Ontario Energy Board Commission de l'Énergie de l'Ontario



EB-2006-0018 EB-2006-0159 EB-2006-0279

IN THE MATTER OF the *Ontario Energy Board Act, 1998* S.O. 1998, C.15 (Schedule B);

AND IN THE MATTER OF an application by Tribute Resources Inc. and Tipperary Gas Corp. for an order granting leave to drill three wells in the Tipperary designated storage area.

AND IN THE MATTER OF an application by Tribute Resources Inc. and Tipperary Gas Corp. for an extension of the order authorizing the injection of gas into, storage of gas in, and removal of gas from a gas storage area;

AND IN THE MATTER OF an application by Tribute Resources Inc. and Tipperary Gas Corp. for an order granting leave to drill three wells for which the licences expired in the Tipperary designated storage area.

> BEFORE: Paul Sommerville Presiding Member

> > Pamela Nowina Member and Vice Chair

Ken Quesnelle Member

DECISION WITH REASONS

February 6, 2007

1. EXECUTIVE SUMMARY

In this Decision with Reasons the Board approved three applications by Tipperary Gas Corp.

The first approval extends the time for the commissioning of the storage business at the Tipperary designated storage area in Huron County. The Board's earlier approval lapsed on December 31, 2006. The new authorization gives Tipperary until June, 2008 to operationalize the storage business at the site.

The other two applications were references from the Ontario Ministry of Natural Resources respecting well drilling licences for drilling activities at the Huron County site. The Board will recommend to the Ontario Ministry of Natural Resources that these licences be issued. The Minister of Natural Resources issues the respective drilling licences according to the Board's recommendations.

Each of the approvals granted by the Board were subject to a set of conditions respecting environmental, safety, and reporting and monitoring requirements. The conditions also require Tipperary to procure and maintain appropriate insurance coverage for its activities. These conditions acknowledged and engaged the particular expertise of the Ministry of Natural Resources in ensuring that appropriate practices are followed in the development and operation of the designated storage area.

STATUTORY AND REGULATORY FRAMEWORK

OEB Role - Authorization to Operate Storage Pool

Pursuant to section 38(1) of the Ontario Energy Board Act, 1998 (the OEB Act) the Ontario Energy Board (the "Board") can issue an order for authorization to inject gas into, store gas in and remove gas from a designated storage area. Section 38(1) of the Act reads:

Authority to store

38. (1) The Board by order may authorize a person to inject gas into, store gas in and remove gas from a designated gas storage area, and to enter into and upon the land in the area and use the land for that purpose. 1998, c. 15, Sched. B, s. 38 (1).

Referral of Application to Drill Well

Under section 40 of the Act upon referral by the Ministry of Natural Resources ("MNR") of an application to drill a well in a designated storage area the Board can issue a report to the Minister of Natural Resources (the "Minister") regarding approval of the application. The report of the Board is binding to the Minister and if this is a favorable report recommending that the application be granted, the MNR would issue a licence to drill a well. Section 40 of the Act states:

"Referral to Board of application for well licence

40. (1) The Minister of Natural Resources shall refer to the Board every application for the granting of a licence relating to a well in a designated gas storage area, and the Board shall report to the Minister of Natural Resources on it. 1998, c. 15, Sched. B, s. 40 (1).

Hearing

(2) The Board may hold a hearing before reporting to the Minister if the Applicant does not have authority to store gas in the area or, in the Board's opinion, the special circumstances of the case require a hearing. 1998, c. 15, Sched. B, s. 40 (2).

Copy of report to be sent to parties

(3) The Board shall send to each of the parties a copy of its report to the Minister made under subsection (1) within 10 days after submitting it to the Minister and such report shall be deemed to be an order of the Board within the meaning of section 34. 1998, c. 15, Sched. B, s. 40 (3).

