State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

July 29, 2013

Mr. William Nicklas
Superior Health Linens
5005 S. Packard Avenue
Cudahy, WI 53110

Subject: Request for Technical Assistance
Superior Health Linens, 5005 S. Packard Ave, Cudahy, WI
WDNR FID #241780880 BRRTS #02-41-532649

Dear Mr. Nicklas:

In May 2013, your consultant, Ms. Kristin Kurzka with Sigma Environmental, requested the Wisconsin Department of Natural Resources (DNR) to provide technical assistance regarding this case. As part of the request, Sigma prepared and submitted a "Subslab Vapor Testing Report", dated May 6, 2013. During our meeting on May 8, 2013, we discussed this Report and reviewed the site's past investigation activities. The vapor results were further evaluated by Ms. Terry Evanson, leader of the DNR's Vapor Intrusion Team. On July 2, 2013, the Report and other documents in the case file were reviewed with the DNR's Southeast Region Closure Committee. This letter provides a summary of our comments based on our current understanding of the site.

Environmental Conditions

This 1.9-acre site is impacted with petroleum and chlorinated volatile organic compounds (CVOCs). The petroleum-related releases have been identified in two areas related to historic use on the site -- 1) in the northeast corner due to above-ground storage tanks that were part of Cudahy Fuel's operation and 2) on the eastern portion of the site at the corner of Holmes and Packard Avenues due to leaking underground storage tanks at Phinney's Gas Station. Both of these releases have been previously closed by the State of Wisconsin.

The source of the CVOCs is unknown. The Environmental Site Assessment completed in 2004 stated that the former machine shop on the adjacent property to the south has possibly contributed to the CVOCs. In 2004, empty drums were also observed in the railroad ditch to the west in the right-of-way, as well as distressed soil. The soil is impacted at shallow depths with CVOCs along the west side of the property. The data provided indicate that CVOC concentrations tend to increase with depth. The groundwater sampled on-site is impacted with CVOCs and flows to the northeast.

The following comments are presented following our review of the case file and recently submitted information:

Soil

1. Additional soil sampling is required to determine the horizontal and vertical extent and degree of contamination.

2. Access to the railroad property should be attempted to define the impacts on this adjacent property.

3. Further evaluation of the depth of soil contamination should be conducted to determine the feasibility of remedial alternatives, including the "hot spot" removal of impacted soil.

4. If the impacted soil is excavated and disposed in an approved facility, then confirmation soil samples will determine if the site will be listed on the DNR's GIS Registry.

5. If residual soil contamination remains on-site above residual contaminant levels (RCLs) as determined by the U.S. EPA's Web Calculator:

   a. The use of an impervious barrier consisting of pavement, building foundations, and/or adequate soil cover will be required and must be documented in a Cap Maintenance Plan. See the following link for a maintenance plan template: http://dnr.wi.gov/org/aw/rr/archives/pubs/rr606.pdf .

   b. The property will be listed on the DNR's GIS Registry to notify the public of contamination.

   c. A Soil Management Plan should be prepared to ensure that any future construction contractors are aware of any special requirements.

Groundwater

1. Four rounds of groundwater data have been collected, with large gaps in time between sampling events. In 2004, the former Project Manager, Mr. Andrew Boettcher, requested a minimum of eight rounds of groundwater monitoring. The Department will require additional monitoring on a regular basis until the groundwater plume shows stable or decreasing concentrations.

2. Contaminant concentrations in the groundwater at MW-6 are increasing, which may indicate that the groundwater plume is moving/has moved beneath the building to the northeast.

3. Sampling events are planned for June and September 2013.

4. Additional groundwater wells are needed to define the horizontal extent of contamination.

5. Results from future groundwater sampling events will determine if the property will be listed on the DNR's GIS Registry to notify the public of on-site contamination.

Vapor Intrusion

1. From within the building's interior, five vapor samples were collected – four High Purge Volume (HPV) samples at SSV-1, SSV-2, SSV-4, and SSV-5, and one standard sub-slab sample at SSV-3.

2. The radius of influence at SSV-2 and SSV-5 extended beyond the building's exterior wall. Samples at these locations may not be representative of sub-slab conditions, as they may have been influenced by the inclusion of exterior air.

3. To mitigate the presence of vapors in the building, the installation of two radon fans in the southeast corner of the building has been proposed.

4. Confirmation samples are required to accurately assess vapor concentrations in the southeast corner of the building's interior.

5. Results of further vapor sampling will determine if a mitigation system will be required as a continuing obligation for current and future property owners.

Following the submittal of the formal Case Closeout package, this case will be presented again to the DNR's Closure Committee for final comment and approval.

The Department appreciates the actions you are taking to restore the environment at your site. If you have questions regarding this letter or the project, please contact me by e-mail at michele.norman@wisconsin.gov or by phone at 414-263-8546.

Sincerely,

Michele R. Norman
Hydrogeologist, Remediation & Redevelopment

cc: Kristin Kurzka, Sigma Environmental
DNR case file