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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

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NAS PENSACOLA

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OCT 18 1989

4WD-RCRA

Mr. David Criswell
Southern Division
NAFAC-ENGCOM
2155 Eagle Drive
Post Office Box 10068
Charleston, South Carolina 29411-0068

**RE: RCRA Facility Investigation Workplan
Naval Air Station Pensacola, Florida**

Dear Mr. Criswell:

As indicated in our September 1, 1989, letter, all comments on the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) workplan had not been received from our Environmental Services Division (ESD) at that time. The two enclosed memoranda provide most of the comments from ESD. You will note that there are no comments on the Site Specific Quality Assurance Project Plans, which is because these plans are based almost exclusively on the Generic Quality Assurance Project Plan (GQAPP). Therefore, ESD found it necessary to comment only on the GQAPP.

The only other comments ESD had in addition to the enclosed memoranda were in regard to the Site-Specific Safety Plans, which ESD found to be adequate.

This completes our comment. If you have any questions regarding these comments, or need additional information, please contact Drew Puffer of my staff at (404) 347-3433.

Sincerely yours,


James H. Scarbrough, P.E.
Chief, RCRA Branch
Waste Management Division

Enclosure

U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION IV, ATHENS, GEORGIA

MEMORANDUM

DATE: July 7, 1989 .

SUBJECT: Review of the U.S. Navy Public Works Center RFI Workplan, Pensacola, Florida; EPA ID No. FL9 170 024 567; ESD Project No. 89E-287

FROM: S. E. Matthews
Hazardous Waste Section
Environmental Compliance Branch
Environmental Services Division

SEM
7/10/89

TO: Doug McCurry, Chief
Waste Engineering Section
RCRA Branch
Waste Management Division

THRU: M. D. Lair, Chief
Hazardous Waste Section
Environmental Compliance Branch
Environmental Services Division



Attached is the subject report. If you have any questions, please contact me at (FTS) 250-3176.

Attachment

cc: Finger/Patton
Lair/Hall
Farmer
Hartnett

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U.S. NAVAL AIR STATION PENSACOLA
PENSACOLA, FLORIDA
EPA ID No. FL9 170 024 567
ESD Project No. 89E-287

I have reviewed sections 6 and 7 of the RFI workplan for this facility. Jim Gray, Charles Till, DON Hunter and Roger Carlton of the Hazardous Waste Section also reviewed portions of this report. The following is a summary of the inadequacies or deficiencies noted in this generic plan.

6.0 FIELDWORK AND SAMPLING PROCEDURES

6.1 AIR INVESTIGATION

page 6-1: How will the source areas for the particulates be determined?

page 6-2: What will the distance be from the meteorological station to the site? Will the data be relevant to conditions at the site?

Specify "other equivalent monitoring equipment".

The maximum potential for buildup occurs between 2200 and 0400 hours when the wind is calm following a day when temperatures exceed 80° F.

"Upon completion..." - this paragraph is meaningless. Useful data can only be generated from soil and waste samples for a specific location.

There is nothing in this plan that allows for the determination of airborne volatile and/or particulate contaminants. This conclusion can only be based on the results of the soil/waste samples.

page 6-3: The EPA criteria for meteorological stations must be met.

page 6-4: Describe the method of calibration in a stepwise and detailed procedure.

What precautions will be taken to avoid cartridge contamination?

Describe the desorption techniques, equipment and analytical procedures.

Of the four types of absorbents listed, which ones(s) will be used for this study?

The Tenax G-C is not necessarily the "best all-around absorbent" - TO-14 is recommended.

How will breakthrough be determined? What flow rates and volumes be used to minimize breakthrough?

read 1/10/89

page 6-5: Glass syringe and tedlar bags can only be used for grab samples. These methods of collection can suffer from losses, degradation and artifact formation.

Give your specific methods for the Method TO-14 rather than just reference the COM.

page 6-6: Describe how the calibration will be done for this study. Give specific methods for the study.

What type of "...conditions will warrant special placement of samples?"

page 6-7: How will the preliminary screening with a particulate monitor be done?

Define "... other toxic elements".

"All historical ..." - there is nothing in the paragraph defining how it will be done for this study. Be specific.

page 6-8: The hi-vol inlet should be at least two meters above the ground.

Describe the operational and calibration checks to be used.

If the hi-vol is not equipped with the motor/blower, flow Calibrations controller, etc., then it is not a hi-vol.

Specify for this study the scheduling maintenance, flow, audits, etc. for the motor/blower unit.

page 6-9: How will the sample period, project duration, etc. be determined for this study?

Give a stepwise, detailed calibration procedure for the hi-vol.

Will both TSP and/or chemical analysis of particulates be done for this study?

Specifically, how will SSI sampling be done for this study?

page 6-10: PUF sampling requires a highly modified hi-vol. Simply adding a W F head is not acceptable.

How will the Gillian hi-vol pumps be used for this study and why? Give specific methods.

6.2 SURFACE GEOPHYSICAL SURVEY

Most of the discussion on surface geophysical surveys in this workplan is very generic and appears to have been copied out of the literature describing currently used methods. This section merely describes possible

methods to be used in the field, but does not specify exactly which one(s) will be used for this site. This section is just filler.

page 6-12: Here the report states that "Assuming that the natural characteristics of the solid matrix remain constant, EM readings can be considered indicative of varying concentrations of adsorbed soil matrix contaminant species or dissolved contaminate species in groundwater". Subsurface hydrogeologic work that has already been performed at this facility indicates that much of the natural stratigraphy has been disturbed by man, and in some cases is now man-made fill. How will this affect the EM survey?