Minister's decision

(4) The Minister of Natural Resources shall grant or refuse to grant the licence in accordance with the report. 1998, c. 15, Sched. B, s. 40 (4). "

License to Drill, Operate, Decommission Storage Wells

In addition to the role of the MNR defined by section 40 of the OEBA, MNR's authority regarding licences for drilling, operation and other activities related to wells is set out in the Oil, Salt and Gas Resources Act (OSGRA) as follows:

10. (1) No person shall drill, operate, deepen, alter or enter a well, or engage in any other activity on or in a well, except in accordance with a licence. 1996, c. 30, s. 64.

OSGRA definition of well includes production wells, storage wells and other wells.

Under OSGRA, Ontario Regulation 245/97 "*Exploration, Drilling and Production*" ("Regulation 245") specifies requirements for the well licences in more details. Section 3 (1) of the Regulation 245 sets the terms for expiration of a well licence as follows:

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

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

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

(3) The authority to deepen a well that is granted in an amended well licence terminates on the earlier of,

- (a) the TD date of the drilling to deepen the well; and
- (b) the date specified as a condition on the amended well licence.

Section 4 of Regulation 245 requires that the holder of the licence notify the Minister of Natural resources of any change in the drilling program. Changes require approval of the Minister. Section 5 of Regulation 245 requires payment of an annual fee and the filing of an Annual Well Status Report by February 15 of each year.

MNR's Role in the Technical and Safety Aspects of the Operation of Storage Pool

In Ontario, CSA Z341 "Storage of Hydrocarbons in Underground Formations" ("CSA Z341") and Gas and Salt Resources of Ontario, Provincial Operating Standards,

Version 2.0 (the "Provincial Standards") provide a comprehensive framework for the MNR to oversee the technical and safety aspects of storage pool development and operation. MNR is responsible for ensuring that the Provincial Standards including operation of wells, well plugging, and reporting and monitoring of various stages of storage operations are implemented by storage operators.

APPLICATIONS AND PROCEEDINGS

BACKGROUND

On October 25, 2004, the Ontario Energy Board (the "Board") granted an application by Tribute Resources Inc. ("Tribute" or the "Applicant") and Tipperary Gas Corp. ("Tipperary" or the "Applicant") for an order designating the Tipperary Storage Area as a gas storage area, pursuant to s. 36.1 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (Schedule B) (the "Act") (RP-2003-0253/EB-2003-0314). The Tipperary Storage Area is located in the Township of Central Huron, Ontario. The Tipperary Storage Area consists of the North Pool and the South Pool. The operation of the Tipperary Storage Area has not commenced.

On October 25, 2004, the Board issued a favorable report to the Minister of Natural Resources (RP-2003-0253/EB-2003-0316) recommending approval of applications for licences to drill three horizontal wells, within the North Pool of the Tipperary Designated Storage Area, namely:

- Tribute et al # 22 (Horiz. #1), Goderich 2-39-IX; this is the main horizontal;
- Tribute et al # 22 (Horiz. #1-Lat.#1), Goderich 2-39-IX; this is the first horizontal lateral;
- Tribute et al # 22 (Horiz. #1-Lat.#2), Goderich 2-39-IX; this is the second horizontal lateral.

On April 19, 2005 the Board issued a supplementary report which dealt with revised applications to drill the three Tribute et al # 22 wells that were subject to the favourable report dated October 25, 2004. The only revision to the applications was a change in the name of the Applicant-operator of the wells Tribute et al # 22, from Clearwood Resources Inc. to Tipperary Gas Corp. All the conditions attached to the original report remained the same.

On May 24, 2005 drilling licences for the three wells Tribute et al # 22 were issued by the Ministry of Natural Resources ("MNR") in accordance with the Board's recommendations in the reports RP-2003-0253/EB-2003-0316. Those drilling licenses expired on May 24, 2006.

