



# EnSafe / Allen & a joint venture for professional

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NAS PENSACOLA  
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February 25, 1994

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

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

Dear Ms. Drew:

On behalf of the Navy, EnSafe/Allen & Hoshall is pleased to **submit seven** copies each of the Draft **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

Henry H. Beiro  
Task Order Manager

Enclosures

cc: Mr. Bill Hill, SOUTHNAVFACENGCOM — 2 copies  
Ron Joyner, NASP — 13 copies  
Tom Moody, FDEP — 1 copy  
John Mitchell, FDEP — 1 copy  
Waynon Johnson, NOM — 1 copy  
Lynn Griffin, FDEP — 1 copy  
Gary Sweppenhiser, NASP — 1 copy  
EnSafe/Allen & Hoshall file  
EnSafe/Allen & Hoshall Pensacola file

U.S. ENVIRONMENTAL PROTECTION AGENCY  
**TECHNICAL REVIEW AND COMMENTS**  
DRAFT SAMPLING AND ANALYSIS PLANS FOR  
SITES 3, 9, 10, 14, 29, 34 (CATEGORY 5)  
NAVAL AIR STATION (NAS), PENSACOLA  
PENSACOLA, FLORIDA

**GENERAL COMMENTS**

**Comment 1:**

The proposed groundwater sampling locations in these site-specific SAPs **are** either very similar or identical (in the case of Sites 3, 9, **10, 29** and **34**) to the sampling locations proposed in the **Phase II Work Plans**. These locations were based on the results of the **Phase I** investigations. Due to the unreliability of much of the **Phase I data** (e.g., questionable metals results due to the collection of turbid groundwater samples; questionable organics results due to poor **QNQC** procedures, including the apparent use of non-organics-free water during sample collection), it is difficult to estimate the extent of **contaminated** plumes and the optimal locations for permanent monitoring locations. It therefore seems premature and inefficient to propose the exclusive use of permanent wells and full scan analysis, at DQO Level IV protocol, of **all** samples collected **from** these wells. In the absence of **representative** groundwater data, the proposed installation and sampling of permanent wells is likely to result in **too** few wells to delineate extent at some sites and excessive numbers of wells at other sites. In either **case**, an additional round of groundwater sampling may be necessary.

**As** recommended in EPA's review of the **Phase II Work Plans**, the collection of ground water samples using temporary, or screening, techniques (e.g., temporary wells, hydropunch, geoprobe) **while** following proper **QNQC** procedures will provide **representative** groundwater samples in a timely manner. Use of an on-site mobile **lab** to analyze these samples (together with analysis of a representative percentage of **splits** by a full **CLP lab** for confirmation purposes) should further expedite the attainment of **representative** groundwater analytical results. These results **can** then be used to select the optimal permanent monitoring well locations needed to characterize the **nature** and extent of any contaminant plume, thereby assuring that groundwater **contaminant** characterization and delineation will be completed in the upcoming round of field work.

**Finally**, as mentioned **in** previous reviews, full, **DQO** Level IV **analyses** are needed to confirm the nature and extent of contamination. **This type** of data is not needed to accomplish the sometimes extensive, time-consuming **task** of contaminant plume delineation.

**Response:**

As agreed during the **Partnering Meeting of January 21, 1994**, the investigation of these sites has **been** revised **into a three-phase approach**. **This approach** incorporates many of the elements cited above, and is fully described **in** the revised SAPs.

**Comment 2:**

Further justification must be provided, **on a site-specific basis**, for the **performance** of hexavalent chrome analyses. **Also**, there is **no** acceptable method for the analysis of hexavalent chrome in **soil** samples. The **proposed** hexavalent chrome **analyses** for **soil** and sediment samples should therefore be deleted.

Response:

Hexavalent **chromium** has **been** deleted.

**Comment 3:**

The description of the Habitat and Biota Survey to be **performed during** these site-specific investigations indicates that the **three-phased** approach presented in the **RI/FS Work Plans** for the **Bay, Bayou and Wetlands** will **also** be followed for the **terrestrial** site investigations. **This** approach is acceptable, provided it does not **significantly** impact **the** enforceable schedules for Categories **5** and **6** which are contained in the Site Management **Plan** schedules. The **SAP** text must be revised to clarify **this** point.

Response:

The terrestrial site investigation **will** follow the **three-phase** approach. The Site Management Plan schedules are **currently** being revised, and **will incorporate** the time required to complete **each** investigative phase.

**Comment 4:**

The locations for background samples to be collected for each media must clearly indicated in **a figure** for each **SAP**.

**Response:**

Three locations have **been** selected **as** background locations for **NAS Pensacola**. These are **near** the municipal water supply **wells** at NASP, and were **described in** detail in the Site **1** Draft Final **RI** report.

**Comment 5:**

**EPA** continues to recommend the use of **pure** bentonite grout materials with the **installation** of **PVC** wells.

**Response:**

Because of the proximity to saline water, monitoring wells will be installed in accordance with Florida Administrative Code 40A-3, which requires a neat cement grout.

