

**SARNIA AIRPORT STORAGE POOL LIMITED PARTNERSHIP**

March 29, 2018

BY RESS & Courier

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

Dear Ms. Walli:

**Re: Sarnia Airport Storage Pool Limited Partnership ("SASP")  
2018 Sarnia Airport Storage Pool Project  
Board File EB-2017-0362**

Further to the interrogatories received in the above noted matter, please find attached two copies of Union's responses.

Sincerely,

*[original signed by]*

Shelley Bechard  
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Encl.

cc: Z. Crnojacki  
N. Marconi  
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SARNIA AIRPORT STORAGE POOL LP

Answers to Interrogatories from  
Ontario Energy Board (“OEB”)

**Interrogatory # 1**

Ref: Evidence, pages 1-2 paragraphs 1 and 5, page 5, paragraph 23

**Preamble:**

Sarnia Airport Storage Pool LP (SASP) filed an application with the OEB to vary a condition related to the maximum operating pressure of the Sarnia Airport pool. SASP asked that it be allowed to increase the operating pressure to 11,580 kPa which corresponds to a pressure gradient of 17.2 kPa/m (0.76 psi/ft) in 2018 injection season. Operation under this pressure should comply with the relevant requirements of CSA standard Z341.1-14 - *Storage of Hydrocarbons in Underground Formations* (CSA Z341.1-14) to the satisfaction of the Ministry of Natural Resources and Forestry (MNRF).

In accordance with the requirements of the CSA Z341.1-14 and related to the vary order application, SASP provided MNRF with the following studies and reports for their review:

- An Engineering study completed by Geofirma Engineering Ltd. (Geofirma) confirming that the maximum safe operating pressure for the Sarnia Airport Pool exceeds 17.2 kPa/m (0.76 psi/ft).
- A review of the pool as prescribed by CSA Z341.1-14 Clause 7.2 assessing: a) wells within 1 kilometre; b) operations within 5 kilometres and; c) the integrity of all wells penetrating the storage zone.
- An analysis of hazards and operability (HAZOP) for the Sarnia Airport Pool.

**Questions:**

- a) What is the status of communication with the MNRF regarding their review of the above noted studies and reports?
- b) When does SASP expect to obtain and file MNRF's comments on compliance with CSA Z341.1-14 regarding the increase in the maximum operating pressure in the Sarnia Airport Pool?

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**Responses:**

- a/b) Union Gas Limited ("Union") met with the Ministry of Natural Resources and Forestry ("MNRF") Petroleum Operations Section on October 13, 2017 to discuss the Project. At this meeting, Union reviewed the presentation that can be found at Schedule 5 of the pre-filed evidence. Union also provided MNRF with the "What If" analysis, an Assessment of Neighbouring Activities report, and an Engineering Study confirming that the maximum safe operating pressure exceeds 17.2 kPa/m. At the meeting, MNRF had a number of general questions about the Project and Union provided answers to all of MNRF's questions. Also at the meeting, MNRF agreed to intervene in this proceeding since they viewed this as the appropriate forum to express any concerns they may have regarding the Project.

On February 16, 2018, the MNRF intervened in this proceeding. In their intervention request, MNRF made the following statement, "*the MNRF reserves the right to adduce evidence, submit interrogatories, cross examine witness, advance argument and participate in the hearing process as we see fit to do*".

On March 16, 2018, the MNRF submitted five interrogatories requesting additional information regarding the Project. Union will respond to these interrogatories on March 29, 2018.

Based on MNRF's intervention and the interrogatories asked in this proceeding, it is Union's expectation that MNRF will provide its position on the project as part of its final submission due April 9, 2018.

SARNIA AIRPORT STORAGE POOL LP

Answers to Interrogatories from  
Ministry of Natural Resources and Forestry ("MNR")

**Interrogatory # 1**

Ref: In the Applicant's **pre-filed evidence, at page 1, paragraph 3, at page 3, paragraphs 12 and 13, and at Schedule 5, page 3**, references various entities: Sarnia Airport Storage Pool LP ("SASP LP"), Market Hub Partners Management Inc. ("MHP"), AltaGas Ltd. ("Alta Gas") and Union Gas Limited.

