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NAS PENSACOLA
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October 21, 1994

David Clowes
Florida Department of Environmental Protection
Federal Facilities Coordinator
Twin Towers Office Building
2600 Stone Road
Tallahassee, FL 32399-2400

RE: Responses to Technical Review Comments, Technical Memorandum for Sites **10 & 14**, Pensacola Naval Air Station, Pensacola, FL; Contract #N62467-89-D-0318, CTO-0070.

Dear Mr. Clowes:

On behalf of the Navy, EnSafe/Allen & Hoshall is pleased to submit responses to technical review comments on the Technical Memorandum for Sites **10 & 14**. Specifically, this submittal includes responses to comments provided to the Navy by **U.S.** Environmental Protection Agency - Region **IV** and the **Florida** Department of Environmental Protection. The Navy reiterates that the above-referenced technical memorandum is a secondary document, thus a revised version will not be submitted for review.

Should you have any questions or comments regarding this submittal, please feel free to contact me at **(904) 479-4595**.

Sincerely,

EnSafe/Allen & Hoshall

Brian **E.** Caldwell, **P.G.**
Task Order Manager

Enclosure

cc: Bill Hill
Bill Gates
Allison Humphns
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EnSafe/Allen & ~~Hoshall~~ file - Pensacola

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
TECHNICAL REVIEW AND COMMENTS
TECHNICAL MEMORANDUM: SITES 10 & 14
NAVAL AIR STATION (NAS) PENSACOLA
PENSACOLA, FLORIDA

This technical memorandum is a secondary document. As such, it will not be resubmitted for final approval.

GENERAL COMMENTS:

COMMENT :

1. The quantitation limits used for groundwater sample analysis are above Florida Primary, Secondary and "free from" Water Quality Standards (Chapters 17-520 and 17-550, F.A.C). Contract Lab Protocol (CLP) should be adjusted so the quantitation limits are at or below State standards. However, to avoid reanalyzing every sample, samples do not need to be reanalyzed if the samples were not diluted before analysis, if estimated values can be provided, and if significant soil contamination is not present. In the future, the reasoning behind sample dilution should be explained to avoid confusion and facilitate document review. As agreed in the June 27-29, 1994 meeting, screening data (predilution) will be provided and assessment phases beyond screening will use quantitation limit analyses at or below State Water Quality standards.

RESPONSE:

The requested information, to the greatest extent possible, will be included in the draft site report. Additionally, all efforts will be made to resample where questions regarding data exist, and analysis will be conducted using special analytical services, such as GC methods, to attempt to reach appropriate detection limits. It is inappropriate to refer to CLP GC/MS analyses as "screening"; rather, special analytical Services should be referred to as screening. This refers to the fact that GC/MS methods provide the most reliable analytical data. For the record, the Navy will describe the advantages/disadvantages to using GC methods:

The GC method advantages lie in the ability to detect low levels of analytes; the method is very subject to interferences however. This means that there is always some doubt as to whether the detected compound has been identified correctly. The GC method always requires a secondary column, or MS, to provide confirmation. The disadvantage to the GC/MS method lies in detection limits elevated with respect to GC methods. The advantage, however, is that the detected compounds are many times more reliable, because of the secondary analysis (MS).

COMMENT :

2. The metal concentrations in the background groundwater samples **are** many times above the **MCLs**. The location of these background wells and the relationship to **known** contamination **sources** should be identified.

RESPONSE:

These wells were identified in the draft **RI** for Site 1; **this** information **will** be included in the draft site **reports** for these sites. ~~Please see~~ the response to **EPA** general comment no.6 for these *sites*.

COMMENT:

3. A summary of the results from the previous investigations (**E&E**, 1991 and 1992) and comparison between the 1991/1992 and 1994 **data sets** should be included, **with** discussion of the **reasons** for the detection of TRPHs and phenols in **soil** and groundwater in 1991/1992 but not in the 1994 **data**.

RESPONSE

Previous investigations will **be** summarized in the draft site **reports**; please ~~see~~ the response to EPA specific comment no.2 for Site 10, and the response to **FDEP** general comment no.1 for these sites.

