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UNITED STATES ENVIRONMENTAL PROTECTION

REGION IV

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

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NAS PENSACOLA
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APR 01 1992

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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Suzanne Sanborn
Remedial Activities Branch
Department of the Navy - Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
Charleston, South Carolina 29411-0068

Re: Review of the Draft Group L Work Plan and revised (December 1991) Generic Work Plan Documents (SMP, PMP, GQAPP & HSP);
NAS, Pensacola

Dear Ms. Sanborn:

The Environmental Protection Agency (EPA) has completed its review of the Draft Group L Work Plan for Sites 4, 5, 6 and 16, and the December 1991 version of Site Management Plan (SMP), Project Management Plan (PMP), Generic Quality Assurance Project Plan (GQAPP), and General Health and Safety Plan (GHSP) for NAS Pensacola. Enclosed are our comments.

Given the current screening status of the Group L sites, no formal review and revision schedule is required for this work plan under the Federal Facilities Agreement (FFA). EPA therefore recommends that the Navy use the enclosed comments to proceed directly with preparation of a final version of the Group L Work Plan. This approach should permit the Group L field investigation to proceed concurrently with the field work for the associated Operable Units (11 through 14) if the Navy so desires. In no case should finalization of the Group L Work Plan delay the field start date for Operable Units 11 through 14.

Regarding our review of the December 1991 SMP, PMP, GQAPP and GHSP prepared by Ecology & Environment Inc., in accordance with Section VIII.G.5 of the Federal Facilities Agreement, the Navy's written response to all of the Agency's comments are due within 60 days of receipt of this letter. In the interim, given the secondary, or supporting nature of these documents, it will be in the Navy's best interest to conduct all ongoing field investigations in accordance with our enclosed comments.

Should you have any further questions or concerns regarding these matters, please contact me at 404/347-3016.

Sincerely yours,



Allison W. Drew, RPM
Department of Defense Remedial Unit
RCRA & Federal Facilities Branch

Enclosure

cc: Ron Joyner, NAS, Pensacola
Eric Nuzie, FDER

TECHNICAL REVIEW AND COMMENTS
DRAFT GROUP L WORK PLAN
NAVAL AIR STATION (NAS) PENSACOLA
PENSACOLA, FLORIDA

1. General Comment:

The following comments, identified for the Group H Work Plan, are also applicable to the Group L work plan and must be addressed in its revision:

4, 6, 7, 9, 11, 12, 13, 15, 16, 17, 20, 22, 26, 27, 28, 36, 30, 41, 43, 45, 46

2. Page 1-1:

As has been discussed in previous reviews, the phased approach presented here is not acceptable. In particular, with regard to the investigation of screening sites, the primary goal should be to collect adequate information to make the determination of whether an RI/FS or No Further Action (NFA) is required as efficiently as possible. Screening level data (DQO Level 1 and 2) are acceptable to show that contamination exists and that an RI/FS study is warranted. However, due to the probability of false negative data, this level of data is not acceptable to show that no contamination exists, and therefore further site characterization will be required before the site can be eliminated. Full Scan DQO Level IV data must be used to substantiate NFA decisions. The number and location of samples must also be adequate to verify the absence of contamination for all potential pathways and media. In order to achieve this goal, acceptable background samples must also be collected.

If the results of this initial CERCLA SI-type investigation indicate the need for an RI/FS, then an amendment to this work plan outlining a proposed RI/FS in accordance with EPA's previously-submitted reviews on other RI/FS Work Plans shall be prepared and submitted for review.

3. Page 3-1, Section 3.2:

According to this section, soils were removed from the borrow pit (Site 5) for use as cover at the Sanitary Landfill (Site 1). Section 2.2 states that the borrow pit surface was only about 1 foot below the natural grade at the time of the site reconnaissance. Historical aerial photographs and existing site records should be used to determine the original excavation depth and whether this pit was backfilled after removal of the original soils.