**Questions:**

- 1) Please describe the relationship between these entities.
- 2) Please clarify who is(are) the operator(s) of the existing operation approved under EB-2008-0002 and whether any change to this relationship is proposed for the operation should it be authorized for storage at a higher gradient. Please also identify which entity is the primary operator of the existing operation and of the proposed operation.
- 3) Please clarify who would provide the lead in case of an emergency or an unexpected adverse event. Is this set out in the emergency plan?

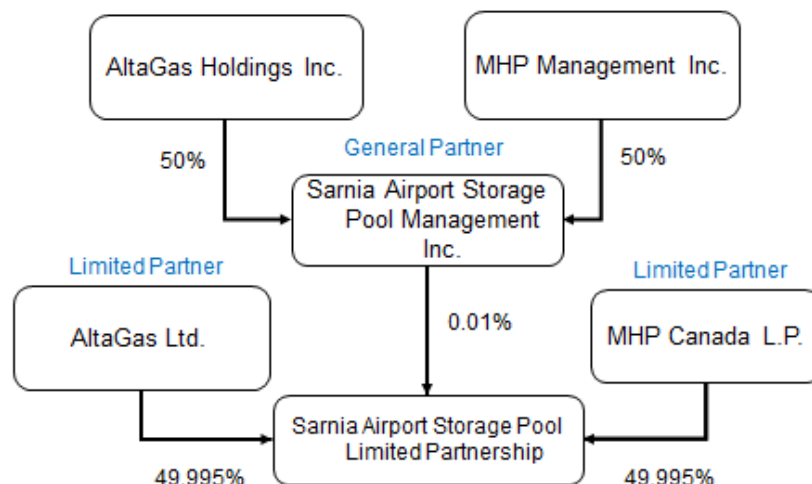
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**Responses:**

- 1) Market Hub Partners Management Inc., Market Hub Partners Canada L.P. and Union Gas Limited are indirect, wholly-owned subsidiaries of Enbridge Inc.

Sarnia Airport Storage Pool Limited Partnership ("SASP LP") is a limited partnership between Market Hub Partners Canada LP and AltaGas Ltd ("AltaGas"). The general partner of SASP LP is Sarnia Airport Storage Pool Management Inc. ("SASP Management"), a corporation which is owned by Market Hub Partners Management Inc. and AltaGas Holdings Inc.

A diagram showing the ownership can be found below.



- 2) Prior to commissioning of the storage pool, SASP LP entered into operating agreements with Union Gas Limited (primary operator) to provide the necessary functions to safely operate the Sarnia Airport Storage Pool. This includes asset operations and maintenance, gas management services, gas control services, underground storage services, lands, engineering and other operations technical support. Additionally, SASP LP adopted the Union Gas Limited environmental, health and safety policies as well as the Union Gas Limited operating procedures (including standard procedures for similar natural gas storage pools owned, or otherwise operated, by Union Gas Limited). The environmental, health and safety policies also include policies of Union Gas Limited corporate parent Enbridge Inc.

SASP LP will continue to contract the operation of the pool to Union Gas Limited (the primary operator of the pool) following the storage gradient increase and will also continue to adopt Union Gas Limited policies and procedures.

- 3) Emergency response for the Sarnia Airport Pool assets is included in the operating agreements with Union Gas Limited. The Union Gas Limited Emergency Preparedness and Response Program (“EPRP”) is designed to quickly assess and respond to incidents that impact its facilities and the public. Specific sections of the EPRP address the application of the EPRP to Affiliate assets (Section 10) and related to Storage and Transmission Operations (Section 11). A version of Union Gas Limited’s EPRP manual is available to the public at [https://www.uniongas.com/-/media/safety/EPRP\\_public](https://www.uniongas.com/-/media/safety/EPRP_public).

Union Gas Limited will take the lead in case of any natural gas emergency or unexpected adverse event. A detailed Incident Command Structure (ICS) is outlined in the EPRP. The Union Gas Limited Incident Commander would participate in the Unified Command if other agencies (such as Fire and Police) were also responding to an unexpected adverse event.