On June 17, 2005 the Board issued an Order granting the authority to inject, store, and withdraw gas from the Tipperary Designated Storage Area (RP-2003-0253/EB-2003-0315), subject to certain terms and conditions ("Order to Operate"). One of those conditions, Condition 1.7 provided as follows:

1.7. Should Tipperary fail to inject sufficient gas to achieve a reservoir pressure of 320 psig (2,200 kPa) before December 31, 2006, Tipperary 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.

The Application for Licences to Drill New Wells in the South Pool

By letter dated January 25, 2006, the Ministry of Natural Resources, Petroleum Resources Centre ("MNR"), referred to the Board, pursuant to section 40 of the Act, an application by Tipperary Gas Corp. ("Tipperary" or the "Applicant") for licences to drill one horizontal well and two lateral legs to be drilled off the proposed horizontal well in the South Field of the Tipperary Storage Area. The Board has assigned this application Board File No. EB-2006-0018.

In proceeding EB-2006-0018 the Applicant is seeking licences to drill the following horizontal well and two lateral legs:

- Tribute et al #23 (Horiz.#1), Goderich 2-39-IX
- Tribute et al #23 (Horiz.#1-Lat.#1), Goderich 2-39-IX
- Tribute et al #23 (Horiz.#1-Lat.#2), Goderich 2-39-IX

The Board issued a Notice of Application (the "Notice") on March 9, 2006 and a revised Notice on May 3, 2006. The Applicant served and published the revised Notice as directed by the Board. On June 19, 2006 the Board issued Procedural Order No. 1

setting the timeline for written interrogatories and Applicant's responses. The interrogatories and responses were filed as directed.

<u>The Application to Extend the Time for the Commencement of Operation of the</u> <u>Tipperary Storage Area</u>

On June 16, 2006, Tipperary requested that the Board:

- Extend the date in Condition 1.7 of the Board's Order Authorization to Inject, Store and Remove Gas (RP-2003-0253/EB-2003-0315) from December 31, 2006 until December 31, 2007 and by a letter to the Board dated August 24, 2006 requested a further extension until June 30, 2008.
- Extend the time, provided for in its report to the MNR (RP-2003-0253/EB-2003-0316) regarding three expired drilling licences in the North Pool for 12 months, until April 30, 2007. The expired licences are for wells Tribute et al # 22 (Horiz #1), Trbute et al # 22 (Horiz #1-Lat #1) and Tribute et al # 22 (Horiz #1-Lat #2).

The Board assigned File No. EB-2006-0159 to these requests.

As previously noted, the licences for wells Tribute et al # 22 expired on May 24, 2006. The Applicant had not commenced drilling these wells prior to the licences' expiration.

The request by Tipperary that the Board extend the expired drilling licences raised specific procedural issues. The drilling licences were issued by the MNR on May 24, 2005 in accordance with the Board's earlier recommendation. Those drilling licenses expired on May 24, 2006. The Board, in its Procedural Order No. 3, issued on October 23, 2006 observed that it had no jurisdiction to consider the Applicant's request for an extension of these drilling licences. The Board can only consider licence applications in connection with a reference from the MNR.

Subsequently, on November 10, 2006, the Board received a reference from the MNR respecting applications for new drilling licences to drill Tribute et al # 22 (Horiz #1) well; Tribute et al # 22 (Horiz #1-Lat #1) well; and Tribute et al # 22 (Horiz #1-Lat #2) well.

The Board assigned this application Board File No. EB-2006-0279. By way of Procedural Order No. 4 issued on November 16, 2006 the Board, pursuant to section 21(5) of the Act, joined the proceeding EB-2006-0279 with already combined written EB-2006-0018 and EB-2006-0159 proceeding.

The Board decided to proceed by a way of written hearing.

Criteria for Board's review of the three applications in the joint proceeding are within the scope of issues that the Board would typically consider in reviewing the drilling licence application and storage pool operation applications by a non-regulated storage operator. The Board's review is focused on:

- the technical expertise and capability of the Applicants to safely drill the wells and operate the storage pool and to maintain the geological integrity of the designated storage pool;
- ensuring environmental protection of affected lands including subsurface water resources; and
- minimizing the adverse impact on affected landowners.

