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NAS CECIL FIELD
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LETTER AND COMMENTS FROM U S EPA REGION IV REGARDING FOCUSED
FEASIBILITY STUDY OPERABLE UNIT 7 SOURCE CONTROL REMEDIAL ALTERNATIVES
NAS CECIL FIELD FL
10/14/1993
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

OCT 14 1993

4WD-FFB

D.J. SNOONIAN

CERTIFIED MAIL
RETURN RECEIPT REQUEST

Mr. Ken Barnes
Remedial Activities Branch
Department of the Navy - Southern Division
Naval Facilities Engineering Command
2155 Eagle Dr., P.O. Box 10068
Charleston, South Carolina 29411-0068

Re: Focused Feasibility Study, Operable Unit 7
Source Control Remedial Alternatives,
at Naval Air Station Cecil Field, Jacksonville, Florida

Dear Mr. Barnes:

The U.S. Environmental Protection Agency (EPA) has received and reviewed the Focused Feasibility Study, Operable Unit 7, Source Control Remedial Alternatives, at Naval Air Station Cecil Field, Jacksonville, Florida and EPA's comments are enclosed. The comments are divided into general and specific comments. Groundwater specific comments will be forwarded to you within ten (10) days.

If you have any questions or concerns about the referenced comments or concerns about other matters, please contact me at the above address or call me at (404) 347-7603.

Sincerely,

James W. Hudson
Remedial Project Manager
Federal Facilities Branch

Enclosure

cc: Eric Nuzie, FDEP
David Criswell, SOUTHDIVNAVFACENCOM

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|---------------------------------|--------------|------------|--------------|
| OPTIONAL FORM NO. 10 (7-80) | | # of Pages | |
| FAX TRANSMITTAL | | | |
| To | Barry Lester | From | J. Hudson |
| Department | AFBB | Phone # | 404 347-7603 |
| FAX # | 904 656-3386 | Fax # | |
| NSN 7540-01-517-7000 | | 5099-101 | |
| GENERAL SERVICES ADMINISTRATION | | | |

TECHNICAL REVIEW COMMENTS
FOCUSED FEASIBILITY STUDY, OPERABLE UNIT 7
SOURCE CONTROL REMEDIAL ALTERNATIVES
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

GENERAL COMMENTS

The FFS Report assumes that either all or none of the contaminated soil to be excavated from OU 7 will be subject to LDRs. As a result, each of the four alternatives proposes a single management scheme for the contaminated soil. There is a good probability that some of the less-contaminated soils will not be subject to LDRs. A review of the cost estimates for the four alternatives indicates that the Navy is planning to collect only one soil sample for Toxicity Characteristic Leaching Procedure (TCLP) analysis to determine whether the contaminated soil will be subject to LDRs. A single sample can not be representative of the 950 cubic yards of soil that the Navy plans to excavate. Furthermore, Alternative 1 cannot be safely selected on the basis of a single TCLP sample analysis unless the sample is collected from the most grossly contaminated soil.

but how to separate

This is EZ enough to do

It is likely that a significant cost savings can be achieved if Alternatives 2 and 3 incorporate more extensive TCLP sampling so that the resulting TCLP analyses will indicate which portion of the contaminated soil meets LDR standards and can be disposed offsite in a Subtitle C landfill without prior pretreatment.

The unbulked volume cap of 950 cubic yards proposed in the FFS Report is based on the quantity of soil at OU 7 believed to contain greater than 1,000 micrograms per kilogram (ug/kg) of TCE. The Navy chose 1,000 ug/kg of TCE as the action level for the FFS based on engineering and economic considerations. The determination of action levels (Appendix C of the FFS) was to be based on risks to health. Although the Navy's selection of the 1,000 ug/kg action level for TCE may seem conservative because it is well below the EPA risk-based action level for soils (60,000 ug/kg, as listed in the RCRA Proposed Subpart S Rule: Corrective Action), this number (60,000 ug/kg) represents EPA's risk-based action level for direct contact - ingestion only. To be protective of the groundwater, a number of 5 ug/kg is required.

