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Executive Summary of the
Emission Summary and Dispersion Modelling Report
for the 167 Pool Station
dated March 14, 2013

Union Gas Limited (Union Gas) retained ORTECH Environmental to update the 2008 Emission Summary and Dispersion Modelling (ESDM) Report for their 167 Compressor Station (ORTECH Report No. 90476-2-2, October 24, 2008) in compliance with Province-wide Environmental Compliance Approval (ECA) Number 1949-7KRMC5 issued on November 28, 2008. The facility is located at Lot 34 Concession 13 in Dawn Township, Ontario. The report includes all sources of air emissions at the site including all existing combustion equipment and 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 167 Compressor 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_X) emitted from their compressor stations (#7353-7G6LPK, issued November 28, 2008) and therefore, Schedule 3 standards have been used to assess NO_X 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_X) 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 NO_X and benzene concentrations are below their respective MOE POI limits.

Table 1: Emission Summary Table

Contaminant Name	CAS#	Total Facility Maximum Emission Rate (g/s)	Air Dispersion Model Used	Maximum POI Concentration ($\mu g/m^3$)	Averaging Period (hr)	POI Limit ($\mu g/m^3$)	Limiting Effect	Regulation Schedule # or Alternative	Maximum % of POI Limit (%)
Nitrogen Oxides (as NO_2)	10102-44-0	3.68	AERMOD	198	1	400	Health	3	49%
				107	24	200	Health	3	54%