Intervenors and Observers

Intervenors in this proceeding are Ms. Marilyn R. Broadfoot, Mr. Lenus Yeo, the Tipperary Storage Landowners' Association (TSLA), Huron County Federation of Agriculture (HCFA), Northern Cross Energy Limited, Union Gas Limited ("Union"), the Ministry of Natural Resources and Market Hub Partners Canada L.P. ("MHP"). Observers are Selman Gas and Mr. Bill Gilmore.

BOARD FINDINGS

As noted above, the Applicant seeks three distinct approvals from the Board in this proceeding.

First, the Applicant seeks a new recommendation from the Board to the Minister of Natural Resources respecting a drilling license in the North Pool of the designated storage pool (Tribute et al # 22). The license which had been issued by the Minister lapsed in May of 2006, and must be reissued if Tipperary is to proceed to drill wells in the North Pool.

The Board will recommend the reissuance of this license subject to conditions which appear in Appendix A to this decision. The conditions reflected in Appendix A are the same as those which were included with our original recommendation in RP-2003-0253/EB-2003-0314, with the addition of a requirement that obliges the Applicant to provide the monitoring Reports provided for in Section 4 to the Ministry of Natural Resources, as well as to the Board. This is a recognition that the oversight of the Ministry of Natural Resources of the drilling program and conformity with the other conditions is key. The Board has the jurisdiction and an obligation in appropriate circumstances to impose conditions on its recommendation. The Board relies on the technical resources of the MNR to monitor compliance or conformity with the very detailed and technical requirements of the various standards brought into play. Similarly, the Ministry of Natural Resources ensures that the subsurface investigation is performed according to prevailing standards within the well drilling and engineering communities.

Second, the Applicant seeks approval for a drilling license for drilling activities in the South Pool of the designated storage pool (Tribute et al #23).

The Board will recommend the issuance of these drilling licenses, subject to the conditions which appear in Appendix B to this application. These conditions are consistent with those included with the recommendation referenced above respecting the North Pool drilling program. As noted earlier in this Decision, the Board's consideration of these applications is focused on the ability of the Applicant to safely drill the wells and operate the storage pool in a manner that maintains the geological integrity of the storage pool, protects the environment, including the subsurface water resources and minimizes any adverse impacts on affected landowners.

The Board notes that no party objected to the issuance of the drilling licenses sought by the Applicant in these proceedings per se. Parties were concerned that the conditions attaching to the licenses and the authority to inject and withdraw gas were sufficient to ensure that the drilling programs could be completed safely and in a manner that reasonably protected the interests of the affected landowners and the environment. The Board considers that the suite of conditions included with the respective approvals and recommendations are sufficient to reasonably ensure that the drilling programs, and the overall development of the Pool will be accomplished safely, and that our criteria for review of the applications are satisfied..

Landowners suggested, as one option, that the Board recommendations should require that the Applicant complete drilling in the North Pool before drilling in the South Pool is permitted. They suggested that this sequencing of drilling would allow the Applicant to demonstrate its competence to conduct the drilling activities safely in one pool before being authorized to progress to the drilling program in the other.

The Board considers that the various conditions governing the drilling program, together with the oversight of MNR, makes this staging of drilling operations unnecessary.

The third approval sought by the Applicant concerns an extension of time respecting the Applicant's authority to inject and withdraw natural gas from the designated storage pool. The Board's original authorization terminated in December 2006, and the Applicant seeks an extension to June, 2008.

This application raised more concerns than the other two.

In a letter dated June 13, 2006, by which Tipperary requested the extensions of the well drilling licences for wells Tribute et al. # 22 and the Order to Operate, the Applicant stated that it was unable to follow its original project schedule and in-service date for injection in 2006 due to adverse weather conditions in the winter 2005/2006 and unanticipated delays in acquiring permits required by the Ministry of Environment.

