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NWS EARLE
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, NEW YORK 10278

APR 14 1993

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

Re: Naval Weapons Station (NWS) Earle

Dear Mr. Kolicius:

Enclosed are partial comments for the Site Investigation Report.

In accordance with Section XVI of the Interagency Agreement, the U.S. Environmental Protection Agency (EPA) is requesting an extension until May 8, 1993 for the transmittal of the remainder of the comments.

If you have any questions concerning this matter, please contact me at 212-264-6609.

Sincerely yours,

Paul G. Ingrisano
Paul G. Ingrisano
Project Manager
Federal Facilities Section

Enclosure

cc: LCDR J. P. Dell, NWS Earle
J. Freudenberg, DEPE

Biological Technical Assistance Group

1. Sites 14 and 28 were not evaluated during this Site Investigation because they had previously undergone RCRA closure. It is unlikely that RCRA actions adequately addressed potential impacts to ecological receptors from contamination or remedial activities. It is therefore recommended that ecological concerns associated with these sites be evaluated and presented in the investigation report.

2. There appear to be several inconsistencies in the descriptions of surface water and sediment samples collected in association with several of the individual sites. The discussion in Section 3.1.7 indicates that surface water and/or sediment samples were collected at 4 sites (Sites 6, 12, 13, and 17). On the next page, Table 3-7 indicates that surface water and/or sediment samples were collected at 7 sites (Sites 15, 23, and 27, in addition to those listed above). Section 3.2 presents a site-by-site discussion of sampling activities conducted at the station. The description of sampling conducted at Site 6 (Section 3.2.2) does not include the 4 sediment samples indicated in Table 3-7. The site sampling map, however, does show sediment sampling locations. Similarly, the discussion of sampling conducted at Site 15 does not include sediment sampling. It is recommended that these discrepancies be clarified.

3. A discussion regarding surface water and sediment sampling conducted at Site 13 is presented on page 3-34. The document indicates that surface water samples from this location were analyzed for SVOCs, pesticides, PCBs, metals, and cyanide; while sediment samples were analyzed only for SVOCs, pesticides, and PCBs. It is unclear why analyses for metals and cyanide were omitted for sediments, and justification should be provided. In addition, no detailed sampling map was provided for Site 12; this map should be provided in order to evaluate the appropriateness of the sampling locations selected. Finally, the discussion regarding the physical characteristics of Soils and Sediments and Drainage patterns which was presented for all other sites was omitted for Site 29. These details should be provided for all sites evaluated under this investigation.

4. Figure 2-1 (page 2-5) presents a site map showing drainage basins and indicating the locations of sites evaluated during this investigation. The locations of all sites discussed in this document should be included on this map. Sites 13 and 25 have been omitted. From this map, there appear to be sites located in close proximity to Mingamahone Brook, Ware Creek, Wagner Creek, Hockhockson Creek, and their tributaries. From the discussion of sampling conducted for this investigation, all surface water and sediment samples appear to have been collected from drainage ditches, storm sewers, etc., directly associated with individual sites. It is recommended that any aquatic systems potentially impacted by site-wide contaminants be evaluated as a whole in order to identify potential cumulative effects of contaminants

entering these aquatic systems. In addition to surface run-off, such an investigation should take into consideration the potential for discharge of contaminated groundwater into downgradient streams and/or wetlands.

5. Page 5-1 states that "reference to recent proposed NJDEPE cleanup standards in soils are made to provide perspective when discussing...organics and pesticides in soil and sediment samples..." Such a comparison is inappropriate for evaluating potential ecological impact. The authors go on to divide the sites which were evaluated into 3 groupings (Group A - sites requiring further sampling, Group B - sites requiring no further action other than monitoring, erosion control, etc., and Group C - sites requiring clean-up of small amounts of surficial waste). The sites were grouped "based on background data and the results of the Site Investigation described in Section 4." Due to the incomplete nature of background data available for NWS Earle, and the possible use of inappropriate screening criteria, the BTAG feels that dividing individual sites into these groupings may be premature. The BTAG concurs with the need for additional sampling to establish reference conditions, as proposed on page 5-2. Further recommendations for appropriate screening criteria are discussed in the following paragraphs.

