

By RESS & Courier

May 24, 2016

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

Dear Ms. Walli:

**Re: Union Gas Limited
Brantford-Kirkwall Project
Board File # EB-2013-0074**

Pursuant to Condition 3.1 of the Board's Conditions of Approval, attached please find Union's Interim Monitoring Report for the above-noted project.

Sincerely,

[original signed by]

Shelley Bechard
Administrative Analyst, Regulatory Projects
Encl.

cc: Z. Crnojacki (Chair, OPCC)
Regulatory Library

**TRAFALGAR FACILITIES EXPANSION PROGRAM
2015**

**BRANTFORD TO KIRKWALL PIPELINE PROJECT
INTERIM MONITORING REPORT**

**Prepared by: Union Gas Limited
Environmental Planning
May 2016**

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1.0 INTRODUCTION

This Interim Monitoring Report is provided in compliance with the Ontario Energy Board (“Board”) Order EB-2013-0074 granting Union Gas Limited (“Union”) “Leave to Construct” the Brantford to Kirkwall portion of the 2015 Trafalgar Facilities Expansion Program. The pipeline consists of approximately 13.9 km of NPS 48 inch (1219 mm Outside Diameter) natural gas pipeline originating at Unions’ existing Brantford Take-Off located in Lot 7, Concession XIII, Township of North Dumfries in the Region of Waterloo and concluding at Union’s existing Kirkwall Valve Site in Lot 25, Concession XII, Geographic Township of Beverly in the City of Hamilton. A map of the pipeline route is included in Appendix A.

The requirements for and details of this report are outlined in specific conditions issued by the Board in its Order dated January 30, 2014 and as listed below. Accordingly, the purpose of this Interim Monitoring Report is to fulfill these conditions. The complete Conditions of Approval can be found in Appendix B. The Conditions of Approval addressed in this report are as follows:

1 General Requirements

- 1.1 Union Gas Limited (“Union”) shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0074 except as modified by this Order and these Conditions of Approval.
- 1.4 Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (“OPCC”) review.
- 1.5 Union shall advise the Board’s designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated

representative. In the event of an emergency, the Board shall be informed immediately after the fact.

2 Project and Communication Requirements

- 2.4 Union shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board's Order.

3 Monitoring and Reporting Requirements

- 3.1 Both during and after construction, Union shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 3.2 The interim monitoring report shall confirm Union's adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.

4 Other Approvals

- 4.1 Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof to the

Board, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

2.0 BACKGROUND

Union was granted approval to construct the Brantford to Kirkwall Pipeline Project on January 30, 2014. Construction was initiated on July 6, 2015 with the pipeline placed into service on November 24, 2015. Cleanup along the pipeline corridor was completed for 2015 on December 8th, with additional cleanup to occur in spring 2016.

Construction progressed in an easterly direction from Kirkwall Road with topsoil stripping and grading, and in a westerly direction from Valens Road with the installation of wildlife exclusion fencing, topsoil stripping, grading, and the construction of a temporary access road. Construction then generally progressed in an easterly direction from Cheese Factory Road with topsoil stripping, grading, trenching, stringing of new pipeline, welding, joint coating, lowering-in, tie-ins, backfilling, and cleanup. Installation of temporary accesses across watercourses and drilling and blasting of bedrock also occurred as required, with the majority of bedrock works necessary from Cooper Road easterly to Valens Road. All work occurred outside of the African Lion Safari until September 21, 2015 when it was closed for the season and access was granted.

Union will return to the right-of-way in spring 2016 to complete the following activities: repair any subsidence on the right-of-way, ensure there is adequate stability and re-vegetation at all watercourse crossings, tree/shrub replacement, perform a general overview of the right-of-way and complete any additional cleanup that may be required.

3.0 POTENTIAL IMPACTS AND MITIGATION

3.1 Condition 1.1

“Union Gas Limited (“Union”) shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0074 except as modified by this Order and these Conditions of Approval.”

Union has complied with all conditions imposed by the Board during construction of the pipeline. Union has also restored the land according to the evidence in support of its application and in accordance with all mitigation measures recommended in the Environmental Report (ER) filed by Union Gas.

3.2 Condition 1.4

“Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (“OPCC”) review.”

Union has implemented all recommendations and mitigation measures outlined in the ER along with all directives identified by the OPCC.

3.3 Condition 1.5

“Union shall advise the Board’s designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.”