In a letter dated August 24, 2006 the Applicant provided additional explanation for well drilling and operation schedule delays. Tipperary discussed the difficulties it encountered in its efforts to comply with the Environmental Insurance Condition (Condition 1.1.1) which has to be fulfilled prior to commencement of construction. On July 17, 2006 Marsh Inc. completed an insurance study which was filed by the Applicant on July 26, 2006, in response to TSLA interrogatories.

Tipperary also described in more detail its expected timeline respecting the acquisition of a Noise and Air Emissions Certificate of Approval for the required compressor as required by the Ministry of Environment. This process was cited as another source of project delay.

Storage pools such as those involved in this application represent increasingly important elements in the development of competitive storage in the province of Ontario. A recent proceeding, EB-2005-0551, commonly referred to as "NGEIR", resulted in a finding by the Board that sufficient competition exists in the natural gas storage business so as to allow the Board to forgo regulation of pricing.

The NGEIR decision also recognized the importance of the development of independent storage within Ontario by businesses exploiting the naturally occurring geological formations suitable for natural gas storage. The designated storage area to which this application applies is just such a facility.

The delay experienced by the Applicant in bringing the storage pool into service is concerning. Not only has this particular gas storage pool not become part of the competitive storage marketplace within the time frames contemplated, but limited pipeline resources have been taken out of play to accommodate a storage operation which has yet to materialize. The Applicant will connect to the market via an existing Union pipeline linked to Union's integrated system. This existing Union pipeline would be used to full capacity, once the Tipperary storage pool is in operation. This issue was raised by Northern Cross, a prospective storage developer in the same area, in its viva voce testimony in the RP-2003-0253 Tribute proceeding in February, 2005. Tribute has essentially "locked up" the transportation capacity on this existing pipeline and Northern Cross, and any other independent storage operator wishing to locate on or near this pipeline would have to construct or invest in new pipeline to connect to the market.

The effect of our original authorization, and the inability of this Applicant to operationalize the storage pool according to its original timetable has been to freeze development of this gas storage pool and to unnecessarily constrain capacity on the natural gas distribution system.

- 11 -

It is important to the Board that approvals pursuant to section 38 will lead with reasonable dispatch to the development of the pools and their use within the overall competitive marketplace.

The Board is of the view that the state of the emerging independent storage market is and will remain of public interest. Transparency and predictability with regard to the service capacity of the independent storage market is enhanced when operators bring authorized storage pools into service in a timely fashion. For this reason, the Board considers approval conditions such as implementation deadlines to be desirable.

It is also true that the reasonable expectations of landowners with respect to compensation arising from the operation of the pools should not be unduly frustrated by operators who are either unable or unwilling to bring designated storage pools into safe, environmentally acceptable and commercial operation.

Having said that, the Board is aware that this operation is one of very few independent storage operations in Ontario at this time. As a small, independent operator this Applicant has been in uncharted waters and as noted, some of the regulatory underpinnings have themselves been in transition.

In light of the novelty of this undertaking the Board is prepared to grant the extension applied for, subject to revised conditions outlined below, with the firm expectation that the Applicant will bring the storage pool into service no later than the new deadline.

Accordingly the Board will extend its authorization to June 30, 2008.

The Board would be very concerned if the Applicant failed to execute the commissioning of the storage pool within this very generous new time frame.

This extension will be subject to conditions that are substantially similar to those which attached to our original authorization, with some significant enhancements. These conditions appear as Appendix C to this decision.

The significant differences involve a more explicit recognition of the pivotal role played by the Ministry of Natural Resources in the regulatory oversight of the development of the operation.

The Parties have been unable to agree on the appropriate form and content of the required Subsurface study.

Accordingly, Condition 1.1.1 will now require the Applicant to file a Subsurface Study consistent with Section 7.1 of CSA Standard Z 341.1-02, which is acceptable to the Ministry of Natural Resources, no less than 90 days prior to the planned commencement of operation of the pool.