As such, the selection of the 1,000-ug/kg action level for soil excavation/source control measures is not protective of the groundwater. The FFS Report states that TCE contamination remaining in the soil after the FFS will be addressed during the FS. This will not be sufficient to totally protect further contamination to the groundwater from the source of the contamination (the soils) in an IROD. Therefore, the Navy should re-calculate the unbulked volume cap of 950 cubic yards proposed in the FFS.

to MCLs

was not required risk

is a risk isn't done yet

yes but interim what about risk

to old not DW, prob or risk w/it

SPECIFIC COMMENTS

1. Page 1-9, Paragraph 8 - In reporting the results of the Remedial Investigation (RI), a brief summary of the geology and hydrostratigraphy of the area should be included. This paragraph refers to surficial and secondary artisan aquifers which are not described or defined in the FFS Report. The nature of the surficial materials to be excavated and the depth to bedrock are relevant parameters which should be discussed in the FFS Report.

2. Page 2-6, Table 2-2 - The entry for RCRA LDRs states that the soils are F005 wastes, and that TCLP test results must be compared to Table CCCW of the LDR rule to determine if treatment is required prior to land disposal. The FFS Report states in numerous other places that the soils are F001 wastes. The Letter of Agreement (LOA) between EPA, FDEP and the Navy included in Appendix C also states that the soils are considered F001 wastes. The TCLP test results for TCE should be compared to Table CCWE to determine if LDRs will apply to excavated soils. Please correct these discrepancies.

3. Pages 2-13 and 2-15 - The order of the figures presented on these pages has been reversed.

4. Page 2-14, Paragraph 3 - This paragraph discusses the choice of an action level for soils at OU 7 below which no remediation is required during the FFS. Referring to Figure 2-1, the Navy states that "from an engineering standpoint, it is most economical to excavate to the concentration at which the cost/concentration curve slope change is greatest; this point is at approximately 1,000 ug/kg of TCE in soil." Risk-based action levels were to be the determining factor in the LOA (Appendix C). As stated in the general comment section above, the use of 1,000 ug/kg is not sufficient to protective of the groundwater.

5. Page 2-15, Figure 2-1 - The relationship between soil volume and TCE concentration presented in this figure was derived from calculations presented in Appendix E. However, these calculations begin with dimensions of the area to be excavated for each action level and do not document how these dimensions were determined. This information is critical to the FFS because it is the basis of the volume cap presented on page 2-16. The FFS Report should include more details on how the soil volumes were determined.

6. Page 3-3, Table 3-1 - This table fails to include the disadvantage of employing onsite thermal treatment of contaminated soils.

As in the case of offsite incineration (see page 3-2), the treatment by-products must be disposed at a Subtitle C landfill.

give

*why?
only in
soil
V.2.*

*not
true*

*meeting
mins*

*presentation
will be
classified
ARC'S
of V.2.
SS's
collected
during
screening
was used*

*can be
added to table*

permits for CEPA actions OK

7. Pages 3-6 and 3-7, Table 3-3 - This table should list elements for more than one alternative wherever they apply. For example, "site clearing and layout for implementation of alternative" should be listed under all four alternatives, and a permit may be required for both alternatives 2 and 3. In addition, the type of landfill (Subtitle C or D) should be specified for each alternative.

change text p straw

8. Page 4-2, Paragraph 2 - This paragraph states that soil samples will be collected prior to excavation for TCLP analysis to determine if the soils are subject to LDRs. However, in the cost estimates for the alternatives presented in Appendix F, only one TCLP sample is budgeted. A single sample can not be considered representative of the 950 cubic yards of soils the Navy plans to excavate, therefore one sample will not be sufficient if when this number is increased. The collection of multiple soil samples for TCLP analysis is recommended. It is probable that some of the contaminated soil will be subject to LDRs and require pretreatment while some soil can be disposed directly in a Subtitle C landfill.

check change to 10- same as design

9. Page 4-4; Figure 4-2 - The 1993 soil sampling results presented in Appendix A document TCE concentrations greater than the action level of 1,000 ug/kg in two borings (AGSS-16-44 and AGSS-16-45) located near the firepipe main north of Building 313 and east of the piping leading to the holding tank. This area is not included in the mapped limits of the planned excavations at OU 7. In addition, this area may not have been included in the volume cap calculations. below vadose zone, so not included

these are ↓ WT

10. Page 4-5, Paragraph 6 - This paragraph (and several other places within the FFS Report) states that the depth to groundwater at OU 7 is seasonally as high as approximately 8 feet below land surface (bls). This is not in agreement with the data presented on page 1-14 or the estimate on page 2-8. Please make the estimate of the depth to groundwater consistent throughout the FFS Report. will be consistent