SARNIA AIRPORT STORAGE POOL LP

Answers to Interrogatories from  
Ministry of Natural Resources and Forestry ("MNRF")

**Interrogatory # 2**

Ref: In the Applicant's **pre-filed evidence at page 6, paragraph 26 and at Schedule 6, page 3**, the Applicant describes hazards and operability ("HAZOP") analysis.

**Question:**

- 1) Please advise whether in formulating the risk assessment any unique risks were identified that are associated with the location of the storage reservoir being below an active airport? If so, what consideration was given to any such unique risks?
- 2) Are procedures and protocols in place to address any such unique risks and have those protocols been exercised? If so, what is the result of the exercise?
- 3) Has the project's emergency plan been updated since the approval of EB-2008-0002? If yes, please summarize those update(s).
- 4) When was the last emergency plan exercise carried out? Please offer a summary of the results of that exercise.

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**Responses:**

- 1) Yes, during the HAZOP analysis, the location and operation of the Sarnia Chris Hadfield Airport was identified as a unique risk for this storage reservoir. The HAZOP analysis highlighted the need for communication with Sarnia Chris Hadfield Airport prior to the commencement of workovers for the Project in order to communicate the scope and timing of the work, to identify any concerns and to verify contact information in the event of an incident. The HAZOP analysis also highlights that in the event of a loss of containment incident of any significant volume, the Sarnia Chris Hadfield Airport operations should be notified immediately. This requirement aligns with the EPRP protocols that are currently in place.

In addition, as part of the Project, SASP LP is proposing to install Emergency Shutdown Valves on each wellhead. This will enable the operator (Union Gas Limited) to be more responsive to an adverse event and quickly shut-in wells.

- 2) Yes, Union Gas Limited's EPRP manual is designed to respond to all types of emergency incidents. This includes all risks associated with the Sarnia Airport Pool. As noted above, specific communication and emergency protocols are currently in place for the Sarnia Airport Pool to address unique risks.
- 3) The Manager, Emergency Response Planning and System Security, at Union Gas Limited is responsible for reviewing the EPRP processes and procedures a minimum of once per year. This includes reviewing any suggestions for changes that are submitted through a formal internal process designed to document and resolve all issues. The Manager, Emergency Response Planning and System Security, will also seek input from various sources, such as the Utility Services Manager's Committee and Utility Services Committee, as well as consider post incident and exercise reviews to identify improvements to the EPRP. Therefore, there have been a numerous updates to the EPRP since approval in EB-2008-0002 including internal and external contact information.
- 4) The Union Gas Limited EPRP specifies that: *"The Head Office Emergency Operating Centre and all District Emergency Operating Centres shall conduct at least one exercise annually. The Head Office Emergency Operating Centre shall conduct a Full Scale Simulation once every three (3) years"*.

Union Gas Limited holds approximately twelve emergency exercises annually across its franchise area. Union Gas Limited Storage and Transmission Operations completed five exercises in 2017. A combination of drills, table top exercises and functional simulation were conducted. Each of the exercises were unique with four of the five involving emergency services (police and or fire). The exercises resulted in thirteen recommendations which will be tracked to completion.



SARNIA AIRPORT STORAGE POOL LP

Answers to Interrogatories from  
Ministry of Natural Resources and Forestry ("MNR.F")

**Interrogatory # 3**

Ref: In the Applicant's **Application at page 1, paragraph 4**, a request is made to add the following condition to the approval that was granted in the EB-2008-0002 proceeding:

*Sarnia Airport Storage Pool Limited Partnership shall not operate the storage pool above a pressure representing a pressure gradient of 17.2 kPa/m (0.76psi/f) of depth without leave of the Board. Sarnia Airport Storage Pool Limited Partnership shall provide summaries of an engineering study and geological study in support of any leave application and a formal confirmation from the Ministry of Natural Resources and Forestry that operating the pool at the increased operating pressure complies with the requirements of the CSA Z341 standard.*

In the Applicant's **pre-filed evidence, at page 1, paragraph 5**, it is stated that an engineering study completed by Geofirma confirms that the maximum safe operating pressure "exceeds 17.2 kPa/m (0.76 psi/ft) for the Sarnia Airport Pool".

