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LETTER AND U S NAVY RESPONSE TO U S EPA REGION IV COMMENTS TO DRAFT
REMEDIAL INVESTIGATION REPORT OPERABLE UNIT 2 (OU2) SITES 5 AND 17 NAS
CECIL FIELD FL
4/24/1995
ABB ENVIRONMENTAL



April 24, 1995

Mr. Bart Reedy
Remedial Project Manager
Federal Facilities Section
Waste Management Division
USEPA Region IV
245 Courtland Street, N.E.
Atlanta, Georgia 30365

Subject: Responses to Comments on Draft Remedial Investigation Report, Operable Unit (OU) 2, Sites 5 and 17, Naval Air Station Cecil Field, Florida

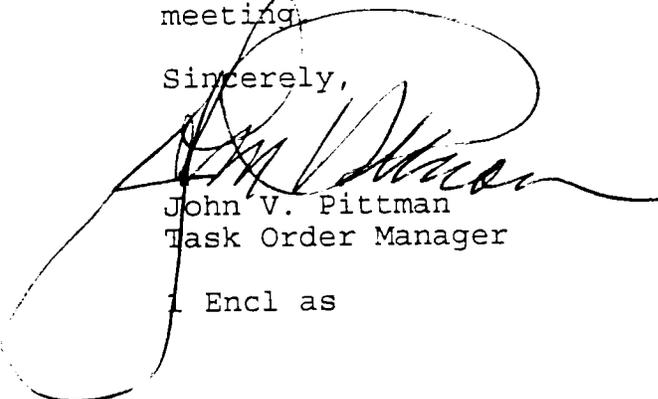
Dear Mr. Reedy,

On behalf of Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), we are sending you our Responses to Comments on the Draft Remedial Investigation Report for OU 2, Sites 5 and 17 Naval Air Station Cecil Field, Florida.

These Responses to Comments will be reviewed during the April 27, 1995 meeting at U.S. Environmental Protection Agency, Region IV, Headquarters in Atlanta, Georgia; but to save time, we would like to focus the attention of the meeting attendees on those comments that require discussion and resolution of policy or procedural issues.

The enclosure lists the comments that we have identified as potential issues for discussion. Please review the enclosure to assure that our listing of potential issues is complete. Please contact me (904-656-1293) if you believe some comment response issues should be deleted from the list or if other comment response issues should also be included for discussion at the April 27 meeting.

Sincerely,



John V. Pittman
Task Order Manager

1 Encl as

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ABB Environmental Services Inc.

cf:

Mr. Eric Nuzie, Florida Department of Environmental Protection
Mr. John Dingwall, NAS Cecil Field
Mr. Alan Shoultz, SOUTHNAVFACENGCOM
Mr. Steve Wilson, SOUTHNAVFACENGCOM
File

REMEDIAL INVESTIGATION - OU 21) **Comment Deliz 5**

Why are all of the soils at Site 5 and Site 17 considered Arents when 50% of Site 5 is Ridgeland fine sand and 100% of Site 17 is Ridgeland fine sand? It would seem appropriate to use Arents soil only in the immediate area of the historic disposal pit and the remainder of the Sites should be classified as the mapped Ridgeland fine sand.

Response

The U.S. Department of Agriculture Soil Conservation Service Soil Survey (SCS) of Duval County (1978) mapped Sites 5 and 17 from aerial photographs. While the SCS does field verify its interpretations, the verification process does not include field visits and classifications for the entire mapped area. As stated in the RI report, aerial photography and site history indicated that both areas have been disturbed. It was noted during site visits that the soil north of Site 5 contains concrete and brick debris, indicating that this area has, in fact, been disturbed. Field observations of the northern part of Site 5 indicate that debris was disposed on top of the ground, spread with a bulldozer, and then covered with a layer of soil. At Site 17, the areas adjacent to the pit were used as access ways when the pit was dug and when vehicles were driven to and around the pit. Due to digging activity in the pit area and the subsequent related disposal activity, it is unlikely that the natural soil profile, especially the surface soil, was maintained at Site 17. The RI did not verify the mapped conditions, but noted that there were some disturbed soils which would, by definition, be classified as Arents.

2) **Comment Deliz 7**

Comment pertains to Site 5: The confirmatory surface soil sample locations have not fully defined TRPH contamination. There are apparent data gaps around CEF-5-SS25 and CEF-5-SS1. Additional confirmatory surface soils may be warranted.

Response

The southern extent of TRPH, sample location CEF-5-SS1, does appear to be undefined. Field screening surface soil data (Appendix C of the RI report), however, indicate that soil immediately surrounding CEF-5-SS1 sample contain TRPH concentrations less than 50 milligrams per kilogram (mg/kg), and generally less than 15 mg/kg. In many screening samples collected in the vicinity of CEF-5-SS1 TRPH was not detectable. Likewise, screening samples collected in the vicinity of the northwest sample location, CEF-5-SS25, had either low (15 mg/kg or less) or no TRPH concentrations. The TRPH distribution defined by the field screening data is very

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similar to the distribution defined by the confirmatory samples. For this reason, interpretation of the field screening data indicates that additional confirmatory samples are not needed to define distribution.

