

**Executive Summary of the  
Emission Summary and Dispersion Modelling Report  
for the Waubuno Pool Station  
Dated September 8, 2015**

Union Gas Limited (Union Gas) retained ORTECH Consulting Inc. (ORTECH), to update the Emission Summary and Dispersion Modelling (ESDM) Report for the Waubuno Pool Station. The facility is located at 2550 Telfer Road, St. Clair, Ontario. The report was updated to revise the stack height of the natural gas-fired reciprocating engine compressor.

The Waubuno Pool Station is used to compress natural gas for transmission and storage purposes in underground pools. 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 with Schedule 3 standards under section 20(4) of O.Reg. 419/05 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> emissions from the facility.

This ESDM Report follows the requirements of the O.Reg. 419/05 Air Pollution – Local Air Quality and the Ontario Ministry of the Environment and Climate Change (MOECC) "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>), at the facility and an estimation of the aggregate maximum 1-hour and 24-hour point-of-impingement (POI) concentrations for NO<sub>x</sub>. The NO<sub>x</sub> emission rates that have been estimated in this report are for maximum 1-hour and 24-hour operating scenarios as per O.Reg. 419/05 Schedule 3 regulatory requirements. Due to the underlying assumptions used for this scenario, 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 NO<sub>x</sub> POI concentrations resulting from the maximum emission scenario of the reciprocating engine operating at full load are below the corresponding MOECC NO<sub>x</sub> POI limits.

**Table 1: Emission Summary Table**

Contaminant Name	CAS#	Total Facility Maximum Emission Rate (g/s)	Air Dispersion Model Used	Max. POI Conc. (µg/m <sup>3</sup> )	Avg. Period (hr)	POI Limit (µg/m <sup>3</sup> )	Limiting Effect	Regulation Schedule # or Alternate	Max. % of POI Limit
Nitrogen Oxides	10102-44-0	2.74	AERMOD	128	1	400	Health	3	32%
			AERMOD	67	24	200	Health	3	33%