6. A discussion of "Non-Point Source Impacts to Sediments in Drainage Areas" is presented beginning on page 5-3. Potential impact to aquatic receptors is evaluated by comparing average concentrations in surface water and sediment samples to USEPA Ambient Water Quality Criteria (AWQC) freshwater and marine chronic values, and NOAA Effects Range-Low (ER-L) concentrations. Based on comparisons to averaged concentrations, at least one screening value was exceeded at six of the seven sites where surface water and sediment samples were collected. However, Section 5.2 (Site-Specific Findings and Recommendations) recommends additional sediment sampling at only two of these sites (Sites 6 and 12). An additional comparison to screening levels using maximum contaminant concentrations is recommended in order to provide a more protective evaluation of potential risk to aquatic receptors.

7. Again, the BTAG recommends that site drainage systems be sampled and evaluated as a whole. The BTAG has recommended this approach in a previous letter commenting on investigations at NWS Earle (August 11, 1992), and wishes to reinforce its importance here. Samples should be collected from areas of suspected contaminant input, including, but not limited to, site drainage ways, storm-sewer outlets, and suspected areas of groundwater discharge. Surface water and sediment samples should be collected from the same approximate locations. Sediment samples should be collected from depositional areas (areas of low flow where sediments tend to settle out of the water column), as contaminants are more likely to accumulate there. The top six inches of sediment should be collected for chemical analysis, as this is the fraction most likely to be available to biological

receptors. In addition to chemical analysis, it is recommended that total organic carbon (TOC) and grain size analyses be requested. These analyses will aid in determining the potential bio-availability of sediment bound contaminants.

8. Additional work will be required for several of the sites evaluated under this Site Investigation. According to the program organization for the Installation Restoration Program (IRP) presented on page 1-1, the next step will be the initiation of a Remedial Investigation/Feasibility Study (RI/FS). During the RI process, potential risk to ecological receptors will need to be evaluated. Information should be gathered regarding ecological receptors potentially present at NWS Earle. This should be accomplished through literature review and/or wildlife surveys conducted on the station. At some point during the process, an informal Section 7 consultation with the U.S. Fish and Wildlife Service will be necessary in order to determine the potential presence of any federally listed threatened or endangered species. This consultation can be initiated by contacting the Environmental Impacts Branch of the USEPA.

9. The BTAG recommends that ecological risks be evaluated on a site-wide basis, rather than site by site, in order to take into account the possible cumulative effects of exposure to more than one site by ecological receptors. If a site-wide evaluation proves to be infeasible, it is recommended that sites requiring further investigation be grouped into Operable Units based on similarities in geographical location or contaminants of concern. Contaminants detected in media potentially available to ecological receptors should be evaluated for risk potential. Where available, contaminant levels should be compared to screening values appropriate for the medium (i.e., Federal Ambient Water Quality Criteria acute and chronic toxicity levels for surface water, NOAA ER-L and ER-M values for sediments). For contaminants or media for which no such screening values are available, ecological effects data available in scientific literature should be reviewed. If significant uncertainty regarding potential environmental impacts remains, site specific investigations, such as bioassays, Rapid Bioassessment techniques, or tissue sampling, may be appropriate to more adequately characterize risks.

10. Significant habitat areas, such as wetlands or habitat favored by endangered species, should also be identified. Wetlands potentially impacted by contamination or remedial activities will need to be delineated. In order to comply with current federal ARARS, effective as of January 1993, wetlands should be delineated using the 1987 Army Corps of Engineers Wetlands Delineation Manual, rather than the 1989 Federal Manual for Identifying and Delineating Wetlands. It is also important to note that a wetland assessment and restoration plan will be necessary for any wetland areas impacted by contamination or remedial activities.