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NAS WHITING FIELD
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LETTER AND COMMENTS FROM U S EPA REGION IV REGARDING FEASIBILITY STUDY SITE 1 NORTHWEST DISPOSAL AREA NAS WHITING FIELD FL
7/31/1998
U S EPA REGION IV

UNITED STATES ENVIRONMENTAL PROTECTION A
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-8909

July 31, 1998

4WD-FFB

Ms. Linda Martin
Southern Division
Naval Facilities Engineering Command
P.O. Box 190010
2155 Eagle Drive
North Charleston, South Carolina 29419-9010

SUBJ: FS for Site 1

Dear Ms. Martin:

The United States Environmental Protection Agency (EPA) has received and reviewed the Feasibility Study (FS) for Site 1, Northwest Disposal Area, at NAS Whiting Field, dated June 1998 . Enclosed are EPA's comments based on this review.

If you should have any questions or comments, please feel free to contact me at (404)562-8555.

Sincerely,

Craig A. Benedikt

Craig A. Benedikt
Remedial Project Manager
Federal Facilities Branch

Enclosure

cc: Jim Cason, FDEP

EPA Comments on the Final Draft Feasibility Study
Site 1, Northwest Disposal Area, Naval Air Station Whiting Field
Milton, Florida dated June 1998 (FS report)

General Comments

1. The FS report lacks a dedicated and organized background information section. *The Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (Table 6-5, Page 6-15) recommends that the feasibility report contain background information including the site description, site history, nature and extent of contamination, contaminant fate and transport, and baseline risk assessment (summarized from the RI report). This information is not presented in a clear and logical manner in the report. It is recommended that Section 1.3 be modified to include the additional text, or that additional sections be added to Chapter 1.

2. It appears from the FS report that the soil was only screened against state criteria (the Florida Soil Cleanup Goals [FSCG]). However, the groundwater was compared to both federal (maximum contaminant levels [MCLs]) and state (Florida Groundwater Guidance) criteria. The FS report should clarify whether the soil was also screened against federal criteria (e.g., Region III Risk Based Concentrations [RBCs]) and if not, the rationale for not doing so should be provided.

3. In several areas of the report, the *Streamlining the RI/FS for CERCLA Municipal Landfill Sites* guidance is cited. While general refuse was reported to have been placed in the landfill, Section 1.3 also states that wastes associated with the operation and maintenance of aircrafts were also (reportedly) disposed at this site including waste paints, paint thinners, solvents, waste oils and hydraulic fluids. From the information provided, it is not clear that the landfill could be classified as a municipal-type landfill for characterization purposes. The FS report should clarify the classification procedure for the landfill.

4. The Site-Specific Cleanup Goal for arsenic in soil is 4.62 milligrams per kilogram (mg/kg) which the state approved with certain conditions. The levels of arsenic detected in 8 samples ranged from 1.3 mg/kg to 4.2 mg/kg. Technically, if the cleanup goals are not exceeded (as in this case), the result would be a "no action" decision. However, the feasibility study that was prepared evaluates landfill closure and capping alternatives. It is not apparent that the conditions required by the state include closure or capping. The closure and capping alternatives may have been considered because the arsenic cleanup goal (based on two times the arithmetic mean detected background concentration) is in excess of the risk-based Florida Soil Cleanup Goals (FSCGs) for arsenic. The FS report should address and further discuss this issue in Chapter 2 to avoid confusion.

5. In several locations in Chapter 4, it is stated that the alternatives may provide some reduction in contaminant concentration and toxicity through natural degradation processes. The FS report should cite relevant references in support of this statement for arsenic in soil.

6. Groundwater monitoring is included in Alternative 3, Site Closure and Capping. However, groundwater monitoring has not been included in Alternative 2, Site Closure. The FS report should discuss the use of groundwater monitoring as it pertains to both options.

Specific Comments

7. **Page 2-2, Fourth Paragraph**. This section should discuss whether there are any endangered species, wetlands, or areas of historical or archeological significance in the area of the site. It should also be clearly stated whether the site is located within the 100-year flood plain.

8. **Page 2-3 and 2-4, Table 2-1.** It should be determined whether RCRA 40 CFR 258 and the Florida Solid Waste Management Facilities Rules, Chapter 62-701 are relevant and appropriate (and if so, included in the table). In addition, federal and state regulations pertaining to air emissions should be included to address particulate emissions during cap construction. Location-specific ARARs should be included.

9. **Page 2-5, Fifth Paragraph**. It is stated that "there are no current or future predicted exposure pathways for ecological receptors to groundwater." Figures 1-1 and 1-2 indicate that the groundwater flow is towards the unnamed tributary which enters Clear Creek. The potential for groundwater discharge to this unnamed tributary should be discussed in the text as an ecological exposure pathway . In addition, Section 1.3 indicates that the site slopes toward the drainage outlet located along the southwestern site boundary. The potential for ecological exposure via surface water runoff should also be discussed.

