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THE MEMPHIS DEPOT
TENNESSEE

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 106

File:
C.G. 541.460.D

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STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
MEMPHIS ENVIRONMENTAL FIELD OFFICE
SUITE E-645, PERIMETER PARK
2510 MT. MORIAH
MEMPHIS, TENNESSEE 38115

RECEIVED
APR 20 1995

April 19, 1995

Commander
Defense Distribution Depot Memphis
Attn.: DDMT-WP (Mr. Frank Novitzki)
2163 Airways Blvd.,
Memphis, Tennessee 38114-5210

Re: Draft Final Operable Unit 4 Field Sampling Plan, March 1995 (Facility Wide Groundwater Investigation, Sections 4.3 - 4.65); and the Draft Final Generic Remedial Investigation / Feasibility Study Work Plan, March 1995 (Background Sampling Program, Section 5.3.2), TDEC/DSF #79-736, cc 82

Dear Mr. Novitzki:

Per your request to expedite the review of certain sections in the above referenced documents, the Division of Superfund (DSF) Memphis Field Office (MFO) has reviewed Sections 4.3 - 4.65 of the Draft Final Operable Unit 4 Field Sampling Plan, and Section 5.3.2 of the Draft Final Generic Remedial Investigation / Feasibility Study Work Plan for DDMT, received in this office on April 7, 1995 and March 15, 1995, respectively.

Pursuant to the intent of the Federal Facilities Agreement (FFA), the Tennessee Department of Environment and Conservation (TDEC) is providing the attached comments. Should you have any questions or concerns regarding this review please call me at (901) 368-7953.

Very truly yours,

for Jordan English

Jordan English, *P.G.*
Environmental Field Office Manager
TDEC/DSF-MFO

c: TDEC/DSF, NCO, Clint Willer, file
TDEC/DSF, MFO, file
Martha Berry
United States Environmental Protection Agency
Federal Facilities Branch
345 Courtland Street, N.E.
Atlanta, GA 30365

Tennessee Department of Environment and Conservation
Division of Superfund
Comments for
Generic Remedial Investigation/Feasibility Study Work Plan
Background Sampling Program
Section 5.3.2
Defense Depot
Site Number 79-736
4/17/95

General Comment:

TDEC, TDSF review of this section cannot be considered complete at this time. The TDSF Memphis Field Office expects to solicit comments from the Central Office regarding the statistical approach.

There is some concern regarding what will be useable for the purposes of determining background. A golf course pond "in the area" will not necessarily provide reasonable background data if it is shown that results may indicate over-application of pesticides/herbicides. Likewise, using MLGW production wells, frequently with screens 50-100 feet in length at depths potentially at depths much deeper than the monitoring wells they will be compared to, may produce significant differences in water quality.

Specific Comments:

1. Section 5.3.2.1, page 5-8, next to last paragraph--What is the rationale for compositing two different soil horizons? It would seem logical to develop background for surface soils separate from subsurface soils. Please explain.
2. Section 5.3.2.2, page 5-11, 2nd paragraph--Offsite golf course ponds may be contaminated due to over-application of pesticides/herbicides so this data has to be qualified as useable for the purposes of background.
3. Section 5.3.2.2, page 5-12, 2nd paragraph--It will be very difficult to compare relatively stagnant water (ponds) with running water (streams) for many parameters. Does EPA guidance suggest that this still be attempted?
4. Section 5.3.2.3, page 5-14, 1st full paragraph--The last sentence is confusing. Please clarify and/or explain further.
5. Section 5.3.2.4, page 5-14--The section numbering is incorrect for this section.
6. Section 5.3.2.4, page 5-15, last sentence in top paragraph--This sentence is inaccurate and potentially misleading. Filtered samples when compared with non-filtered samples may shed some light on potentially mobile colloids. See EPA Region IV guidance for filtering groundwater samples.
7. Section 5.3.2.4, page 5-15, last paragraph--Additional background samples may be required upgradient of Dunn Field.

8. Section 5.3.2.5, page 5-17--Because distances to other well fields are mentioned in this passage the distance to the Allen field should also be included.
9. Section 5.3.2.5, page 5-17--Using production wells (PWs) for the purpose of determining background may produce problems. The screened intervals may not be equivalent and water quality may be significantly different. TDSF suggests considering the use of MLGW monitoring wells for background.

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Tennessee Department of Environment and Conservation
Division of Superfund
Comments for
Operable Unit 4 Field Sampling Plan
Facilitywide Groundwater Investigation
Sections 4.3-4.65
Defense Depot
Site Number 79-736
4/17/95

General Comment:

These sections are perhaps a bit too generic in places (see comment 7). Also, there is still no resolution as to the type of drilling method to be used. This will be required before TDSF can approve the work plan and certainly before any contracting can occur.

Specific Comments:

1. Section 4.3.1, page 4-8, last paragraph--This paragraph alludes to a recovery well that has not been formally identified. Please correct.
2. Section 4.3.2, page 4-8 & Table 4-2, page 4-9--This narrative passage and the table should identify the aquifer in which this contamination is associated.
3. Tables 4-3 & 4-4, pages 4-10 & 4-11--Where do the TN Guidance levels come from? Tennessee groundwater guidance is consistent with MCLs. Tennessee doesn't have promulgated soil standards, but is considering the draft EPA guidance for soil screening levels. Are these PRGs based on residential or industrial standards? PRGs should use a worst case scenario for the PRG determination and correct as circumstances warrant for actual/observed conditions.
4. Section 4.3.3, page 4-13, last paragraph--TDSF suggests that only one well may be necessary. If, in the course of putting a shallow monitoring well, you do not encounter a confining layer there will be no reason to have a nested pair. It would be reasonable to continue the process of installing a Memphis Sand monitoring well. Rotosonic® methods would be an effective way of determining the nature of the lithologies. Also if no significant clay layer is encountered, appropriate sampling analyses should indicate the presence of recent water (tritium, iron, manganese, hardness, dissolved solids etc.).
5. Section 4.3.4, page 4-13—TDSF suggests referring to the proposed monitoring wells rather than saying "...these wells...".
6. Table 4-5, page 4-14--What does the column Al represent? Please explain the need for this column.
7. Section 4.3.6, page 4-16--It is within this section that you should describe the potential slug test methods that may be decided upon in the field.
8. Section 4.4.1, page 4-16--How do you know when you get to the top of the Jackson/Upper Claiborne Group? This should be a decision of <u>probable</u> Jackson/Upper Claiborne based on

clay color, stiffness, etc. Once again, TDSF suggests that the Rotosonic® drilling method may provide higher quality information with which to base a decision upon. When will a decision be made regarding the type of drilling that will be undertaken? This work plan makes no mention of any type of drilling technique. This will be required for TDSF review and approval prior to on-Site drilling activity.

9. Section 4.4.2, page 4-16--TDSF is concerned that apparently no provision is being made for contingency of high solvent levels requiring alternate casing material. The analysis result of 5,100 µg/L TCE at MW-12 suggests DNAPL presence.
10. Section 4.6.3, page 4-18--If the Rotosonic® method is employed double casing may not be required.

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