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JEB FORT STORY, VA
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MEMORANDUM TRANSMITTING MALCOLM PIRNIE RESPONSE TO VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY COMMENTS ON DRAFT REMEDIAL
INVESTIGATION REPORT VOL 1 AND 2 FORT STORY VA
2/28/1996
U.S. ARMY TRANSPORTATION CENTER FORT EUSTIS VA



DEPARTMENT OF THE ARMY

U. S. ARMY TRANSPORTATION CENTER

FORT EUSTIS, VIRGINIA 23604-5000

February 28, 1996

File: 6C.10

REPLY TO
ATTENTION OF:

Directorate of Public Works

MEMORANDUM FOR Commander, US Army Corps of Engineers, Baltimore District,
HTRW Branch, ATTN: CENAB-EH-HM (Steve Cho),
Baltimore, Maryland 21201

SUBJECT: Draft Response to VDEQ Comment on Draft Remedial Investigation
Report, Fort Story, Virginia

1. Enclosed are our comments to Malcolm Pirnie's responses to Virginia Department of Environmental Quality's review comments to the *Draft Remedial Investigation Report, Volume I and II, Fort Story, Virginia*, dated December 1995. Please have Malcolm Pirnie address and incorporate our comments into their responses.

2. If you have any questions, please contact Mr. Dan Musel at (804) 878-3817.

Encl


Stephen A. McCall
Chief, Environmental and
Natural Resources Division

Copy Furnished:

Malcolm Pirnie, Tony Pace



REVIEW COMMENTS

DOCUMENT: Draft Response to VDEQ Comment on Draft RI Report, Fort Story			
PREPARED BY: Malcolm Pirnie		DATE OF DOCUMENT: 22 February 96	
PROJECT: RMIS No's. FTSTY-04, FTSTY-06, FTSTY-07		1383 NUMBER: STOS930001 STOS930004 STOS930006	
REVIEWED BY: Dan Musel, Fort Eustis		DATE OF REVIEW: 28 February 96	

Comment Number	Comment
1	Indicate the IDW was determined not to be hazardous and handled accordingly.
2 & 35	Can we say the DDT detected at all the sites was from normal application? This issue was raised for the Fort Eustis 5 Site RI. Attached is a page from that report. See if we can write off the DDT.
5	Response doesn't address the "continued monitoring" in the last sentence of VDEQ's comment.
8	3rd paragraph, 1st sentence. Remove the statement "because this process typically takes months to perform." Something taking "too long" to perform is not a good justification for not doing it. You gave an excellent alternative for not doing the full survey.
11	The Army's position on the residential versus industrial is that we should make the comparison to both. The eventual remedial action, if any, should not in any way represent the residential scenario if we believe it will not be residential. Make it clear that the residential scenario is very unlikely, especially at the LARC 60 Area, which has a fence around it and is clearly industrial. Conducting this residential assessment will help us compare the risks to industrial and not to warrant future actions. Please let us review the results of the new risk assessment before it is sent to VDEQ.
14	Will the tables in Section 4 have the residential RBC values? There is no need as long as the risk assessment tables lists the residential values. EPA produced a new set of RBC tables on October 4, 1995. These new values should be used in future reports, not this RI Report.
17	Response needs to agree or disagree with the possibility of detecting PCE or TCE in future samples. Should we be sampling the site in the future for PCE and TCE? Based on this report, no future sampling is planned.
19	I agree that Fort Story is not restricted; however, not every parcel of the installation is considered residential. Indicate in the response that the LARC 60 has a fence around it, restricting access. You have done the right thing by making the comparison to residential values.
22	Also Indicate the TPH value of 100 mg/kg is a Virginia UST comparison value.
38, 52 & 68	The Army doesn't want to limit the land use until it has been determined that the construction workers will be exposed. We can enforce special handling of excavated soil during construction activities because the material may be a special waste (hazardous if determined through sampling).
48, 65 & 74	Should the residential exposures to groundwater (as drinking water and lawn mowing) be conducted as part of the residential scenario? Just because there are wells in Virginia Beach area, should we still be evaluating drinking water. The installation receives city water and does not have any additional wells using the upper aquifer. Please clarify.
55	Add superscript numbers and notes to the tables indicating a duplicate, QA split or on-site analysis result. This will help the reader identify which value was used.
60	If we include Methylene chloride as a COPC, will there be a potential problem?
65	1st paragraph. Which table 4-14 or 6-15 has the 9,000 ug/kg value?