Similarly, Conditions 1.1.2 et seq will require the Applicant to conduct the requisite tests and activities in a manner acceptable to the MNR. In this way, the Board can have confidence that the safety and environmental acceptability of the operation can be assured. It should be noted that the evidence discloses that MNR regards the Applicant's plans with respect to the protection of water supplies to be adequate to their purpose.

Condition 1.8, regarding insurance coverage, was the subject of considerable controversy.

In its Argument-in-Chief, dated November 3, 2006, the Applicant summarized the key features of the Marsh Study and committed to procuring the following coverage before commencement of construction operations to use Tipperary Designated Storage Area ("DSA") for storage:

- \$20 million coverage per occurrence for general liability for both construction and operational phase of the project;
- \$ 20 million coverage per occurrence for Sudden and Accidental Pollution for both construction and operational phase;
- \$ 5 million coverage per occurrence for Seepage and Pollution, Cleanup and Contamination for both construction and operational phase.

The Landowner intervenors expressed concern that the proposed insurance coverage did not make adequate provision for the potential for damage to livestock, and the resulting financial losses to farm operators.

As noted above, the Board has provided for a series of conditions which are directed to the safe and environmentally responsible development of the wells. These conditions have been enhanced to the extent that the activities described within them must be conducted to the satisfaction of the MNR. We also note that the MNR considers the proposed drilling plans of the Applicant as disclosed in its filings to be reasonable and appropriate.

The Board notes that the insurance coverage proposed by the Applicant, which derives directly from the Marsh study, provides for \$20 million in coverage respecting damage to property occasioned during the well construction and operations phases of the enterprise. While the Board accepts the proposed amount of coverage, the Board directs the Applicant to ensure that the coverage purchased includes damage to livestock and the resulting financial losses associated therewith. Accordingly, the Board finds that the insurance coverage proposed by the Applicant would meet the Board's condition 1.8, provided of course that it is actually procured prior to the operation of the pool and maintained for as long as the pool is in operation.

The Board will address the subject of costs in a separate decision.

DATED at Toronto February 6, 2007

Signed on behalf of the Panel

Original signed by

Paul Sommerville Presiding Member

Appendix A

To Decision with Reasons

Conditions to the Licence to Drill a Well: Tribute #22 et al

EB-2006-0279

Tipperary Gas Corp. Tipperary Pool Development Project

Conditions of Approval

1. General Requirements

- 1.1 Tipperary gas corp. ("Tipperary") shall adhere to the evidence and the undertakings provided in this 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 licence 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 Tipperary is not transferable to another party without leave of the board.
 - 2. Just and Equitable Compensation
- 2.1 Tipperary 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; and access road construction.

3. Construction Requirements

- 3.1 Tipperary shall construct the facilities and restore the land in accordance with its Application and evidence filed in this proceeding and the undertakings given to the Board, except as modified by this Order and these Conditions of Approval.
- 3.2 Tipperary shall ensure that the movement of equipment is carried out in compliance with all procedures and plans filed with the Board, and as follows:
 - Tipperary shall make reasonable efforts to keep any 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.
- 3.3 Tipperary shall, subject to the recommendation of 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.
- 3.4 Tipperary shall implement all the recommendations of the Storage Pool Environmental Management Plan filed at Tab 6 of the pre-filed evidence.
- 4 Monitoring and Reporting Requirements
- 4.1 Both during and after construction, Tipperary shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board and the Ministry of Natural Resources. 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. Tipperary shall attach a log of all comments and complaints to the interim and

final monitoring reports. The log shall record the times of all comments and complaints received, the substance of each comment and complaint, the actions taken in response, and the reasons underlying such actions.

- 4.2 The interim monitoring report shall confirm Tipperary'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.
- 4.3 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.
- 5 Other Requirements
- 5.1 For the purposes of these conditions conformity of the Applicant with CSA 341.1-02 shall be to the satisfaction of the Ministry of Natural Resources.
- 5.2 Tipperary 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.
- 5.3 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Facilities.

