



May 17, 2016

Ms. Shelly Billingsley, P.E.
Public Works Department
City of Kenosha
625 52nd Street, Room 305
Kenosha, WI 53140

Subject: Soil and Materials Management Plan
Former Kenosha Engine Plant, 5555 30th Avenue, Kenosha, WI
FID# 230004500 BRRTS# 02-30-000327

Dear Ms. Billingsley:

The Wisconsin Department of Natural Resources' (DNR) Southeast Region VPLE Committee reviewed the March 2016 *Soil and Materials Management Plan* (the SMMP) that was prepared by AECOM Technical Services, Inc. (AECOM) for the above referenced site. Portions of the SMMP can be approved; however, other parts of the SMMP need to be revised and/or additional work needs to be completed before the plan can be approved. Listed below are the detailed items:

- The sampling plans for the Streets Department stockpile and the Water Utility stockpile are approved. Based on recent correspondence with your consultant, the Water Utility stockpile will be sampled in accordance with s. NR 718.12(1)(e). The sampling results must be provided to the DNR for approval prior to use of the off-site soils.
- The topsoil from Amazon must be sampled for VOCs, PAHs and metals prior to using at KEP. Please submit a proposed sampling plan for DNR approval.
- Concrete that is not stained or painted can be crushed and used as fill material at the site.
- A formal request for an exemption to the locational criteria in s. NR 718.12(1)(c)5 must be made for the movement of any contaminated soil that is placed within 3 feet of the high groundwater table. Most of the soil present within the berms is contaminated by definition in s. NR718.03(5).
- Additional samples must be collected from the berm in CS-1. The current sampling ratio of samples to soil in cubic yards is 1:2,133. The samples must be sampled for VOCs, PAHs and metals. Please submit a sampling plan for DNR approval. If you do not follow the sampling frequency criteria in NR 718, you must provide justification for an exemption.
- The samples collected in the west berm of CS-6 do not sufficiently characterize the soils in the berm based on their location. These samples were collected on the edge of the berm. Please submit a sampling plan for DNR approval to adequately characterize the soils in the west berm.
- A portion of the northern/eastern berm in CS-6 is going to be excavated/landfilled. The remaining portion of that berm is planned to be used as backfill. In order to use portions of this

berm as backfill, a better characterization of the soils present in the berm needs to be completed; including collecting additional soil samples, or provide sufficient reasoning for why that is not necessary needs to be provided. The following points should be noted when planning further characterization, if necessary:

1. Excavations E1L and E2T have soil between them that is planned to be used as backfill, but there is no data to demonstrate those soils are any different from the soils to be landfilled (PZ-609, GP07 and GP643 all have TCE and PCE). The same is true for the soil between E47B and E3L where GP-639 and MW-650 have elevated levels of PAH.
 2. Soil from GP-SL-10 will be excavated/landfilled, however the soil from GP-SL-11 is planned to be used as backfill. Contaminant concentrations in GP-SL-11 are higher than the contaminant concentrations in GP-SL-10.
 3. The boxes drawn around borings GP-SL-11 and GP-636 indicate that these soils should not be placed within 3 feet of the high water table. These areas are estimated. DNR believes they should be estimated more conservatively.
- The ratio of samples to volume of soil for the remaining berms at KEP is less than the 1:300 cubic yards as required under NR 718.12(1)(e)1, except for area CS-8. Please submit to DNR the rationale as to why the number of samples collected is adequate for areas CS-7 and CS-9. This should be based on contaminants, concentrations, RCL exceedances, etc. This could include all sampling data such as GP-725 in CS-7, which contains benzene and naphthalene.
 - Any soil that is moved from one area of the site to another and used as backfill must be placed in an area that has similar contaminants already present. Soil used as backfill must not have higher concentrations of contaminants than the remaining soils present in the area where the backfill is being placed. The final placement of soils with any Ch. NR 720 residual contaminant level (RCL) exceedance must be documented. This includes soils that exceed non-industrial or industrial direct contact RCLs. Prior to using any soil from one area of the site as backfill on another area, provide DNR with maps showing source location and final location, and include tabulated data to demonstrate contaminant concentrations in the source location and the placement location.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter or the case, please contact me at the letterhead address, by calling (262) 574-2166, or by e-mail at david.volkert@wisconsin.gov.

Sincerely,



David G. Volkert, P.G.
Hydrogeologist
Remediation & Redevelopment Program

cc: Lanette Altenbach, AECOM
WDNR SER File