



Lawton Chiles  
Governor

# Florida Department of Environmental Protection

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

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NAS PENSACOLA  
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Virginia B. Wetherell  
Secretary

April 12, 1994

## CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Bill Hill  
Code 1851  
Southern Division  
NAVFACENGCOM  
P.O. Box 190010  
2155 Eagle Drive  
North Charleston, SC 29419-9010

Dear Mr. Hill:

Department personnel have completed the technical review of the Draft Remedial Investigation (RI) Report, Site 1, NAS Pensacola. I have enclosed a memorandum addressed to me from Mr. David M. Clowes. It documents our comments on the referenced report.

If I can be of any further assistance with this matter, please contact me at 904/488-3935.

Sincerely,

A handwritten signature in cursive that reads "James J. Crane for ESN".

Eric S. Nuzie  
Federal Facilities Coordinator

ESN/st

Enclosure

cc: David Clowes  
Satish Kastury  
John Mitchell  
Bill Kellenberger  
Ron Joyner  
Allison Drew

# Memorandum

# Florida Department of Environmental Protection

TO: Eric S. Nuzie, Federal Facilities Coordinator  
Bureau of Waste Cleanup

THROUGH: James J. Crane, P.G. Administrator *JJC*  
Technical Review Section

Tim J. Bahr, Professional Geologist II *JRC in TB*  
Technical Review Section

FROM: David M. Clowes, Remedial Project Manager *DWC*  
Technical Review Section

DATE: April 12, 1994

SUBJECT: Draft Remedial Investigation (RI) Report, Site 1  
[sanitary Landfill), Naval Air Station Pensacola.

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I have reviewed the above stated document dated January 1994 (received January 13, 1994) submitted for this site. The document cannot be considered final until the following comments are addressed:

### Specific RI Comments:

1. A figures should be provided that illustrates the location where background soil samples were collected.
2. The levels of contaminants detected in background soil samples are below Florida's soil cleanup goals. However, elevated levels of volatile, semivolatile organic compounds (VOCs and SVOCs respectively) and PCBs were detected in several surface soil and test trench soils. To delineate the horizontal extent of contamination, additional samples should be collected around surface soil samples 01S8001 and 01S8201, and test trench soil samples 01S7310/01S7313, 01S7610 and 01S8210/01S8214.
3. The high background levels of inorganics in groundwater may be due to natural levels, base-wide contamination, or the monitoring wells are installed in area impacted by contamination. The background wells should be resampled to confirm these levels. It is not recommended that groundwater samples are filtered to decrease turbidity. The problem of turbidity should be addressed, not just ignored. To decrease turbidity, it is recommended that the wells are resampled using Quiescent Sampling (low flow purging using a peristaltic pump with a flow rate of about one liter per minute and waiting up to a maximum of six hours to sample at a low flow

MEMORANDUM

ADDRESSEE

April 12, 1994

Page TWO

rate using a peristaltic pump). Turbidity measurements (using a turbidity meter) should be taken in conjunction with the metals sampling. If resampling confirms these high levels, then additional wells may need to be installed at other locations with lower potential contamination in the hope of collecting "true" background levels.

4. The background levels of inorganics sampled in groundwater are above the Florida Primary Drinking Water Standards (FDWS) (Chapter 17-550, F.A.C.). However, the groundwater sample 01G79 from trench 9 (where the waste landfill interval extends below the shallow groundwater table) contained levels of lead (1,060ug/l) and zinc (8,120 ug/l) substantially higher than the highest background levels of 224 ug/l and 490 ug/l respectively. Thus, contrary to the discussion in Section 11.1.3, it cannot be concluded that samples from upgradient wells exhibit metal concentrations comparable to or greater than downgradient samples. Therefore, metal concentrations (as well as volatiles) in groundwater can be attributed to the site. Also, the results from the newly installed monitoring wells were consistently turbid in contrast to the previously installed wells. Thus, the newly installed wells should be resampled as described above (Specific Comment 3).
5. Five (5) additional monitoring wells should be installed adjacent to "hot spot" soil samples, on the downgradient sides, to delineate the horizontal extent of groundwater contamination. Wells should be installed adjacent to surface soil samples 01S8001 and 01S8201, and test trench soil samples 01S7310/01S7313, 01S7610 and 01S8210/01S8214.
6. Why were other constituent besides inorganics not analyzed in background shallow groundwater samples?
7. Please explain the groundwater remediation procedures ongoing at the site (some groundwater sample are flagged "R" for remediation in Appendix G).
8. In the future, please denote concentrations of contaminants present on all figures within isocontour lines.
9. In Table 7-7, the primary Florida Drinking Water Standard for Barium is 2,000 ug/l not 200 ug/l; the secondary standard for Copper is 1,000 ug/l not 100 ug/l, and the secondary standard for Manganese is 50 ug/l not 500 ug/l.

MEMORANDUM  
ADDRESSEE  
April 12, 1994  
Page Three

Specific Baseline Risk Assessment (BRA) Comments:

The Baseline Risk Assessment will be reviewed in more detail subsequent to further sampling.

1. As agreed in the February 16-17, 1994 meeting in Atlanta, Contamination site pathways and receptors, such as wetlands, should be considered part of specific sites. It was agreed that preliminary surface water and sediment sampling would be performed in the wetlands as part of the site specific RI investigations. Thus, surface water and sediment from the wetlands associated with this site should be sampled and included in the Ecological Baseline Risk Assessment.
2. The Ecological Baseline Risk Assessment should also address the presence of VOCs, SVOCs and inorganics in groundwater because the shallow and intermediate depth groundwater flows to Bayou Grande and other wetlands. Groundwater samples from monitor wells installed adjacent to a surface water body should be compared to Florida Surface Water Quality Standards (Chapter 17-302, F.A.C.).
3. Groundwater cleanup goals should be based on Florida's Drinking Water Standards and Chapter 17-520 criteria. The ARARs used in the BRA are above Florida Drinking Water Standards.
4. Consideration of whether contaminated soils are potential sources for groundwater contamination should be based on MCLs and visual observations, as well as leachability (TCLP).
5. Surface soil for risk assessment should be 0 to 2 feet, not 0 to 1 foot.
6. What is the difference between recreational versus residential standards? If the more conservative residential standards are dismissed, then a deed restriction is needed.
7. The acceptable risk level for Florida is  $10E-6$ .
8. The text and tables contain typographical errors.