There were no changes to construction during this project.

3.4 Condition 2.4

“Union shall furnish the Board’s designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board’s Order.”

This interim monitoring report shall confirm that the work has been performed according to the Board’s Order.

3.5 Condition 3.1

“Both during and after construction, Union shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.”

3.5.1 Report Circulation

Four (4) copies of this interim monitoring report are provided to the Board.

3.5.2 Landowner Concerns

Union’s Complaint Tracking System (Table 1), which identifies the current status of landowner complaints received as a result of pipeline construction, was in effect. A complaint is identified as a concern raised by a landowner that has not been resolved to the landowner’s satisfaction within three (3) working days. Complaints that remain open will continue to be addressed by Union and a status update will be provided in the Final Monitoring Report.

During construction, a number of concerns other than those listed in Table 1 were raised to Union and their Contractor. These issues were minor in nature and were dealt with by Union and the Contractor in an expeditious manner.

Union will continue to monitor the state of the land and environment and will address any additional landowner concerns if they should arise.

3.6 Condition 3.2

“The interim monitoring report shall confirm Union’s adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.”

In fulfilment of Condition 3.2, Table 2 summarizes the construction effects and general mitigation measures carried out during construction. All mitigation techniques used throughout construction will also be implemented during cleanup activities as required.

3.6.1 Monitoring Programs

3.6.1.1 Soil Testing

Prior to construction, Union conducted soil sampling on agricultural lands along the pipeline route. Soil samples were taken and analyzed for Soybean Cyst Nematode (SCN). SCN is a microscopic worm-like organism found in soils and obtain their nutrients by feeding on the root systems of soybeans. Results indicated that SCN was not present on any of the properties tested.

A construction protocol to deal with potential SCN impacted fields was available in the event that results came back positive; however, all soil samples were negative.

3.6.1.2 Water Well Monitoring

Prior to construction, Union retained the services of Stantec Consulting Limited (Stantec) to undertake a water well monitoring program along the entire pipeline route as recommended in the ER and required under the PTTW. The purpose of the program was to establish baseline groundwater conditions for comparative purposes should groundwater interference complaints arise as a result of the construction or operation of the pipeline.

The baseline monitoring program included a door-to-door survey to identify groundwater users within 100 m of the proposed pipeline installation for general installation and within 500 m in areas of shallow bedrock conditions. These well owners were provided a letter detailing the proposed pipeline construction and the proposed monitoring program and had the option of participating in the program. The notification letter included the telephone number of Union's Lands Relations Agent.

Water quality samples were collected by Stantec at seventeen (17) residences. In total, nineteen (19) water quality samples from eighteen (18) supply wells. Water levels were manually monitored within two (2) of these wells.

At the African Lion Safari (ALS), four (4) wells were sampled for water quality and two (2) of those wells were instrumented with loggers to continuously monitor groundwater levels. At ALS, the closest supply well is located within 100 m of the pipeline.

At John Bayus Park (JBP), two (2) wells were sampled for water quality and one (1) monitoring well instrumented with a logger to continuously monitor groundwater level. JMP operates two (2) communal supply wells located greater than 100 m from the pipeline installation.

Water samples were analyzed for general inorganic and bacteriological water quality parameters and the results were compared to the Ontario Drinking Water Standards (ODWS) established by the Ontario Ministry of the Environment and Climate Change (MOECC).

Upon receiving the results, Stantec immediately notified any residents whose water exceeded the MOECC ODWS Maximum Acceptable Concentration (MAC) for any tested parameter. Water quality results indicated exceedances for total coliforms, E.coli, lead, nitrate and uranium within at least one sample. Stantec provided the residents with a summary letter of the results and with the contact information for the public health unit within the Region of Waterloo and City of Hamilton in case of further questions.

3.6.1.3 Watercourse Monitoring

Fourteen (14) watercourses were crossed as part of construction. Only three (3) watercourses exhibited flow at the time of the crossing. Of the remaining eleven (11) identified watercourses, three (3) were tile drains, four (4) were dry drainage swales, three (3) were dry at the time of the crossing, and two (2) were located on access roads with existing culverts and were not crossed by the pipeline itself.

All watercourses were crossed using methods approved by Fisheries and Oceans Canada and the Grand River Conservation Authority (GRCA). The three (3) watercourses with flow at the time of the crossing were crossed using an isolated dry crossing technique (dam & pump) and the remaining dry watercourses were

crossed using an open cut method with dams and pumps onsite in the event of flow.

