ARCADIS Design & Consultancy for natural and built assets

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ENVIRONMENT

Subject:
Response to Comments, Centennial Place (Former GE Hotpoint), West Milwaukee, Wisconsin.
BRRTS# 02-41-245955
FID# 241013410

Date:
November 7, 2016

Contact:
Ben Verburg

Phone:
414.276.7742

Email:
Ben.Verburg@arcadis.com

Our ref:
WI001531.0001

Dear Mr. Amungwafor:

Arcadis has prepared this response to comments provided by the Wisconsin Department of Natural Resources (WDNR) Voluntary Party Liability Exemption (VPLE) Committee in an email dated October 26, 2016, pertaining to the Environmental Redevelopment Plans submitted for Centennial Place (Former GE Hotpoint) located in West Milwaukee, Wisconsin (Site). The Environmental Redevelopment Plans were submitted to the WDNR on October 11, 2016. Supporting attachments for this response to comments include:

- A cut/fill analysis of the proposed Site grading plan (Attachment A)
- Montgomery Watson Harza (MWH) historical report excerpts (Attachment B)
- Arcadis historical report excerpts (Attachment C)
- Posting maps that present the extent of contaminated soil by analyte including:
    - Chlorinated volatile organic compounds (CVOCs)
    - Semi-volatile organic compounds (SVOCs)
    - Polychlorinated biphenyls (PCBs)

The WDNR VPLE Committee comments and responses follow:

1. **Whether you will be managing clean materials excavated from the site and if so how will the decision be made as to what is not impacted.**

Provided under Attachment B are an Area of Interest (AOI) Summary and the Summary of Findings from the Phase III Addendum Site Investigation prepared by Montgomery Watson Harza (MWH) (September 2004). The WDNR approved the Site Investigation on February 16, 2005. In the Summary of Findings that apply to the Site, MWH concluded that CVOCs are the contaminants of concern (COCs) and are located proximal to the southwest corner of Building 5, formerly located on the east side of the Site. Refer to Figures 1 through 6 for a presentation of the extent of CVOCs, SVOCs, and PCBs in shallow soils (0 – 2 feet below the ground surface (ft. bgs) and 2 – 4 ft. bgs).

Attachment A presents the cut/fill elevations relative to the existing Site grade. As shown in Attachment A, the Site grades will be increased for cap construction as well as reconsolidation of excess soil generated during construction. There will be approximately 16,000 cubic yards (CY) of soil that will be generated from common excavations for removal of topsoil from initial temporary cap construction, building excavation, spoils from utilities, and foundations (a rammed pier aggregate system). The residual contaminated soil that contains CVOCs and PCBs at or less than the observed on-Site maximum reported concentrations will be replaced on-Site, preferably in the eastern area of the Site, away from on- and off-Site structures. Soil with concentrations exceeding the on-Site maximums that would be characterized as "source soils" will be disposed of off-Site at a licensed waste disposal facility. PAHs are anticipated to be present and soil samples will be used to support the Post-Redevelopment Soil Management and Cap Maintenance Plan that will be included with the Case Closure Request. A direct contact barrier consisting of two-feet of clean soil with topsoil and seed will be placed above the residual contaminated soil and the areas graded to limit surface water ponding and mitigate the potential from leaching contaminants to groundwater.

2. **The storage of contaminated soils should follow requirements in chs. NR 718.05 or ch. NR 502 and transportation of contaminated soils under ch. NR 718.07**

The requirements given in chs. NR718.05 and NR718.07 will be followed during implementation of the work.

3. **The site maintenance should follow the departments format, use the department's inspection forms, attach photos where necessary**

An updated cap maintenance plan using WDNR templates will be prepared and included in the Case Closure Request that will be submitted after redevelopment is complete.

