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Executive Summary of the Emission Summary and Dispersion Modelling Report for the Heritage Compressor Station dated March 13, 2013

Union Gas Limited (Union Gas) retained ORTECH Environmental to update the 2008 Emission Summary and Dispersion Modelling (ESDM) Report for their Heritage Compressor Station (ORTECH Report No. 90550-2, August 22, 2008) in compliance with Province-wide Environmental Compliance Approval Number 1949-7KRMC5 issued November 28, 2008. The facility is located at 454 Bickford Line, Lot 26 Concession 1 in St. Clair Township, County of Lambton, Ontario. This report was updated to include a catalytic converter installed on the reciprocating engine.

The Heritage 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 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_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) at the facility and an estimation of the aggregate maximum 1-hour and 24-hour point-of-impingement (POI) concentrations for NO_X.

The emission rates that have been calculated 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_X concentrations resulting from the maximum emission scenario for all significant natural-gas fired combustion equipment operating at full load is 53.0 $\mu g/m^3$ or 13% of the 1-hour MOE NO_X Schedule 3 POI limit of 400 $\mu g/m^3$, and 23.4 $\mu g/m^3$ or 12% of the 24-hour NO_X POI of 200 $\mu g/m^3$.

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	0.15	AERMOD	53.0	1-hour	400	Health	3	13%
				23.4	24-hour	200	Health	3	12%