Watercourses were protected prior to, during and following construction with sediment fencing. Immediately following pipeline crossings and immediately following temporary access removals, disturbed areas adjacent to the watercourses were seeded and protected with erosion control blanket and sediment fencing.

All watercourse crossings were monitored during construction by an Environmental Inspector and all watercourses will be inspected in the spring of 2016 to ensure bank stability and vegetation re-establishment and to implement further mitigation measures as required. All watercourses were also monitored after excessive rainfall events to verify the effectiveness of the sediment fencing.

3.6.1.4 Species at Risk (SAR)

Prior to construction, Stantec completed detailed habitat assessments and field surveys to confirm habitat and species occurrences in the Project Area. Confirmed habitat and/or species occurrences in the area included the Butternut Tree, Bobolink, Eastern Meadowlark, Eastern Milksnake, Blanding's Turtle, and Snapping Turtle.

Butternut Tree

Stantec conducted seven (7) botanical surveys during the spring, summer, and fall of 2013. A butternut tree was recorded approximately 30 m from the construction footprint. The tree was avoided entirely by reducing the temporary construction area.

Bobolink and Eastern Meadowlark

Stantec conducted three (3) surveys for breeding birds to target potential SAR in all grassland (fallow, meadow, hay, and pasture), woodland, and wetland habitats between late May and early July 2013. Ten (10) habitats were found to contain probable or confirmed Bobolink and/or Eastern Meadowlark. The construction areas containing these habitats were mowed prior to and throughout the breeding bird season (April 3 – August 11) to prevent these birds from nesting.

Eastern Milksnake

Stantec conducted at least three (3) snake habitat surveys in early May to late June 2013 for potential SAR at six (6) different habitats identified along the pipeline route following an initial snake habitat assessment in early spring 2013. Two (2) of the habitats were found to contain Eastern Milksnake, including a potential hibernaculum. To protect the Eastern Milksnake, approximately 2264 m of wildlife-friendly silt fence (wildlife exclusion fencing) was installed in the identified habitats. To ensure further protection for potential Eastern Milksnakes and other wildlife, two Stantec Ecologists accompanied by Union's Environmental Inspector conducted a wildlife rescue and relocation in the area delineated by the wildlife-friendly silt fence. No Eastern Milksnakes were observed during the rescue or construction.

Blanding's Turtle and Snapping Turtle

Stantec conducted five (5) turtle habitat surveys in April 2013 at three (3) different habitats identified along the pipeline route following an initial turtle habitat assessment in early spring 2013. No Blanding's Turtles or Snapping Turtles were identified during the surveys; however, an incidental observation of a Snapping Turtle on July 11, 2013 during a breeding bird survey occurred in the

African Lion Safari, and the Hamilton Conservation Authority observed a Blanding's Turtle within 1 km of the Project Area. A description was provided to Union's Inspectors and the Contractor to enable identification of potential Blanding's Turtles and Snapping Turtles and to stop work if one was observed. The temporary work area near the Snapping Turtle observation was also minimized to avoid the area entirely.

3.6.1.5 Tree Removal

Tree removal was initiated on February 4th, 2015 and was completed on March 8th, 2015 thus avoiding avian nesting concerns.

3.6.1.6 Tree Replacement Program

This program is designed as a reforestation initiative to replant twice the area of trees cleared from the woodlots prior to construction. Landowners who have had trees cleared from their property are given the option to have native tree species of their choice planted on their property in the spring of 2016.

3.6.1.7 Archaeological Monitoring

Union retained the services of D.R. Poulton & Associates to conduct Stage 1, 2, and 3 Archaeological Assessments along the pipeline corridor prior to construction in accordance with the Ministry of Tourism, Culture and Sport (MTCS) guidelines to identify potential archaeological sites and mitigate potential impacts. The Assessment Reports were submitted to the MTCS and were reviewed and accepted into the Ontario Public Register of Archaeological Reports.

During the Stage 2 assessment of the pipeline corridor, four locations located on two different properties were found to have cultural heritage value and interest requiring Stage 3 site excavation and salvage of artifacts. Stage 3 fieldwork was completed by D.R. Poulton & Associates. Representatives from the local First Nations monitored the Stage 3 field work. Potential construction impacts to these locations were mitigated by fencing the limits of the right-of-way on these two properties to avoid any inadvertent off-easement impacts.

