment be completed prior to the commencement of the detailed design.

- d. In regard to cultural heritage resources, the Environmental Report should be amended to reflect concerns and consideration for built cultural heritage resources and cultural heritage landscapes in addition to archaeological resources.

Descriptions of environmental features, potential effects resulting from the proposed undertaking and discussion of mitigation strategies should consider all cultural heritage resources, including built heritage and cultural heritage landscapes in addition to archaeology, as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*.

7. Under Section 9.7 Cultural Heritage and Archaeological Features

- a. The title of this section should be amended to read "Cultural Heritage Resources." Archaeological resources are only one kind of cultural heritage resource. Descriptions of environmental features should consider all cultural heritage resources, including archaeological resources, built heritage and cultural heritage landscapes, as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*. This recommended wording should be used consistently throughout the Environmental Report.
- b. The Environmental Report states that a stage one archaeological assessment will be undertaken for the study area. This contradicts the statement under Section 3.4.1 which indicates that this

assessment had already been undertaken. Although the licensed archaeologists concluded the lands affected by the storage pool facilities are low to moderate archaeological potential, the report has not been submitted to MTC for review by an Archaeology Review Officer. Please note that MTC may have additional comments while reviewing these reports.

A stage one and two archaeological assessment report for parts of Lots 4 and 5, Concessions 4 and 5 has been submitted, reviewed and accepted by MTC. This assessment was of the preferred site and two alternative sites for a proposed test well to be drilled as part of this project. No archaeological remains were discovered during the course of the archaeological survey of the preferred site for the proposed test well. This assessment and its results should be referenced in this section.

MTC supports Union Gas' commitment to completing a stage two archaeological assessment. This assessment should address areas that will be impacted by the proposed undertaking that have not been previously subject to an archaeological assessment, including temporary roads/detours, work areas, access roads, etc. MTC recommends that this assessment be completed prior to the commencement of the detailed design.

- c. In regard to cultural heritage resources, the Environmental Report should be amended to reflect concerns and consideration for built cultural heritage resources and cultural heritage landscapes in addition to archaeological resources.

Descriptions of environmental features, potential effects resulting from the proposed undertaking and discussion of mitigation strategies should consider all cultural heritage resources, including built heritage and cultural heritage landscapes in addition to archaeology, as part of the broad definition of environment found in the *Ontario Environmental Assessment Act*.

8. Summary of MTC Recommendations

In summary, MTC has the following recommendations to better address heritage:

- a. All archaeological assessments should be completed and reports reviewed and accepted by the MTC prior to the commencement of the detail design. Please note that MTC may have additional comments while reviewing these reports.
- b. The Environmental Report should be amended to reflect concerns and consideration for built cultural heritage resources and cultural heritage landscapes in addition to archaeological resources. If any identified cultural heritage resources are located within the study area and may be impacted by the proposed undertaking, a heritage impact assessment should be conducted for these resources.

MTC would like to have an opportunity to review any reports produced as an outcome of these cultural heritage assessments and revisions / amendments to the Environmental Report.

- c. Lastly, the environmental report does not indicate whether any community heritage organizations were consulted as part of this project. MTC recommends that the municipal heritage committee(s) or any relevant community heritage organizations be contacted as part of the process of determining the potential for cultural heritage resources within a study area.

Please do not hesitate to contact MTC if you have any questions regarding best practices and the expectations of the Ministry for the conservation of cultural heritage resources.

Best Regards

Teresa Wagner
A/Heritage Planner
416-314-7147

Teresa.wagner@ontario.ca

copied to: Shari Prowse, Archaeology Review Officer, Ministry of Tourism and Culture



uniongas

A Spectra Energy Company

EB-2011-0013
EB-2011-0014
EB-2011-0015
Attachment # 1 to BS IR # 10
Filed: May 25, 2011

March 24, 2011

Ms. Teresa B. Wagner
Ministry of Tourism and Culture
Cultural Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON, M7A 0A7

Dear Teresa,

RE: Jacob Storage Pool Project, Environmental Report (ER)

This letter is in response to your letter of March 15, 2011 that provided your comments on the Jacob Storage Pool Project Environmental Report. We have reviewed your comments and provide the following comments.

