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NWS EARLE
5090.3a

**State of New Jersey
Department of Environmental Protection and Energy**

Robert C. Shinn, Jr.
Commissioner

FEB 23 1994

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO: P261029045

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

Re: NWS Earle
Colts Neck Township, Monmouth County
Draft Phase II Remedial Investigation (RI) Work Plan

Dear Mr. Kolicius:

The New Jersey Department of Environmental Protection and Energy (NJDEPE) has reviewed the above referenced Work Plan submitted by Halliburton NUS Corp., dated December 1993. The NJDEPE approves the work plan provided the following comments are incorporated.

General Comments:

- 1) Sections 4 through 18 - The site specific sections shall be revised to include tables to show each SI sample contaminant concentration. These tables could be used in lieu of the Maximum concentration tables shown in Section 1.3. Thus each SI sample location and its corresponding concentration are shown in each site specific section.
- 2) The report frequently states that various field efforts shall be conducted in accordance with NUS SOP's. While these SOP procedures are likely acceptable, the Navy should ensure that all field efforts are consistent with the NJDEPE Field Sampling Procedures Manual. Throughout the report, inappropriate sampling depths are specified for certain analytical parameters. In addition, all well construction will be consistent with NJAC 7:9-7, 8 and 9.
- 3) The contractor does not include or take into consideration well construction protocols for the installation of monitor wells in extremely shallow-water table conditions. Previous drilling activities have encountered these situations necessitating modification of the well protective casing and sealing protocols. The contractor must evaluate this situation and present appropriate alternative well construction diagrams prior to the commencement of any drilling activities at the facility.

- 4) The workplan proposes a subsequent inspection of some of the landfill sites to identify potential landfill seeps for sampling purposes. It is the NJDEPE's recommendation that this field visit be conducted in the spring during leaf emergence and early herbaceous growth since vegetative stress would be best recognized at this time. If seeps are found, an attempt to obtain seep water should be made and the samples analyzed for the same parameter suite plus pH and hardness. All sediment/surface soil samples should be collected in the surficial 0-6" interval.

This inspection could be in conjunction with inspections of the other sites where the NJDEPE feels that the sampling plan is inadequate. See Page Specific Comments numbers 16 and 20.

- 5) If a Site has impacted an adjacent wetlands, these wetlands shall be fully delineated.

Page Specific Comments:

- 1) Page 1-10, Table 1-1 - This table should be revised to include the following: 1) the sediment sample results should be compared to EPA Partitioning Criteria and 2) for the purpose of an ecological risk assessment, analysis results should be compared to literature values for ecotoxicity (Zn and Cu ecological criteria are provided in the Soil Cleanup Criteria).
- 2) Page 1-14 - it is recommended that the Burmeister soil classification method be used instead of or in conjunction with the Unified classification method. The Burmeister methods provides a more detailed description of the soil borings than that of the Unified Soil Classification System.
- 3) Page 2-3, Section 2.5 - Morie Sand has classification numbers associated with the different grade sizes, such as Morie #1 or Morie #2. These numbers should be used when referring to the gravel pack.
- 4) Figure 2-1, on page 2-4 depicts the use of #2 Morie sand with a 0.010 slot screen. The contractor should take into consideration the fact that the wells will be installed in several different outcrop regions and drainage basins and thus the subsurface lithology and composition characteristics will be different from area to area. The contractor should be prepared for the contingency that the field geologist may want to install #1 Morie with the 0.010 slot, and have this type of sand available in addition to the #2 Morie.
- 5) Page 2-5, Section 2.5.1 - Monitor wells will be developed until a silt-free discharge and the following parameters have stabilized: pH, temperature and specific conductance. Development will continue until these three parameters have stabilized over three consecutive readings not taken less than 15 minutes apart. Readings shall stabilize to within plus or minus 10%.
- 6) Page 2-5, Section 2.5.2 - A minimum of two rounds of synoptic-ground-water levels will be collected for all existing and newly installed monitor wells. All ground water level data collected shall be tabulated for presentation in the future RI report. Elevation data in addition to the actual reading shall be presented.