3.6.1.8 Blasting

To attain proper trench depth, blasting was required along sections of the right-of-way and followed Union's Specification for Rock Excavation. Explotech, specialists in explosives, blasting, and vibration monitoring was retained by Union to carry out pre-blast surveys in the vicinity of construction.

No complaints were received as a result of blasting.

3.7 Condition 4.1

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

Union Gas obtained the following environmental permits for construction:

Grand River Conservation Authority

- Watercourse Crossings – Development, Interference With Wetlands and Alterations to Shorelines and Watercourses Permit

Ministry of Tourism, Culture and Sport

- Archaeology clearance – Stage 2 Archaeological Report report reviewed and accepted into the Ontario Public Register of Archaeological Reports

Ministry of the Environment and Climate Change (MOECC)

- Permit to Take Water, Permit No. 6067-9VEHUN (Surface and Ground Water)
- Permit to Take Water, Permit No. 8118-9YXQKZ (Hydrostatic Test)

4.0 SUMMARY

This Interim Monitoring Report has been prepared as per conditions in the Board Order EB-2013-0074. The report provides an outline of Unions' compliance with the commitments of its witnesses, the measures implemented during construction to minimize disturbance to the environment, and a description of Union's monitoring programs. It is anticipated that these measures will effectively eliminate any long-term impacts to the environment.

A review of the pipeline route was undertaken on May 10, 2016 to identify areas along the pipeline corridor that require additional cleanup. Cleanup at these locations will be completed in spring 2016.

Tree replacement on properties where trees have been cleared due to construction has been completed during April and May 2016. Any additional trees that have not yet been planted will be planted in fall 2016 or spring 2017.

A Final Monitoring Report will be prepared to evaluate the success of the restoration measures and identify any areas that require additional restoration, if necessary.

Table 1

Summary of Landowner Complaints

**Table 1 – Summary of Landowner Complaints
Brantford to Kirkwall**

Date	Complaint Number	Complaint	Resolution	Status
11/07/2015	BK001	Tap water is brown in color. Signs of silt.	Potable water supplied immediately. New water well drilled.	Resolved
14/07/2015	BK002	Electric fencing prior to construction damaged.	Landowner compensated and will install own fencing upon completion of final clean-up.	Resolved
27/07/2015	BK003	Small blue spruce tree left off easement. Landowner did not want.	Tree removed.	Resolved
30/07/2015	BK004	Amount of rock cut from side of hill.	Lands returned to preconstruction condition.	Resolved
31/07/2015	BK005	Flooding of pasture field due to compromised silt bags.	Water pumping redirected.	Resolved
01/08/2015	BK006	Dozer was parked too close to horse trail crossing easement.	Dozer was relocated.	Resolved
05/08/2015	BK007	Alarm wire running through easement to chicken barn was cut during excavation.	Alarm wire was repaired immediately. Then replaced during clean-up.	Resolved
11/08/2015	BK008	Temporary access to mobile park.	Re-graded and placed asphalt.	Resolved
12/08/2015	BK009	Complained of dust.	Water trucks dispatched immediately. Calcium chloride used on roadway.	Resolved
12/08/2015	BK010	Landowner requested hay mowing and as a result 3 fence posts were damaged.	Seven fence posts were replaced.	Resolved
17/08/2015	BK011	No access to move bales of hay to barn on lands north of easement.	Flagman assisted the moving bales of hay	Resolved
24/08/2015	BK012	Need to continuously prime water pump.	Immediately supplied potable water. New well drilled.	Resolved
15/09/2015	BK013	Wet area near shed located on Temporary Land Use.	Pumping of water ceased.	Resolved

Date	Complaint Number	Complaint	Resolution	Status
07/10/2015	BK014	Stones on field.	Stones re-picked several times. Stones will be picked again in year 2 of final clean-up.	Resolved
15/10/2015	BK015	Placement of excess stones.	Stones were placed as per the direction of the landowner.	Resolved
03/11/2015	BK016	Ponding has occurred at creek crossing.	Culvert lowered.	Resolved
17/11/2015	BK017	Filters seem to require replacement earlier than normal.	Compensated for filter replacement.	Resolved

