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NWS EARLE
5090.3a

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

APR 5 1995

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO: Z 749 644 077

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

Re: Draft Remedial Investigation Work Plan
NWS Earle
Colts Neck Township, Monmouth County

Dear Mr. Kolicius:

The New Jersey Department of Environmental Protection and (NJDEP) has reviewed the above referenced document submitted by Halliburton NUS Inc., dated February 1995. The NJDEP will approve this workplan provided the inclusion of the following comments and EPA's comments outlined in their March 3, 1995 correspondence. It is noted that these comments were discussed and addressed in a meeting between representatives of Earle NWS, NorthDiv, EPA and the DEP on March 16th 1995.

General Comments:

- 1) A goal of this phase of investigations should be to confirm the horizontal boundaries of all the landfill sites to insure that sufficient information is compiled for the remedy selection phase to follow. This information will be needed to evaluate feasibility of capping remedies, if determined necessary, for any of the landfill sites. Even if additional capping is determined unnecessary for these landfill sites, the limits of fill will likely be needed for documentation associated with institutional controls (i.e. land use restrictions). Throughout the plan, the site plans show "approximate boundaries" and most of the landfill sites have not been test pitted along the suspected boundaries. The Department recommends that the Navy consider confirming the boundaries of the following landfill sites with some additional test pitting during this phase of fieldwork:

Site 3, Site 4, Site 5, Site 6, Site 7, Site 10 and Site 17
- 2) The NJDEP is using the "interim delineation standard" of 10 ppm hexavalent and 500 ppm total chromium for the soil cleanup criteria. For ground water, the promulgated standard is 100

ppb total chromium. Be advised that the lab must already be approved by NJDEP for chromium analysis.

- 3) The turnaround time for trip blanks (for VOCs), is 24 to 48 hours. If logistical problems exist, the turnaround time could be expanded to 72 hours.
- 4) Ground water contour maps should be included for each specific site once the new wells have been installed in addition to a facility - wide ground water contour map. All ground water elevations shall be presented in a tabulated form.
- 5) The hydropunch shall be used in the hydrocarbon mode for this investigation.
- 6) It is noted that NorthDiv and its contractor are in the process of producing more accurate maps. A regional wide map shall be included to show the station in relation to the surrounding areas of Monmouth County. Color maps or multi-shaded maps should be presented to illustrate drainage areas, streams and geologic outcrop areas. An example of an acceptable map which illustrated the outcrop areas was in the Installation Restoration Program Phase III Workplan on page 2-8.
- 7) The Department may consider the results of filtered aqueous samples for inorganic analyses, but will only review the results of unfiltered inorganic analyses. The Department's position is that the unfiltered samples are more representative of environmental conditions.
- 8) All currently proposed monitoring well locations should be field verified by the USEPA, NJDEP and the Halliburton geologist.

Page/Section Specific Comments:

- 1) Section 2.3 - The lithologic description for all borings and monitor wells will be completed using the Burmeister classification System. If the contractor wishes to incorporate some of the Unified symbols for engineering purposes and their own use, this is acceptable. But, the narrative description on the logs will be completed using the Burmeister system.
- 2) Section 2.5 - Well development by bailing only is unacceptable. A sand bailer may be used to initially remove heavy sediments from the casing but, then the development must be completed by pumping and surging as needed.
- 3) Section 3.0 - Since munitions are an active part of operations at this facility, the specific explosives to be tested for during the investigation need to be detailed on the explosives parameter list.
- 4) Section 3.2.3 - The statement regarding not sampling prior to 14 calendar days needs to be re-iterated in this section of the document.
- 5) Section 3.2.6 - This section requires clarification. The narrative presented in this section details using the discrete sampling mode of the hydropunch. However, the bullet items describe the use of the hydropunch in the hydrocarbon mode and sampling from a wellpoint. The hydrocarbon mode uses the

hydropunch fitted with a sacrificial piece of PVC slotted screen approximately 1.5 to 1.75 inches in diameter and drive tip. This will allow sampling flexibility in collecting the VOCs and SVOCs with a small diameter bailer. Sample collection using this method does not require development. Development of this device could produce false negatives with respect to VOCs and SVOCs.

