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Department of Environmental Protection

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November 9, 2000

Mr. Bill Will
Code 1851
Southern Division
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RE: Draft Feasibility Study Report, Operable Unit (OU) 2 (Sites 11, 12, 25, 26, 27, and 30), NAS Pensacola

Dear Mr. Hill:

I have completed the technical review of the above referenced document dated April 26, 1999 (received April 27, 1999). I have the following comments that must be addressed in the final document.

General Comments:

1. The document presents a reasonable range of remedial alternatives for soil and groundwater; however, the remedial goals and some volume assumptions may not be appropriate for OU-2.

2. References are made to the proposed rule in Chapter 62-777 Florida Administrative Code (F.A.C.) throughout the report. Since Chapter 62-777 was promulgated on August 5, 1999, the statements in the final document should be reworded accordingly.

3. Soil volumes were calculated for direct exposure scenario only and do not consider deeper subsurface soils. Leachibility based remedial goals and subsurface soil volumes should also be established if there is any possibility of soils acting as a continuing source to groundwater contarnination. The Navy may want to consider conducting the synthetic precipitation leaching procedure (SPLP) on soil samples in order to determine an appropriate remedial goal for leachibility at the site.

4. An assumption is made in the document that the soil mass is not continuous because detected concentrations did not exceed the remedial goal in some boring sample intervals or in adjacent sample locations. Soil mass is potentially continuous even if contaminants were detected below the remedial goal in boring sample intervals or adjacent sample locations because the contaminants are still present in those areas.

5. Soil leachibility criteria should be based on the groundwater criteria and not based on groundwater of low yield/poor quality. An appropriate remedial goal for the site may be established by conducting the SPLP on site soils.

6. Groundwater criteria for poor quality groundwater (PQG) are referenced throughout the report. This criteria cannot be applied to OU-2. Currently, there is no legislative authority to grant a variance for low yield/poor quality criteria unless the site falls under the Petroleum, Drycleaning, or Brownfields program. Remedial goals should be based on either the reference values established in the background data set or the groundwater criteria published in Chapter 62-777. The Navy should also consider evaluating existing groundwater data located throughout the industrial portion of the facility in order to develop site specific reference concentrations for metals.

Specific Comments:

1. Page 3-11: The basis for the statement that naphthalene is not a potential threat to groundwater or surface water is not clear since naphthalene was detected at Site 11 in landfill test pit LF-12, in the groundwater in monitoring well GS-47, and in sediment samples collected from adjacent wetland 64 (Site 41). Apparently naphthalene is leaching from site soils and impacting groundwater and the adjacent surface water body.

2. Page 3-12, Section 3.2.2, Subsurface Soil Remedial Goals: Historical activities at Site 11 include landfilling and disposal and burning of industrial wastes and possible aircraft salvage or maintenance activities (Ecology and Environment, Interim Data Report, October 1991). Given these reported activities, it seems unlikely that there is no

distinguishable source mass for contaminants in the subsurface soils. Leachibility based remedial goals and subsurface soil volumes should be established if there is any possibility of soils acting as a continuing source tu groundwater contamination,

3. Page 4-5, Section 4.1.3, Site 12 Comparison with Leaching Values Protective of Groundwater: An assumption is made that the cadmium source area is not large because detected concentrations did not exceed standards throughout the soil column in two adjacent boring sample locations. Soil mass is potentially continuous even if contaminants were detected below the remedial goal in adjacent sample locations or boring intervals. The applicable soil leachibility criteria (8 mg/kg) is based on the Florida Primary Drinking Water Standard (FPDWS) of 5 ug/L and is not based on groundwater of low yield/poor quality. All sites need to be reevaluated since the subsurface soils potentially represent a continuing source of Contamination to groundwater.

4. Figure 7-4, Site 30, Soil Boring Locations Exceeding One or More SL-SW Criteria: Soil Boring 030S0122 should be highlighted as exceeding the criteria as indicated in Table 7-4 and the associated text.

