



GOLDER

REPORT

B(a)P Monitoring Quarterly Written Summary Report
Q3 2018

Ruetgers Canada Inc.

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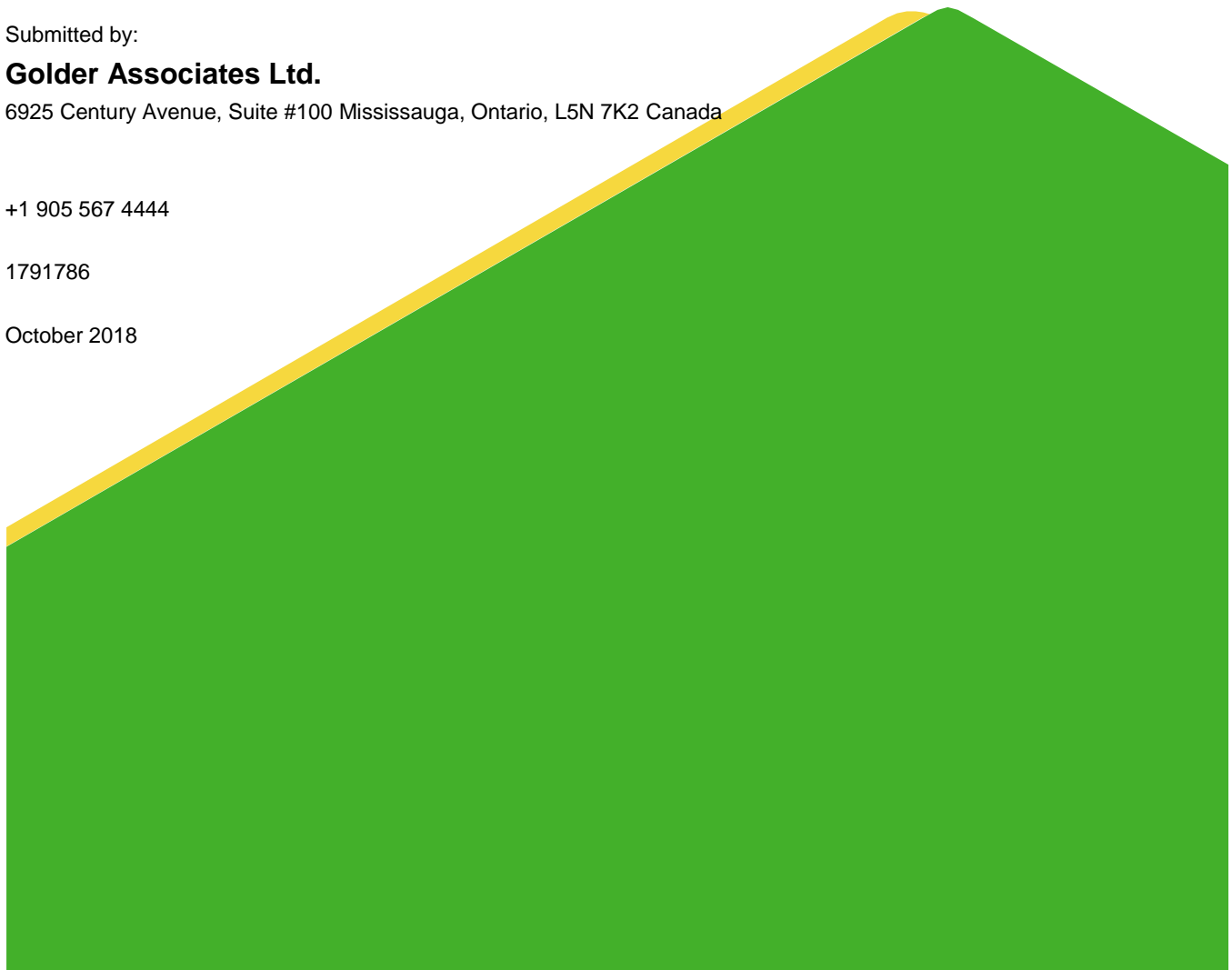
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1.0 INTRODUCTION

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 is the first quarterly report submitted as part of the Ruetgers ambient monitoring program and summarizes the measurements taken during August and September 2018.

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 second quarterly written summary report will be prepared by January 31, 2019 for the B(a)P measurements taken between October 1 and December 31, 2018.

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 August and September monthly Ambient Air Quality Monitoring Reports (AAMRs).

B(a)P measurements from August and September 2018 are summarized in Table 1. Copies of the laboratory analysis reports may be found in the August and September AAMRs.

Table 1: Summary of August and September 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
August 18, 2018	0.00045	0.00287	0.00555	0.00056
August 30, 2018	0.00103	0.01050	0.00249	0.00113
September 11, 2018	0.00224	0.05130	0.00451	0.00058
September 23, 2018	0.00049	0.00097	0.01280	0.00050

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 five measurements that were above the 0.0043 µg/m³ 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 two 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 µg/m³, 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 has chosen 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 will be 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 µg/m³ 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 third quarter of 2018 (August – September) 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 third quarter of 2018, there were five measurements that were above the 0.0043 µg/m³ Measured Level threshold. This which triggers the preparation of reports, as set out in the B(a)P SSS. As per Condition 2 of the SSS, Ruetgers prepared two separate reports that include 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 µg/m³ 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 µg/m³ 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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