4. **The department needs more details on ch. NR 718 on-site soil management. Please provide better maps especially isoconcentration maps that show the concentrations of contaminants such as VOCs PCBs, PAHs, and a better discussion of where these might be proposed for placement versus groundwater contaminant levels and monitoring points.**

5. **Provide more details concerning ch. NR. 718 on-site soil movement and soil removal areas including better quality maps that show the concentrations of contaminants such as VOCs, PCBs, PAHs and a better discussion of where these might be proposed for placement versus groundwater contaminant levels and monitoring points.**

Arcadis has prepared one response for comments #4 and #5. Historical depth to groundwater measurements are provided in Attachment C. The depth to groundwater ranges from approximately 5 to 12 ft. bgs. Contaminated soil will be placed starting at the current Site grade.

Refer to the following figures for isoconcentration maps of CVOCs, SVOCs, and PCBs:

1 – CVOC Soil Contamination Map 0 – 2 ft. bgs

2 – CVOC Soil Contamination Map 2 – 4 ft. bgs

3 – SVOC Soil Contamination Map 0 – 2 ft. bgs

4 – SVOC Soil Contamination Map 2 – 4 ft. bgs

5 – PCB Soil Contamination Map 0 – 2 ft. bgs

6 – PCB Soil Contamination Map 2 – 4 ft. bgs

6. **For any clean soil to be imported for this site use, you will need to provide the source or borrow site, information about the excavating, importing/exporting site, providing a sampling plan and required sampling number required by ch. NR 718.12 to verify that the materials is clean**

A requirement of the grading/landscape contractors will be to provide the source of clean soil and topsoil for review prior to importing the material to the Site. If a Phase I ESA or other records are not available, composite soil sampling (one per 300 cubic yards of soil) will be required for analysis of VOCs, PAHs, and PCBs.

7. **The department currently do not approve passive vapor mitigation systems. You need to provide a contaminant iso-concentration with the development plan map superimposed and a vapor intrusion analysis and an argument as to why the mitigation system is protective.**

The proposed vapor mitigation system will be modified to an active vapor mitigation system.

8. **The department cannot approve placing heavily VOCs, PCBs, PAHs contaminated soils in certain areas of the site such as the turfed playing field that will be requiring watering, leading to leaching that will expose contaminants and resulting to direct contact threat.**

"Heavily" impacted soils are not anticipated to be encountered during redevelopment. The most-likely contaminant to be found at elevated concentrations are CVOCs. CVOC- and PCB-contaminated soil with concentrations at or below the reported Site maximum concentration will be placed at grade in areas where additional filling is required to meet the Site redevelopment grade.

9. **The Cap Maintenance Plans and Photographs should meet requirements in Form 4400-202 (R 3/15/16), Attachment D**

An updated cap maintenance plan using WDNR templates will be prepared and included in the Case Closure Request that will be submitted after redevelopment is complete.

10. **The department cautions the fact that your plan states that "The 2-foot contact barrier may be penetrated for the purpose of installing light poles, landscaping, signs and other features necessary for the redevelopment activities" The department must be informed of any activities that will disturb or act to modify an approved cap.**

The requirement for WDNR notification prior to disturbance of the cap will be included in the Cap Maintenance Plan that will be submitted with the Case Closure Request.

11. Clarify if abandoned monitoring well forms have been submitted to the department

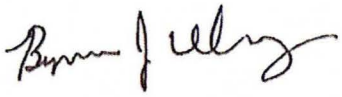
The monitoring wells have been abandoned. Monitoring well abandonment forms will be included in the Case Closure Request.

Closing

We appreciate your continued assistance with this project. Please feel free to call if you have any questions or comments related to the information provided in this letter report.

Sincerely,

Arcadis U.S., Inc.



Benjamin J. Verburg, PE
Certified Project Manager

Copies:
Matthew Wade – Froedtert Health
Steve Sirkis – General Capital Group

Enclosures:

Figures

1 – CVOC Soil Contamination Map 0 – 2 ft. bgs

2 – CVOC Soil Contamination Map 2 – 4 ft. bgs

3 – SVOC Soil Contamination Map 0 – 2 ft. bgs

4 – SVOC Soil Contamination Map 2 – 4 ft. bgs

5 – PCB Soil Contamination Map 0 – 2 ft. bgs

6 – PCB Soil Contamination Map 2 – 4 ft. bgs

Attachments

A Cut/Fill Analysis

B MWH Historical Report Excerpts

C Arcadis Historical Report Excerpts