3) **Comment Deliz 10**

Comment pertains to Site 5: Based on the confirmatory subsurface soil locations depicted on these figures [Figures 4-12 through 4-14], the 50 ppm TRPH isoconcentration contour should be dashed on: its northern and eastern edge of Figure 4-12; its northern, eastern and southern edge of Figure 4-13; and the entire contour on Figure 4-14.

Response

Subsurface soil field screening data (Appendix C) indicate that TRPH concentrations greater than 50 mg/kg do not extend beyond the pit more than 100 feet and usually no more than 50 feet. The field screening data indicate a TRPH distribution very much like the one illustrated on Figures 4-12 through 4-14. The contour lines will be dashed.

4) **Comment Deliz 28**

Comment pertains to Site 17: The confirmatory subsurface soil samples do not fully delineate the TRPH contamination and the 50 ppm isoconcentration contour should be dashed [Figures 4-32 and 4-33].

Response

Except for the northwest part of the site, TRPH was not indicated at any of the perimeter locations. While TRPH does not have a specific composition, analyses indicate that TRPH composition is composed largely of long-chain polycyclic aromatic hydrocarbons. The chemicals usually reside in soil and sediment, migrating little or not at all. Thus it may be predicted that TRPH does not extend much beyond those locations where it was detected. This idea of limited areal extent is supported by field screening data. Samples from field screening sites located within 50 feet of the indicated pit boundaries were less than 50 mg/kg and generally below detection limits. It is our opinion that the TRPH distribution illustrated in Figures 4-32 and 4-33 is representative of site conditions. At the request of the reviewer, we will dash the 50 mg/kg contours.

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- 5) **Comment Deliz 20**, also applicable to EPA **Comment GW 14**
The statement that elevated metal concentrations in unfiltered groundwater samples are attributable to turbidity in the samples and not actual concentrations of metals is questionable. This statement should be supported by some data. An example of supportive data would be resampling some of the more turbid wells with low flow quiescent sampling techniques.

Response

Both filtered data and unfiltered data (total concentrations), along with each sample's NTU value at the time of collection, are presented in Figures 4-22 (page 4-108), 4-23 (page 4-114), 4-40 (page 4-195), and 4-41 (page 4-196). It is our opinion that filtered groundwater sample data are representative groundwater conditions, especially when samples are turbid.

The issue was discussed with the FDEP PRM during a telephone conversation. It was determined that resampling of the OU 2 monitoring wells was not necessary. It was also determined that, as appropriate, low flow sampling techniques would be used for ongoing and future investigations.

Any remedial activity developed on the conceptual understanding of site conditions presented in the RI should include reassessment of anomalous results. Sampling locations that appear to be anomalous and potentially pose a risk should be resampled and analyzed during the remedial activity.

As appropriate, low flow sampling techniques will be used to collect groundwater samples from some locations where inorganic concentrations may potentially pose some risk to human health or the environment.

- 6) **Comment Deliz 31**
It should be noted that FDEP does not accept dilution calculations. It is FDEP practice to apply surface water standards to the groundwater collected from a monitoring well located adjacent to that surface water body.

Response

Dilution calculations are provided for use by the reader to understand the conditions in surface water receiving contaminants introduced by discharging groundwater. Evaluation of contaminants in wastewater discharged to surface water bodies routinely consider dilution and other fate mechanisms during effluent discharge permitting actions.

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Similarly, dilution with groundwater discharge is also provided in this RI. It is acknowledged that groundwater does discharge undiluted through sediments. For those contaminants that adversely affect benthic organisms more severely than water column organisms, dilution may not be appropriate. This issue was raised with the FDEP and is expected to be discussed in the near future to identify an appropriate means or procedure for considering the effect of discharge on benthic organisms.

7) **Comment Mitchell 7**

The last paragraph of this section indicates that, due to the dilution factor of groundwater upon entering the ditch, no risks were identified "for aquatic receptors associated with ECPCs in groundwater." However, as the contaminants in groundwater migrate into the ditch, the sediment will tend to absorb the contaminant therefore increasing the risk to the benthic community.

Response

The ecological risk assessment did not identify groundwater as posing risk to the benthic community. As part of the IRA both free product and contaminated soil will be removed from the pit area, thus reducing the contaminant source.

8) **Comment Mitchell 1**

The last sentence of the 5th paragraph on Page ii states, "Groundwater contaminants do not pose any ecological risk." However, the next paragraph indicates a potential risk to benthic organisms within the adjacent ditch. The contamination within the ditch has likely occurred due to contaminated groundwater leaching into the ditch (see p.3-22, par 3), as well as from migration of contaminated soil. The migration of groundwater, therefore, poses a potential ecological risk.

