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Executive Summary of the Emission Summary and Dispersion Modelling Report for the St. Thomas Building Emergency Generator dated June 27, 2008

Union Gas Limited (Union Gas) retained ORTECH Environmental (ORTECH), a division of ORTECH Consulting Inc., to prepare an Emission Summary and Dispersion Modelling (ESDM) Report for the Power Generator at the St. Thomas Building, located at 25 Sparling Road in St. Thomas, Ontario. This report is part of a Basic Comprehensive (Air) Certificate of Approval (CofA) application for all Union Gas facilities in Ontario.

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 2.0" dated July 2005 (the Procedure).

This ESDM report includes the quantification of the nitrogen oxides emission rate for the generator and a calculation of the maximum ½-hour point-of-impingement concentration for nitrogen oxides.

The nitrogen oxides emission rate that has been estimated in this report is for a maximum half-hour operating scenario as per regulatory requirements. Due to the underlying assumptions used for this scenario, the emission rate cannot be realistically extrapolated to annual values and should not be used for such purposes.

The Emission Summary Table (Table 1) shows the maximum emission rate and maximum point-of-impingement (POI) concentration for nitrogen oxides; the POI limit used to evaluate nitrogen oxides and the maximum percent of the POI limit calculated by dispersion modelling. As shown in the Emission Summary Table, the maximum nitrogen oxides POI concentration at the St. Thomas Building is less than the MOE POI limit.

Table 1: Emission Summary Table

Contaminant Name	CAS #	Max. Facility-Wide Emission Rate (g/s)	Air Dispersion Model Used	Max. POI Concentration ($\mu g/m^3$)	Averaging Period (hours)	MOE POI Limit ($\mu g/m^3$)	Limiting Effect	Regulation Schedule	Percent of MOE POI Limit
NO_X	10102-44-0	0.047	Reg. 346	200	0.5	1880	Health	(1)	11%

Note: (1) From the MOE document "Standby Generator Datasheet", August 2001