Table 2

Potential Impacts and Mitigation Measures

Table 2 - Potential Impacts and Mitigation Measures

Activity	Effects	Mitigation Measures
a) Pre-pipeline Construction	<ul style="list-style-type: none"> Pipeline construction may be disruptive to landowners and farming operations 	<ul style="list-style-type: none"> Prior to pipeline construction, the Lands Relations Agent and Construction Superintendent met with all directly affected landowners to discuss construction and identify any concerns (i.e. tiles) that may need to be addressed.
b) Surveying	<ul style="list-style-type: none"> Surveying may be disruptive to the landowners Crop and woodlot damage 	<ul style="list-style-type: none"> Landowners and tenants were notified of intent to enter their property All crop and woodlot damages were settled with landowners or tenants as required
c) Access Roads	<ul style="list-style-type: none"> Vehicular traffic may cause soil rutting, compaction or mixing 	<ul style="list-style-type: none"> Permits from the local Conservation Authority were obtained and the conditions were followed prior to construction of access roads across watercourses Culverts were utilized in the construction of access roads to ensure existing drainage patterns were maintained Sediment fencing, erosion control matting, and vegetative covers (i.e. grasses) were used alongside watercourses to minimize run-off and erosion. Geotextile fabric was used for new temporary access roads to provide additional stability, minimize compaction, and minimize topsoil mixing with granular material.
d) Clearing	<ul style="list-style-type: none"> The removal of trees 	<ul style="list-style-type: none"> Landowners were eligible for the Union Gas Tree Replacement Program Tree cut from woodlots will be replaced at a 2:1 per area basis The harvesting of trees was minimized as much as practical All tree clearing was done outside the migratory bird nesting season (April 1 – August 31)
e) Grading	<ul style="list-style-type: none"> Grading may be necessary for the construction of access roads or work areas. On agricultural lands, grading has the potential to impact soil productivity by disrupting tile drains and causing soil mixing, rutting and compaction, particularly during wet soil conditions. 	<ul style="list-style-type: none"> Broken tiles were repaired as per Specification CS-18-13 and Drawings NO. PL-18-13-01 and PL-18-13-02. Grading was not conducted on wet soils Topsoil was stripped and stockpiled on the edge of the easement on the spoil side of the trench and in some areas on the work side Topsoil stripping was conducted as per Specifications CS-04-13 and CS-05-13 Topsoil stripping was monitored to ensure there was adequate separation of topsoil and subsoil All construction protocols for Soybean Cyst Nematodes were in place and followed
f) Stringing	<ul style="list-style-type: none"> Stringing trucks may impact soil 	<ul style="list-style-type: none"> Specification CS-11-13 was followed.

Activity	Effects	Mitigation Measures
	productivity due to soil compaction, rutting, and mixing	
g) Trenching	<ul style="list-style-type: none"> Trenching may disrupt tile drains and cause soil mixing (topsoil and subsoil mixing), which may impact soil productivity 	<ul style="list-style-type: none"> Trenching followed Specification CS-06-13 Prior to trenching, topsoil was separated from subsoil as per Specifications CS-04-13 and CS-05-13
h) Backfilling	<ul style="list-style-type: none"> Improper backfilling may cause topsoil/subsoil mixing 	<ul style="list-style-type: none"> Specification CS-17-13 was followed.
i) Hydrostatic Testing	<ul style="list-style-type: none"> Discharge of hydrostatic test water may cause erosion at the point of discharge 	<ul style="list-style-type: none"> Measures were used (filtration tub) to prevent erosion at the point of discharge A permit was secured from the from the Ministry of Environment and Climate Change prior to hydrostatic testing and conditions were followed A monitoring program was undertaken to ensure that water quality had remained within acceptable parameters during testing
j) Site Restoration	<ul style="list-style-type: none"> Improper site restoration may affect soil productivity 	<ul style="list-style-type: none"> Restoration followed Specification CS-19-13 Disturbed areas were restored by re-grading, followed by chisel ploughing and/or sub-soiling and disking Soil compaction was monitored by the Soils Inspector to determine if these methods were suitable The Lands Relations Agent has reviewed and discussed the site restoration measures with the landowner and tenant, so as to identify any concerns or suggestions with regards to these measures Upon completion, the Lands Relations Agent reviewed the area with the landowner and tenant to ensure restoration was completed to their satisfaction
k) Fuel Storage and Handling	<ul style="list-style-type: none"> Improper fuel storage and handling may cause spillage and possible contamination of soil 	<ul style="list-style-type: none"> Fuel was not stored near watercourses or wetlands (i.e. within 100 m) Fuel storage areas were clearly marked Spill clean-up material (i.e. absorbent pads) were stored on-site and available at all times
l) Liquid and Solid Waste	<ul style="list-style-type: none"> Liquid waste, solid waste, and lubricants must be properly handled, stored and disposed of to avoid potential contamination of the surrounding area 	<ul style="list-style-type: none"> Liquid and solid wastes were properly stored, handled, and disposed of at an approved location The area was cleared of all debris and litter during and after construction
m) General	i) Fences	<ul style="list-style-type: none"> Fences were repaired to Specification CS-01-13