**Questions:**

- 1) Are there any plans to further increase to a higher gradient beyond 0.76 psi/ft?
- 2) What is the rationale for an abridged process for any future gradient increase request, as set out in the condition request (i.e., a process requiring the involvement only of MNR.F and the OEB)?

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**Response:**

- 1) SASP LP does not have any plans to increase the storage gradient beyond 0.76 psi/ft at this time. If SASP LP were to propose a further increase to the storage gradient, SASP LP would seek approval from the Board at that time, including completing any engineering or geological studies and seeking any formal confirmations from the Ministry of Natural Resources and Forestry required to support the application.

- 2) SASP LP has not requested an abridged process for future storage gradient increase requests. In the event that SASP LP decides to increase the pressure gradient, Union Gas Limited would complete the necessary studies and present these studies to the MNRF for their consideration. SASP LP would then apply to the OEB for approval to vary the pressure gradient. Once an OEB application is made, it is SASP LP's expectation that the OEB would follow its normal hearing process to evaluate it and render a decision.

SARNIA AIRPORT STORAGE POOL LP

Answers to Interrogatories from  
Ministry of Natural Resources and Forestry ("MNRF")

**Interrogatory # 4**

Ref: In the Applicant's **pre-filed evidence at pages 6 and 7, paragraph 29**, the Applicant identifies some works that are acknowledged to be necessary in advance of the increased gradient proposed.

**Questions:**

- 1) Please advise whether the operator intends to submit to the MNRF a Drilling and Completion Report (Form 7) upon completion of the wellhead assembly replacement.
- 2) A well is identified for a workover to be completed to replace a portion of the production casing. Please identify the well licence number, specify the nature of the problem with its casing as it exists and provide details regarding the repair proposal.
- 3) Please confirm that these activities will be performed in accordance with the CSA Z-341 requirements.

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**Responses:**

- 1) Yes, SASP LP intends to submit a Form 7 (Drilling and Completion Report) for each of the wellhead assembly replacements planned for the Project.
- 2) A workover is planned on well CanEnerco No.8 (Horiz. No.1) (License #: T008594) as part of the Project. Previous casing inspection logs identified an anomaly in the first production casing joint below the wellhead. Evaluation of the log determined that the well meets the pressure and operating requirements set forth in CSA Z341 Section 10.2.4.2.2 both before and after the increase of the pressure gradient. However, given the location of the anomaly close to the surface, the top joint of casing will be removed, replaced and cemented to surface. A summary of this procedure is as follows:
  1. Set wireline retrievable plug,
  2. Remove existing wellhead
  3. Mill out cement behind first joint of casing

4. Remove first joint of casing
  5. Install new joint of 177.8 mm, K55, 34.23 kg/m casing
  6. Cement the casing to surface
  7. Install API 6A 3000 PSI wellhead (including wellhead Emergency Shutdown Valve)
  8. Pressure test wellhead and casing to 15,500 kPa
  9. Retrieve plug
- 3) Confirmed. All activities in relation to the Project within the scope of CSA Z341 will be completed in accordance with CSA Z341.

SARNIA AIRPORT STORAGE POOL LP

Answers to Interrogatories from  
Ministry of Natural Resources and Forestry (“MNRF”)

**Interrogatory # 5**

Ref: In the Applicant's **pre-filed evidence (dated December 7, 2017) at page 7, paragraphs 30 and 32**, the Applicant summarizes consultation efforts made and indicates there were no responses.

**Questions:**

- 1) Please indicate whether any inquiries or comments were submitted to the Applicant in response to consultation and after the timeframe addressed in paragraphs 30 and 32.
- 2) If any inquiries or comments were submitted to the Applicant, please identify and summarize them.

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**Responses:**

- 1/2) Two landowners in the Sarnia Airport Pool requested gas service to their homes to be included in the Project. These landowners were provided with information on how to obtain natural gas service to their homes ([Uniongas.com/switchtogasnewgaslineinquires](http://Uniongas.com/switchtogasnewgaslineinquires)).