5. Page 7-14: The discussion on this page regarding phenol and other organic compounds that have been detected in soil samples, groundwater samples, and nearby wetland sediment samples states that there is no connection between these three media and that Site 30 is not a primary source of wetland contamination. This cannot be stated with any certainty. There is soil contarnination at Site 30 that represents a potential source of contamination to the groundwater. Interviews with former employees indicate that following rain events, milky white liquid has been observed discharging into the ditches that are designated Wetland W5B and W6. Sediment samples collected in these ditches exhibit the same organic Contamination. It is reasonable to assume that groundwater has served as a receptor and pathway to the wetlands at least during these rain events.

6. Page 7-26: There are several typographical errors on this page.

7. Page 8-1: Inorganics that exceed the Florida Primary or Secondary Drinking Water Standard should not be excluded without comparison to established reference values. Existing groundwater data located throughout the industrial portion of the facility may also be evaluated in order to develop more representative reference concentrations for metals.

8. Page 8-13, Phase II: The text discusses sampling results for shallow monitoring well 11GM47. Is this the same location as 11GS47 depicted on Figures 8-5, 8-6, 8-7, and 8-8 and Tables 8-3 and 8-4?

9. Pages 8-17 through 8-20 and Figure 8-8: The text states that a significant vinyl chloride contaminant plume does not exist. Vinyl chloride occurrence in groundwater at Site 11 potentially represents a degradation product of TCE and 1,2-DCE.

10. Table 8-7, Contaminant Specific Remediation Goals for Groundwater at OU 2: Remedial goals based on criteria for poor quality groundwater cannot be applied to OU-2. In addition, inorganics that exceed the Florida Primary or Secondary Drinking Water Standard should not be excluded without comparison to established reference values.

11. Page 8-26: It is stated that surface water has not been impacted by groundwater contaminant migration. The basis for this statement should be reevaluated considering that on the following page (8-27) it is stated that groundwater flows east from Site 12 and discharges to surface water bodies (Wetland 64 and Bayou Grande). In addition, the Remedial Investigation Report for Site 41 (dated August 31, 2000) states that groundwater from Sites 12, 26, and 11 discharge and can contribute contamination to Wetland 64 (page 10-1-21).

12. Pages 8-72, 8-75, and 8-79, Compliance with ARARs: Alternative cleanup levels based on poor quality groundwater identified in Chapters 62-770, 62-782, and 62-785 are not applicable to OU 2.

13. Pages 9-1, 9-2, 9-15, 9-23, 9-30, and 9-35: Inorganics that exceed the Florida Primary or Secondary Drinking Water Standard should not be excluded without comparison to established reference values. Existing groundwater data located throughout the industrial portion of the facility may also be evaluated in order

to develop more representative reference concentrations for metals.

14. Pages 9-7, 9-13, 9-20, and 9-36 , Comparison with Groundwater of PQG Criteria: Comparisons based on poor quality groundwater is not applicable to OU 2.

15. Pages 9-15, 9-16, 9-93 ,9-96, and 9-100, Compliance with ARARs: Alternative cleanup levels based on poor quality groundwater identified in Chapters 62-770, 62-782, and 62-785 are not applicable to OU 2.

16. Page 9-39, Remedial Goals: Remedial goals based on criteria for poor quality groundwater cannot be applied to OU-2.

17. Pages 9-82, 9-93, 9-96, and 9-100, Compliance with ARARs: Chapter 62-777 was promulgated on August 5, 1999, the statements in the final document should reworded accordingly.

18. Appendix A, Table 1, Summary of Potential Chemical Specific ARARs: Chapter 62-777 was promulgated on August 5, 1999, the table should be updated accordingly.

19. Appendix C, Cover Page: Chapter 62-777 was promulgated on August 5, 1999. The cover page should be updated accordingly.

If I can be of any further assistance with this matter, please contact me at (850) 921-9989.

Sincerely,

Joseph F. Fugitt

Joseph F. Fugitt, P.G.
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