10. **Page 2.-7, Third Paragraph**. With respect to the ecological assessment, the first bullet in this paragraph states that "...the concentrations of these chemicals detected at the site were less than their respective FSCGs..." This statement should be removed since FSCGs only apply to human health (i.e., ecological receptors were not considered in the development of the FSCGs).

11. **Page 2-10, Third Paragraph**. It is stated that "...the [National Contingency Plan] NCP states that the closure of CERCLA landfills that are not subject to specific closure regulations...can be achieved by 'hybrid-landfill' closure." This language could not be found in the NCP. The appropriate NCP citation should be provided.

12. **Page 2-11, Second Paragraph**. The text of this paragraph seems to be referring to presumptive remedies; however, the appropriate presumptive remedy guidance is not discussed. The text should be clarified.

13. **Page 3-2, First Bullet**. It is stated that the site characteristics considered during the identification and screening of alternatives included the presence of special site features including wetlands, flood plains, or endangered species. The identification and discussion of these special site features, which is missing from the report, should be included.

14. **Page 3-2, Fifth Paragraph**. With respect to the last sentence of this paragraph, it should be clarified that the period of 30 years for 5-year reviews was an assumption made for costing purposes only. Under CERCLA, 5-year reviews must continue as long as hazardous substances, pollutants, or contaminants remain at the site.

15. **Page 3-6, Fifth Paragraph**. The proposed cover is a total of 18 inches of soil (12 inches clean fill and 6 inches top soil). Note that the Memorandum regarding the Applicability of Soil Cleanup Goals for Florida from John M. Ruddell, Director - Division of Waste Management, Florida Department of Environmental Protection (dated January 19, 1996) states on page two that "If the contaminated soil can be permanently covered by more than two feet of clean soil or otherwise have the exposure pathways restricted, the site may not need further remediation if the contaminated soil is not a source of groundwater contamination". In addition, Rule 62-701.600, F.A.C., contains cover requirements which may be relevant and appropriate. This deviation from the guidance should be justified.

16. **Page 4-4, Table 4-2.** The information presented in this table should more closely correlate with the information in the text and the cost estimate in Appendix C.

17. **Page 4-5, Fifth Paragraph.** The regulations to be followed, or the requirements to be met, in the preparation of the site closure and post-closure plan should be cited.

18. **Page 4-6, Table 4-3.** The information presented in this table should more closely correlate with the information in the text and the cost estimate in Appendix C.

19. **Page 4-7, First and Second Paragraphs**. The regulations to be followed, or the requirements to be met, in the preparation of the site closure and post-closure plan should be cited.

20. **Page 4-7, Fourth Paragraph**. It is stated that the landfill cover design was primarily based on the Florida landfill closure regulations. It appears that the Florida state regulations being referred to in this sentence are Rule 62-701.600, F.A.C., however, it is not clear. The appropriate regulatory citation(s) should be provided. Also, the second sentence refers to "two documents", but it is not clear which documents are being identified. Clarification should be provided.

21. **Page 4-8, Second Paragraph**. The text states that "The State of Florida requires that the landfill cap be less permeable than the existing cover. . . ." The origin of this statement is not clear and it does not seem logical.

The paragraph further identifies the permeability of the underlying soils at the site (based on slug tests in shallow monitoring wells) as 6.9×10^{-3} cm/sec and states that the cover material with a permeability less than 6.9×10^{-3} cm/sec would comply with the state requirement. The final cover regulations in Rule 62-701.600, F.A.C., state that the barrier layer shall have a permeability which is substantially equivalent to, or less than, the permeability of the bottom liner system (refer to Rule 62-701.600 for the applicability and specific language). The waste disposal area does not have an installed bottom liner system and it is not appropriate to interpret the underlying soils as a bottom liner system.

22. **Page 4-8, Fourth Paragraph**. The text states that the design will comply with Florida landfill regulations; however, this does not appear to be the case. As stated in other comments, the particular "Florida landfill regulations" should be cited. It is assumed in this comment that Chapter 62-701 of the F.A.C. is implied. Alternative 3 of the FS report proposes a cover system composed of a 12 inch clean fill layer and a six inch top soil layer. However, under Rule 62-701.600(5)(g), it is stated that "If the barrier layer consists only of soil, it shall be at least 18 inches thick, emplaced in 6-inch lifts, and shall have a final, 18-inch thick layer of soil that will sustain vegetation to control erosion placed on top of the barrier layer." The FS report should clearly specify the basis of the proposed landfill cap design.