



February 20, 2017

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

Subject: Review of Remedial Action Options Report

Harborview Cleaners  
134 East Grand Avenue, Port Washington, Wisconsin  
BRRTS: #02-46-548092, FID: #246063070

Dear Ms. Bahr:

On November 21, 2016, the Wisconsin Department of Natural Resources (DNR) received a "Remedial Action Options Report" (RAOR) prepared for Harborview Cleaners by Environmental Forensic Investigations, Inc. (EnviroForensics) with a Technical Assistance Request for the site identified above. The submittal of the RAOR is required per Wis. Admin. § NR 722, as this site is subject to regulation under Wis. Stat. § 292.

#### Background

This site is developed with a 1,300-square foot single-story commercial building that was constructed in the 1930s or 1940s. The site was reportedly occupied by a gas station until 1970 when it was converted to a dry cleaning facility, which still operates on the site. The building foundation is a concrete slab on grade, with the remainder of the site being a paved asphalt/concrete driveway and parking area. Contamination was identified during site assessment activities completed by the Wisconsin Department of Transportation (DOT) in the right-of-way in 2006. The DNR opened an Environmental Repair Case (ERP) to address the contamination from the historic site operations under state law.

Site investigation activities completed in 2006 and 2008 identified soil, groundwater, and vapor impacts on the site with elevated concentrations of tetrachloroethene (PCE) and PCE breakdown products. PCE is the primary constituent of concern. The main source area appears to be at/near the dry cleaning machine. Investigation activities completed in 2014-2016 included additional on-site sampling and vapor assessments at three off-site properties: 126 E. Grand Avenue, 103-109 N. Franklin Street, and 115 N. Franklin Street.

A vapor system, consisting of a sub-slab depressurization system (SSDS) and sub-membrane depressurization system (SMDS), was installed in the basement of 103-109 N. Franklin Street in April 2016. Vapor sampling completed in May and November 2016 indicates lower PCE vapor concentrations, however the levels are still above regulatory Vapor Action Levels (VALs) and require further action.

### RAOR Summary

The RAOR presented various alternatives and recommended completion of the following activities:

- Due to the predominantly fine-grained soils within the vadose zone, a pilot test for a Soil Vapor Extraction (SVE) system is planned to demonstrate the feasibility of this remedial action. It is anticipated that one or more vapor extraction wells will be installed within the footprint of the building.
- If the pilot test demonstrates the effectiveness of SVE remediation, an SVE system is planned within the soil source area beneath the on-site building. The primary objectives would be to reduce the contaminant concentrations in soil and reduce the potential for vapor intrusion into the on-site building and off-site, specifically into the adjacent building at 103-109 N. Franklin Street. The estimated duration for operation of an SVE system is approximately two years.
- Confirmation soil sampling will be completed to document contaminant reductions, and post-remediation groundwater monitoring will be completed.
- Inclusion on the DNR's GIS Registry may be necessary after remediation to identify areas with contaminant concentrations above state regulatory standards. To mitigate exposure to residual contamination, an engineered control, such as a direct contact barrier, may be needed.

Following the DNR's review of the RAOR and subsequent conversations with EnviroForensics and the Wisconsin Department of Health Services (DHS), the DNR requests that you proceed with the SVE pilot test to determine its feasibility as a remedial action. It may be necessary to seal the floor prior to the pilot test. This pilot test will be identified as an *interim* action, per Wis. Admin. § NR 724. Note that the DNR may require follow-up sampling after an SVE system remedial action is complete.

### Vapor System Evaluation and Improvements

As mentioned above, the vapor mitigation system installed at 103-109 N. Franklin Street has not reduced the PCE vapor concentrations below regulatory Vapor Action Levels (VALs). Therefore, further evaluation and system improvements are required. The site and system design has been reviewed with Rob Thiboldeaux (DHS), and he suggests that you consider sealing the wall between the 103-109 buildings, as that may be acting as a vapor pathway. This suggestion has been shared with EnviroForensics. Rob Thiboldeaux may be used as a resource for all health-related questions regarding the vapor impacts and operating system. He may be reached at 608-267-6844, or email [robert.thiboldeaux@wi.gov](mailto:robert.thiboldeaux@wi.gov).