4. Page 7-6, Paragraph 3:

Site 1, noted here and in succeeding pages, should be located on Figure 2-1 for reference.

5. Pages 14-1 through 14-22:

Please refer to our comments on the December 1991 GQAPP.

6. Page 14-2, Section 14.1.1.3:

A habitat/biota map must be generated in conjunction with the habitat/biota survey for each site.

7. Pages 14-4 through 14-6, Figures 14-1 through 14-32

The distribution of soil borings and monitoring wells shown in these figures indicates that an unbiased sampling approach will be utilized. In order to accomplish the goal of confirming the presence or absence of contamination at these sites as effectively and efficiently as possible, a strongly biased sampling strategy must be employed to the maximum extent practicable. For instance, the information gathered in the aerial photograph analysis and the numerous surveys which precede field sampling should be used to focus sampling activities on the more highly suspect contaminant source areas, surface water runoff pathways from these suspect source areas, etc.. This approach should make it possible to reduce the number of samples, particularly soil samples, to be collected and analyzed for costly full-scan analyses.

The potentiometric surface of the surficial zone is a subdued replica of the topography, except where heavy pumping occurs. Based on the topographic map, Site 4 is located south of a groundwater divide, 16 is located north of the divide, and Sites 5 and 6 are located on or near the divide. Care should be taken to ensure that the well installation plan will adequately define any contaminant plume which may exist.

Furthermore, the potential vertical ground-water flow direction between the Surficial Zone and the Main Producing Zone varies beneath NAS Pensacola. At higher elevations, such as at the center of the peninsula, the water levels in the Surficial Zone are greater than water levels in the Main Producing Zone. In these areas, the potential vertical ground-water flow direction is from the Surficial Zone to the Main Producing Zone. At lower elevations, water levels in the Main Producing Zone are greater than the Surficial Zone water levels, and the potential vertical flow direction is reversed. If contamination is detected at these sites, it is important that cluster wells be installed as appropriate so that vertical contaminant migration may be monitored.

Regarding the physical distribution of soil borings and monitor wells,

8. Page 14-5, Figure 14-2:

Section 2.2 states that Site 5 is "unpaved and sparsely vegetated". It is recommended that two to four additional surface soil samples be collected at this site, between the central sampling point and the peripheral sampling locations, to determine whether soil contaminants that might adversely affect vegetation are present.

Also, the southeast drainage ditch is located near Sites 5 and 6. Pending screening results and further characterization of surface water runoff pathways from these sites, three surface water/sediment samples should be collected from this ditch: one upstream/upgradient and two downstream/downgradient.

9. Pages 14-6 through 14-7, Section 14.1.3.1:

Surface water samples must be collected from all three sediment sampling locations in the drainage ditch at Site 16. Surface water/sediment samples must also be collected from the arm of Bayou Grande adjacent to Site 16.

10. Page 14-7, Paragraph 5:

Figure 14-3 shows only 21 soil boring locations. Please correct this discrepancy.

11. Page 14-8, Table 14-1:

Please revise this table to include the required QA/QC samples (field blanks, trip blanks, etc.).

12. Page 14-10:

A prolonged (i.e. multi-phased) field investigation seems particularly inappropriate for sites such as these where no direct evidence for the past disposal of hazardous waste exists. The goal should be to eliminate sites which will not require an RI/FS from the program as quickly as possible, so that the resources of all parties concerned can be focused on more problematic sites.

If Phase I is structured similar to a CERCLA site investigation, with full scan DQO Level IV data, the information needed to support a no further action decision will be available after Phase I. The investigation, as proposed, will not generate sufficient data for the no further action decision until after the completion of Phase 11. If contamination is detected in the SI phase, warranting conduction of an RI/FS, then the RI/FS (to be presented in an addendum to the current work plan) must be designed to permit determination both the nature and extent of contamination in a single round of field investigation.

13. Page 14-12, Table 14-2:

Why will no field blanks be collected for ground-water?

