



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

JACOB K. JAVITS FEDERAL BUILDING

NEW YORK, NEW YORK 10278-0012

OCT 24 1994

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

- Re:
1. EPA Assessment of Data Needs to be Addressed During the Development of the *Remedial Investigation Workplan (Phase II) for 11 Sites*, Naval Weapons Station (NWS) Earle, Colts Neck, New Jersey
 2. Follow-up to Our October 20, 1994 Meeting

Dear John:

In September, 1993, the Navy submitted a draft final *Remedial Investigation Report for 11 Sites* for the NWS Earle Site to the Environmental Protection Agency for review. The purpose of this letter is to provide the Navy our comments (see attachment) on the findings presented in the document and to give the Navy a clear indication of data needs that should be addressed during the next phase of the investigation. Note that several of our general concerns are identical to ones expressed in our September 29, 1994 letter on the RI workplan for 17 sites. It is our position that a workplan for these sites must contain the requested information in order for us to make informed remedial action decisions.

During our very productive meeting (with Ed Boyle of Northern Division and Greg Goepfert of NWS Earle) on October 20, 1994, we discussed our comments (from a draft version of the attachment to this letter) as well as the comments expressed in our September 29, 1994 letter. As discussed at the meeting, the Navy has decided to combine the two investigations and will submit a workplan for all 28 sites by the end of January, 1995. This workplan will include sampling sediment and surface water from streams and wetlands at the base that are both site-specific, area-wide, and near the base boundaries so to give us an indication of contaminant loading on the different watersheds at NWS Earle. At our October 20, 1994 meeting, the Navy also agreed to implement the items listed in our September 29, 1994 letter and in the draft attachment to this letter with the following modifications:

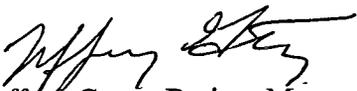
1. **Site 9** - Additional test pits will be installed to characterize the waste in the landfill.
2. **Site 12** - Clarification as to the spill location is necessary.
3. **Site 13** - Because it is already known that the area of concern contains a great deal of metal debris, a magnetometer survey is not necessary. A rigorous test pit program will be implemented.

4. **Site 15** - Soil samples will be taken on both sides of the railroad track. No groundwater monitoring wells will be installed. Additional sediment and surface water samples will be taken along the drainage area.
5. **Site 23** - Because of new information regarding a leachfield in this area, the investigation at Site 23 will be expanded.
6. **Site Q** - Because of new information regarding the use and precautions taken during the life of this site, a more limited investigation may be warranted.
7. **Site 26** - Surface and subsurface samples will be taken in the leaching pit.
8. **Screening surveys** - The Navy will perform screening surveys (soil gas, hydropunch, cone penetrometer, etc...) at several sites at NWS Earle. The workplan to be submitted to EPA at the end of January, 1995 will include a discussion of what type of survey will be implemented at each site, the general area that the survey will encompass (in figures and text), and the objectives of each site (or area) survey. For hydropunch and cone penetrometer surveys, only the initial locations need to be listed/shown in the workplan, while for soil-gas surveys, only the area to be surveyed needs to be shown in the workplan. However, the detailed grids should be developed and submitted to EPA review and approval prior to beginning field activity.

The January, 1995 workplan will be considered a "draft" document and subject to the applicable Parts of the Federal Facility Agreement (FFA) between the Navy and EPA for the NWS Earle site.

If you have any questions or believe that any of the issues highlighted above do not reflect decisions made at our October 20, 1994 meeting, please call me at (212) 264-6667.

Sincerely,


Jeffrey Gratz, Project Manager
Federal Facilities Section

Attachment

cc: B. Marcolina, NJDEP, w/attach.
G. Hermanni, NWS Earle, w/attach.

EPA Assessment of Data Needs to be Addressed During the Development of the draft *Remedial Investigation Workplan (Phase II) for 11 Sites*

General Comments:

