



REPORT

B(a)P Monitoring Quarterly Written Summary Report
Q4 2018

Ruetgers Canada Inc.

Submitted to:

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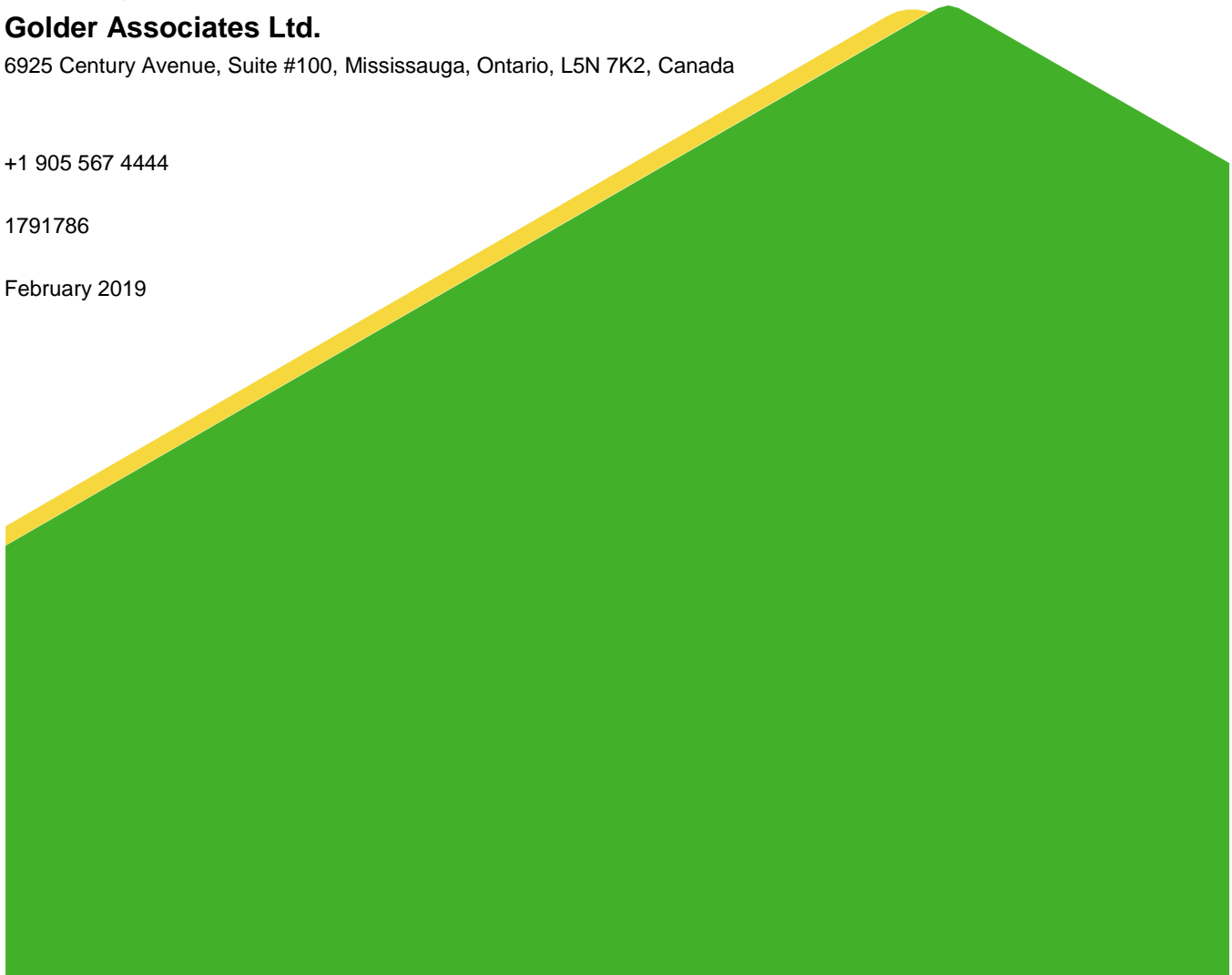
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Table of Contents

1.0 INTRODUCTION 1

2.0 B(A)P MONITORING 2

 2.1 B(a)P Measurements Comparison to MECP Thresholds 2

3.0 CONCLUSIONS 3

TABLES

Table 1: Summary of October, November and December B(a)P Measurements 2

1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was retained by Ruetgers Canada Inc. (Ruetgers) to prepare quarterly written summary reports of benzo(a)pyrene [B(a)P] ambient monitoring measurements for the coal tar and petroleum material processing plant located at 725 Strathearne Avenue N., Hamilton, Ontario (the Facility). This report summarizes the measurements taken at the Facility during the fourth quarter of 2018 (October to December) as part of the Ruetgers ambient monitoring program.

The ambient monitoring measurements have been taken in accordance with the April 2018 Monitoring Plan for B(a)P and Benzene (the Plan) approved by the Ontario Ministry of the Environment, Conservation and Parks (MECP) on May 15, 2018. The Plan and monitoring program have been developed as per the conditions of the Site-Specific Standard (SSS) approvals for B(a)P (no. 201-17-rv0) and benzene (no. 202-17-order-rv0) issued to the Facility on November 21, 2017.