OK

11. Page 4-7, Paragraph 4 - This paragraph states that soils will be placed directly into rollofs. Some description of the areas at which rollofs will be staged during filling, and how spills will be contained, should be included in this section of the FFS Report. If there will be TCLP testing of samples collected during excavation activities, an area must be set aside for staging full rolloff boxes while awaiting analytical results. will change text

OK

p straw

12. Page 4-8, Paragraph 3 - According to this paragraph, the Navy assumes that the residuals from blasting of the debris would be subject to the same LDR requirements as the contaminated soil. This assumption is not warranted, and a separate TCLP test needs to be performed on a sample of the blasting residuals.

will change text

L DING NOT TRUE WRONG

13. Page 4-14, Paragraph 3 - The text discusses reducing mobility, toxicity and the volume of contaminants through incineration. Proper incineration will destroy TCE and other organic contaminants in the soil, but will not destroy the inorganic contaminants, such as lead and chromium, which are also present at OU 7. This section should discuss whether further treatment would be necessary to reduce the mobility of inorganic contaminants and what treatment method would be applied. This concern applies equally to Alternative 3, which includes onsite thermal treatment of the contaminated soils. *Can add sentence - assume inaq not a problem*

not CoCs for this PA

Risk Assessment Comments

The engineering and economic considerations are presented in this document as the basis for remedial action; resulting in action levels which are not protective of groundwater.

The rationale presented in Section 2.2.2.4 for the selection of 1,000 ug/kg TCE as the action level in soils does not meet the objective of this interim remedial action. The objective of this interim remedial action is to remove the source of groundwater contamination to protect groundwater from contamination above the ARAR level; however the soil action level of 5 ug/kg for protection of groundwater was considered infeasible due to its high cost. Therefore, there is no health basis for the selected TCE action level of 1,000 ug/kg. *meeting minutes*

but this is not drinking H₂O

The terms removal and interim remedial action are used interchangeably in this document. This should be considered a interim remedial action since the alternatives propose treatment and disposal of the soil; a removal usually leaves the soil onsite for treatment or disposal during the remedial action. *consistent in text*

whops not necessari

The proposed future work for this site incorporates only groundwater. If this is to be the case, soil action levels should be developed for all compounds not just TCE. This document seems to ignore all classes of compounds except volatile organics. Additionally, it should be noted that the baseline risk assessment must address all media at the site that pose current and/or future complete exposure pathways. Care should be taken to make sure that the post-removal soil sampling is adequate to support the soil component of the baseline risk assessment.

there's not much else there will have additional soil sample refer to letters of agreement + minute minutes

14. Section 1.1, The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Feasibility Study (FS) Process, pages 1-1 and 1-3 - This section or an adjacent section should detail how the Remedial Investigation and Baseline Risk Assessment processes will be incorporated at this site. Since this is an Interim Remedial Action, details on the final disposition or actions at this site should be addressed. Additionally, this section indicates that this action is proposed to "reduce risks." This document should detail what "risks" will be reduced. A review of the information included in this document indicates that there is relatively little risk from

direct contact at the site, however, it does not indicate if the groundwater is currently being used as a potable water source or if future use is a concern. An "s" should be added to "alternative" in the second sentence of the paragraph between the two sets of bullets on page 1-3. *clarify text*

15. Section 1.2, Purpose and Scope of the Focused Feasibility Study for (FFS) Operable Unit (OU) 7, page 1-3 - This section indicates that the remedial action objectives were developed based on the contaminants of concern and the pathways for which exposure to contaminations is probable. This document does not discuss selection of contaminants of concern and the discussion of pathways is inadequate. *now? clarify TCE - may embellish pathways*

16. Sec. 1.3.2, p. 1-4 - Paragraph 2 states that a drainage swale located east of Building 313 may serve as a surface water runoff pathway to the south of the Site, yet no swale area is shown in Figure 1-2. Expand the description of this swale and nearby areas. (For example, is the swale covered with grass? Does it lead to the stormwater sewer system, or is it just a low area that retains water?) Indicate whether any surface soil samples were collected in the swale to determine whether it is a contaminant migration pathway. *add to figure* OK

