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January 6, 2023

Ms. Barbara Bahr Harborview Cleaners 134 East Grand Avenue Port Washington, WI 53074

Subject: Review of Site Investigation Report and Planned Next Steps

Harborview Cleaners, 134 East Grand Avenue, Port Washington, Wisconsin

BRRTS: #02-46-548092, FID: #246063070

Dear Ms. Bahr:

On September 6, 2022, the Wisconsin Department of Natural Resources (DNR) received the *Comprehensive Site Investigation Report*, (the SIR) submitted on your behalf by Environmental Forensic Investigations, Inc. (Enviro Forensics). The submittal of a site investigation report (SIR) is required per Wis. Admin. Code § NR 700.11, as this site is subject to regulation under Wis. Stat. § 292. The SIR accompanied a technical assistance request and fee for a written response from the DNR regarding the SIR and Enviro Forensics' recommended next steps.

## **Background**

Harborview Cleaners, at 134 East Grand Avenue (the Site) has been a dry-cleaning facility since about 1970 and currently operates as an on-site process dry-cleaner. Contamination was discovered during site assessment activities completed by the Wisconsin Department of Transportation in the right-of-way in 2006 prior to road construction. Site investigation activities completed in 2006, and 2008 to 2020 identified soil, groundwater, and vapor impacts from the dry-cleaning solvent tetrachloroethene (PCE) and PCE breakdown products, including trichloroethene (TCE). PCE and TCE are the primary constituents of concern at the Site. From 2014 to 2016, vapor investigations were conducted at three off-site properties, 126 E. Grand Avenue, 103-109 N. Franklin Street, and 115 N. Franklin Street. PCE vapor impacts above regulatory standards were found at 103-109 N. Franklin Street.

Vapor mitigation consisting of a sub-slab (and sub-membrane) depressurization system (SSDS) was installed next door in the basement of 103-109 N. Franklin Street in April 2016. In 2016 and 2017, steps were taken to improve the effectiveness of the SSDS including installation of a floor membrane where no slab was present and sealing the south field-stone foundation walls and west basement wall with expanding foam and caulk. Vapor sampling in the buildings completed since that time has confirmed that PCE vapor concentrations decreased below regulatory commercial vapor action levels (VALs) in indoor air by February of 2020.

In August of 2018, a soil vapor extraction system (SVE) was installed at the Site to remediate contaminated soil and soil vapor below the dry-cleaner building floor slab. In 2020, the SVE system was shut down, then re-started with modifications based on confirmation soil and sub-slab vapor sampling done at that time. The SVE system is currently running and Enviro Forensics states that the goal of the SVE is to reduce sub-slab vapor concentrations below the residential vapor risk screening level (VRSL).



## Review

After reviewing the SIR, the DNR has determined that additional work is necessary to meet the requirements for case closure, because the site investigation is incomplete. The degree and extent of contamination identified at the Site has not been adequately evaluated and documented with respect to Wis. Admin. Code § NR 716. The findings and interpretations by the DNR regarding the incomplete site investigation are summarized below:

1. Evaluation of environmental media affected or potentially affected by the contamination

Per Wis. Admin. Code § NR 716.07(4), all environmental media affected or potentially affected by the contamination must be evaluated.

- a. The groundwater has not been sampled at the Site since 2016. Current groundwater samples must be collected, and an evaluation of an appropriate sampling program should be developed and submitted to the DNR for consideration.
- b. Recent soil data, specifically the 2020 soil confirmation sampling for the SVE system at samples HP-1R and SB-2R, has shown TCE and other breakdown products of PCE contamination in soil, which were not present during previous sampling events. It must be evaluated if the concentrations of TCE and other PCE breakdown products are increasing in environmental media, including soil and groundwater, due to the breakdown of the parent compound PCE and/or other changing site conditions.
- c. Additional vapor samples need to be collected from 126 East Grand Avenue, the Pebble House, to confirm that vapor concentrations are below regulatory levels. The 2016 samples are not adequate because TCE has been detected in recent soil samples collected near the Pebble House that may be a daughter product of PCE. Refer to the DNR's vapor intrusion guidance document, RR-800 for recommended vapor sampling guidelines.
- d. Submit an additional cross-section similar to *Figure 5, Cross Section B-B*', of the SIR to include data from the more recent samples, HP-1R, HP-2R, SB-2R, SB-3R, and K-1R, to depict more current conditions.
- e. The release of PCE at the site is associated with a waste stream (waste solvent and filter storage). Since current studies have shown dry cleaning wastes contain PFAS, PFAS sampling is required. The DNR recommends collecting a groundwater sample from the well with highest concentration of PCE contamination.
- 2. Degree and extent of contamination in all affected media