- 7) Page 2-5, Section 2.6 - Ground water samples will not be collected prior to 14 calendar days after well development. PVC bailers shall not be used during the sampling effort.
- 8) Page 2-6 - All survey work must be done by a NJ licensed surveyor.
- 9) Page 3-1, Section 3.2.1 - Per NJDEPE's Field Sampling Procedures Manual (FSPM), efforts should be made to prevent purging wells to dryness by regulating purge rates and volumes if necessary.
- 10) Page 3-19, Section 3.2.3 - Composite sampling of surface soils is not acceptable for any samples that are to be analyzed for Volatile Organic Compounds (VOC's). Augers and trowels should not be used to collect VOC samples. Recommended procedures and minimum requirements for surface soil sampling are provided in the NJDEPE FSPM and NJAC 7:26E Technical Requirements for Site Remediation.
- 11) Page 4-1, Section 4.0 - Several organic and inorganic compounds have been confirmed in the ground water. Nine explosive compounds were also detected, primarily in MW-01. According to the map presented by the contractor MW-01 is side gradient to the inactive burn area thus, it would appear that the explosive compounds are migrating in the ground water or there is another source for this contamination. Organic compounds were detected in MW-02, which according to the map is the upgradient well for the burn area. The horizontal and vertical extent of either the source area or the ground water contamination plume(s) has not been delineated. The addition of only proposed MW-4 will not accomplish the delineation requirement. Additional wells will be required.
- 12) Page 6-1, Section 6.0 - Surface water and sediment sampling are proposed for this site, downstream of the "area of concern". An upstream surface water and sediment sample must be added to the plan for comparison of results.
- 13) Page 8-2, Figure 8-1 - Test pits should not be positioned tangent to the anticipated limits of the fill area. Test pits must be perpendicular to the expected limits and should start in the fill and proceed away from the fill to effectively define the fill-native soil horizontal line.
- 14) Page 8-4, Section 8.3 - The proposed monitor well locations do not take into consideration the potential impact of the regional flow system in the area. The proposed locations assume discharge to a drainage ditch proximate to the site. The contractor needs to address locating an additional well in the vicinity of TP-3 or TP-2.
- 15) Page 10-2, Section 10.0 - The presentation of the proposed sample locations on the site-specific map are incorrect. There is no symbol for the location of SB-03/MW-03. The indicator line for SB-02/MW-02 goes to a 1992 hydropunch location, not to the proposed monitor well location.
- 16) Page 11-5, Section 11.0 - PCBs must be added to the analytical parameter list for all soil and sediment samples at this site, since this is a railroad roundhouse/storage yard/maintenance facility. Soil samples for PCB analysis must be collected from the 0-6" interval of surface soils. While the proposed sample locations appear reasonable based on the information

presented, the NJDEPE reserves the right to request sample locations at this site be moved or additional samples be added, pending a site inspection.

- 17) Page 13-1, Section 13.0 - The significance and presence of the explosive 2,4-DNT detected in the ground water must be further evaluated and investigated.
- 18) Page 13-1, Section 13.0 - The proposed monitor well locations are clustered along the left side of Building D-5 and in a relative straight line. This will not facilitate and effective triangulation of the ground water flow direction.
- 19) Page 14-1, Section 14.0 and Page 15-1, Section 15.0 - The NJDEPE recommends that ground water sampling be proposed for this area.
- 20) Page 18-1, Section 18.0 - The limited amount of investigation proposed for this site seems inappropriate. The NJDEPE will reserve approval of the sampling plan for this site pending a site inspection. Soil and sediment sampling may be warranted for several areas on this site. At a minimum, the Navy must provide justification for not proposing soil/sediment sampling in the following areas: Oil Interceptor #1, kerosene tank area, oil separator/skimmer #3, oil/water separator #7, holding tanks #4 and #6, outfall #3 and the pond.

Representatives of NorthDiv, EPA, NJDEPE and BTAG unit met on February 15, 1994. At this meeting it was decided that Halliburton will resubmit a comprehensive RI work plan, which will include all the Sites at the Main Base and Waterfront Area, regardless of the site's level of investigation. NorthDiv stated that Halliburton will incorporate all comments provided by the NJDEPE and EPA that apply to this work plan and incorporate those comments in the comprehensive RI work plan. The issue of improved maps was also discussed and that Halliburton will provide maps which will illustrate site locations, drainage patterns/watersheds and topography.

If you have any questions regarding the aforementioned comments, please contact me at (609)-633-1455.

Sincerely,



Bob Marcolina, Case Manager
Bureau of Federal Case Management

- c. Linda Welkom, DPFSR/BGWPA
Kenneth Petrone, DPFSR/BEERA
Ed Demerest, DPFSR/ETRA
Paul Ingrisano, EPA