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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

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 371 441 829

MAY 15 1996

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 Remedial Investigation Report
Naval Weapons Station Earle
Colts Neck Twp., Monmouth Co.

The New Jersey Department of Environmental Protection (NJDEP) has reviewed the above referenced document prepared by Brown and Root Environmental., dated March 1996. The NJDEP approves this report pending incorporation of the following comments and incorporation of EPA's comments in their May 1, 1996 correspondence to you.

General Comments:

- 1) For each RI site addressed in Section 4.0 through 29 of the report, the Brown and Root has provided an "Evaluation Summary" and "Recommendations" subsections. The NJDEP finds that many of the generic conclusions and specific recommendations made in these subsections are inappropriate and/or premature statements and should be omitted. For example, several sites that showed low level ground water contamination that exceeded standards/criteria, the report generally concludes that ground water contamination above standards is "...not a significant threat to human health and the environment..." and recommends "...no further action..." for the site. However, the report also recommends that use of ground water be prohibited at such sites. In many such instances, "Classification Exception Areas" (CEAs) must be established, as a minimum, in accordance and compliance with State regulations. The establishment of CEAs may require further plume delineation and a regular monitoring program. Accordingly, the Department suggests that these recommendation subsections be limited to making recommendations regarding the need for additional Remedial Investigation work only. Recommendations regarding

further action beyond the RI should be a decision jointly by the Navy and the Regulatory agencies, with input from the Remedial Advisory Board (RAB).

- 2) The report notes that the landfill sites generally have a partially vegetated cover that has been predominantly reforested with Pine species. The report should also note that, in general, the cover soils are primarily sandy soils and that none of the landfills were closed with impermeable covers/caps. This information would be useful in the final evaluation of the need for further action at these sites, and should be included in the report.
- 3) For each of the landfill sites, the Navy must document that landfill gas migration is not a current problem and that locating enclosed structures on or adjacent to the landfills in the future would not present a problem with respect to landfill gas releases.
- 4) For several sites, Arsenic was detected in ground water at concentrations exceeding Ground Water Quality Standards. The report concludes that these elevated arsenic results are not site-related. However, arsenic was not detected in background ground water samples. Further investigation and evaluation of these phenomena is warranted at several sites.
- 5) The maps and figures need to clearly depict the boundary's of the different water sheds. A dashed line should be used to show where the drainage divides occur and which sections of the base and their respective streams drain to which river system.
- 6) The maps and figures need to clearly depict the outcrop regions for the different aquifers. Brown & Root should evaluate the use of a cross-hatched pattern or similar shaded patten to demonstrate the outcrop regions.
- 7) The ground water flow lines should be placed on the respective ground water contour maps for each site.
- 8) The monitor well as-built construction specifications for all the monitor wells newly installed and existing must be included in the site-specific monitor well characteristics summary tables. In addition, the diameter of the wells, the construction materials (PVC, stainless etc.), the dates installed shall be added to existing table format.

Site Specific/Page Specific Comments:

Site 1

- Table 4-7a) The explosives analytical data is missing from the ground water tables for this site. It is presented for the hydropunch investigation but not for the monitor wells.
- 4-46) Brown & Root's recommendation to seal the wells and that no further action is required at this site is premature. Ground water monitor

wells and the hydropunch have documented the presence of explosives. This may require further evaluation and investigation.

Site 2

Table 5-4a) The explosives analytical data is missing from the ground water data tables for this site. Monitor well 2-06 demonstrated levels of RDX and 2,4,6-trinitrotoluene, this should be presented on the analytical table.

Site 3

6-3 & 6-4) Soil Gas locations are shown on Figure 6-2, not Figure 6-1.

Figure 6-5) Contaminant concentrations for WET3A-1 and GW01 are referred to the wrong sampling locations.

Figure 6-5 depicts the concentrations above ARARs, during the sample event monitor wells 2,4,7,8 were dry and not sampled. A note should be included on the figure stating this fact.

Site 6

9-42) The recommendations on this site do not consider the potential impacts of the site contaminants on the salt marsh system via migration of ground water to that system. This avenue for migration should be considered when evaluating the site impacts on the surrounding environment.

Site 7

10-19) The conclusions and recommendations for this section fails to evaluate and take into consideration the chlorobenzene hit documented in monitor well 2. This needs to be investigated, and the source evaluated.

Site 9

11-3) No photographs were included for the Site 9 test pits. Please delete "...and photographs.."

11-5) It is not clear why ground water was never sampled downgradient of this site. Based on the sediment and surface water results for this site, it is recommended that wells should be installed to assess any impact to ground water.

Site 11

13-13) "...elevated turbidity readings..." Please include the actual turbidity readings.

Site 12

14-4) Soil contamination at this site will need to be fully delineated vertically and horizontally pursuant to current NJDEP policy.

Site 13

15-50) Based on the type of wastes received at this site and the description of existing conditions, this landfill appears to warrant a more stringent cap and closure requirements. Significant ground water contamination still exists on this site.

Site 16

18-95) The section seems to restrict future efforts to the "free product" delineation of remediation. While the free product efforts are a priority, the report must recognize that the delineation and remediation of dissolved ground water contamination is also required. In addition, the full delineation of contamination detected in surface soils, subsurface soils and sediments is required pursuant to current NJDEP policy.

Site 20

21.1) First sentence - insert "grit" prior to the word "blasting".

The site 20 section should reference the report describing the grit blast removal action conducted by the NWS personnel. Include all necessary post-ex samples results, etc.

Site 22

22-32) Post excavation soil sampling would be required if interim soil remediation efforts are implemented.

Site 23

23-61) Soil contamination at this site will need to be fully delineated vertically and horizontally pursuant to current NJDEP policy.

Brown & Root made a statement regarding the turbidity of the inorganic ground water samples yet, no NTU values were presented to substantiate the statement. In addition, the filtered ground water inorganic analytical data should be labeled as such and presented on the ground water data table. Given the elevated levels of the chromium, arsenic and lead in monitor wells 1 and 3, additional investigation regarding past site activities/disposal which may be the source for these levels should be conducted.

Site 24

24-29) Post excavation soil sampling would be required if interim soil remediation efforts are implemented.

Site 26

- 26-1) What materials comprise the term "slag"? Please elaborate.
- 26-25) Soil contamination at this site will need to be fully delineated vertically and horizontally pursuant to current NJDEP policy.

The analytical data generated from subsequent sampling the leach tank should be included in this section of the report, if the data is not available yet, then reference should be made that samples were collected etc.

Background Samples:

1. Brown & Root should evaluate the background well locations and relate them to the hydrogeologic outcrop/aquifer they are in.
2. The analytical data generated from the ground water samples should be tabulated and presented in this section of the report.
3. The contractor should evaluate this data with respect to trends in inorganic data for the different outcrops and different wells.
4. These trends should then be compared to ground water data generated from the various sites. All conclusions should be presented in this section of the document.
5. Generate small scale maps [as needed] to support locations of the background well location with respect to water shed/drainage basins and with respect to the various sites in the individual drainage basins. Present any conclusions of trends determined.

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.