Wis. Admin. Code § NR 716.11(3)(a) requires the field investigation to determine the nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media.

a. Determine the extent of soil and groundwater contamination to the west and southwest of the site. There is no groundwater data west of monitoring well MW-4, and the groundwater flow direction is uncertain due to the hydraulic head elevation in monitoring well MW-2 that may indicate groundwater flow is westerly from MW-4, instead of to the southeast as presumed. With regard to soil, there are no soil samples to the southwest of soil borings SB-3R, and K-1R to define the degree and extent of contamination in that direction.

DNR Comments on Enviro Forensics' Proposed Next Steps

Enviro Forensics proposes to continue operation of the on-site SVE until routine effluent monitoring indicates negligible mass removal, at which point they will collect additional sub-slab samples to re-evaluate site conditions. Enviro Forensics also proposes the collection of an indoor air sample at the 103—109 N. Franklin Street building after the SVE remediation is complete to the extent practicable to determine if the SSDS can be decommissioned. The DNR generally agrees with the proposal to continue operation of the SVE and re-evaluate site conditions after the additional SVE remediation is complete. Additional comments are provided below.

- The DNR cannot approve decommissioning plans for the SSDS at this time. The decision to decommission the system will be dependent upon future site investigation sample results and post-remediation site conditions. Site conditions will need to be re-evaluated after the SVE is shut down to determine new baseline conditions and determine whether continued SSDS operation is necessary. Multiple rounds of indoor air sampling after SVE shut down, paired with sub-slab sampling, will likely be necessary at the 103-109 building before the DNR can approve decommissioning of the SSDS.
- The 103-109 N. Franklin Street property contains a mixed-use commercial/residential building. For such buildings, the DNR generally recommends that residential VALs and VRSLs are applied. The most recent SSDS effluent sample, collected on February 18, 2020, identified PCE at a concentration exceeding the residential VRSL, which is an increase in PCE concentration relative to SSDS effluent samples collected from 2017 through 2019. Additionally, the most recent indoor air sampling at the 103-109 N. Franklin Street building, conducted on August 25, 2020, identified PCE in the indoor air of the first floor at a concentration exceeding the residential VAL. The SSDS and SVE were both shut down prior to the collection of that sample.

The DNR recognizes that, as stated in the SIR, the fieldstone basement wall is a likely migration pathway for vapors into the 103-109 N. Franklin Street property and operation of the SVE likely has a beneficial mitigation effect on the indoor air quality at the 103-109 N. Franklin Street building. However, based on indoor air data collected after SSDS installation, but prior to sealing of the fieldstone basement wall and installation of the SVE, the most recent indoor air data, and the most recent SSDS effluent data, it appears the SSDS may have a beneficial effect on indoor air quality and its operation may be necessary to ensure concentrations in indoor air remain below VALs, therefore the DNR recommends reactivation of the SSDS and subsequent indoor air sampling at the 103-109 N. Franklin Street building to demonstrate that indoor air concentrations are below residential VALs. The need for continued operation of the SSDS may be re-evaluated after the SVE remediation is complete.

- The DNR recommends that when the mass removal rate of the SVE system diminishes, Enviro Forensics should consider altering the extraction strategy (pulsing, etc.) to determine if rebound is occurring and additional mass can successfully be removed from less permeable zones.
- The DNR agrees with the proposal to conduct post-remediation sub-slab sampling. Multiple rounds of post-remediation sub-slab sampling will likely be needed to determine the effectiveness of the remediation and determine whether rebound of contaminant concentrations is occurring.

## Schedule

In consideration of administrative code requirements, the DNR is requesting implementation of the following schedule:

- Per Wis. Admin. § NR 716.09(1), the DNR is requesting the submittal of a site investigation work plan by March 6, 2023, to address the comments provided above.
- Per Wis. Admin. § NR 716.11(2), field investigation activities must begin within 90 days of submittal of the work plan.

The DNR appreciates the efforts you are taking to address the contamination at this site. If you have any questions about this letter, please contact me, the DNR Project Manager, at 262-416-8643 or johnm.feeney@wisconsin.gov.

Sincerely,

John Feeney, PG

Remediation and Redevelopment Program Wisconsin Department of Natural Resources

cc: Mr. Brian Kappen, Enviro Forensics