



August 11, 2016

Mr. Steve Hamann
Zenith Properties LLC
P.O. Box 2033
Manitowoc, WI 54221

Subject: Case Closure Denial for Incomplete Soil, Groundwater and Vapor Requirements
United Laundries & Dry Cleaners, 623 Reed Ave, Manitowoc, Wisconsin
DNR BRRTS Activity # 02-36-544383

Dear Mr. Hamann:

On August 2, 2016, the Department of Natural Resources reviewed your request for closure of the case described above. The Department of Natural Resources reviews environmental remediation cases for compliance with state and federal laws to maintain consistency in the closure of these cases. As discussed with you and your consultant on August 9, 2016, the closure committee has denied closure because additional requirements must be met. The purpose of this letter is to inform you of the remaining requirements for obtaining closure. The Department requests that by October 10, 2016, you provide us with your written response regarding the necessary work and a schedule for completion of this work.

As noted above, additional site work is necessary in order to meet the requirements for site closure because additional groundwater monitoring is needed, degree and extent of soil contamination has not been defined, confirmation soil sampling is needed for soil vapor extraction termination, and vapor mitigation system operation and maintenance plans need to be submitted.

Need to Conduct Additional Groundwater Monitoring

Additional groundwater monitoring is needed in order to establish compliance with the closure criteria of Wis. Admin. ch. NR 726. A minimum of one additional groundwater sample needs to be collected from monitoring well MW-10 to confirm that chlorinated volatile organic compound (CVOC) contaminant concentrations will remain below the Wis. Admin. ch. NR 140 enforcement standard.

Need to Define the Degree and Extent of Soil Contamination

Additional soil sampling is needed in order to define the degree and extent of CVOC contamination to meet the criteria of Wis. Admin. ch. NR 716. There are still groundwater pathway residual contaminant level (RCL) exceedances for CVOCs in perimeter soil samples which warrant additional soil sampling on and/or off-site to the south, north-northeast, and east. If soil contamination degree and extent cannot be defined to the west due to the Piggly Wiggly building, then that building will act as a structural impediment at time of closure. This means that if the building is removed or modified, additional investigation and/or cleanup would need to be completed at that time since you would then have unobstructed access to the contamination.

Need Confirmation Soil Sampling for Soil Vapor Extraction Termination

Soil venting system termination is evaluated on the basis of confirmation soil sampling. Soil samples need to be collected to evaluate that the soil vapor extraction system was effective in reducing contaminant concentrations in the remediated area influenced by soil vapor extraction operation. Recommended soil sampling locations are at the mid-point between air extraction wells and/or in the zone(s) that contained the highest initial contamination. Please refer to publication RR-185, *Guidance for Design, Installation and Operation of Soil Venting Systems*, for more information on soil vapor extraction systems, which can be found at the following link:
<http://dnr.wi.gov/files/PDF/pubs/rr/RR185.pdf>.

Need to Submit Operation and Maintenance (O&M) Plans for Vapor Mitigation Systems

Three vapor mitigation systems need to continue to operate, two of which are located in the interconnected United building at 623 and 621 Reed Avenue addresses, and one located in the Piggly Wiggly building at 1339 North 8th Street. Three separate O&M Plans need to be submitted under Wis. Admin. § NR 724.13(2) that should include actions necessary to maintain the system including listing the frequency of inspections, monthly manometer checks, monitoring, system adjustment, logs for recording all O&M efforts, etc. to ensure continued effectiveness and protection of indoor air from residual CVOC contamination.

Need to Submit Revised Notification Letters


After the additional work has been completed, revised off-site notification letters may need to be issued for off-site properties to take into account any additional off-site continuing obligations.

The Project Manager will follow up with your consultant on the revisions needed to the case closure request. A revised closure request shall be re-submitted once all the above requirements have been satisfied, together with any required documentation, to notify the Department that applicable requirements have been met. Case closure can be considered once all the above requirements have been satisfied.

By October 10, 2016, please respond in writing with a schedule of your plans to meet these requirements. Until requirements have been met, your site will remain “open” and you will also need to continue to submit the semi-annual progress reports, as required by Wis. Admin. § NR 700.11. You will also be responsible for any O&M activities required under Wis. Admin. § NR 724.13.

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact Tauren Beggs at 920-662-5178 or at Tauren.Beggs@wisconsin.gov.

Sincerely,



Roxanne N. Chronert
Team Supervisor, Northeast Region
Remediation & Redevelopment Program

cc: Mark McColloch, Shannon & Wilson, Inc. (electronic, MSM@shanwil.com)