Response

Table 6-6, Site 5 Ecological Assessment Summary, indicates that PCB, 4,4'-DDT, and TRPH concentrations in sediment pose a risk to the benthic macroinvertebrates. Of these three contaminants, only TRPH was identified in the groundwater samples collected at Site 5. The greatest concentrations of TRPH was 21 mg/l from the sample collected at well CEF5MW6S and is interpreted to be associated with the free product at the site. TRPH concentrations decline by a factor of 3 or more from CEF6MW6S to approximately half the distance to the ditch (based on TRPH concentrations from samples CEF5MW5S and

CEF5MW30S). As part of the IRA the free product will be removed from the site (i.e., the source will be removed). It is our interpretation that groundwater does not currently pose a risk to the benthic community and will not pose a risk in the future.

9) **Comment Mitchell 1**

The second paragraph on page iii indicates that contamination of VOCs, SVOCs, 4,4'-DDE, and metals in the wetland east of Site 17 are likely from other sources or are naturally occurring. However, the surface runoff from the site is toward the wetland (see Figure 3-5 and p. 3-6, 2nd par.) The VOCs and SVOCs are not indicative of the environment, and the metals were elevated compared to background. These were the same constituents identified for soil and groundwater at Site 17. However, if Site 17 is not the source of this contamination, then the source should be determined.

Response

The migration of contaminants from Site 17 appears to be restricted to the Site 17 area of investigation. The areas in the vicinity of Site 17 will be investigated as part of the Base Realignment and Closure (BRAC) program. These areas are included as part of the Main Base 10 Grey Area of the BRAC Environmental Baseline Survey Report.

10) **Comment Mitchell 2**

Figure 4-10 indicates that the area of total SVOC concentration equal or greater than 6,000 $\mu\text{g}/\text{kg}$ does not extend beyond the confines of the adjacent drainage ditch. This also indicative of subsurface sediment being contaminated with SVOCs above this value, or SVOCs are in the surface sediment at this contaminated level. Does the 6,000 $\mu\text{g}/\text{kg}$ value possible extend beyond the confines of the ditch?

Response

While contaminants do exist south of the ditch, it is our interpretation that SVOC concentrations greater than 6,000 $\mu\text{g}/\text{kg}$ do not. Included in the analysis of field screening samples were a modified list of SVOC parameters, namely chlorobenzenes, naphthalene, as well as TRPH. While the field screening list did not include all SVOCs on the TCL, it is interpreted that the field screening data are representative of actual conditions as naphthalenes compose the majority of the SVOC concentrations detected in confirmatory samples collected in the area in question. TRPH has a similar distribution to that of naphthalenes. Naphthalene and TRPH

were detected immediately south of the drainage ditch, in concentrations one to two orders of magnitude less than those detected north of the ditch (Appendix C). The greatest TRPH contaminant concentration detected south of the ditch was 40 mg/kg at location 14, which is across the ditch from sample location CF5BR14S (Figure 4-10). One soil sample adjacent to location 14 had a concentration of 2.4 mg/kg, while other adjacent samples had no detections. Additional information on soil contamination immediately south of the ditch will be collected during the IRA and implementation of groundwater and sediment remedial actions.

11) **Comment GW 17**

In Section 4.3, on page 4-135 the analysis about acetone and 2-butanone at sample location CEF-17-SS3 is debatable. Toluene was detected at this location at higher concentrations than elsewhere where surface soil samples were collected; thus the argument that acetone should have volatilized, if present, is weakened. The surface soil concentrations of semivolatile organic compounds 4-methylphenol and phenol were highest at the site 17 location, confirming that some soil contamination is present there. The analysis procedure found in Section .5 of the document Risk Assessment Guidance for Superfund Volume I, Human Health Evaluation Manual (U.S. EPA, Interim final, December 1989) should be used to decide what apparent environmental contamination is probably real. The comment applies to additional sections of the report, such as the conclusion regarding phthalates on page 4-171.

Response

We agree that the interpretation of the presence of acetone and 2-butanone is debatable. However, we reviewed the distribution of detected contaminants found at the site, the PARCC report on the quality of chemical analysis results and differences encountered, and the transport routes and mechanisms documented and measured at the site. Based on the review of the information, the interpretation presented in the report is still considered reasonable and consistent with the weight of evidence for all data collected. Regardless of how one may interpret the data, all chemical analyses that were not rejected by the validation criteria established by USEPA, and in accordance with the reference guidance document, these results were included in the health and ecological risk assessments.

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12) **Comment GW 29**

The fate and transport section of the report should consider the potential for future ground water contaminant migration, considering source area concentrations, transport/degradation factors, and other relevant information.

Response

Migration is slow and shown to be limited to 130 feet over the past 20 years, since operations at the pit. The interpreted ultimate discharge is Rowell Creek and based on rates of groundwater flow, it is estimated that take 57 years for groundwater from Site 17 to reach Rowell Creek. During that time the groundwater will be subject to biodegradation, dispersion, and other retardation mechanisms, as is evident by the short migration distance of the past 20 years.