14. Page 14-13, Table 14-2:

Surface water must be preserved in the same manner as ground-water samples.

15. Page 14-17, Paragraph 5:

In the event that screening results indicate the presence of contaminants known to have a density which exceeds that of water, one or more wells must also be installed below the water table interface.

16. Page 14-18, Paragraph 3:

How long will the short-duration specific capacity test run?

17. Page 14-18, Paragraph 4:

Wells must be developed prior to any aquifer testing in order to obtain the most accurate results from the aquifer.

18. Page 14-20, Paragraph 4:

The topographic survey and base map must be completed much earlier in the investigation so that the results will be available for use in evaluating other data.

19. Page 14-21, Paragraph 5:

All purge, development, etc. water should be containerized until the analytical results can be reviewed to ensure that the water does not contain any contaminants of concern.

20. Pages 16-1, 17-1, 18-1 and 19-1:

The sections detailing components of the Groundwater Modeling, Treatability Study, Baseline Risk Assessment and the Feasibility Study should either be deleted or modified to clearly indicate that these activities will not be required unless the determination is made that an RI is needed for these screening sites.

21. Page 18-3, Section 18.3:

Toxicity assessment for the biota may involve toxicity testing (e.g. bioassays or chemical analysis of tissues) if the existing toxicity information is insufficient.

22. Pages 20-1 through 21-1:

Sections detailing the reports to be generated must be modified in accordance with all relevant preceding comments.

23. Pages 23-2 through 23-5:

The following comments must be incorporated in revision of the Group I project schedule:

All survey tasks, including the geophysical survey, must be accomplished in the first three weeks of the investigation.

Laboratory analyses should begin with collection of the first sample requiring laboratory analysis.

The current schedule must be revised to indicate completion of the investigation in a single phase. A formal report should not be submitted until the investigation is complete. Report preparation should begin while the investigation is underway and conclude no later than four weeks from receipt of the final piece of data.

All sampling activities and hydrologic assessment should run concurrently with monitoring well installation.

24. Appendix A:

The site safety plans were prepared in June, 1989. They should be updated and modified as necessary to reflect the protocols set forth in the December 1991 Generic Health and Safety Plan.

The decontamination procedures do not conform with the U.S. EPA Region IV Environmental Compliance Branch SOP/QAM

25. Appendix B, Pages 6-7:

If EPA methods 601 and 602 are used, second column confirmation is required.

All references to Standard Methods for the Examination of Water and Wastewater must be updated to the 17th edition (1989).

TECHNICAL REVIEW AND COMMENTS
DRAFT GENERIC WORK PLAN DOCUMENTS
REVISED DECEMBER 1991
NAVAL AIR STATION (NAS) PENSACOLA
PENSACOLA, FLORIDA

SITE MANAGEMENT PLAN

1. Page 2-4:

The twelve criteria listed here are not set forth in the Federal Facilities Agreement (FFA). Please make the appropriate correction to the text.

2. Pages 2-4 through 2-6, Section 2.3 and Table 2-1:

According to Appendix A of the FFA, Sites 19, 20, 21, 23 and 37 have been transferred to the Navy's UST program. Please make the necessary corrections to the text and table.

3, Page 2-7, Figure 2-2:

All sites, excluding Sites 40, 41 and 42, must be identified on this figure. Missing from the current version are Sites 30, 36 and the UST sites. Also, the size and line quality of this figure must be improved. This should permit clearer identification of all sites, and particularly Site 36.

4. Page 3-5, Community Relations Plan:

"The CRP will include a summary of public comments on investigative reports and proposed plans, and the Navy's response to those comments." This statement is incorrect. Please either correct or delete.

5. Page 3-6, Paragraph 3; Page 3-7, Figure 3-1:

The phased approach referenced here and illustrated in Figure 3-1 is not acceptable. The work plans must be designed to permit the collection of all information needed to accomplish the stated RI/FS objectives (ie. confirmation, extent delineation) in a single round of investigation.