COMMENT :

4. The subject document should be updated to **reflect** the July **5**, 1994 **Florida Soil** Cleanup **Goals (CG)**, which replaces the previous version of ~~February~~ 14, 1994.

RESPONSE

As agreed by the Tier 1 group, the **most** recent set of PRGs **will** be utilized in the *draft* site **reports**. It should **be** noted that **this** document was **prepared** prior to July **5**, 1994.

COMMENT:

5. An explanation of the abbreviations used in the lab data sheets (or reference to a previous explanation if relevant) should be provided. For example, what does the abbreviation "RE" in sample 14S0310RE represent?

RESPONSE

The requested information will be included in the draft site reports.

SPECIFIC COMMENTS:

SITE 10 (COMMODORE'S POND):

COMMENT:

1. Dieldrin was detected in soil up to 790 ppb (without any qualifiers) in sample 10GS0101D. This result should be included in the text and tables. Dieldrin at 790 ppb is substantially above the CG of 71.2 ppb (aggregate resident exposure scenario). Thus, subsequent soil sampling in this area is necessary to delineate the extent of contamination.

RESPONSE

The detected pesticide is clearly roadside application residue, and the Navy is not advocating a policy of disregard for this detection. However, the Navy feels that discretely detected pesticides, such as in this instance, be catalogued and dealt with on a facility-wide scale. This policy reflects that there will simply be many detections such as this across the base, reflecting years of legal application of now-regulated pesticides on historically maintained areas. Unless the discrete pesticide detection is clearly related to site historical activities being investigated (ie. a pesticide site such as Sites 24 and 15, or abandoned landfill such as Site 1), or unless the detection poses a clear and immediate danger, the Navy declines to delineate those detections as part of a singular site investigation. A facility-wide policy of addressing application residue is the most efficient way of dealing with these discrete detections in a realistic fashion. The Navy will not delineate dieldrin in the soil at this site any further at this time, unless groundwater resampling (see response to following comment) provides analytical data indicating dieldrin is present above the state standard.

COMMENT :

2. Due to the dieldrin **soil** contamination and possible groundwater contamination (0.110 ppb, flagged "UJ"), monitoring wells 10GS01 and 10GS02 should **be resampled**. The quantitation level employed should **be equal** to or lower than the State ARAR of 0.1 ppb (See General Comment No. 1). **Note**, if dieldrin is present in groundwater, then the leachability scenario **soil CG is 0.36 ppb**, which would **supersede** the exposure scenario **soil CG of 71.2 ppb**, requiring additional **soil** sampling **over** the whole **site**.

RESPONSE

The requested resamples from wells 01 and 02 will be **collected** and analyzed **using GC** methods; please **see** the response to **FDEP** general comment no.1 **for these sites**.

COMMENT:

3. The location of adjacent sites/contamination **sources** should always **be illustrated** on all relevant figures. Thus, Site **23** and the approximate location of the buried drums should be included on Figure **2**.

RESPONSE

The requested information will be included in the draft **site report**.

SITE 14 (DREDGE SPOIL FILL AREA):

COMMENT :

1. The lead concentration in **soil** sample 14S305 of **28,600 ppm ("J" flagged)** should **be confirmed**, since the level **detected** is **substantially above** the other neighboring samples.

RESPONSE

The **Navy's** intention to **collecting** samples within the basins **was to characterize** the fine-grained **spoils**. In line with this purpose, the Navy **accepts** the **analytical** results for **this** sample. The dredge **spoil** material within the basins obviously **has** the **potential** to contain high lead at depth,

distributed ~~at~~ discrete "hot spots", a conclusion ~~certainly~~ not ~~unexpected~~ given the **source** of the dredge **spoils** (ie. from the aircraft **turning** basin). **Risk** management **decisions** concerning this site will have to take **this** conclusion into account. At present, the **Navy believes that** it is not cost-effective to delineate within the basins, nor to question the validity of **GC/MS analytical results**, but to deal with the dredge material within the **basins in total** with **regards** to remedial decisions.

