

REPRODUCED AT GOVERNMENT EXPENSE

N60478.AR.000004

NWS EARLE

5090.3a

ER SI 6

12/31/83

US EPA COMMENTS ON NAVY A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

26 FEDERAL PLAZA

NEW YORK, NEW YORK 10278

DEC 21 1983

Commanding Officer
Department of the Navy
Northern Division
Naval Facilities Engineering Command
Philadelphia, Pennsylvania 19112

Dear Gentlemen:

Thank you for forwarding copies of the Assessment Studies for the Lakehurst, New Jersey Naval Air Engineering Center and Colts Neck, New Jersey Naval Weapons Station Earle.

The Environmental Protection Agency (EPA) Office of Emergency and Remedial Response had our Field Investigations Team review these documents for comments. Enclosed is our comments.

If you have any questions regarding these comments, please contact Ms. Robin Rohn of my staff at (212) 264-8677. Thank you for the opportunity to comment.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "George Pavlou".

George Pavlou, Chief
Hazard Assessment Section

Enclosures

NAEC
~~Comments~~
N/A
DB

EXECUTIVE SUMMARY

Region II FIT reviewed the February 1983 report prepared by Fred C. Hart Associates, Inc. entitled: Initial Assessment Study of Naval Weapons Station Earle, Colts Neck, New Jersey.

Major findings of the review are as follows:

1. Four (4) potentially hazardous sites were adequately identified and recommended for environmental monitoring.
2. Additional groundwater sampling should be considered for sites 6, 7, 10, 19, 20, 22, 23, and 27 due to the potential for groundwater contamination.
3. Adequate reasoning was not provided to eliminate Site 26 from further investigatory actions; groundwater and surface water sampling should be considered.
4. Consideration should be given to groundwater monitoring at Sites 24 and 25 due to the potential for groundwater contamination.
5. On-site sampling of surface waters and sediments from streams which leave the NWS Earle site should be performed to find the sources of contamination found to be discharging from the site. ?

Bill - We have to ask
Mortimer about funding
for monitoring! JTB

METHODOLOGY

The Initial Assessment Study was reviewed from November 17 to November 30, 1983 by the following professional staff members:

- | | | |
|----|------------------|--------------------------|
| 1. | James Sullivan | Chemist |
| 2. | Edward Ambrogio | Environmental Scientist |
| 3. | Thomas Cosentino | Toxicologist |
| 4. | Colleen Ranney | Public Health Specialist |

FINDINGS

The principal conclusion drawn from the IAS of NWS Earle is that the environmental problems at this site are not very significant. The potential problems identified are generally associated with the disposal of municipal wastes and small amounts of ordnance wastes.

The twenty-nine (29) waste sites identified by the IAS team were evaluated using the Confirmation Study Ranking System (CSRS) developed as part of the NACIP program. Four (4) sites were determined to pose a potential threat to human health or the environment based on the CSRS. Recommendations were presented to be used as a guide in the development and implementation of confirmation studies for these ranked sites.

Major Issues:

1. The following four (4) sites received rankings from the CSRS and were designated as potential hazards to human health or the environment:
 - Site #2: Ordnance Demilitarization Site
 - Site #3: Landfill Southwest of "F" Group
 - Site #4: Landfill West of "D" Group
 - Site #5: Landfill West of Army Barricades

Table 1 summarizes the environmental monitoring programs recommended for these sites.

Comments:

The four (4) sites ranked under the CSRS should undergo environmental monitoring as recommended in the IAS. However, the sampling plans need to specify additional information regarding well locations and grab soil sample locations. A high potential for contamination of soils and groundwater exists in these areas due to the variety of buried organics and inorganics.