6. Page 3-8, Paragraph 1:

Why wasn't a conceptual site model developed and included in the Draft RI/FS Work Plans that have been submitted to date? This would have aided significantly in assuring that a suitable sampling plan was developed,

7. Page 3-8, Section 3.3.3:

Again, the phased approach described here is not acceptable. Why intentionally divide the work to be done into four phases up front? The work plans must be designed to permit the collection of all information needed to accomplish the stated RI/FS objectives (ie. confirmation, extent delineation) in a single round of investigation. Additional "phases" should be performed on an as-needed, rather than an as-planned, basis. Please delete these, and all other references, to the proposed 4-phased approach which occur throughout this document.

8. Page 3-9, Paragraph 2:

"The baseline risk assessment is to the FS risk assessment as the PA/SI is to the RI/FS, that is, it provides a preliminary indication of risk before the FS is conducted to identify cleanup alternatives and priorities." This statement is incorrect. Please modify or delete. Refer to the appropriate USEPA guidance document for an accurate description of the Baseline Risk Assessment.

9. Page 3-10, Section 3.3.6:

This section indicates that an SI will be conducted only on "new sites identified during the planned RI/RFI/FS work on existing sites". Why not perform an SI on the "22 sites/PSCs being addressed in a screening process.." (p. 2-4)? The second paragraph of this section references sites for which an already-completed "PA has not identified any contaminants of concern. The SI will be conducted as part of the installation-wide RI/RFI/FS process to provide defensible highly reliable analytical data" (i.e. the type of data needed to support a no further action decision). Why not utilize this approach on the already-identified screening sites, which appear to be at an identical point in the data-gathering process? Furthermore, at no point does this SMP fully set forth and explain the approach which will be used to investigate these 22 screening sites. Such a section must be added to the present document.

10. Page 4-4, Section 4.3:

Why do the criteria used to designate investigative "Groups" differ at all from those used to define "Operable Units"? The two designations are nearly identical and, for all practical purposes, were developed at the same time. The main difference between the "Groups" and "Operable Units" is that the former include screening sites while the latter do not. Aside from this difference, only the name has changed, from "Group" prior to signing of the FFA, to "Operable Unit" following signature of the FFA. Both terms should be identified and described together in all sections of the SMP whenever use of one or the other is appropriate (e.g. p.2-4). This approach should serve to clarify: (i) the relationship between the "Group" and "Operable Unit" designations and (ii) the authority under which the investigation is proceeding at present.

The SMP text should also be amended to clarify that the designation of Operable Units is a dynamic process. I.E. as more data becomes available, it may be appropriate to re-define Operable Units based on the nature and/or extent of detected contamination. For example, Site 13 is now being investigated with Sites 32, 33 and 35 (Operable Unit 10), due to the identification of related contamination during a screening phase of investigation. Following further investigation, it may become appropriate to designate these sites as a single Operable Unit for the purposes of preparing a ROD and selecting a Remedial Action.

11. Pages 4-4 through 4-5:

EPA concurs with FDER's comment regarding the 90% draft. All parties to the FFA should receive the 90% draft for review, making the 100% draft the final document.

PROJECT MANAGEMENT PLAN

1. Page 1-1, Paragraph 1:

The contamination assessments to be performed will include screening. . . . Remedial Investigations (RIs) as defined by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)..." The text should be amended to clarify that, under CERCLA, what is being referred to here as a "screening RI" is technically a Preliminary Assessment/Site Inspection (PA/SI). Specifically, as stated in 40 CFR S300.420 (c)(1), two of the primary purposes of the SI are to (i) "eliminate from further consideration those releases that pose no significant threat to public health or the environment;...", and (ii) "collect data...to better characterize the release for more effective and rapid initiation of the RI/FS or response under other authorities.". Accordingly, the work plans developed for those PSCs which have been designated as screening sites "shall provide a process for obtaining data of sufficient quality and quantity to satisfy data needs" (40 CFR §300.420(c)(4)) (i.e. to accomplish the above-quoted objectives).