17. Sec. 1.3.3, pp. 1-4 and 1-6 - According to the site history, liquid wastes from this Site could have entered the stormwater drainage system by being pumped directly from the concrete holding tank or by overflowing from the seepage pit and entering the clay discharge pipe. Paragraph 2 on page 1-6 states that this stormwater drainage system "eventually discharges to a series of open ditches that empty into Sal Taylor Creek." Since this represents a possible historic (pre-1980) contaminant migration pathway to a surface water body, state the approximate distance from OU7 to Sal Taylor Creek via the stormwater drainage system/open ditch pathway. This is especially important since the single sediment sample collected from the discharge pipe contained low levels of 1,1,1-trichloroethane and lead (Section 1.3.4.2, page 1-7). *wild and distance* OK

18. Table 1-1, page 1-10 - This table should include background data. *BKI check other documents; may include in appendix* dep's final people OK

19. Table 1-2, page 1-11 - This table should include background data.

20. Table 1-3, page 1-13 - This table should include background data.

21. Section 2.2, Remedial Action Objectives and Soil Action Level Calculations, page 2-8 - This section indicates that the response objectives are identified to protect human health and the environment and are based on the contaminant(s) of concern, exposure route(s) and receptor(s). This document does not detail how these parameters were considered in the development of the remedial action objective. *add to text* App. C

*not full
BLRA*

7 Set TCE as COC in mtg!

22. Section 2.2.1, Remedial Action Objectives, page 2-8 - This section states that the agreement between USEPA, FDEP, and the Navy is that the action levels will be based on direct contact exposure or leaching to groundwater. These values are presented and rejected in this document in favor of engineering and *refer to mtg* economics.

23. Section 2.2.2, Soil Action Levels, page 2-9 - The synopsis of chemical-specific ARARS provided in Appendix B should include only compounds detected on site. This list appears to include all chemicals with a listed ARAR. It is agreed that TCE is one of the primary chemicals of concern at this site and if it is the desire of the Navy to perform only one remedial action for soils at OU7, soil action levels for all chemicals of concern should be developed for this site. It is unclear from the following statement in paragraph 4 what data the baseline risk assessment will be based on: "Once the RI has been completed for OU7, the baseline risk assessment will establish risk-based criteria for all organic and inorganic COCs." The post removal sampling should be sufficient to support a baseline risk assessment including full scan analysis. *see if agencies have ARARs look, otherwise reduce table*

24. Section 2.2.2.1, Action Levels Based on Direct Contact Exposure, page 2-10 - The soil action levels based on direct contact should be based on incidental ingestion of soil, inhalation of volatiles and soil particles, in addition to dermal contact exposures. It is inappropriate to base the calculation of soil action levels on only dermal contact. Also, hazard index is used incorrectly in the first complete paragraph on page 2-10. Hazard index is the sum of more than one hazard quotient or the term used when only one contaminant and one pathway exist; throughout this document hazard index is often used when hazard quotient is the correct term. *future remedial actions will have info. for CERCLA*

25. Table 2-3, page 2-10 - The values in this table should be changed relative to the comment on Section 2.2.2.1. Concentrations of chemicals should not be presented in scientific notation. *will change*

26. Section 2.2.2.2, Action levels Based on Leaching to Groundwater, page 2-10 - This section should be reviewed by the Groundwater Technology Support Unit. *GWS comments into overall FS*

27. Section 2.2.2.4, Summary of Action Level Calculations for Soil at OU7, pages 2-12 and 2-14 - The rationale presented in this section for the selection of 1,000 ug/kg TCE as the action level in soils does not meet the objective of this interim remedial action. Any deviation from the calculated soil action level of 5 ug/kg for protection of groundwater should be justified from a health protection standpoint in the interim remedial action at this site. *incorporate refer to meeting*

28. Appendix B - This list appears to include all chemicals with a listed ARAR; it should include only compounds detected on site. The acronyms and abbreviations list should be edited to include a space between the acronym or abbreviation and its definition.

will fix table or delete

29. Appendix D - This appendix appears to be lifted from another report. The section numbers do not follow any presented in the report and the referenced tables do not exist. Without this information a proper review of this document is not possible. Section 2.3.1.1, paragraph 2, seem to contradict the report Section 2.2.2.1 though it is not entirely clear without the presentation of the nonexistent tables (Table 3-1, 3-2, 3-3, and 3-4). *change section #2*

The all tables and figures in this document should be included in the pagination.