

**Executive Summary of the  
Emission Summary and Dispersion Modelling Report  
for the Sombra/Bickford Pool Station  
dated March 12, 2013**

Union Gas Limited (Union Gas) retained ORTECH Environmental (ORTECH), a division of ORTECH Consulting Inc., to update the Emission Summary and Dispersion Modelling (ESDM) Report for their Sombra/Bickford Pool Station, located at Lot 31 Concession 1 (Bentpath Line) in Sombra Township, Ontario (the Facility), to account for the removal of Source U1, a 4-stroke reciprocating internal combustion engine referred to by Union Gas as ‘Big Red,’ from the Facility.

The Sombra/Bickford 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, for this facility Union Gas has requested and been approved to apply Schedule 3 standards under section 20(4) of O. Reg. 419/05 for NO<sub>x</sub> emissions only prior to the regulatory time frames.

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.

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, all significant contaminants are expected to be below all applicable MOE Point of Impingement (POI) criteria.

**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 Alternate	Maximum % of POI Limit (%)
Nitrogen Oxides (as NO <sub>2</sub> )	10102-44-0	4.3	AERMOD	42	1	400	Health	3	11%
				19	24	200	Health	3	9.5%

\* After removal of meteorological outliers in accordance with the ADMGO.