

Executive Summary

This Emission Summary and Dispersion Modelling (ESDM) Report for the North Bay Paint Spray Booth, located at 36 Charles Street in North Bay, Ontario is part of a Province-wide Environmental Compliance Approval (PWECA) for 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, Conservation and Parks (MECP) “Procedure for Preparing an Emission Summary and Dispersion Modelling Report Version 4.1” dated March 2018 (the Procedure) and “Air Dispersion Modelling Guideline for Ontario, February 2017, Version 3.0” (the ADMGO) .

This ESDM report includes the quantification of emission rates for all significant sources of contaminants from the paint spray booth. Emission rates that have been estimated in this report are for maximum operating scenarios as per O. Reg. 419/05 Schedule 3 regulatory requirements. Due to the underlying assumptions used for these scenarios, the emission rates cannot be realistically extrapolated to annual values and should not be used for such purposes.

As shown on Table 3, the maximum emission rates of Propylene Glycol, 1-Isobutyrate, Diethylene Glycol Monobutyl Ether and SPM are below the 24-h emission threshold. As a consequence, all contaminants associated with the paint spray booth are considered negligible. An Emission Summary Table has not been included as there are no significant air contaminants due to the paint spray booth.

Table 2: Screening Assessment of Contaminants Based on Emission Thresholds

SUBSTANCE NAME	CAS #	MECP POI OR DEMINIMUS ($\mu\text{G}/\text{M}^3$)	LIMITING EFFECT	AVERAGING PERIOD	REFERENCE	TOTAL MAX EMISSION RATE (G/S)	EMISSION THRESHOLD (G/S)	NEGLIGIBLE? (YES/NO)	% OF EMISSION THRESHOLD
Propylene Glycol	57-55-6	120	Particulate	24 hr	Guideline	9.99E-03	1.46E-02	yes	68%
1-Isobutyrate (Texanol)	25265-77-4	120	Health & Particulate	24 hr	Screening Level	9.99E-03	1.46E-02	yes	68%
Diethylene Glycol Monobutyl Ether	112-34-5	65	Health	24 hr	Guideline	2.00E-03	7.91E-03	yes	25%
Suspended Particulate	SPM	120	Visibility	24 hr	Standard	1.31E-02	1.46E-02	yes	90%