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Executive Summary of the Emission Summary and Dispersion Modelling Report for the Belrose Gate Station Standby Power Generator dated April 9, 2013

Union Gas Limited retained ORTECH Environmental to prepare an Emission Summary and Dispersion Modelling (ESDM) Report for the Standby Power Generator at Belrose Gate Station, located between Oliver Rd. and John St. in Thunder Bay, Ontario. This report is part of an application for an Environmental Compliance Approval (ECA) with Limited Operational Flexibility 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 3.0" dated March 2009 (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 Belrose Gate Station 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 Conc. ($\mu g/m^3$)	Avg. Period (hours)	MOE POI Limit ($\mu g/m^3$)	Limiting Effect	Regulation Schedule	Percent of MOE POI Limit
NO_X	10102-44-0	0.067	Reg. 346	757	0.5	1880	Health	Emergency Generator Data Sheet[1]	40%

[1] From the MOE document "Standby Generator Datasheet", August 2001