6.3 RADIATION SURVEYS AND MONITORING

page 6-18: Will E & E's ASC perform the radiation analyses?

page 6-19: There is no indication what type of radiation training will be given to those personnel who actually perform work in the field. Will full body counts be performed on field personnel for medical baseline information? What is the radiation level limit for work in the field? What type of protective clothing be worn in the field? How will equipment, clothing, etc. contaminated with radiation be disposed of?

Personnel should not only be monitored upon exiting the exclusion area but also should be monitored in the field.

An alpha detector must be held close to the source, not one meter away.

page 6-21: If alpha radiation is detected, what procedures will be used to guard against inhalation?

6.4 SOIL HEAD SPACE SURVEYS

page **6-22**: The method given on this page is useless. A 16-ounce jar will not provide adequate head space for the OVA. Five minutes will not be long enough for the sample to reach equilibrium. Also the sample should be equilibrated to **25° C**, not **20° C**.

6.5 SOIL GAS SURVEY

page 6-23: Tubing should be TFE.

How much time will be allowed for equilibration?

page **6-24**: How will equipment be decontaminated?

6.6 SOIL SAMPLING

page 6-24: Will air monitoring equipment be utilized during soil sampling?

How will the equipment be decontaminated?

Define "...sufficient volume of soil...".

page 6-25: Define "...standard procedures...".

It is not recommended that soil samples be collected as they rise to the top of the borehole. There is no way to ensure proportionality of the sample.

Samples should be screened with an OVA and the HNu as a matter of practice, not as "deemed necessary".

The decon procedure noted here will not be sufficient. Drilling equipment may need to be sandblasted to remove all rust, soil, etc. (which may have come from other hazardous waste sites).

page 6-26: Before any wells are backfilled, the FLDER requirements for well abandonment should be reviewed.

6.7 DRILLING AND MONITORING WELL INSTALLATION

page 6-27: The Guidelines for Groundwater Monitoring Well Installation (March 1989), was not included in this submittal for review.

page 6-28: Will O-rings be used with the flush-threaded joints? The threads should also be Teflon taped.

Any backfilling in these wells should be with the tremie method to prevent possible bridging.

page 6-30: What is the purpose of installing casing "...just above a confining/semi-confining zone...".

Well development should continue until specific conductance, pH stabilize and until the well is no longer turbid.

The well survey should be tied into a USGS datum - not on-site benchmarks.

6.8 GROUNDWATER SAMPLING

page 6-30: Wells should be purged until temperature, pH and conductivity stabilize for three consecutive readings.

page 6-31: How will immiscibles (sinkers/floaters) be detected in the wells?

page 6-32: Ground water samples collected from residential and public supply wells should be taken prior to aeration and/or chlorination if possible.

page 6-33: What are the stainless steel wells referenced in the first bullet?

If samples are to be filtered for dissolved metals, a total metals sample should also be collected.

"As a means of preventing downward migration..." Why is this information included in the section on sample filtering?

How often will sample temperature, pH, and conductance be measured?

6.9 SURFACE WATER/SEDIMENT SAMPLING

page 6-33: The method given in the first bullet is not acceptable for collecting VOA's. Also, it should not be necessary to rinse the bottle three times if it is a pre-cleaned bottle.

6.10 DECONTAMINATION

page 6-35: The decon procedures listed here are not adequate. The recommended methods for decontamination are as follows:

1. Steam clean and wire brush drilling equipment.
2. Clean with tap water and laboratory detergent using a brush if necessary to remove particulate matter and surface films.
3. Rinse thoroughly with tap water.
4. Rinse twice with solvent - preferably pesticide-grade isopropanol.
5. Rinse thoroughly with organic free water and allow to air dry as long as possible.
6. If organic free water is not available, allow equipment to air dry as long as possible. Do not rinse with deionized or distilled water.
7. Wrap with aluminum foil, if appropriate, to prevent contamination is equipment is to be stored or transported.

The decon procedure for Teflon or glass equipment used for the collection of trace organic compounds and/or metals should be:

1. Clean with hot tap water and laboratory detergent using a brush if necessary.

2. Rinse with hot tap water.
3. Rinse with at least a 10% nitric acid solution.
4. Rinse thoroughly with tap water.
5. Rinse thoroughly with deionized water.
6. Rinse twice with solvent - preferably pesticide-grade isopropanol and let air dry.
7. Wrap with aluminum foil.

page 6-40: If the field blank refers to a preservative blank, then two must be taken - one prior to sampling and one at the conclusion of sampling.

7.0 SAMPLE CUSTODY

page 7-1: The E & E Laboratory and Field Personnel Chain-of-Custody Documentation and Quality Assurance/Quality Control Procedures Manual (July 1987), was not included for review.

7.1 CHAIN-OF-CUSTODY

page 7-3: What methods will be used for shipment if samples are radioactive?

7.2 DOCUMENTATION

page 7-5: Why is such a cumbersome method being used for sample identification? This method looks to be more trouble than its worth.

7.3 ~~SAMPLE HANDLING, PACKAGING, AND SHIPPING~~

page 7-8: Again the QA/QC Procedures Manual was not included for review.

3.4 SAMPLE PRESERVATION AND HOLDING TIMES

page 7-11: It is recommended that blanks be run on the pre-cleaned bottles for QA/QC purposes.

page 7-12: Table 7-1 - What method will be used if the pesticide/PCB sample contains residual chlorine?

Is the chromium listed in this table hexavalent chromium?

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