State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

AUG 16 1995

Mr. James Ott
SELFM-EH-EV
Department of the Army
Headquarters CECOM Fort Monmouth
Fort Monmouth, NJ 07703-5000

Dear Mr. Ott,

Re: UST Closure and Site Investigation Reports
Fort Monmouth Army Base
Tinton Falls, Monmouth County

The NJDEP has received and reviewed the four Underground Storage Tank Closure and Site Investigation Reports submitted by Weston dated January 1995 (received via hand-delivery in June 1995) on behalf of the Fort Monmouth Army Base facility and our comments are provided below.

GENERAL COMMENTS

1) Future submissions must contain all of the soil sample results in a set of tables which, at a minimum, reference soil cleanup criteria, detection limits, sample location and detected concentrations in a single row. Previous comment letters and discussions have requested this informational format as per N.J.A.C. 7:26E-3.10.

2) In reviewing the soil sample results, specifically in the Appendices sections, it is apparent that the Method Detection Limits (MDLs) used for many of the base neutral and volatile organic analysis were above the chemical specific soil cleanup criteria. The NJDEP cannot accept this. Before the NJDEP can accept a No Further Action determination, some information must be provided which assures that those individual compounds which did not have appropriately sensitive MDLs, would not likely be in the soil without other compounds also being present. Benzene, Toluene, Ethylbenzene and Xylene errors cannot be excused, mistakes in sampling and analysis protocol of these compounds may result in resampling.

3) Ground water monitoring wells are **not** required by the Technical Regulations for Site Remediation (Tech Regs) unless the ground water has potentially been impacted by the contaminant source (UST) as per section 3.7 of the Tech Regs. It must be clearly stated in the report why ground water samples are being collected, i.e., what criteria were used to determine potential ground water contaminant impact.

4) Please provide written evidence that QA/QC has been performed as required by the Tech Regs.

SPECIFIC COMMENTS

Building 2018, UST No. 2 - 1000 gallon No. 2 Fuel Oil

The NJDEP agrees with the recommendation to further excavate contaminated soils. Ground water monitoring does not appear necessary at this point in the remediation. Future submittals on this UST should address these concerns:

1) Executive Summary, ES-1: In the last paragraph of this page, it is stated that "In accordance with the Closure Plan Approval and the Technical Guidance Document 25% of soils with TPHC values greater than 1,000 mg/kg were also analyzed for **base neutral** compounds plus **15** tentatively identified compounds (BN+15). The approved closure plan (Appendix A) was proceeded by the aforementioned Tech Regs. The Tech Regs require that soil samples which exceed 1000 ppm TPHC require individual analysis of **volatile organic** substances plus **10** tentatively identified compounds (Table 2-3; Tech Regs). Volatile organic compounds plus 10 tentatively identified compounds must be analyzed for in future post excavation sampling and analysis. Since previous sampling requirements - those which this closure event was conducted under (Interim Closure Requirements for Underground Storage Tanks - November 1991) required base neutral soil samples, these samples will be accepted.

2) Executive Summary, ES-1: Please explain what the "Technical Guidance Document" referenced is.

3) Section 2.0: Additional information should be provided in the text, soil sampling table (2-1), and in a map which clearly explain sample depth and/vs. ground water depth. Please provide this information.

Building 9061, UST No. 36 - 5000 gallon Gasoline UST

The NJDEP has determined, based on the information presented in the report, that soil contaminated above residential cleanup criteria has been excavated. Ground water monitoring results are forthcoming.

4) Executive Summary, ES-2: Along with the ground water sample results report referenced as forthcoming, please provide a brief explanation as to why two monitor wells have been installed in accordance with the Tech Regs. Such explanation can include a discussion of the information regarding ground water depth (14 feet), obvious contamination (holes in the tank) and depth of tank excavation (16 feet).

5) Section 2.0, Page 2-1: Future soil sampling should use stainless steel, laboratory cleaned scoops as per the NJDEP Field Sampling Procedures Manual. Polystyrene

scoops do not appear to have affected the sample results, however, they are not appropriate as they may lead to inaccurate analytical results.

Building 2567, UST Nos. 42, 43, 44, and 45

The soil sample results have revealed that there is significant contamination remaining at the site even after the excavation of considerable amounts of contaminated soil. The NJDEP requires that either the contaminants must be removed/remediated or a Declaration of Environmental Restriction must be applied to the area of concern. There are several treatment alternatives which have proven effective at similar sites. Ground water has shown a significant decrease in contamination over the last sampling events, particularly Benzene. While Methylene Chloride appears to be the remaining contaminant of concern in the ground water, the NJDEP is interested in reviewing the ground water samples taken in September 1994. Why were these not included in a report provided in June 1995?

6) Section 1.2, Page 1-2: USTs 42 to 45 were tight tested, yet the forth paragraph states that "UST Nos. 42 and 44 passed the tank system tightness test, although UST No. 43 failed". What about tank No. 45? It is assumed that this tank also failed the tightness testing. Please explain.

7) Section 2.3, Page 2-2: It is stated that on February 2, 1994 four post excavation soil samples were taken and then an additional 23 soil samples were taken on February 24. Why was there a 21-day delay and why were 23 soil samples collected? Were these samples biased to the areas of greatest contamination? How many samples were taken in relation to the piping? Did the piping reveal any leakage (particularly since the tanks appeared to be hole-free)? Why did Feb. 2 samples reveal no TPHC contamination, but subsequent sampling revealed significant contamination. (Especially since there are several factors to consider; different laboratories provided the analysis, Feb 2 samples were taken at the bottoms of the excavation, etc.) Please provide additional information and reasoning for the number, placement and delay in collecting samples.

8) Section 3.2, Page 3-16: The second paragraph of Section 3.2 appears to be a general "catch-all" declaration. Please expand this to explain if there was significant contamination left in place due to removal constituting a potential threat to the "integrity of structure and roadways."

Building 2700.4, UST No. 62

This report details the removal and investigation of the 550 gallon diesel fuel UST and stated that all soil contamination above the NJDEP direct contact cleanup criteria was excavated. Ground water monitoring well analytical results will be forthcoming.

9) Table 3-1, Page 3-2: Please explain why the duplicate sample for "Site E" was analyzed for a VO and BN scan when this sample was not analyzed for TPHC. Why were the analytical results for all of the VO+15 (only +10 required) and all of the BN+15 (not

a required parameter) not provided in the tables? This information must be provided to assure the NJDEP that there is no contamination above the applicable cleanup criteria.

10) Table 3-1, Page 3-2: Where are the field blank results? 10 samples were to be analyzed, why are there only results for 7 samples?

In order for the NJDEP to approve the above reviewed reports, the information required by these results must be provided in full in a single submittal for each individual site/report. These are the minimum requirements of the Tech Regs.

If you should have any questions or require additional information, please do not hesitate to contact me at (609) 633-1455.

Sincerely,

Ian R. Curtis, Case Manager
Bureau of Federal Case Management

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