2. Pages 2-2 through 2-5, Section 2.3 and Table 2-1:

Please refer to comment 2 on the SMP.

3. Page 2-5:

Please refer to comment 1 on the SMP.

4. Page 2-6, Figure 2-1:

Please refer to comment 3 on the SMP.

5. Page 2-7, Paragraph 3:

Please refer to comment 10 on the SMP.

6. Page 2-8, Figure 2-2:

Please refer to comment 7 on the SMP.

7. Page 2-9, Paragraph 2:

Please refer to comment 1 on the present document.

8. Page 5-1, Section 5.2; and Page 5-7, Section 5.3.7:

Please refer to comment 11 on the SMP.

9. Page 5-9:

Please update the name of the NOM contact from John Lindsay to Waynon Johnson.

GENERIC QUALITY ASSURANCE PROJECT PLAN

1. Pages 3-1 through 3-4:

According to Appendix A of the Federal Facilities Agreement (FFA), Sites 19, 20, 21, 23 and 37 have been transferred to the Navy's UST program. Please make the necessary corrections to the text and to Table 3-1.

2. Page 5-1:

The definition provided here for USEPA DQO Level V data is unclear and misleading. Please expand and clarify in accordance with the more accurate definition provided in Table 5-1 (page 5-2).

3. Pages 6-1 through 6-4, Section 6.1.1:

The preliminary survey outlined in this section alone cannot be used to determine or rule out the possibility of an airborne emission. The OVA responds to methane and can give false positives. Its detection limits are relatively high. Semi-volatile organic compounds will not be detected by either the OVA or the Mini-Ram. The Mini-Ram particulate monitor does not measure gases emanating from the site. Some of the constituents of concern (e.g. pesticides, PCBs) are commonly measured in the nanograms per cubic meter range, while the instrument to be used here measures in milligrams per cubic meter. The Mini-Ram has a high degree of inherent uncertainty, as evidenced by its high detection limits. VOCs are more commonly measured by the TO-14 method and PCBs/pesticides by the TO-4 method. Soil, water, sediment and groundwater data will be more important in determining air sampling needs. The text must be revised to indicate that the preliminary assessment data will only serve a supplemental role in this process. Specifically, please revise the first portion of paragraph 2 on page 6-2 and the final paragraph of Section 6.1.1 (page 6-4) accordingly.

4. Page 6-3, Paragraph 2:

Other documents indicate that an HNU will also be used for monitoring, not just an OVA. Please correct this discrepancy.

5. Pages 6-4 through 6-8, Section 6.1.2:

Further clarification is needed as to exactly when each of the proposed air sampling methods will be utilized.

With regard to the whole air collection methods, when will a glass syringe be use to collect samples? When will Tedlar bage be used to collect samplee? **What** holding times will be used for samples collected by these methods? How will shipping be accomplished for VOC samples collected by these methods?

For samples collected on adsorbents such as Tenax, which compounds will be analyzed for? Will duplicate samples be taken? Will the samples be voided if breakthrough is found? Will the target compounds be limited to those listed in EPA Method TO-1?

6. Page 6-6, Bullet 2:

Replace the word "passivated" with "subatmospheric".

7. Page 6-8, Section 6.1.3:

The current particulate standard in 40 CFR 50.6 (both primary and secondary) is 150 ug/M³ of PM₁₀. The mini-ram is only a very rough survey instrument for the determination of particulate. Particulate sampling should only be conducted if there are elevated concentrations of metals in the soil, and when done, the sampling should conform to the protocol in 40 CFR 50, Appendix G and 40 CFR 58.

8. Pages 6-12 through 6-13, Section 6.1.4:

What target analytes will be analyzed for? Will the PUF-XAD-2 sandwich be used as sample media? Will Compendium Method To-4 be used? What criteria will be used to determine whether or not semi-volatile monitoring is necessary?