Activity	Effects	Mitigation Measures
	ii) Mixing, rutting, and compaction	<ul style="list-style-type: none"> The area was cleared of all debris and litter during and after construction

Appendix A

General Location Map

GENERAL LOCATION MAP

BRANTFORD TO KIRKWALL NPS 48



Appendix B

Conditions of Approval

Appendix E

Union Gas Limited
Leave to Construct Application
EB-2013-0074
Brantford-Kirkwall/Parkway D Project
Conditions of Approval

1 General Requirements

- 1.1 Union Gas Limited ("Union") shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0074 except as modified by this Order and these Conditions of Approval.
- 1.2 Union shall not begin construction of the Brantford-Kirkwall pipeline before the National Energy Board approves the TransCanada King's North project. Union shall not begin construction of the Brantford-Kirkwall pipeline until it has received written confirmation from TransCanada that TransCanada is committed to proceeding with construction of the King's North project. Union shall file with the Board a copy of TransCanada's written confirmation within 10 days of its receipt by Union.
- 1.3 Unless otherwise ordered by the Board, authorization for Leave to Construct shall terminate December 31, 2016, unless construction has commenced prior to that date.
- 1.4 Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee ("OPCC") review.
- 1.5 Union shall advise the Board's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the

Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.

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

2 Project and Communications Requirements

- 2.1 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Natural Gas Applications.
- 2.2 Union shall designate a person as project engineer and shall provide the name of the individual to the Board's designated representative. The project engineer will be responsible for the fulfillment of the Conditions of Approval on the construction site. Union shall provide a copy of the Order and Conditions of Approval to the project engineer, within seven days of the Board's Order being issued.
- 2.3 Union shall give the Board's designated representative and the Chair of the OPCC ten days written notice in advance of the commencement of the construction.
- 2.4 Union shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board's Order.
- 2.5 Union shall file with the Board's designated representative notice of the date on which the installed pipelines were tested, within one month after the final test date.
- 2.6 Union shall furnish the Board's designated representative with five copies of written confirmation of the completion of construction. A copy of the confirmation shall be provided to the Chair of the OPCC.

3 Monitoring and Reporting Requirements

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

4 Other Approvals

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

Appendix C

Photograph Inventory



A temporary access road was installed through the wetland west of Valens Road (Beverly Swamp) to minimize impacts to the area from construction equipment. Wildlife exclusion fencing was also installed on either side of the right-of-way to ensure the protection of potential Eastern Milksnakes and other vulnerable species.



Separation between topsoil and subsoil was maintained during construction to ensure topsoil fertility is maintained.



Foam pillows were installed at the bottom of the trench the entire length of the pipeline to protect the pipe from possible damage from stones.



Subsoil is screened during initial backfilling operations using a padding machine to ensure stones do not damage the pipe.



Steel plate dams are installed in watercourses to isolate the pipeline crossing area. Water is pumped from the upstream portion of the watercourse around the work to maintain flow downstream. Extra pumps and generators are kept onsite in the event of primary pump and/or generator failure.



A fish/wildlife rescue is conducted by qualified biologists once the area is isolated. Digging cannot begin until all fish/wildlife are relocated downstream of the crossing location.



A shorter “creek section” of pipe is lowered in during watercourse crossings to help ensure watercourse crossings are completed within 24 hours.



In sections of the right-of-way where the water table is higher, geotextile pipeline weights (PipeSaks) are installed to prevent the pipe from floating to the surface.



After the watercourse crossing is completed, the watercourse is restored back to pre-construction conditions or better and all disturbed areas are seeded with a creek restoration mix and protected by erosion control blanket and silt fence.



Topsoil soil was spread and returned back to original grade at the end of 2015. Union will perform additional cleanup along the right-of-way as required in spring 2016.