MEMORANDUM

SUBJECT: Quality Assurance Project Plan for Former Carter White Lead Site; Omaha, Nebraska – Approved with Condition

FROM: Diane Harris
Regional Quality Assurance Manager
ENSV/IO

TO: Michael B. Davis
EPA Project Manager
SUPR/ERSB

The review of the subject document prepared by ENTACT and dated 08/10/2012 has been completed according to AEPA Requirements for Quality Assurance Project Plans for Environmental Data Operations,@ EPA QA/R-5 March 2001. The TCRA Work Plan was also reviewed in terms of how it relates to and supports the QAPP.

Based on the comments below, the document is approved with conditions. The document was found to be incomplete in addressing some key areas to the extent of potentially jeopardizing the quality of the data. These areas are fully described in this review memorandum as critical comments and can be adequately addressed by incorporation into the document but without resubmission. The document would not be approved without addressing these issues. General comments identify opportunities for strengthening the document but do not affect approval.

Critical Comments

1. § A.7.1.4 Collected Storm Water/Decontamination Water, page 20 in QAPP. This section states storm water and decontamination water, if collected for disposal, will include analysis for 8 RCRA metals excluding Hg but goes on to reference 7471 which is a method for Hg. This inconsistency needs to be addressed.

   ENTACT Response*: The words "exclude Hg" have been removed from the cited section in the QAPP*.

2. § A.8.1.2 Field Precision Objectives, page 22 in QAPP. This section states no field duplicates are required for TCLP samples. However, section 5.3.9.1 in the Work Plan states field duplicates will be collected at a frequency of 1 per 10 samples with the only exception being noted for air samples. This inconsistency needs to be addressed.

***ENTACT Response**: Section 5.3.5.2 of the Workplan indicates that duplicates will not be collected for TCLP samples. Section A.8.1.2 of the QAPP has been revised to state that no field duplicates for TCLP and air samples will be collected for consistency with the TCRA Workplan.*

3. § A.8.2 Accuracy, page 23 in QAPP. This section gives an equipment rinsate frequency of 1 per day but section 5.3.9.1 in the Work Plan refers to a 10% frequency. This inconsistency needs to be addressed.

   ***ENTACT Response**: Section 5.3.5.1 of the Workplan indicates that rinsate blanks will be collected at a frequency of 1 rinsate blank per day of sampling with non-dedicated, non-disposable equipment. Section A.8.2 of the QAPP has been revised to state that rinsate blanks will be collected at a frequency of 1 per day of sampling with non-dedicated, non-disposable equipment.*

4. § A.8.6 Level of Quality Control Effort, page 25 in QAPP. The QAPP does not include filter blanks for time integrated air samples but section 5.3.9.1 in the Work Plan does. This inconsistency needs to be addressed.

   ***ENTACT Response**: The cited QAPP text has been modified for consistency with the TCRA Workplan. The following text has been added to the cited Section: Filter blanks for time-integrated air samples will be submitted at a 20% frequency interval or 1 per week.*

5. § B.1 Sample Process Design, page 32 in QAPP. One of the purposes for the sampling activities listed here includes characterizing soil to determine if it can be consolidated on site. It is not clear what activity this is referring to or what data is being collected for this purpose. The work plan and the QAPP seem to only focus on characterization sampling for TCLP lead (Pb), post-treatment verification sampling, and backfill sampling with no other mention of determining if soil can be consolidated on site.

   ***ENTACT Response**: The cited language in the Section related to collecting samples for "consolidation purposes" has been deleted from the QAPP. In addition, all of the RCRA 8 metals will be tested for characterization and LDR compliance purposes at the beginning of treatment. Based on these results, a list of RCRA metals to be sampled and analyzed will be developed and used to determine whether the material can be shipped off-site for disposal purposes in a Subtitle D landfill.*

6. Table 1: List of Parameters and Test Methods.

   a. This table lists "Cool" as the preservation method for solid samples for TCLP Pb; however, section 5.3.8 in the Work Plan states cooling is not required for samples except for organics. This inconsistency needs to be addressed and please note that keeping soil samples cool, even for metals analysis, is recommended.

      ***ENTACT Response:** Section 5.3.8 of the TCRA Workplan will be modified to address the inconsistency. "Cooling" will be one of the preservative methods used for the TCLP RCRA metals samples.*

   b. A holding time of 6 months is listed in this table for RCRA metals. If this will include Hg analysis, those samples have a recommended holding time of only 28 days.

ENTACT Response: *The holding time for Hg has been changed in Table 1 of the QAPP to indicate 28 days.*

c. Footnotes 3 and 4 are referenced for storm water/decontamination water samples. Footnote 3 lists RCRA metals and includes Hg whereas footnote 4 refers to RCRA metals excluding Hg. The metals of interest for storm water/decontamination water samples needs to be verified and the QAPP corrected accordingly.

ENTACT Response: *The footnotes have been revised as appropriate for the changes to Table 1 of the QAPP. References to "excluding Hg" have been removed from Table 1.*

d. For VOC samples, Table 1 refers to method 5035 which includes several preservation techniques depending on the anticipated concentration level of VOCs in the samples. Table 1 only refers to keeping solid VOC samples cool which implies is a dry pack method will be used which, according to method 5035, is for samples where a high concentration of VOCs is anticipated. The preservation method for solid VOC samples needs to be verified and the QAPP corrected as needed.

ENTACT Response: *The preservative method for VOCs (solid) was changed from "Cool" to "Sodium bisulfate", in Table 1 of the QAPP, because ENTACT anticipates a low concentration of VOCs in the soils to be sampled.*

General Comments

7. § B.1 Sample Process Design, page 32 in QAPP. As discussed in our phone conversation on 08/16/2012, the four point composite sampling design to be used for this project was based on negotiations with the facility and found to be acceptable to EPA.

   ENTACT Response: *Noted*

8. § B.1.2 Sample Type, page 32 in QAPP. Per our phone conversation on 08/16/2012, a grab sample may be collected in addition to the composite post-treatment verification sample if required by the disposal facility (as noted in the referenced Work Plan).

   ENTACT Response: *Noted*

9. § B.10 Data Management, page 47 in QAPP. This section mentions a data storage and information system. If there are any hardware or software requirements for this data storage and information system, they should be noted here.

   ENTACT Response: *The data will be managed in Excel. The cited section of the QAPP has been modified to reflect this response.*

If you have any questions, please contact me at x7258.
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