We fully appreciate that the new Ontario Energy Board Environmental Guidelines For The Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 6th Edition, 2011, define a more comprehensive assessment of cultural heritage resources. However, the Jacob Storage Pool Environmental Report was completed under the May 2003 edition, which had different requirements for cultural heritage features. We can assure you all future Environmental Reports will provide the assessment of cultural heritage resources as defined in the new guidelines and as recommended in your letter.

At the time the ER was submitted a Stage I-II Archaeological Assessment was completed and accepted by the Ministry (February 1, 2010) for a component of the project. D.R. Poulton & Associates on behalf of Union Gas is currently in the process of completing a Stage I-II Archaeological Assessment from the remaining components of the project. This report is nearing completion and will be submitted to the Ministry in the near future, for review by Ms. Shari Prowse, Archaeology Review Officer. Please note, additional Stage II assessment work is required on the pipeline component of this project and it will be completed, once conditions for field work improve. The report on that assessment will be submitted as a separate document.

With respect to the Heritage Resources and Heritage Landscape Assessment, D.R. Poulton is also currently working on the report; it will be submitted to your attention in the very near future.

We trust this addresses your concerns with regard to cultural heritage resources potentially affected by this project and we look forward to address this component in accordance with the January 2011 OEB environmental guidelines on future projects.

Thank you for your comments.

Sincerely,

UNION GAS LIMITED

D.F. (Doug) Schmidt
Principal Environmental Planner

Copied to: Ms. Shari Prowse, Archaeology Review Officer, MTC London



EB-2011-0013
EB-2011-0014
Municipality of Chatham-Kent
Community Development
Planning Services
Attachment # 1 to BS IR # 10
Filed: May 25, 2011
315 King St. West, P.O. Box 640
Chatham ON N7M 5K8
Tel: 519.360.1998 Fax: 519.436.3237
Toll Free: 1.800.714.7497

April 12, 2011

Mark Murray
c/o Union Gas Limited
50 Keil Drive North
Chatham, ON N7M 5M1

Dear Mr. Murray:

Re: Municipality of Chatham-Kent – Technical Comments
Union Gas Limited - Application for Jacob Pool Storage Development
OEB File No. EB-2011-0013/EB-2011-0014/EB-2011-0015

The Municipality of Chatham-Kent Technical Advisory Committee received for review, a copy of the Notice of Application for the Jacob Gas Storage Pool in a letter dated March 16, 2011.

At this time the Technical Advisory Committee has the following comments:

- 1) Prior to construction please apply to Public Works for required permits or written consent (i.e. entrances, use of right-of-ways)
- 2) Applications for building permits are required for construction of the compressor station.
- 3) Please contact Fire Services should you wish to review updates to the Emergency Response Plan for the project.
- 4) Contact Planning Services should you require 911 numbers for entrance ways to Union Gas facilities that are part of this project.

If you have any questions, please contact me at 519-360-1998 x3049 or ryanj@chatham-kent.ca.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Jacques', followed by a long horizontal line.

Ryan Jacques
Planning Technician

c: **Dan Jones, Assistant General Counsel, Union Gas Limited**
Municipality of Chatham-Kent Technical Advisory Committee

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

Leave to Construct Application (EB-2011-0014)

11. Reference: Pre-filed evidence Section 6

Please provide a list of required approvals and permits related to the proposed pipeline from other agencies and the anticipated timeline for obtaining them.

Response:

Environmental Permits/Approvals for the pipeline include:

Permit/Approval	Anticipated Timeline of Permit/Approval
Lower Thames Valley Conservation Authority Permit for two watercourse crossings.	November 2011
Ministry of Tourism and Culture Cultural Heritage Resources Acceptance/Clearance	November 2011
Ministry of Environment Permit To Take Water	March 2012

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

Leave to Construct Application (EB-2011-0014)

12. Please comment on the Board staff draft conditions of approval provided in Attachment 2 of these Interrogatories. Please note that these conditions are standard conditions and are a draft version subject to additions or changes depending Board staff's further review of the evidence in this case.

Response:

Union does not believe that Condition 1.5 is appropriate for unregulated projects. A Post-Construction Financial Report was not included for other unregulated storage projects.

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

Well Drilling Licences Applications (EB-2011-0015)

13. Reference: Pre-filed Evidence, Section 6, page 2 Paragraphs 10 and 11 and Section 6, Schedule 1 “Environmental Report”

Union stated that it will follow the proposed mitigation measures described in Section 9 of the Environmental Report, entitled “Storage Pool Environmental Management Plan”.