REVIEW COMMENTS

Comment Number	Comment
	2nd paragraph. Indicate SB07-004 was the only surface soil sample. Indicate whether duplicates were taken.
67	I don't like the word "probably." Either state PAHs are a result of asphalt or not. Using the word "probably" only opens us up to more questions. State scientific facts about asphalt and it's leaching of PAHs or the chemical make-up of asphalt. Someone has surely conducted experiments to show the leaching of PAHs.
70	I disagree. Because the asphalt is leaching some PAHs, the installation does not and will not maintain the integrity of the asphalt cover. This would set a precedence for conducting a RI on every asphalt road and parking lot. Please remove this statement. VDEQ is agreeing with the fact that PAHs can come from asphalt and we should stick to this theory. Also, motor oil can come from a leaking parked car.
71	I disagree with the statement about continued groundwater monitoring at this site. If is unnecessary. The groundwater is not used as a drinking water source or for non-potable uses. Please remove this statement or carry barium through the risk assessment.
80	The Army needs to review this new section before it is sent to VDEQ.
81	The Army needs to review this new section before it is sent to VDEQ.

Commonwealth of Virginia Departments of Agriculture (Wenthouse, Personal Conversation, 1991), along with professors from the Department of Crop and Environmental Sciences, Virginia Polytechnic Institute (Daniels, Martins, Personal Conversation, 1991). No specific information was determined from these contacts. The detected background metal concentration levels were within the typical ranges for U.S. soils. A more specific determination could not be made for the Fort Eustis area.

An evaluation of the background metals data was conducted: Tables 4-6 and 4-7 present the range of concentrations of metals detected in Fort Eustis surface and subsurface samples. In addition, the arithmetic mean, and observed concentration range of eastern U.S. soils are listed. This information will be used to evaluate soil data at Fort Eustis.

4.3.2.1 DDT, DDD, DDE. Because DDE was detected in one surface background soil sample, an evaluation of DDT and its related breakdown products was conducted. Review of previous investigations at Fort Eustis suggests that these compounds were used widely throughout the Installation in the past. They have been detected at low levels at numerous locations [Sirrinc Environmental Consultants (SEC), 1989; USAEHA, 1987; USATHAMA, 1982a; JMM, 1992]. In addition, DDT containers were present when pesticides were inventoried at Fort Eustis in 1980 (USATHAMA, 1982a). It was determined through contacts with Commonwealth of Virginia employees associated with Virginia Polytechnic Institute and State University and Consolidated Services, Pesticide Lab, respectively, that the levels of DDT and its metabolites, DDD and DDE, along with Chlordane, present at the sampling sites at Fort Eustis were not unusual compared to other areas in Virginia, given the extensive use of DDT and Chlordane at the Installation in the past. Both contacts considered the detected values to be within reasonable range for concentrations of DDT and its metabolites, within the soils in the area of the project sites (Young, Chase, 1991). All concentrations for DDT and its metabolites are, therefore, considered to be within expected background ranges (Young, Chase, 1991).

4.3.3 Background Groundwater Samples Analytical Results

Groundwater samples were collected from the two background monitoring wells constructed in 1993 (Figure 2-4), and analyzed for VOCs, BNAs, Pest/PCBs, TFH-H, TFH-L, total and dissolved TAL metals and WQP. In order to provide more information on background groundwater quality at Fort Eustis, three other groundwater sample results are included in Table 4-8. Samples from Site 9 - Central Heating Plant, Site 11A - Waste Oil Tanks and Site 20 - Past Pesticide Storage Area were included. These results were from site background sampling locations (upgradient) and are considered acceptable to be used in the evaluation of background groundwater concentrations of metals. Tables 4-8 and 4-9 presents the results from this sampling.

4.3.4 Determination of Background Groundwater Values

Only total and dissolved TAL metals and WQP were detected in background groundwater samples (Table 4-8). The range of concentrations detected in groundwater samples is presented along with the arithmetic mean and standard deviation along with regulatory standards for informational purposes. Section 4.1 presents potential ARARs for the Fort Eustis RI sites.