Appendix B

To Decision with Reasons

Conditions to Licence to Drill Wells: Tribute #23 et al

EB-2006-0018

Tipperary Gas Corp.

Tipperary Pool Development Project

Conditions of Approval

- 1 General Requirements
- 1.1 Tipperary gas corp. ("Tipperary") shall adhere to the evidence and the undertakings provided in this 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 licence is limited to twelve months from the date of the board's report to the ministry of natural resources.
- 1.3The authority granted under this order to Tipperary is not transferable to another party without leave of the board.
- 2 Just and Equitable Compensation

- 2.1 Tipperary 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; and access road construction.
- 3 Construction Requirements
- 3.1 Tipperary shall construct the facilities and restore the land in accordance with its Application and evidence filed in this proceeding and the undertakings given to the Board, except as modified by this Order and these Conditions of Approval.
- 3.2 Tipperary shall ensure that the movement of equipment is carried out in compliance with all procedures and plans filed with the Board, and as follows:
 - Tipperary shall make reasonable efforts to keep any 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.
- 3.3 Tipperary shall, subject to the recommendation of 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.
- 3.4 Tipperary shall implement all the recommendations of the Storage Pool Environmental Management Plan filed at Tab 6 of the pre-filed evidence.
- 4 Monitoring and Reporting Requirements
- 4.1 Both during and after construction, Tipperary shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board and the Ministry of Natural Resources. 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. Tipperary shall attach a log of all comments and complaints to the interim and final monitoring reports. The log shall record the times of all comments and complaints received, the substance of each comment and complaint, the actions taken in response, and the reasons underlying such actions.

- 4.2 The interim monitoring report shall confirm Tipperary'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.
- 4.3 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.
- 5 Other Requirements
- 5.1 For the purposes of these conditions conformity of the Applicant with CSA 341.1-02 shall be to the satisfaction of the Ministry of Natural Resources.
- 5.2 Tipperary 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.
- 5.3 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Facilities.

Appendix C

To Decision with Reasons

Conditions to Extension of Order to Inject, Store and Withdraw Gas

EB-2006-0159

Tipperary Pool Development Project

Conditions of Approval

1. Operation of the Tipperary Pool

- 1.1 Tipperary Gas Corp. ("Tipperary") shall perform in accordance with the evidence filed with the Board and the undertakings given to the Board, and shall comply with all applicable laws, regulations and codes to the satisfaction of the responsible agency pertaining to the construction, operation and maintenance of the proposed project and, without limiting the generality of the foregoing, Tipperary shall comply with the following specific requirements:
- 1.1.1 Prior to commencement of any injection, storage or withdrawal operations, Tipperary shall conduct and file with the Board, the Ministry of Natural Resources and all Parties to these proceedings, a thorough evaluation of all subsurface activities and their potential impact on the integrity of the storage facility as required by Section 7.1 of CSA Z341.1-02, including assessment of:
 - existing or abandoned wells within 1km of the subsurface perimeter of the storage zone, including activities within those wells, such as fracture treatments;
 - b) existing operations within 5km radius of the proposed storage scheme,

including operation, and minimum and maximum operating pressures; and

- c) for any existing wellbore penetrating the storage zone, the integrity of the well, including casing inspections, cement inspections, and hydraulic isolation of the storage zone from any overlying porous zones;. provided that, should such evaluation identify any risk and / or specify necessary remedial work, Tipperary agrees to implement, complete, and maintain such works prior to commencement of any injection, storage, or withdrawal;
- d) Tipperary shall file the Subsurface Assessment with the Board and the Ministry of Natural Resources at least 90 days prior to the commencement of operation of the pool.
- 1.1.2 Prior to commencement of any injection, storage or withdrawal operations, Tipperary shall complete and file with the Board, the Ministry of Natural Resources, and all Parties to these proceedings, the following plans and procedures as required by CSA 341.1-02:
 - 1.1.2.1 Operations and Maintenance Procedures (s 10.1.1)
 - 1.1.2.2 Emergency Response Plan (s. 10.1.2)

and thereafter comply with any and all on-going obligations as required in respect of such procedures and plans pursuant to CSA Z341.1-02 or any successor version thereto.