Please discuss in detail the environmental management and mitigation program that Union plans to implement specifically related to the well drilling operations.

Response:

The environmental management and mitigation program that Union plans to implement specifically related to well drilling operations include:

Pre Construction

Prior to construction and installation of drilling pads the area is reviewed for cultural heritage resources. Union has obtained the services of D.R. Poulton & Associates Inc., Archaeological Consulting Licence #P316, to undertake a cultural heritage assessment of the area. This work has currently been submitted to the Ministry of Tourism and Culture for review and approval/acceptance is anticipated June 2011.

Union has retained the services of an independent drainage consultant, Dillon Consulting (Dillon) to meet with any of the landowners who will be impacted by Union’s construction activities. Dillon will review the existing drainage system with the landowner and if required develop a pre-construction tile plan for the owners review and approval. The purpose of the pre-construction tile is to ensure that all drainage is maintained in the field during Union’s construction activities. This is achieved by installing interceptor headers and identifying any crucial tile mains that would need to be protected during construction. This work if required is completed by a local licensed drainage contractor to the satisfaction of the landowner.

Union proposes to implement a water well monitoring program and has retained the services of Dillon Consulting Limited to undertake the program. The program will include the inspection and sampling of water wells within the designated storage area (DSA) and within an approximate 1.6 km radius around the DSA. This review will be completed in conjunction with Union’s Lands Agent and with reference to the Ontario Ministry of the Environment’s (MOE) water well database and will build on work previously completed for the drilling of Test Well (PC1). Dillon will remain on retainer in order to address any landowner water well complaints throughout the project.

Construction

Well drilling activities will take place on temporary well pads designed large enough to support drilling activities and access to the well site will occur on a permanent all weather access road. Topsoil will be salvaged and either offered to the landowner or used during clean-up.

Union proposes to use two methods to drill the wells that make up the Jacob Storage Pool. The methods include cable tool and rotary drilling. Union's drilling program must be reviewed and approved by the Ministry of Natural Resources. Both methods produce drilling fluid and cuttings which are stored in above ground tanks. During rotary drilling operations cuttings are diverted through a series of holding tanks where the cuttings settle out before the fluid is re-circulated back into the well. Once drilling is completed, the cuttings will be solidified with a bonding agent. Prior to disposal at a certified landfill, a laboratory analysis will be conducted to ensure the material is compliant with Ministry of Environment regulations.

During drilling operations the water table is protected from contamination by cementing surface casing below the freshwater aquifer. The surface casing extends into the bedrock and below all freshwater horizons that represent potable water aquifers. The casing is cemented all the way up to surface and both the casing and cement bond are pressure tested to ensure there are no leaks.

A spills procedure will be in place throughout construction in the unlikely event of a spill. The spills procedure consists of immediately stopping work, containing the spill, cleaning up the spill and making all necessary notifications.

An Environmental Inspector (EI) will be assigned to the Jacob Storage Pool Project. The EI will be available throughout construction to ensure adherence to the Environmental Protection Plan. Union will also have a Lands Relations Agent available to the project to ensure commitments to landowners are fulfilled and to address question or concerns. Union's Complaint Tracking System will be in effect.

Post Construction

Following construction, the well pad will be reduced in size and areas no longer required will be returned to preconstruction conditions or as close as possible. This will include any necessary post construction tiling requirements.

As part of the water well monitoring program identified above, Union will keep Dillon Consulting on retainer should a water well complaint arise during or after construction.

The Environmental Inspector's responsibilities will be to ensure the recommendations of the Environmental Protection Plan, Union's evidence and any commitments made by Union to property owners regarding mitigative and restoration measures are carried out. Union's Lands Relation Program will be in effect and a Lands Relations Agent will be assigned to the Project.

Union will continue to monitor the land following construction until it is deemed that monitoring is no longer required and as per the Conditions of Approval, will monitor the impacts of construction and will file an interim and final monitoring report to the Board for both the well drilling and pipeline components of the Project

UNION GAS LIMITED
Response to Interrogatory
from Board Staff

Well Drilling Licences Applications (EB-2011-0015)

14. Please comment on the Board staff draft conditions of approval provided in Attachment 3 to these Interrogatories. Please note that these conditions are standard conditions and are a draft version subject to additions or changes depending Board staff's further review of the evidence in this case.

Response:

Union can accept all of the proposed conditions of approval in Attachment 3 as referenced above.