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State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

DEC 30 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 642 595 317

John Kolicius
Project Manager
Naval Facilities Engineering Command
10 Industrial Highway
Code 1821, Mail Stop 82
Lester, PA 19113-2090

Dear Mr. Kolicius:

Re: Draft Proposed Plan for OU-1, for Sites 4,5, and 19 (Dated 12/96)
Draft Feasibility Study for Site 26 (Dated 11/96)
Naval Weapons Station Earle
Colts Neck Twp., Monmouth Co.

The New Jersey Department of Environmental Protection (NJDEP) has reviewed the above referenced documents prepared by Brown & Root Environmental Corporation. The NJDEP approves these reports pending incorporation of the following comments.

Draft Proposed Plan:

1. All references to Site 26 should be removed.
2. Some discussion on background metals concentrations in ground water should be included.
3. The Proposed Plan fails to adequately present qualifying discussion supporting the natural attenuation alternative for the sites when residual contamination remains in the ground water. There is no discussion regarding monitoring, sampling for bioremediation parameters, and modeling to insure that bioremediation/natural attenuation is really occurring.

Draft Feasibility Study for Site 26:

General Comment:

1. The Department does not believe it is appropriate to provide formal review comments on this Draft FS for Site 26 since we have not yet received a final RI and complete sampling results for this site. Based on the

information submitted and summarized in the FS report for this site, site characterization is incomplete. The horizontal and vertical extent of soil contamination at the suspected source area is not clear from the data presented in the FS report. The depths of the various soil samples and ground water samples was not presented. The Department recommends that the full extent of soil contamination, particularly at the suspected source area, must be completed prior to evaluating and selecting appropriate remedial action alternatives for Site 26. The FS does not include any technical data to support the statements that the vertical extent of soil and ground water contamination is limited to some unspecified depth due to a semi-confining "clay" soil barrier. It is not clear from the FS report if ground water or soil samples were collected below the "clay" barrier. Technical data must be presented to clearly demonstrate the location, extent, thickness and depth of the clay barrier that the Navy believes is limiting contaminant migration. The permeability and a geological analysis of this clay barrier should be documented to demonstrate the TCE migration has been limited by this zone.

The Department recommends that all final data should be incorporated in a subsequent FS draft document. The second draft FS should also explain any discrepancies between the preliminary data and final data and how these discrepancies impact the chosen remedial alternatives.

Site Specific Comments:

1. Section 1.3.4.5.1 - This section of the document discusses the finding of a "clay" layer using the CPT soil stratigraphy profile. As stated before the use of any CPT protocol is for screening purposes only, and must be confirmed by physical sampling or investigation.

Assumptions are also made regarding the ground water velocity stating that it was "calculated" at less than 20 feet per year. No pumping tests nor slug tests were performed which could qualify this flow rate.

2. Section 1.3.4.5.2, page 48 - The contractor makes the statement that "Concentrations of most metals in site-related ground water Samples were within ranges similar to back ground samples." The case is not adequately made with specific numbers and discussion of background results for the site and for the region. Revise and add appropriate additional narrative to support statement.
3. Table 1-1 - The contractor needs to provide a descriptive key of appendix to this table stating that the sample result code 26HP 02-15 means it is for site 26, it being the hydropunch sample number two at 15 feet.

All data shall be evaluated against the applicable ground water quality criteria, not the CRQL.

4. Figure 1-19 - Table 1-1 shows that 26HP-22 had Trichloroethene contamination at 24 feet at levels of 4800 ppb. Yet, the 3000ppb contour line is not inclusive of sample point 22. Please verify if the Figure is correct.
5. Table 2-38 - Vertical barriers are evaluated using unqualified data.

Air Sparging is eliminated from further consideration as an alternative yet, in section 3.4.2.5 of this report air sparging is evaluated in detail. Please revise.

6. Section 3.4.2.4, Site 26, Alternative 4, page 3-15 - In the ground water extraction discussion for this alternative pumping rates for a ground water pumping/capture system are presented. The rate presented of a combined rate of 2 gallons per minute is invalidated and unqualified, and most likely it would be insufficient to even influence a gradient deviation at the site.

The contractor shall also consider the installation of a recovery well in the center of the highest contaminant concentration contour.

7. Figure 3-10, Alternative 26 - Air Sparging System - The report depicts a typical section of an air sparge/vapor extraction system. The soil vapor extraction wells should be drawn to extent to within several feet of the seasonal high water table. This will insure that offgassing of the water will be effectively captured by the system and not allowed to migrate freely to the surface.
12. Table 4-4 - The Table on pages 2 through 12 of 12 do not have the criterion headings on each appropriate column. Please revise.

If you have any questions, please call me at (609)-633-7237.

Sincerely,



Bob Marcolina, Case Manager
Bureau of Federal Case Management

c: J. Gratz, EPA
G. Geopfert, NWS Earle
L. Jargowsky, Monmouth Co. Health Dept.