The potential for semi-volatile emissions is not directly related to particulate concentrations (i.e. low particulate concentrations do not necessarily mean low semi-volatile organic concentrations). Soil data will therefore be crucial to properly siting the High Volume PUF samplers used for monitoring pesticides, PCBs and PAHs.

9. Pages 6-24 through 6-25, Section 6.4:

The soil headspace survey method provided here is inadequate and must be revised. A 16-ounce jar will not provide adequate headspace for the OVA. Five minutes is insufficient time for the sample to reach equilibrium. The sample must be equilibrated to 25°C rather than 20°C.

10. Page 6-28, Paragraph 4:

A 2-ounce glass jar is recommended for the collection of VOC soil samples, as opposed to the proposed 40-ml glass vial.

11. Page 6-29, Paragraph 6:

Samples must be screened with an OVA or HNU as a matter of practice, not "as deemed necessary".

12. Page 6-37, Section 6.8.2:

The practice of discarding purge water on the ground surface away from the well contradicts the investigation-derived waste policy included in the site-specific work plans. All purge water must be containerized, as indicated in these latter documents.

13. Page 6-38, Paragraph 4:

After the sample is preserved, the pH should be checked to ensure that enough preservative has been added.

14. Page 6-40, Section 6.10:

The Region IV ECB SOP/QAM requires a deionized water rinse after the tap water rinse and before the solvent rinses (see Appendix B.8: Field Equipment Cleaning Procedures).

15. Pages 6-41 through 6-42:

Please correct the page numbers to eliminate the duplications shown on the bottom center (page 6-41) and the top right corner (page 6-42) of these pages.

16. Page 6-42, Paragraph 3:

The practice of pouring purge and development waters back into the temporary monitoring well prior to removal of the temporary well is not acceptable, unless the analytical results from the groundwater sample indicate that the groundwater does not contain constituents of concern. In addition to potentially clogging the well screen and filter pack with entrained sediments, this practice may also adversely affect the quality of future groundwater samples.

17. Page 6-43, Table 6-1:

This table indicates that VOC soil samples will be collected in 4- or 8-ounce jars. As stated in comment 10., a 2-ounce jar is recommended.

What is the rationale for filling the metals jar only half full?

18. Page 6-47:

There is no "Page: 46 of 46". Repagination of this entire section is needed.

19. Pages 7-11 through 7-12, Section 7.4 and Table 7-1:

Four drops of concentrated HCl are required for the preservation of water samples to be analyzed for volatile organic compounds.

20. Page 7-15:

The reference here and in Tables 7-1 and 7-2 should be updated to July 1, 1991.

21. Page 9-8 through 9-20, Table 9-5:

See comment 20. Also, the reference to "Standard Methods for the Examination of Water and Waste Water should be updated to the 17th edition, 1989.

GENERAL HEALTH AND SAFETY PLAN

1. Page 3-5:

The decontamination procedure given here for non-metallic sampling equipment **is** acceptable; however, the use **of** 10% nitric acid prior to the distilled water rinse may not be necessary. The **ECB SOP/QAM Appendix B.8: Field Equipment Cleaning Procedures**, does not include this step. Also, the use **of** hexane to rinse excessively contaminated **equipment** could present health risks via inhalation, etc.

2. Page 5-6:

"When radiation levels are twice above background or higher...". Please explain why radiation levels must be twice above background before the **team members** will **be** monitored with the **GM** detector. It would **seem** that any radiation level above background would be of concern.

3. Page 7-4:

The practice of pouring purge and development waters back into the temporary monitoring well prior to the removal of the temporary well point **is** not acceptable unless the analytical results from the groundwater samples indicate that the groundwater does not contain contaminants **of** concern.

4. Appendix A:

Please include a Materials Safety Data Sheet (**MSDS**) for hexane.