RILEYGROUP

TECHNICAL MEMORANDUM

Date: April 19, 2024 RGI Project Number: 2016-096-2

To: Washington Department of Ecology
Attn: Ms. Kim Vick
Northwest Regional Office
15700 Dayton Avenue North
Shoreline, Washington 98133

cc: The Keystone Building Partnership L.L.P.
C/o Mr. Trent Kloppenburg

Subject: **2024 SSD System &Vapor Pin Monitoring Results**
Cleaner One
12817 Southeast 38th Street
Bellevue, Washington
Ecology VCP No. NW3102

The Riley Group, Inc. (RGI) is pleased to present this Technical Memorandum (Memorandum) documenting recent monitoring of the SSD system and vapor pins located at 12817 Southeast 38th Street in Bellevue, Washington (herein referred to as the Property).

The Property is owned by The Keystone Building Partnership L.L.P. (hereafter referred to as the Client) and is currently enrolled in the Washington Department of Ecology (Ecology) Voluntary Cleanup Program (VCP). Ecology identifies the Property as Cleaner One Bellevue with VCP Project No. NW3102. The Property is currently in the process of obtaining regulatory closure in the form of a No Further Action (NFA) determination with an Environmental Covenant (NFA/EC) from Ecology.

The purpose of this Memorandum is to document the recent monitoring of tetrachloroethene (PCE) vapor concentrations at sample ports associated with the SSD system (SP-1, SP-2, and SP-3) and also the monitoring of PCE soil vapor concentrations in vapor pins (SV1, SV2, SV3, and SV4) situated inside the former Cleaner One space.

RGI recently submitted the *SSD Operation, Monitoring, Maintenance & Contingency Plan* (OM/Contingency Plan) dated April 19, 2024, by RGI to Ecology. This document outlines the equipment and methodology used for monitoring PCE in soil vapor for the remainder of the project. The reader is directed to refer to this document for additional details.

This Memorandum was prepared based on a request from Ecology and was authorized by the Client.

SSD SYSTEM MONITORING

The SSD system contains three sample ports (SP-1, SP-2, and SP-3), which were installed to monitor PCE in vapor within the SSD system and in vapor discharged to ambient air. Sample ports 1 and 2 are situated in the discharge pipe on the roof, above and below the AMG Eagle fan. Sample port 3 is situated on the 3" PVC extending up from vapor extraction point SSD-1, which is where the highest concentrations of PCE in soil vapor would be anticipated to be located.

On March 22, 2024, RGI monitored all three sample ports using the methodology described in the OM/Contingency Plan. Prior to monitoring, a span calibration was completed on the MiniRAE 3000 PPB photoionization detector (PID) using isobutylene calibration gas at a concentration of 3.21 parts per million volume (ppmv) and a zero point calibration was completed using a high quality charcoal tube. In addition, the PID was set with a Correction Factor (CF) appropriate for PCE of 0.57 and a new PID sensor was installed that is dedicated to the former Cleaner One project.

The PID was connected directly to each sample port using Teflon tubing and the reading registered after 20 seconds was recorded in the field logbook. The results of monitoring PCE vapor concentrations in sample ports were as follows:

- SP-1 (on the roof above the AMG Eagle fan) registered a PID reading of 108 parts per billion volume (ppbv), which is equivalent to 1,378 micrograms/cubic meter (µg/m^3) of PCE;
- SP-2 (on the roof below the AMG Eagle fan) registered a PID reading of 114 ppbv, which is equivalent to 1,454 µg/m^3 of PCE, and
- SP-3 (on the 3" PVC extending up from vapor extraction point SSD-1) registered a PID reading of 116 ppbv, which is equivalent to 1,478 µg/m^3 of PCE.

None of the registered PID readings in sample ports are indicative of a PCE vapor concentration that would represent a concern with regards to discharging vapor to ambient air above the building.

VAPOR PIN MONITORING

On April 12, RGI monitored PCE vapor concentrations in vapor pins SV-1, SV-2, SV-6, and SV-7, which are situated inside the former Cleaner One space. RGI utilized the same PID calibration process and monitoring methodology used for monitoring sample ports described above.

The PID was connected directly to each vapor pin using Teflon tubing and the PID reading registered after 20 seconds was recorded in the field logbook. The PID registered a reading of 0 ppbv or 0 µg/m^3 in all four vapor pins (SV-1, SV-2, SV-6, and SV-7). The Site-specific Soil Vapor Screening Level for PCE is 22,450 µg/m^3. This data indicates that the operation of the SSD system at the Property has been remarkably effective at reducing subslab concentrations of PCE in soil vapor thereby eliminating the vapor intrusion threat to the building.

RGI's next scheduled vapor monitoring event is estimated to take place in May of 2025.

Please contact us at (425) 415-0551 if you have any questions or if need additional information.

Distribution *Ms. Kim Vik, Ecology Northwest Region (1 PDF)*
Mr. Trent Kloppenburg, The Keystone Building Partnership L.L.P. (1 PDF)