Table 1

Summary of Recommended Confirmation Studies

| Site | Site Number | Potential Contaminants | Type of Sample | | Number of Samples | | Number of Groundwater Monitoring Wells | Analytical Parameters |
|---------------------------------|-------------|--|----------------|------|-------------------|-------------|--|---|
| | | | Ground-Water | Soil | Ground-Water | Soil | | |
| Inance Demilitarization e | 2 | Explosives and propellants | x | x | 12 | 1 composite | 3 | pH, nitrates, lead, copper, RDX, TNT, ammonium, picrate |
| idfill Southwest of Group | 3 | Solvents, acids, caustics, paints, and pesticides | x | - | 12 | - | 3 | pH, specific conductance, total organic carbon, total organic halogen, chloride, phenols, nitrate, chromium II, VI, acetone, and toluene |
| idfill West of Group | 4 | Solvents, acids, caustics, and paints | x | - | 12 | - | 3 | pH, specific conductance, total organic carbon, total organic halogen, chloride, phenols, nitrate, chromium III, VI, acetone, and toluene |
| idfill West of by Barricades | 5 | Solvents, acids, caustics, and paints | x | - | 12 | - | 3 | pH, specific conductance, total organic carbon, total organic halogen, chloride, phenols, nitrate, chromium II, VI, acetone, and toluene |

(a) 'x' denotes recommended sampling types.

2. After site inspections, interviews, and reviewing records, the remaining twenty-five (25) sites identified at NWS Earle were not found to be potential hazards to human health or the environment and received no scores under the CSRS. Descriptions indicated that typical activities in these areas included the burial of dunnage, household refuse, and paint chips, temporary chemical or fuel storage, and discarding of spent munitions. No further investigatory actions were recommended for these sites.

Comments:

Twenty-five (25) sites were identified and recommended for no further action. However, assumptions concerning several of these areas were over-generalized and did not address some major considerations.

- a) Sites 6, 7, 10, 19, 20, 22, 23, and 27 were utilized for the burial of paint, paint chips, and munitions refinishing materials. The potential exists for the release of organic and heavy metal constituents of these paint wastes when subjected to acidic conditions. The soils in these areas are acidic and very permeable presenting the proper conditions for the release of these contaminants and their migration with groundwater movement. These areas should be considered for groundwater sampling to monitor potential migration of organic and heavy metal contaminants.
- b) Site 26 - Explosive "D" Washout Area, Building GB-1 was utilized for the removal and recovery of Explosive "D" and ammonium picrate from spent shells. It is estimated that up to 20,000 pounds

of ammonium picrate may have been lost into the soil during the washing operations. It should not be assumed that these materials have been completely washed away by rainfall and pose no threat to local ground and surface waters. Ground and surface water sampling is recommended at this site.

- c) Sites 24 and 25 are closed pistol ranges. It is estimated that 250 pounds of bullets were deposited on the ground each year over an unspecified time period. Under acid soil conditions, the potential exists for heavy metal bullet constituents to migrate with groundwater movement. Consideration should be given to additional groundwater monitoring at these sites.

General Comments:

Although not included as part of the IAS of NWS Earle, recent off-site sampling was conducted by the Monmouth County Department of Health. Surface water and sediment sampling of streams discharging from the NWS Earle site revealed high levels of pesticides and heavy metal contaminants, especially cadmium and chromium. Further on-site sampling of surface waters and sediments should be instituted to find the source of these contaminants.

SUMMARY

The following points summarize the findings for FIT's review of the Initial Assessment Study of NWS Earle:

- o Four (4) potentially hazardous sites were adequately identified and recommended for further confirmation studies. However, more specific information regarding the proposed monitoring activities needs to be delineated.
- o Additional groundwater sampling should be considered for Sites 6, 7, 10, 19, 20, 22, 23, and 27. Sufficient justification was not provided in the IAS to eliminate the potential for groundwater contamination in these areas.
- o Sufficient reasoning was not provided to eliminate Explosive "D" Washout Area - Site 26 from further consideration as a potential hazard to human health or the environment. Ground and surface water sampling should be considered for this area.
- o Consideration should be given to groundwater monitoring at Sites 24 and 25 due to the potential for contamination by heavy metal constituents derived from metal bullet deposits.
- o Sampling results released by the Monmouth County Department of Health for streams discharging from NWS Earle warrant additional on-site sampling activities to determine the sources of apparent heavy metal and pesticide contamination.