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October 11, 2006

Ms. Stephanie Carr
RCRA Facility Manager
United States Environmental Protection Agency
New England Region
1 Congress Street, Suite 1100
Boston, MA 02114-2023

ERM

RDMS DocID 105177

RE: Former CEE Associates Limited Partnership Property
80 Pickett District Road (the "Site")
New Milford, Connecticut

Dear Ms. Carr:

In correspondence dated July 27, 2006, the Environmental Protection Agency (EPA) provided comments related to the April 2006 Quality Assurance Project Plan (QAPP) prepared by Environmental Resources Management (ERM) for the above-referenced Site. In the correspondence, EPA presented general and specific comments regarding the status of the work as it relates to the QAPP.

ERM drafted this response to address EPA's comments. To simplify EPA's review, ERM responded to each item as presented in the July 2006 correspondence.

General Comments

1. *"Please revise the QAPP to include the analysis of groundwater samples for 1,4-dioxane."*

   The compound 1,4-dioxane has been added to the constituent list and tables related to ground water sampling. In the absence of appropriate data to calculate volatilization criteria or a surface water protection criterion, the action level for 1,4-dioxane has been set at 20 ug/L, the GA Groundwater Protection Criteria (GWPC), as agreed to at the June 27, 2006 meeting with EPA.

   It should be noted that historical ground water samples have been

analyzed for 1,4-dioxane. None was detected.

2. *"The QAPP indicated that groundwater samples will be analyzed for barium, total chromium, lead, copper, and zinc. Please provide justification, based on historical information on facility processes and previous waste, soil, and groundwater data, for ruling out analyses of other metals."*

ERM has reviewed the historical site data. ERM's initial review indicated metal plating as a potential source of constituents of concern (COCs) including the 8 RCRA metals, plus copper, nickel, and zinc. However, review of historical soils and ground water data has allowed ERM to refine this list. The data is summarized below.

To date, a total of 83 soil samples have been analyzed for total 8 RCRA metals, including one sample taken from the worst-case location AOC 2 (Former Wastewater Lagoon) which was analyzed for a suite of 23 metals. A total 58 of these samples were also analyzed for the 8 RCRA metals by Synthetic Precipitation Leaching Procedure (SPLP). An additional 13 soil samples from worst-case locations (AOCs 2 and 3) were analyzed for total copper, nickel, zinc and 12 of these were analyzed for copper, nickel, and zinc by SPLP. The only metals potentially related to historical Site use that were consistently detected at significant levels in the potential source areas (AOCs 2, 5, 9, and 10) were barium, total chromium, lead, copper, and zinc.

These results are consistent with total 8 RCRA metals sampling data from ground water sampling events in 2001 (16 wells) and 2003 (1 well), and the dissolved 8 RCRA metals sampling data from ground water monitoring of bedrock wells in 2001 (6 wells). A total of twenty-three ground water samples were analyzed for 8 RCRA metals during this time period (2001 - 2003). Only barium, zinc, total chromium, and lead were detected.

Additional metals frequently detected in soil and ground water included iron, manganese, and sodium. However, these are commonly occurring minerals in CT soils and rock types, and are not suspected contaminants.

3. *"Soil sampling for copper, nickel, and zinc at AOCs 2 and 3 was recommended in the June 2002 Summary Report and Phase III Work Plan. EPA does not have further information as to whether this task was ever performed. If this sampling is yet to be performed, please revise the QAPP to include this work."*

   The results of this work, completed in 2004, were included in the appendices of the 2004 Annual Report (October 2004). For ease of review, ERM has included a summary table, a copy of the laboratory report, and a Figure with this correspondence. A total of 12 soil samples from AOCs 2 and 3 were collected and analyzed for total and SPLP copper, nickel, and zinc. No elevated levels of total or SPLP copper, nickel, or zinc were detected.

Specific Comments

4. *"Page 2-2, Section 2.1 Operation and Maintenance of Soil Vapor Extraction/Air Sparge System*

   The last paragraph states "the ground water samples will be analyzed for CVOC only" According to Section 4.4 Analytical Methods the ground water is to be analyzed by method 8260B for VOCs. Please report the complete Method 8260B VOC parameter list or explain why the Method 8260B VOC parameter list is not being reported."

   During remedial system operation and maintenance (estimated 2 years), ground water monitoring will be completed for the purposes of system optimization only. Data collected will be tabulated and compared to the performance, effectiveness, and system shutdown criteria after each monitoring round. If the criteria have not been met, ERM personnel will modify the system operation to maintain an optimum mass removal rate. Semi-annual ground water monitoring will be continued beyond two years in duration until parameters meet RSR criteria, if necessary. During this time, ground water samples will be analyzed for all VOCs, via method 8260B. ERM will collect these samples on a semi-annual basis from 4 select wells (ERM-6, ERM-11, ERM-13, and ERM-14).

   Post-remedial/compliance ground water monitoring will begin upon meeting the shutdown criteria described in the QAPP. The remedial system will be taken out of operation and ground water monitoring

will commence on a quarterly basis for two years in order to 1) document effectiveness criteria have been met(1st year), and 2) document compliance with the SWPC and I/C VC (1st and 2nd years). Each ground water sample will be preserved and analyzed for an AOC-specific COC list. During this portion of the project, ground water samples from 19 select wells will be analyzed for the full 8260B constituent list.

5. *"Page 2-3, Section 2.1 Operation and Maintenance of Soil Vapor Extraction/Air Sparge System*

The third bullet states "To maintain an SVE/AS effluent which does note exceed the maximum allowable stack concentration (MASC) established in section 22a-174-29 of the Regulation of Connecticut State Agencies (RCSA)". Please specify whether the regulations require that the SVE/AS effluent sample be collected using a specific sampling procedure."