The first quarterly written summary report for the 2019 calendar year will be prepared by April 30, 2019 for the B(a)P measurements taken between January 1 and March 31, 2019.

2.0 B(A)P MONITORING

The monitoring program for B(a)P consists of setting up a polyurethane foam (PUF) polyaromatic hydrocarbon (PAH) sampling system at four locations at the Facility. Samples are collected over a 24-hour period. Air quality data acquisition and instrument performance were evaluated by Rotek Environmental Inc. personnel. The laboratory analysis was conducted by Maxxam Analytics, which is ISO17025 compliant and accredited. Additional details on the locations of the monitoring stations are provided in the monthly Ambient Air Quality Monitoring Reports (AAMRs) prepared in 2018.

B(a)P measurements from October, November, and December 2018 are summarized in Table 1. Copies of the laboratory analysis reports may be found in the AAMRs for October, November and December.

Table 1: Summary of October, November and December B(a)P Measurements

Date	Measured Concentration [$\mu\text{g}/\text{m}^3$]			
	East - Top of Tank-36	North - MCC	West - Tank-77 Platform	South - Berm
October 5, 2018	0.00047	0.00097	0.00444	0.00069
October 17, 2018	0.00371	0.02720	0.00049	0.00068
October 29, 2018	0.02350	0.04680	0.00311	Below Detection Limit*
November 10, 2018	0.02620	0.01180	Below Detection Limit*	Below Detection Limit*
November 22, 2018	0.00127	0.00606	0.00564	0.00115
December 4, 2018	0.00400	0.02240	0.00652	0.00214
December 16, 2018	0.01800	0.00477	0.00159	0.00218
December 28, 2018	0.00813	0.00195	0.00087	Below Detection Limit*

*The Detection Limit varies between 0.00030 and 0.00032 $\mu\text{g}/\text{m}^3$

2.1 B(a)P Measurements Comparison to MECP Thresholds

The MECP included a Measured Level threshold in the B(a)P SSS as a trigger to evaluate progress on the B(a)P Action Plan. This level, set by the MECP, is not directly related to the ESDM Report results. There were thirteen measurements that were above the 0.0043 $\mu\text{g}/\text{m}^3$ Measured Level threshold. This triggers the preparation of a report, as required by the B(a)P SSS. As per Condition 2 of the SSS, Ruetgers prepared three separate reports that include information on the causes of measurements being above the Measured Level threshold and prevention of future occurrences. Ruetgers has committed to undergo an engineering study to assess the effectiveness of all actions completed to date.

The results of the B(a)P monitoring events showed measured concentrations above the Upper Risk Threshold (URT) of $0.005 \mu\text{g}/\text{m}^3$, which were anticipated based on the predicted modelling values previously submitted to the MECP. Ontario Regulation 419/05 stipulates that the MECP must be notified when measured concentrations are above the URT at a point of impingement. Although all four monitors are located within the Facility's property boundary and, therefore, not at an offsite point of impingement, Ruetgers chose to notify the MECP of the first measurement above the URT and submitted the MECP "Notification of Exceedance – Local Air Quality Regulation" form on October 30, 2018. The MECP has been notified of any other monitoring events that measure concentrations above the URT by way of the Monthly Monitoring Reports submitted by the 20th of the month following monitoring (i.e., individual notifications related to measured concentrations will not be submitted).

Please note that the frequency assessment of B(a)P completed as part of ESDM Report V5.1 showed that the predicted concentrations are below the URT of $0.005 \mu\text{g}/\text{m}^3$ at sensitive receptors (i.e., residential locations). As the measured concentrations are below the predicted concentration, it is anticipated that measured concentrations at sensitive receptors would also be below the URT.

3.0 CONCLUSIONS

This report summarizes the B(a)P ambient monitoring measurements taken at the Facility during the fourth quarter of 2018 (October – December) as per the Plan and the conditions of the Site-Specific Standard (SSS) approvals for B(a)P (no. 201-17-rv0) and benzene (no. 202-17-order-rv0) issued to the Facility on November 21, 2017.

During the fourth quarter of 2018, there were thirteen measurements that were above the $0.0043 \mu\text{g}/\text{m}^3$ Measured Level threshold. This triggers the preparation of reports, as set out in the B(a)P SSS. As per Condition 2 of the SSS, Ruetgers prepared three separate reports during the fourth quarter that included information on the causes and prevention of future measurements being above the Measured Level threshold. Ruetgers has committed to undergo an engineering study to assess the effectiveness of all actions completed to date.

The measured B(a)P concentrations are below the maximum 24-hour predicted concentration of B(a)P of $0.2 \mu\text{g}/\text{m}^3$ at the POI which shows that the ESDM Report does not underpredict B(a)P emissions from the Facility. Ruetgers has committed to undergo an engineering study to assess the effectiveness of all actions completed to date. Please note that the frequency assessment of B(a)P completed as part of ESDM Report V5.1 showed that the predicted concentrations are below the URT of $0.005 \mu\text{g}/\text{m}^3$ at sensitive receptors (i.e., residential locations). As the measured concentrations are below the predicted concentration, it is anticipated that measured concentrations at sensitive receptors would also be below the URT.

Signature Page

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