- 1.1.3 Tipperary shall implement and comply with the schedule for pressuring of the designated storage area facility (delta pressuring) as set out in the pre-filed evidence.
- 1.1.4 Tipperary shall comply with the revised Proposed Reservoir Monitoring Program as set in the pre-filed evidence.
- 1.2. Tipperary shall design, construct, operate, maintain and abandon the wells and facilities in accordance with the CSA Z341 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. Tipperary shall protect the integrity of the reservoir and ensure the safe operation of the Tipperary Pool by complying with the requirements of the Provincial Operating Standard, CSA Standard Z341 and any other applicable laws, regulations and codes.
- 1.4. Tipperary 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. Tipperary shall not operate the Tipperary Pool above a maximum allowed operating pressure representing a pressure gradient of 15.8 kPa/m. Tipperary shall operate the Tipperary Pool at a pressure not greater than the discovery pressure 400 psig (2,750kPag), until the conditions of section 7.5.2. of CSA Z341 are satisfied and without the leave of the Board.
- 1.6 Tipperary shall ensure that the construction, operation and maintenance of the Tipperary Pool does not affect the quality or supply of potable water. Tipperary shall conduct a water well test prior to and after the first cycle of gas storage and implement a Water Well Monitoring Program using the baseline water quality data provided in the evidence and in accordance with paragraph 1.6.1 below. In the event that the quality of the potable water is impacted by the construction, operation and maintenance of the Tipperary Pool, Tipperary shall provide adequate fresh water supplies to all affected landowners until the problem is rectified.
- 1.6.1 Tipperary shall, at Tipperary's sole expense, conduct water tests:
 - (a) in accordance with the procedures and protocols mandated by Stantec; and
 - (b) on water from each well in the DSA that was tested by Stantec in the spring of 2004; and
 - using tests conducted by individuals qualified to conduct such tests on samples of water collected by individuals qualified in the Province of Ontario to collect water samples; and
 - (d) that provide analyses identical to the analyses conducted on the water samples taken by Stantec in the spring of 2004 within the DSA at the following times:
 - (i) before spudding each vertical well to be drilled by Tipperary in the DSA, and
 - (ii) during the drilling of the intermediate string of each vertical well, and
 - (iii) within sixty (60) days of the completion of each such vertical well by Tipperary in the DSA, and
 - (iv) annually in each of the five (5) years following the year in which Tipperary first injects gas into the geological

reservoirs, or either of them, in the DSA (the "post first year injection tests")

provided that it is understood and agreed that:

- A. Tipperary shall forthwith and in any event within 45 days of receipt thereof by Tipperary, deliver to TSLA and to each of its members, full and complete copies of the water test results.
- B. With reference to the post first year injection tests, Tipperary shall:
 - notify TSLA in writing when the gas injection cycle for each such year is complete, and
 - 1. retain the services of a qualified water sampler and instruct the sampler to schedule the collection of water samples during the month requested in writing by TSLA, and
 - 2. instruct the qualified water sampler to notify each member of the TSLA not less than 48 hours of his intention to attend and take samples of water from that member's well.
- 1.7. Should Tipperary fail to inject sufficient gas to achieve a reservoir pressure of 320 psig (2,200 kPa) before June 30, 2008. Tipperary 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 Tipperary shall, after the date on which the OEB grants an order pursuant to Section 38(1) of the OEB Act 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, 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 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. Tipperary shall select and retain an independent expert from a list of experts that is prepared by the Board and placed on public file.
- 2. Other

- 2.1 For the purposes of these conditions conformity of the Applicant with CSA 341.1-02, 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 Tipperary 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, Facilities.