1. We agree with many of the recommendations outlined in the draft final *Remedial Investigation Report for 11 Sites* (pgs. 5-22 and 5-23, Sept. 1993). With respect to determining the extent of groundwater contamination at several areas, we suggest that the Navy be flexible as to the amount of hydropunch samples necessary at each site. With the use of a field GC, the program can be expanded or contracted based on real-time data. Samples at each location should be taken at several depths. This would help us determine whether deeper wells are necessary at certain sites. Based on the results of the hydropunch sampling, quick but informed decisions (with EPA and NJDEP input) can be made as to the location and number of permanent monitoring wells.
2. Groundwater from many wells that were sampled during the remedial investigation contained high acetone concentrations. To confirm that acetone is an artifact of decontamination procedures used by the Navy's contractor and not a contaminant of concern, the Navy should resample those wells where groundwater contained acetone in excess of 1000 ppb. (Most of these 21 wells will probably be resampled anyway during phase II of the RI because of continuing groundwater investigations at several sites.)
3. Two rounds of synoptic water level measurements on an area-wide basis should be conducted in order to get a more accurate indication of groundwater flow direction locally and regionally. This is very important for sites where elevated levels of contaminants have been detected but the groundwater flow direction is uncertain and a source of contamination has not yet been determined.
4. The Navy should provide a map in the *RI Phase II Workplan* illustrating surface drainage pathways throughout the base along with sample locations that will be adequate in scope to afford an effective evaluation of potential environmental impacts on the base's watersheds. The results of the RI sediment/surface water sampling program should give us a good indication as to whether (1) specific sites have caused an impact to the local environment, and (2) there has been additive effect from many small sites on a regional level.
5. We have found that using a 100 ml/min. low flow pump for the collection of unfiltered metals samples has been highly effective in reducing the apparent metals concentration in groundwater samples. Sample turbidity is reduced, thereby reducing the concentrations of suspended solids (including metals) in the aqueous sample. If the turbidity of the sample cannot be sufficiently reduced, we recommend taking a filtered and unfiltered sample. This methodology should be used at sites where elevated metals were detected groundwater.
6. Upon cursory comparison of the draft *Report* (March and May, 1992) and the draft final *Report* (September, 1993), many of our comments that were responded to: "correction will be made and included in the final RI Report" were not made. We hope that this does not occur during the next phase of the investigation. Checking to make sure that comments were incorporated into a document is very time intensive and should not have to be a major part of EPA's oversight effort.

Site-Specific Comments:

Site Comment

- 2 Elevated levels of chromium were detected in soil, sediment, and groundwater. Further delineation of soil contamination is necessary. Speciation of chromium (+6 or +3) should be determined. We concur with the Navy's proposal to use a low flow pump for taking groundwater samples when analyzing for metals.
- 3 Elevated levels of BTEX were detected in well MW03-04, downgradient from the landfill. Detection limits from samples in other wells were high and may have masked significant concentrations. The wells of concern were dry upon resampling. Lead, chromium, and arsenic were also detected at elevated concentrations - particularly arsenic in well MW03-01, which is downgradient from the landfill. Resampling is necessary at a time when water levels are higher. A low flow pump should be used when collecting samples for metals analysis. The Navy should be prepared to preform a soil gas or hydropunch survey near well MW03-04. Besides determining the extent of groundwater contamination, the purpose of this investigation would also be to determine if there is a residual source of groundwater contamination in the area. Additional observation test pits should be considered.
- 4 We agree that "additional investigation [is necessary] to fully delineate the extent of the TCE and other solvent compounds" in groundwater. (draft RI Report, 4-40, Sept., 1993)
- 5 Additional groundwater characterization is necessary in the area of low level organic contamination (MW05-06).
- 19 a. High concentrations of lead were detected in sediment samples from a drainage area leading from Site 19. The Navy should sample for TAL metals in the area of highest concentrations (e.g., 19-30 and 19-32). Furthermore, to address the groundwater pathway, soil borings should be installed at these locations. The samples from these borings would help determine whether there has been significant transport of metals through the soil column. Groundwater should be sampled using a low flow pump in order to get representative metals samples.
- b. The areas of very high cadmium concentrations (from the 1986 SI) should be addressed by taking additional samples at and around the original sampling locations.
- 20 a. Any additional sampling at this site should consider the leachfield behind building 544.
- b. The wetlands adjacent to the site should be sampled (surface water/sediment) to determine if there has been any environmental impact from activities at Site 20.
- c. Post-removal confirmation sampling should be comprehensive enough to support a decision as to whether any further action is necessary beneath and around the grit piles and associated drainageways.
- 26 a. The 1993 RI text and tables are very unclear as to the spacial relationship between the sediment and soil samples taken in the disposal pit. This should be clarified in future

documents. Surface and subsurface samples should be analyzed for TAL metals.

b. A well downgradient of the disposal pit should be installed.

c. The source area of high concentrations of DCE and TCE should be investigated. Soil borings and a soil gas survey are warranted. The extent of VOC groundwater contamination should be determined.