



EnSafe / Allen & Hoshall

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5720 Summer Trees Dr. Suite 8 Memphis, TN 38134
(901) 383-9115 Fax (901) 383-1743

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NAS PENSACOLA
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August 25, 1994

U.S. Environmental Protection Agency
Attn: Ms. Allison Humphris
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: Final **sampling** and Analysis Plans
Sites **3, 9, 10, 14, 29** and **34**
NAS Pensacola
Contract # **N62467-89-D-0318/CTO-070**

Dear Ms. Humphris:

On behalf of the Navy, EnSafe/Allen & Hoshall is pleased to submit seven copies each of the **Final Sampling and Analysis Plans** for Sites **3, 9, 10, 14, 29** and **34** at the Naval Air Station Pensacola in Pensacola, Florida.

Please let us know if you have any questions or comments **regarding** the plans.

Sincerely,

EnSafe/Allen & Hoshall

Brian E. Caldwell
Task Order Manager

Enclosures

cc: Mr. Bill Hill/Mr. **Bill** Gates, SOUTHNAVFACENGCOM — 2 copies
Ron Joyner, **NASP** — 9 copies
Tom Moody, **FDEP** — 1 copy
John Mitchell, **FDEP** — 1 copy
Waynon Johnson, NOAA — 1 copy
Lynn Griffin, **FDEP** — 1 copy
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**ENVIRONMENTAL PROTECTION AGENCY
TECHNICAL REVIEW AND COMMENTS
DRAFT FINAL SAMPLING AND ANALYSIS PLANS (SAPS)
FOR SITES 3, 9, 10, 14, 29, 34
NAVAL AIR STATION (NAS) PENSACOLA
PENSACOLA, FLORIDA**

GENERAL COMMENTS:

Comment:

1. If contaminant delineation (**Phase II**) proves necessary for any of these sites, it is recommended that analytical parameters be restricted to only those contaminants found above their **PRGs**. If at **all** possible, Phase II should be conducted using field analytical techniques.

RESPONSE:

Agreed. Where possible, the use of field analytical techniques will be **used** in Phase ~~X~~ sampling and **will** be restricted to those parameters whose concentrations were above their **PRGs**.

Comment:

2. EPA's Environmental Services Division (ESD) has recently tested a new technique for the installation of temporary wells. Basically, the well screen is filled with a round sand .tojust above the level of the screen. **This** technique has been found to greatly reduce turbidity and the amount of time involved in developing/sampling the temporary well. ESD is available for consultation concerning **this** method.

RESPONSE:

As part of the Category 7, Site 36 RI, two test wells were **installed**, one using the technique mentioned above and the other using the installation procedure for shallow monitoring wells **outlined** in Section 5.0 **of** the Comprehensive Sampling and **Analysis Plan**. **Both** wells were purged and sampled using a peristaltic pump **and**, quiescent "low flow" vacuum extraction process. There were no measurable differences in turbidity or sampling time between the two wells.

SPECIFIC COMMENTS :

Site 3 (Crash Crew Training **Area**)

Comment:

1. Page 8, Habitat and Biota Survey:
Either the **CSAP** or this site-specific SAP must provide a more complete description of the investigative approach(es) which will be **used** to complete the terrestrial ecological risk assessment for Site 3.

RESPONSE

The phased approach outlined in Figure 8-1 and **discussed** in Chapter 8 of the CSAP includes the assessment of ecological impacts utilizing **both** terrestrial and aquatic organisms. Specific toxicity tests directed at terrestrial organisms will be included based on site conditions. Literature based toxicological end points will be used to determine risks to terrestrial receptor species. Chapter 8 of the CSAP provides a much more complete description of terrestrial ecological risk assessment procedures.

Comment:

2. Page 8, Habitat and Biota Survey:
Please revise the text to clarify that Phase II sampling will be implemented in accordance with the final RI/FS Work Plan for OU 41, of which the **CSAP** and site-specific **SAP** are components.

RESPONSE:

The text will be revised to state the following: "The complete ecologic assessment of any adjacent wetland complex will be conducted **as** part of the RI of Site 41 (NAS Pensacola wetlands). If ecological impacts to wetland areas adjacent to Site 3 **are** suspected **based** on Phase I **data**, Phase II sampling will be performed during the Site 41 RI and **in** accordance with the Final RI/FS Work **Plan** for **OU 41**. If other ecological impacts (**terrestrial**) **are** suspected at Site 3 after the Phase I survey, Phase II sampling will be implemented **as outlined** in Section 8 of the **CSAP**."