COMMENT:

2. Surface **soil** samples should **be** collected from **all** locations. For example, ~~at~~ location 14S03 the shallowest sample **was** collected ~~at~~ five foot (sample 14S305).

RESPONSE

Surface **soil** samples were collected at every location; sample 14S0301 is included in Sample Delivery Group CT518.

COMMENT:

3. **Since** the results from the dredge **spoil** samples **are** not homogenous with respect to metals and organics, a minimum of **two** additional soil borings should **be** collected from each basin. Recommended locations **are** in the center and southern end of each basin.

RESPONSE

The **ability** to conduct **soil** borings within the basins is severely **limited** by the **presence** of water residing in the basins. **EPA** has suggested that the material **be** evaluated **as** sediment, and given **that** the material is submerged **virtually all** of the time, the **Navy concurs** with **this** suggestion. Please **see** the **response** to **EPA** comments regarding additional **sampling to be** conducted within the basins.

COMMENT:

4. **If the analysis** of **soil** samples **contain significant** levels of metals above **soil CGs** (such as at 14S305), then these samples should **also be analyzed** for TCLP.

RESPONSE

The Navy will be employing **leachability** testing in **areas** of highest **soil** contamination (i.e. **soil** parameters above PRGs) for the development of **site-specific soil leachability values** for **terrestrial** sites (please see the response to EPA General Comment no. **2** for these **sites**). However, for **this** site if the material **within** the **basins** is **to** be considered sediment, a different set of **screening values** will be employed (**as specified** in the CSAP).

COMMENT :

5. Due to the elevated metal levels from 14S03, an additional monitoring well should be installed on the berm to the east of 14S03. Another **reason** for installing a **third well** is that potentiometric **surface** maps require a minimum of three points to determine groundwater flow.

RESPONSE

A review of the **data** shows that the metals in **boring 14S03** were elevated **relative** to other basin samples primarily with respect to lead, and there only in the **03 to 05** foot depth interval. Given that the lithology of the material within the basins is a clay, thereby providing limited hydraulic potential for **vertical** migration of parameters, the strong affinity for adsorption of parameters (particularly metals) by clays, and the fact that the samples above and below 14S0305 (14S0301 and 14S0310, 14S0314 respectively) were significantly **reduced** in lead concentration, the Navy declines to install an additional well **east** of 14S03.

The draft site **report will be** supplemented by the inclusion of historical **piezometric data**, which includes measurements at more than three **points**. It should also be noted that while the wetlands south and north of the site may potentially exhibit **perched** conditions, measurements did include a staff gauge in Pensacola Bay, which is in direct hydraulic connection with **shallow** groundwater; thus the general flow direction of groundwater is quite obvious.

COMMENT :

6. In the groundwater **lab data** sheets, Acetone and Methylene **Chloride** were "**U**", not "**J**" **flagged**. Thus, these chemicals were not **detected**; contrasting the statement **on** page 30 of their presence **as** lab contaminants. Additionally, if **these solvents are** present **as** lab contaminants, then why **are** they **also** not detected from Site **20** samples?

RESPONSE:

The page 30 text incorrectly stated that acetone and methylene chloride were detected above CRDLs in Site 14 groundwater samples. These common laboratory contaminants were not detected in either Site 10 or 14 groundwater samples. This information will be corrected in the draft site report.

COMMENT:

7. Groundwater samples 14GS01 and 14GS02, with Manganese levels of 261 ppb and 314 ppb, exceed the promulgated Florida Secondary Drinking Water Standard (17-550, F.A.C.) of 50 ppb. The text should be corrected.

RESPONSE

The referenced information will be corrected and included in the draft site report.

COMMENT;

8. The updated CG for Nickel, based on a child resident and Hazard Index of 1, is 1,510 ppm. Thus, none of the soil samples analyzed are above the updated Cleanup Goal. (See General Comment No. 3).

RESPONSE

The referenced information will be corrected and included in the draft site report.

COMMENT:

9. The updated CG for Benzo(a)pyrene, based on an aggregate resident, is 148 ppb. (See General Comment No. 3).

RESPONSE

The referenced information will be corrected and included in the draft site report.