The vapor system needs to be improved as soon as possible, and the DNR is requiring the submittal of an Operation and Maintenance Plan Revision with your proposed vapor system improvements and anticipated schedule. The DNR has received copies of sampling results that were provided to the owner of 103-109 N. Franklin Street, however it is unclear if the building occupants were notified, as well. Please confirm that the past vapor sampling results have been shared with the building occupants. Regarding future vapor sampling, Wis. Admin. § NR 716.14 requires the results of all sampling events at any off-site property, including 103-109 N. Franklin Street, to be shared with the property owner(s) and building occupants within 10 business days of receiving the sample results.

### Completion of the Site Investigation

The case file was reviewed with the submittal of the RAOR and technical assistance request. An initial Site Investigation Report was received by the DNR in 2009. Additional site investigation activities occurred after 2009, and a Supplemental Site Investigation Report was submitted to the DNR in March 2016. Neither the 2009

nor the 2016 Site Investigation Reports demonstrated full compliance with code and statute requirements. The findings and interpretations by the DNR regarding the incomplete Wis. Admin. § NR 716 site investigation are summarized below:

- Degree and extent of contamination in all affected media

Wis. Admin. § 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. Additionally, Wis. Admin § NR 716.15(4)(c) and (d) require the site investigation report to include isoconcentration maps and cross sections to depict the hazardous substance concentrations in each environmental medium.

Submit detailed iso-concentration maps and cross-sections for soil, groundwater, and vapor (including at least one that transects the source area(s)). Indicate all potential source area(s) on the maps, including the locations of dry cleaning machines, solvent storage, disposal of filters, etc. These figures should include all sampling results, including those reported by the DOT in 2006. These figures should be prepared and reviewed before the submittal of a RAOR/RAP to fully understand the degree and extent of contamination that requires remediation.

- Off-site affected properties

Wis. Admin. § NR 716.11(4) requires the field investigation to extend beyond the property boundaries of the source area as necessary to fully define the extent of contamination.

The extent of soil contamination to the north of the source area remains undefined. Soil boring(s) are recommended through the floor of the 103-109 N. Franklin Street building to determine the extent of contamination and the volume of contaminant source area soils to properly design the remedial action system. Note that results of this investigation may affect the need for additional work.

### Schedule

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

#### *Vapor System*

- Per Wis. Admin. § NR 724.13(4), the DNR is requesting the submittal of an Operation and Maintenance Plan Revision for the vapor mitigation system installed at 103-109 N. Franklin Street by **March 8, 2017**. System improvements are needed to control and maintain vapor concentrations below the VALs.

#### *Site Investigation*

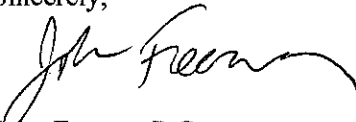
- Per Wis. Admin. § NR 716.09(1), the DNR is requesting the submittal of a revised site investigation work plan by **April 21, 2017**, to address the deficiencies identified above.

*Remedial Action (SVE System Pilot Test)*

- Upon completion of the interim action, a construction documentation report shall be submitted to the DNR within **60 days** after the date that any interim action is completed. The construction documentation report shall comply with the requirements in Wis. Admin. § NR 724.15. The RAOR identified that a report will be submitted to the DNR with the pilot test results.
- Per Wis. Admin. § NR 724.09, a remedial action plan (RAP) shall be submitted to the DNR based on the pilot test results. The RAP shall comply with all the requirements in Wis. Admin. § NR 724, including a post-remediation monitoring 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 920-893-8523, or [johnm.feeney@wisconsin.gov](mailto:johnm.feeney@wisconsin.gov).

Sincerely,



John Feeney, P.G.  
Project Manager – Hydrogeologist  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources

cc: Rob Hoverman - EnviroForensics  
BRRTS case file # 02-46-548092