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NAS WHITING FIELD
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LETTER AND COMMENTS FROM U S EPA REGION IV REGARDING FEASIBILITY STUDY
SITE 2 NORTHWEST DISPOSAL AREA NAS WHITING FILED FL
10/16/1998
U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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October 16, 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 2

Dear Ms. Martin:

The United States Environmental Protection Agency (EPA) has received and reviewed the Feasibility Study (FS) for Site 2, Northwest Open Disposal Area, at NAS Whiting Field, dated July 1998. Enclosed are the Agency's comments based on this review.

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

Sincerely,

A handwritten signature in black ink that reads "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 2, Northwest Open Disposal Area, NAS Whiting Field
dated July 1998**

General Comments

1. The 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. Section 1.3 should be modified to include the additional text, or additional sections should 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). However, the groundwater was compared to both federal (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, provide the rationale for not doing so.
3. The Summary of Chemicals tables (Tables 2-2 and 2-3) present the Mean Analyte Concentration. The FS Report should clarify the purpose of presenting this value in the tables and also if (and how) these values are used in the interpretation or evaluation of the data.
4. In several areas of the report, the *Streamlining the RI/FS for CERCLA Municipal Landfill Sites* guidance is cited. From the information provided in Section 1.3, it is not clear that the disposal area could be characterized as a municipal-type landfill. The FS Report should address this discrepancy.
5. The Site-Specific Cleanup Goal for arsenic in soil is 4.62 mg/kg which the State approved with certain conditions. The levels of arsenic detected in 6 samples ranged from 0.82 milligram per kilogram (mg/kg) to 3.95 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 report evaluates landfill closure and capping alternatives. It is not apparent that the State requires closure or capping in its conditions. The closure and capping alternatives may have been considered because the cleanup goal (based on two times the arithmetic mean detected background concentration) is in excess of the risk-based Florida Soil Cleanup Goal (FSCG) for arsenic. The FS Report should discuss this issue further in Chapter 2.

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

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. In addition, the FS Report should clearly state whether the site is located within the 100-year flood plain.
8. **Page 2-3 and 2-4, Table 2-1.** RCRA, 40 CFR Part 264, Subpart N is listed as relevant and appropriate in this table. According to Section 1.3, wastes were placed in the disposal area from 1976 until 1984. Since the RCRA Subtitle C regulations that established the hazardous waste management system first became effective on November 19, 1980, these regulations should be listed as applicable. The FS Report should substantiate whether hazardous wastes were placed in the disposal area after November 19, 1980.

It should be determined whether RCRA 40 CFR 258 is 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, Fourth Paragraph.** It is stated that "there are no current or future predicted exposure pathways for ecological receptors to groundwater". The potential for site-related groundwater discharge to surface water (e.g. the unnamed tributary to Clear Creek) as an ecological exposure pathway should be discussed in the text.
10. **Page 2-6, Table 2-2.** The range of detected concentrations of aluminum is presented as "82/248". It appears that this should be "82 to 248". The FS Report should clarify this notation.
11. **Page 2-10, Fourth Paragraph.** The mean of the beryllium concentrations (0.24 mg/kg) was compared to the background screening value (0.36 mg/kg) and partly due to this comparison, it was determined that an additional Remedial Action Objective (RAO) would not be developed for beryllium. It is not appropriate to compare the mean detected concentration of a chemical to the background screening value. This comparison should be made based on the maximum detected concentrations in the screening process.