- 6) Section 4 - In addition to the additional hydropunches requested by the USEPA, one hydropunch should be installed in the inactive burn area. And as stated in the report additional monitor wells will be located based upon the results of the hydropunches.
- 7) Section 5 - Include a table in this section of the report listing the wells their year of installation and other relative data such as: depth, screen interval, diameter etc.
- 8) Section 6 - On figure 6-1, MW3-1 is shown located inside the landfill boundary. Previous reports had this well located roughly in the wetlands area in the vicinity of the words WET 3A-1. Was the well originally located incorrectly? The contractor needs to clarify this issue.
- 9) Section 8 - The Department concurs with USEPA recommendation to install two additional hydropunches proximate to MW5-6. It is recommended that one hydropunch be located proximate to the "E" in shooting range, and the other one in the woods to the east of the target monitor well.
- 10) Section 12 - If the area to the north-northwest of the site is a true wetlands, the contractor may want to consider the installation of a staff gauge to assist in definition of the flow gradient.
- 11) Section 14 - Please reference the report which describes the UST removal action.
- 12) Section 18 - Upon evaluation of all the USTs in the area, the tile drain area and other potential impact to ground water sources, it is recommended that additional monitor wells be installed. The Department recommends at least four additional monitor wells to the four already proposed. The four proposed monitor well locations need to be placed on the current site map. If additional wells and or soil borings are going to be installed under the UST removal program adjacent to this site. The Navy may consider to use that data to supplement this investigation.
- 13) Section 18 - The Department is concerned that the soil gas survey will only be useful in finding areas of contamination that have VOC contaminants present. It is unclear how areas that may be contaminated by heavy oils, PCB's or metals would be identified for locating the soil borings that follow the gas survey. In addition, the Department recommends that some soils investigation be conducted south of building C-50 (vicinity of "removed UST", "exposed pipe" and "catch basin") and south of building C-19 (vicinity of "UST filler pipe").
- 14) Section 21 - It is recommended that a sludge and liquid sample be collected from the septic tank and analyzed for TCL/TAL parameters. Based upon the results of the currently proposed sampling, it may be necessary to evaluate the impact to ground water pathway.

15) Section 23 - Please reference the report that describes the UST removal effort at this Site. If there is no data to support only a sanitary use of the septic tank, then it is recommended that a sludge and liquid sample be collected from the tank and analyzed for TCL/TAL parameters. It is also recommended that "target" explosives be analyzed for in the sludge and liquid sample.

16) Section 25 - Reportedly, explosive dissolved into hot water was sent to a settling tank where it cooled. Overflow from this tank traveled via the open tile pipe to an unlined pit east of the building. Explosive was allowed to decant in the pit and it was then flashed-off using diesel fuel. But, heavy rains which occurred before this could happen caused the release of explosive from the pit to the Mingamahone Brook. Reportedly, an estimated 20,000 pounds of ammonium picrate could have been lost to the surface water in this manner. Yet, there is no sampling proposed for the brook. The contractor should re-evaluate sampling of sediment in the brook where the outfall/runoff from the site occurred.

The onsite septic tank, leach field and leaching tank must be evaluated as a pathway for contaminant release. It is recommended that these areas be sampled for TCL/TAL parameters along with "target" explosives.

Based upon the previously determined ground water flow direction it is recommended that the proposed location of monitor well 26-5 be moved in the vicinity of existing soil sample 003.

The intended use of the 3 x 3 concrete pad with cover should be stated. Efforts should be made to determine if this is another tank etc.

17) Section 26 - Documented to exist in a 1987 inspection report a drain pipe, sticking out of the hill located behind the building, had a discharge which gave off 200ppm on the HNu. Investigate if this pipe still exists and what its use was.

18) Section 28 - According to the Preliminary Assessment Report, written in 1993, it was also reported that oil-soaked wood chips were stored on this site. This report must be investigated and evaluated, in the event additional sampling is required during this phase of site work.

19) Section 29 - Epic Site Q is a new site that has never been investigated. In general, the Department does not recommend random installation of monitor wells as the first phase of investigation at new "areas of concern". The Department recommends investigation of soils in the vicinity of "areas of concern" such as the drainage systems, oil separators/skimmers, tanks, pads, etc., prior to installation and sampling of monitor wells. Such soils investigation may be useful in better locating monitor wells if needed. In addition, despite the fact that operating permits for discharges are "currently" in place, the Department would be concerned about earlier operations at the facility (it has been in operation since 1975) and leaks from the various components in the drainage/treatment systems. Accordingly, the Department recommends limited sampling of sediments from surrounding receptors such as the pond and wetlands.

In addition, the sampling parameters may have to be revised depending on the types of fire suppressants and incendiary materials used.

Documentation/data generated as a result of the operating permit and the inspection reports must be presented in an appendix and referenced in this document.

The contractor may want to consider the use of soil gas surveys, and hydropunches to begin evaluation of this site.

- 20) Section 30 - The contractor shall address sampling in the various aquifer outcrop regions of the site. As stated earlier, the generation of a surface geology map with the sites all located on it will assist in the required investigation.

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, DPF SR/BGWPA
Kenneth Petrone, DPF SR/BEERA
Jeff Gratz, EPA