The regulations do not require a specific sampling procedure.

6. *"Page 2-5, Section 2.3 Post-Remedial/Compliance Vapor Monitoring*

This Section states "each soil vapor sample will be analyzed for CVOCs via EPA Method TO-14A". Please report the complete Method TO-14A VOC parameter list or explain why the Method TO-14A VOC parameter list is not being reported."

CVOCs are the primary Site contaminants. However, for completeness, historical sampling events did include analysis for the full TO-14A parameter list. A total of 92 soil vapor samples were analyzed for the full TO-14A VOC list between 2001 and 2003. Of these 92 samples, only one sample was found to contain a non-chlorinated VOC, toluene. The concentration of toluene, 64 ppbv (SG-61, 2003) is well below the applicable Volatilization Criteria. Based upon these results, ERM discontinued analysis for non-chlorinated VOCs in soil vapor monitoring in 2004. ERM will include the full list of VOCs for the Post-Remedial/Compliance groundwater monitoring program.

7. *"Page 4-2, Section 4.2.1 O&M of Soil Vapor Extraction /Air Sparge System*

This Section references Figure 12 and 13 in the Process & Instrument Drawing in Appendix A. These drawings do not appear to have been included in Appendix A. If these drawing include the sampling locations, then these figures should be included in the QAPP. If the figures do not include the sampling locations, then please add a drawing to the QAPP showing the sampling locations."

These figures were inadvertently omitted and are attached to the revised QAPP.

8. *"Page 4-5, Section 4.2.2 Post-Remedial/Compliance Ground Water Monitoring*

The first paragraph of Section 4.2.2 indicates that low flow sampling is to be used to purge the monitoring wells listed in that Section. The list of wells identified in Section 4.2.2 includes seven wells that are not included in Table 6, Sampling Matrix and Analytical Sampling Methods/SOPs. Please revise Section 4.2.2 or Table 6 to address this apparent discrepancy."

Section 4.2.2 included three wells that were removed from the final ground water monitoring plan. These wells are all located in AOC 7, and are not necessary due to the coverage provided by the rest of the monitoring well network in the AOC. Section 4.2.2 has been revised.

"In addition, the CT DEP Draft low flow sampling guidance that is cited, which is similar to the EPA Region 1 guidance...The general language provided in the "Sample Depth (ft)" column in Table 6 does not appear to adequately identify the interval within each monitoring well that will be sampled. Please explain how the sample intervals will be identified within each monitoring well, especially the wells that do not have a 10 foot well-screen."

Table 6 has been revised. Please note that the anticipated bedrock investigation program will be defining (and isolating) specific intervals to sample in the presently open borehole wells. Specific intervals will be identified after these geophysical efforts have

been completed.

"The third full paragraph in Section 4.2.2 mentions using peristaltic pumps for water depths less than 28 feet and "submersible or bladder" pumps for depths greater than 28 feet. Please revise the QAPP to provide additional information on the types of pumps that have been historically used to collect samples at the site (i.e., if determined by depth, if applicable) and provide a discussion regarding whether the pump types that have been historically used are a determining factor for the pump types selected for future sampling. The U.S. EPA generally does not recommend using peristaltic pumps because they can cause sampling mixing and oxidation resulting in degassing and a loss of volatiles. In addition, the type of submersible pump, if not bladder, should also be identified."

No other type of submersible pump, other than a bladder pump, will be used for ground water sampling at the Site. The type of pump used has been historically determined by the depth to ground water in each well, and has most often been a peristaltic pump, as allowed under CT DEP guidance. Where possible, a peristaltic pump will continue to be used for low flow sampling, in order to ensure data comparability.

9. *Page 4-12, Section 4.7 Instrument/Equipment Calibration and Frequency*

Please change the following sentence "field equipment will be calibrated at a minimum frequency of once per day, prior to the start of field operations" to "field equipment will be calibrated at a minimum frequency of once per day (prior to the start of the field operations) and a post calibration check will be performed to determine if the equipment remained in calibration throughout the day".

The QAPP has been revised.

Since the calibration procedures vary between manufacturers, please use the USEPA Region 1 Draft Calibration of Filed Instruments (temperature, pH, dissolved oxygen, conductivity/specific conductance, oxidation/reduction potential [ORP], and turbidity), June 3, 1998 (enclosed), for calibrating these instruments/equipment for consistency."

ERM has reviewed the provided document and agrees to use this for a calibration SOP. However, it should be noted that the units are received calibrated from a rental company on the first day of the sampling event. Generally, the units will not be recalibrated prior to sampling. ERM personnel will do a post calibration check prior to sampling. Only if a significant variance from the standards is observed will the units be recalibrated in the field prior to initial use. After the first day of use, the units will be calibrated a minimum of once daily.

10. *Table 8: Project Action Limits*

The QAPP indicates that ground water samples from specified wells will be analyzed for total PCBs. However, total PCBs do not appear to have been included in Table 8. Please revise Table 8 to include PCBs.

Table 8 has been revised.

If you have any questions or need additional information, please feel free to call us at (860) 466-8519.

Regards,

Robert J. Drake, PE, Ph.D., LEP.
Senior Project Manager

Kevin P. King, LEP
Principal

Attachments
cc: Joshua A. Creem, Esq., Corillian
Andrew N. Davis, Esq., LeBoeuf, Lamb, Greene & MacRae LLP