12. **Page 2-10, Fifth Paragraph.** It is stated in this paragraph that the subsurface soil concentrations were compared to the FSCGs for industrial sites and no exceedences were noted. The FS Report should clarify whether the Florida leachability-based cleanup goals were considered for the subsurface soil.
13. **Page 2-11, Second Paragraph.** It is not clear, based on the information provided in the FS Report, whether RCRA Subtitle C is applicable or relevant and appropriate. Disposal activities occurred at the site from 1976 until 1984 (after the effective date, November 19, 1980, of the RCRA Subtitle C regulations); however, the report is not specific regarding the types of wastes that were disposed at the site after this effective date. As stated on Page 7 of the *Design and Construction of RCRA/CERCLA Final Covers*, EPA/625/4-91/025, the hybrid closure alternatives are “possible when RCRA requirements are relevant and appropriate, but not when closure requirements are applicable”. Therefore, while a hybrid closure is possible if RCRA closure requirements are determined to be relevant and appropriate, hybrid closure is not possible if the RCRA closure requirements are determined to be applicable. The available information should be reviewed and a determination regarding the status of RCRA Subtitle C should be made.
14. **Page 2-12, First 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 by citing the appropriate guidance.
15. **Page 3-2, First Bullet.** The text states 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. However, identification and discussion of these special site features is missing from the report. This information should be provided in the FS Report.
16. **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. The FS Report should clarify this issue.
17. **Page 3-4, Table 3-1.** Groundwater monitoring is listed as a General Response Action in this table, defined as applicable, and retained in the screening process. However, groundwater monitoring is not discussed further in the text nor is it included as a component in the presented remedial alternatives. This discrepancy should be corrected.
18. **Page 4-5, Fifth Paragraph.** The FS Report should cite the regulations to be followed, or the requirements to be met, in the preparation of the site closure and post-closure plan.

19. **Page 4-7, 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. For example, the "Inspection/Reporting" costs in this table are referred to as "Annual Operation and Maintenance Costs" in Appendix C. Also, the "Land-use-controls" include Site Closure costs as shown in Appendix C. The same terminology should be used in both the table and the appendix.
20. **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 are not cited. In addition, the discussion of land use controls is missing from this alternative. The FS Report should address these discrepancies.
21. **Page 4-7, Fourth Paragraph.** The text states that the landfill cover design was primarily based on the Florida landfill closure regulations. It appears that the State of Florida regulations being referred to in this sentence are Rule 62-701.600, F.A.C. However, this is not clear. The FS Report should provide the appropriate regulatory citation(s) and should also specify the criteria in the regulations that are governing the landfill cover design.
22. **Page 4-8, Third Paragraph.** The text states that risks to ecological receptors based on exposure to groundwater were not identified. This statement needs to be supported in Section 2.2 with respect to the potential for groundwater discharge to surface water.

This paragraph also states that the permeability of the cover will be 6.9×10^{-3} cm/sec. The basis of this value should be provided.
23. **Page 4-8, Third and Fifth Paragraphs.** Borrow soil will be tested to ensure that it is "clean" fill. The FS Report should clarify how the soil will be tested (sampling method, analytical methods, number of samples, etc.) and include these costs in the cost estimate.
24. **Page 4-9, First Paragraph.** The text states that the natural surface water drainage that exists at the site will be maintained to the extent possible. However, the site is described as being within a 25-ft surface depression. The text should explain how surface water can exit a 25-ft surface depression. The post-soil cover surface water drainage needs to be explained in greater detail and the calculations regarding the fill material volumes need to be provided in Appendix C.
25. **Page 4-9, Fifth Paragraph.** The text states that landfill closure requirements under RCRA Subtitles C and D, as well as Florida Solid Waste Disposal Facilities Regulations, were appropriately followed concerning the soil cover design. This statement should be re-evaluated and the appropriate regulatory citations (specific to the design criteria being met) should be provided.

26. **Page 4-9, Seventh Paragraph.** Groundwater sampling is mentioned in this paragraph. However, groundwater sampling is not mentioned anywhere else in the text or in the cost estimates. This discrepancy should be corrected.
27. **Page 4-9, Eighth Paragraph.** It appears that the “monitoring data” in this paragraph refers to groundwater monitoring data. See the previous comment.
28. **Page 5-3, Second Paragraph.** This paragraph should be re-phrased. The implementation of Alternative 2 would not “mitigate” impacts from Alternative 3. The FS Report should address this discrepancy.
29. **Page 5-3, Fourth Paragraph.** The assumptions which were used regarding the topography of the site (relevant to the construction of the cap and the calculated volumes of materials) should be included in Appendix C.
30. **Appendix C.** The supporting calculations for the cost estimates should be provided in this Appendix.