




## MEMORANDUM

To: Mark Adams, LHG  
Washington State Department of Ecology

Date: January 20, 2021

From: Heather Good, LHG  


Project No.: 1803.01.04

RE: December 2020 Slab Inspection and Vapor Intrusion Priority Monitoring  
Precision Engineering, Inc., Seattle, Washington  
Agreed Order No. DE 18079; Facility Site ID 2056; Cleanup Site ID 4532

---

Maul Foster & Alongi, Inc. (MFA) prepared this memorandum to transmit documentation of and data from the first quarterly slab inspection and vapor intrusion priority (VIP) air monitoring event conducted at the Precision Engineering, Inc. (Precision) site (the Site). Activities were conducted in accordance with the Washington State Department of Ecology (Ecology)-approved VIP work plan, included as Section 7 of MFA's draft vapor report<sup>1</sup>.

### SLAB INSPECTION

A site visit was conducted on December 17, 2020 to inspect slab conditions. Slab inspection documentation is provided as Attachment A and includes an inspection form summarizing observed slab conditions, a figure showing locations of slab conditions noted in the inspection form, and photographs taken during the site reconnaissance.

MFA observed localized areas of unsealed cracks and groundwater seepage and minimal, surficial degradation of crack sealant, but overall, the slab appeared to be in good condition (see Attachment A).

### AIR MONITORING

Radiello 130 passive vapor samplers were deployed over a three-week period from December 17, 2020 to January 7, 2021 in three locations: the office (RAD1), sewing room (RAD4), and Warehouse 1 (RAD5) (see Figure 4-1 of the draft vapor report<sup>1</sup>).

---

<sup>1</sup> MFA. 2020. Vapor report: vapor intrusion assessment, interim remedial actions, vapor intrusion priority work plan, Precision Engineering, Inc., site. Prepared for Dick Morgan. Maul Foster & Alongi, Inc., Bellingham, Washington. November 6.

The samples and a trip blank were analyzed for trichloroethene (TCE) by U.S. Environmental Protection Agency Method TO-17. The laboratory analytical report is provided as Attachment B. Analytical data and the laboratory's internal quality assurance and quality control data were reviewed to assess whether they met project-specific data quality objectives. A data validation memorandum summarizing data evaluation procedures, data usability, and deviations from specific field and/or laboratory methods is included as Attachment C. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

TCE was detected in all three samples at concentrations ranging from 0.54 to 0.87 micrograms per cubic liter ( $\text{ug}/\text{m}^3$ ), below Ecology's workplace scenario short-term action limit of  $7.5 \text{ ug}/\text{m}^3$  provided in Implementation Memorandum No. 22<sup>2</sup>, but above the Model Toxics Control Act Method B indoor air cleanup level of  $0.33 \text{ ug}/\text{m}^3$ .

## **DISCUSSION AND RECOMMENDATIONS**

The slab was observed to be in generally good condition, aside from the minor issues noted in Attachment A. TCE in indoor air was below the short-term action limit and lower than results from confirmation vapor sampling conducted immediately after implementation of the interim remedial actions<sup>1</sup>; therefore, the minor slab issues do not appear to be contributing to worsening conditions. Based on these findings, MFA does not recommend resuming air purification.

MFA will continue to visually monitor the slab conditions and conduct air monitoring, as described in the VIP work plan<sup>1</sup>. The next quarterly event is scheduled for March 2021.

## **ATTACHMENTS**

Limitations

Attachment A—Slab Inspection Documentation

Attachment B—Analytical Lab Report

Attachment C—Data Validation Memorandum

---

<sup>2</sup> Ecology. 2019. Implementation memorandum no. 22: vapor intrusion investigations and short-term trichloroethene toxicity. Washington State Department of Ecology, Lacey, Washington. October 1.

## LIMITATIONS

---

The services undertaken in completing this memorandum were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This memorandum is solely for the use and information of our client unless otherwise noted. Any reliance on this memorandum by a third party is at such party's sole risk.

Opinions and recommendations contained in this memorandum apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this memorandum.

# ATTACHMENT A

## SLAB INSPECTION DOCUMENTATION



# ATTACHMENT B

## ANALYTICAL LAB REPORT



# ATTACHMENT C

## DATA VALIDATION MEMORANDUM

