

**Executive Summary of the
Emission Summary and Dispersion Modelling Report
for the Payne Pool Station
Dated February 4, 2014**

Union Gas Limited (Union Gas) retained ORTECH Environmental (ORTECH), to update the 2008 Emission Summary and Dispersion Modelling (ESDM) Report for their Payne Pool Station (ORTECH Report No. 90476-2-8, June 24, 2008), referenced in the Province-wide Environmental Compliance Approval (ECA) Number 1949-7KRMCS issued on November 28, 2008. The facility is located at Lot 21 Concession 7, in Moore Township, Ontario. This report includes all sources of air emissions at the site including all existing combustion equipment. It has been updated to reflect that the height of the turbine exhaust stack was increased, as was required as part of the Union Gas’ Action Plan.

The Payne Pool 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 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 emissions 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 NO_x at the facility and an estimation of the aggregate maximum 1-hour and 24-hour point-of-impingement (POI) concentrations.

Due to the underlying assumptions used for the assessments, the emission rates cannot be realistically extrapolated to other time periods and should not be used for such purposes.

As shown on Table 1, the predicted maximum NO_x concentrations are below their respective MOE POI limits.

Table 1: Emission Summary Table

| Contaminant Name | CAS# | Total Facility Max. Emission Rate (g/s) | Air Dispersion Model Used | Max. POI Conc. (µg/m ³) | Avg. Period (hr) | POI Limit (µg/m ³) | Limiting Effect | Regulation Schedule # or Alternate | Max. % of POI Limit (%) |
|---------------------------------------|------------|---|---------------------------|-------------------------------------|------------------|--------------------------------|-----------------|------------------------------------|-------------------------|
| Nitrogen Oxides (as NO ₂) | 10102-44-0 | 0.55 | AERMOD | 48 | 1 | 400 | Health | 3 | 12% |
| | | | | 20 | 24 | 200 | Health | 3 | 10% |