Executive Summary of the Emission Summary and Dispersion Modelling Report for the Windsor Office Power Generator Dated November 22, 2013

Union Gas Limited retained ORTECH Consulting Inc. (ORTECH), to prepare an Emission Summary and Dispersion Modelling (ESDM) Report for their Windsor Office Power Generator, located at 3840 Rhodes Drive in Windsor, 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).

The power generator is used for electricity generation in emergency situations. It is also used on a more regular basis for heating and air conditioning. Emissions from the generator's heating and air conditioning use have been included, along with other emissions from the facility, in the Union Gas Buildings Assessment (Report No. 91115-3-1ver3). This report only includes the emergency use of the generator.

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 from emergency power generation at the Windsor 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 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	0.10	Reg. 346	24	0.5	1880	Health	Emergency Generator Data Sheet[1]	1.3%

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