

## **EXECUTIVE SUMMARY**

Union Gas Limited (Union Gas) retained ORTECH Environmental (ORTECH), a division of ORTECH Consulting Inc. to update the 2008 Emission Summary and Dispersion Modelling (ESDM) Report for their Edys Mills Pool Station (ORTECH Report No. 90476-2-5, October 24, 2008) in compliance with Province-wide Environmental Compliance Approval (ECA) Number 1949-7KRMCS issued on November 28, 2008. The facility is located at Lot 33 Concession 8 in Dawn Township, Ontario. The report includes all sources of air emissions at the site including all existing combustion equipment and a natural gas dehydrator unit with a reboiler and incinerator. It has been updated to reflect revisions to the reciprocating engine stack height which were part of Union Gas' Action Plan.

The Edys Mills Pool Station is used to compress natural gas for transmission and storage purposes. The NAICS Code applicable to the facility is '486210 – Pipeline Transportation of Natural Gas'. Facilities described by this NAICS Code are not listed on Schedules 4 or 5 of Ontario Regulation 419/05 and are therefore not required to demonstrate air compliance using advanced modelling until February 1, 2020. However, Union Gas has applied for and received a s.20 speed-up notice for nitrogen oxides (NO<sub>x</sub>) emitted from their compressor stations (#7353-7G6LPK, issued November 28, 2008) and therefore, Schedule 3 standards have been used to assess NO<sub>x</sub> emission from the facility.

This ESDM Report follows the requirements of the Ontario Regulation 419/05 Air Pollution – Local Air Quality and the Ontario Ministry of the Environment (MOE) "Procedure for Preparing an Emission Summary and Dispersion Modelling Report Version 3.0" dated March 2009 (the Procedure).

The ESDM report includes the quantification of emission rates for all significant sources of contaminants, specifically oxides of nitrogen (NO<sub>x</sub>) and a calculation of the aggregate maximum 1-hour and 24-hour point-of-impingement (POI) concentrations.

Due to the underlying assumptions used for the assessments, the emission rates cannot be realistically extrapolated to annual values and should not be used for such purposes.

As shown on Table 1, the predicted maximum POI concentrations for all contaminants resulting from the maximum emission scenario are below their respective MOE POI limits.

**Emission Summary and Dispersion Modelling Report  
for Union Gas Ltd., Edys Mills Pool Station**

**Table 1: Emission Summary Table**

Contaminant Name	CAS#	Total Facility Maximum Emission Rate (g/s)	Air Dispersion Model Used	Maximum POI Concentration ( $\mu\text{g}/\text{m}^3$ )	Averaging Period (hr)	POI Limit ( $\mu\text{g}/\text{m}^3$ )	Limiting Effect	Regulation Schedule # or Alternative	Maximum % of POI Limit (%)
Nitrogen Oxides (as NO <sub>2</sub> )	10102-44-0	6.39	AERMOD	361	1	400	Health	3	90%
				192	24	200	Health	3	96%

DATE: April 21, 2020

Re: **Addendum to Edys Mills Pool Station ESDM Report**  
**ORTECH Reference #92221-2-5**

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ORTECH Consulting Inc. (“ORTECH”) prepared an Emission Summary and Dispersion Modelling (“ESDM”) Report for the Union Gas Limited (“Union Gas”) Edys Mills Pool Station (the “Facility”) (ORTECH Report No, 91115-2-5 dated March 14, 2013). The ESDM Report (2013 ESDM) included an assessment of sources of air emissions at the Facility including a reciprocating engine, dehydrator reboiler and dehydrator, the latter two which were deemed negligible.

On September 15, 2017, an addendum to the 2013 ESDM (ORTECH Reference 91755-2-5) was prepared by ORTECH to assess two (2) natural gas fired boilers (each with maximum heat capacity 1,010,000 BTU/hr) at the Facility, which were not previously identified in the 2013 ESDM. In the addendum dated September 15, 2017, two (2) boilers were identified as negligible sources. As per the *Procedure for Preparing an Emission Summary and Dispersion Modelling Report* (the Procedure), negligible sources are not required to be included in the air dispersion modeling analysis of the Facility and thus the two (2) natural gas-fired boilers had no impact on the results presented in the 2013 ESDM.

ORTECH has received a confirmation from Union Gas that the dehydrator reboiler and dehydrator have been disconnected and are not operational. The disconnection of two (2) negligible sources will not cause an impact to operation of the reciprocating engine and the Facility wide air emission rates used in the air dispersion modelling analysis, the results presented in the 2013 ESDM are accurate. Thus, ORTECH concludes that the 2013 ESDM Report and two (2) addendum letters are accurate to address the current operations as of December 31, 2019.