Comment:

3. Page 15, Paragraph 1:

It is unclear exactly how many groundwater samples, particularly from temporary sampling locations, will be collected for **this** site. The text here states that **23** groundwater samples (**4** from existing wells and **19** from proposed temporary wells) will be collected. Yet Figure 4-1 (page 13) provides locations for **23** temporary wells, and Table 4-1 (page 10) states that **31** groundwater samples, including **27** from temporary wells, will be collected. Please provide the exact number and locations of proposed groundwater samples. **Also**, please provide **justification** for collecting what would appear to be a relatively large number of groundwater samples in order to accomplish the objectives of Phase I. It would appear that a **number** of these planned sampling points would be effectively deferred to the delineation portion of the investigation.

RESPONSE:

The correct number of groundwater samples is **23**, **19** from new temporary wells and **4** from existing wells. **This** correction has been made to Figure 4-1 and Table 4-1. **Because** of contractual agreements made with drilling contractors prior to development and implementation of the phased sampling approach, some wells will be installed for delineation purposes during the Phase I portion of the investigation.

SITE 9 (Navy Yard Disposal Area)

Comment:

1. Page 8, Section 4.0:

"A hydrologic and ecologic assessment will also be conducted for Site 9." **A** more complete description of the plans to conduct these assessments is needed. Please refer to comments 1 and 2 for Site 3.

RESPONSE:

Page 17, Section 4.5 of the site specific **SAP** discusses the approach for the hydrologic assessment. The following additions will be made to **this** Section of the **SAP**: "**An initial** water level assessment will be performed utilizing the temporary wells during **the Phase I** portion of the investigation to determine shallow groundwater elevations, **shallow** groundwater flow direction(s), and hydraulic gradient(s). **A** hydrologic assessment will **be** performed on the permanent monitoring wells ...".

Page 17, Section 4.6 of the site specific **SAP** discusses the approach for the ecological assessment. Please refer to the response for Site 3, comments 1 and 2.

Comment:

2. Page 9, Line 1:
Use of the term "Contaminants of Concern" in this context is inappropriate and should be deleted. The term "Contaminants of Concern", or preferably "Chemicals of Concern", should be reserved for chemicals which exceed a 10^{-6} risk level or HI of 0.1 in baseline risk assessment scenarios which exceed 10^{-4} risk level or HQ of 1. Please revise here and throughout the text as needed;

RESPONSE

Agreed. The use of this term has been eliminated from the **SAP**. The text has been modified here as follows: "...establish PRGs for the identified contaminants." Other modifications will be made accordingly.

Comment:

3. Page 13, Figure 4-1:
Clarify whether the solid triangle is actually used to **specify** unpaved areas in this figure.

RESPONSE:

This symbol indicates the location of a sediment sample. The figure will be changed accordingly.

Comment:

4. Page 14, Paragraph 2:
Why is the term "contaminant groups" used here? Does this reflect a decision to analyze for "indicator" chemicals, or perform non-chemical specific analyses (e.g. TPH) during some portion of the investigation?

RESPONSE

The **use** of "contaminant groups" in this context refers **to** those parameters identified to be present above the PRGs during Phase I of the investigation. Each sample collected during Phase I of the investigation will be analyzed for Full TAL/TCL analyses, but Phase II parameters will be restricted to those present above **PRGs only**. For clarification, the **text has** been modified to state the following: "**Any soil** samples collected during **Phase II**, if **needed**, will not be analyzed for **FSA**, but for the contaminants positively **identified** above the PRGs in the first sampling phase."

Comment:

5. Page 15, Paragraph 2:
According to the text, sediment samples **will** be collected **from 13** different locations. Yet these locations are not specified on any figure, and Table 4-1 (page 10) indicates that only 1 sediment sample will be collected. Please clarify.

RESPONSE:

Table 4-1 is correct. Only one sediment sample will be collected during the Phase I portion of the investigation. The location of this sample is shown on Figure 4-1 (**see** Comment 3).

SITE 10 (Commodore's Pond)

Comment:

1. Page 7, Habitat and Biota Survey:
See comments 1 and 2 for Site 3.

RESPONSE:

See response to comments 1 and 2 for Site 3.

SITE 14 (Dredge Spoil Area)

Comment:

1. **Page 15, Section 4.6**
See Comments 1 and 2 for Site 3.

RESPONSE:

See response to comments 1 and 2 for Site 3.

SITE 29 (Soil south of Building 3460)

Comment:

1. **Page 7, Habitat and Biota Survey:**
See comments 1 and 2 for Site 3.

RESPONSE:

See response to comments 1 and 2 for Site 3.

Comment:

2. **Page 8, Section 4.1:**
See comment 2 for Site 9.

RESPONSE:

See response to comment 2 for Site 9.

SITE 34 (Solvent north of Building 3557)

Comment:

1. Page 8, Habitat and Biota Survey
See comments 1 and 2 for Site 3.

RESPONSE

See response to comments 1 and 2 for Site 3.

Comment:

2. Page 8, Section 4.1:
See comment 2 for Site 9.

RESPONSE:

See response to comment 2 for Site 9.