SPECIFIC COMMENTS

**SITE 3 - CRASH CREW TRAINING AREA**

**Comment 1:**

The investigation of these fire training pits should be straightforward, relatively quick and inexpensive. The SAP does not provide adequate information to justify the cost of performing 226 TCUTAL analyses and installing 28 new monitoring wells. EPA recommends that VOC plume delineation be accomplished using temporary groundwater sampling methods (e.g., piezocone/hydrocone technology) and DQO Level II field laboratory. If the plume delineation shows the existing monitoring well system to be deficient, these deficiencies can then be corrected. DQO Level IV analyses can then be performed on samples collected from a select subset of sampling concentration of groundwater contamination.

**Response:**

As discussed in the Partnering Meeting of January 21, 1994, the investigation has been revised to a three-phase approach. This approach incorporates many of the elements cited in General Comment 1, and is fully described in the revised SAPs.

**SITE 9 - NAVY YARD DISPOSAL AREA**

**Comment 1:**

The proposed sampling scheme may serve to detect contamination if present. However, given the current limited knowledge regarding the nature and extent of contamination at this site, it seems unlikely that the proposed sampling scheme will meet the stated goal of delineating the nature and extent of soil and groundwater contamination. The main objective of this investigation should therefore be to determine whether or not significant contamination is present at this site. If significant contamination is not present, the site should be NFRAPd.

**Response:**

As discussed in the Partnering meeting of January 21, 1994, the investigation has been revised to a three-phase approach. If significant contamination is not detected in Phase 1 samples, the site should be NFRAPd.

Comment 2:

To determine the contaminant types and concentrations, a series of boreholes should be constructed in the fill area at locations more central than those shown in Figure 4-1. The waste should be visually characterized and sampled (if possible). Temporary groundwater sampling points should be screened below the waste and fill samples collected. If the site is established as a source, its contaminant plume should be delineated in conjunction with Sites 10, 23 and 27, using temporary groundwater sampling methods and field laboratory.

**Response:**

As discussed in the Partnering meeting of January 21, 1994, the investigation has been revised to a three-phase approach. During this meeting, new boring locations more central to the site were selected. If fill material is encountered during drilling, it will be sampled along with vadose soil. Site 23 has been transferred to the Navy's UST Program for investigation. Please see the response to General Comment 1.

**SITE 10 - COMMODORES POND**

Comment 1:

See Comment 1 for Site 9.

**Response:**

Please see the response for General Comment 1 for Site 9.

Comment 2:

Even with substantial reduction in the number of proposed samples, the desired objective of determining whether or not significant contamination exists at the site can still be met. If the site is determined to be a source area, the investigation should proceed as recommended for Site 9 (Comment 2).

Response:

As discussed in the Partnering meeting of January 21, 1994, the investigation has been revised to a three-phase approach. Please see the response to General Comment 1 and Comment 2 for Site 9. The number of samples has been significantly reduced.

## SITE 14 - DREDGE SPOIL AREA

### Comment 1:

The primary objective of **this** investigation should be to determine whether, in fact, the dredge **spoil** is a significant **source** of **contamination**. The dredge **spoil** should not be presented as an environmental media (Section 4.3). The number of **spoil** samples **needed** to characterize this potential source could be reduced without **seriously** impacting **this** study. If significant contamination is not detected, **this** site should be NFRAPd.

### Response:

**As discussed in the Partnering meeting of January 21, 1994, the investigation has been revised to a three-phase approach. The number of samples from the dredge spoil has been significantly reduced.**

### Comment 2:

Additional investigation will be **necessary** if significant contamination is **confirmed** to exist within the **spoil**. **This work** should be **initiated as soon as the need** for it is **confirmed**. The following should be taken into consideration in designing any investigations aimed at delineating the extent of confirmed contamination:

- A. The sampling scheme **will** have to be designed and expanded to **meet** the objective of delineating the extent of **soil** and sediment contamination. Land surface is the interface between the **spoil** and the original ground topography. **To** determine **the** impact to the **surface soil**, samples must be **specifically collected** from **this** interface and logged as such. **Also**, the **full** extent of contamination will not be known until the adjacent **sediments** in Pensacola Bay **are** sampled.
- B. The proposed sampling scheme must be **revised** in order **to** meet the goal of adequately delineating the extent of any detected groundwater contamination.

### Response:

- A. **Soil samples will be collected from the interface between the dredge spoil and land surface. Sediment samples will also be collected from the two discharge points located east of Site 14. The samples will be submitted for TAL/TCL analysis and grain size analysis.**
- B. **As agreed to in the January 21, 1994 Partnering Meeting, the sampling scheme has been revised to a three-phased approach which provides for a delineation of groundwater contamination.**

## SITE 29 - SOIL SOUTH OF BUILDING 3460

### Comment 1:

The only **potential** source **area** mentioned in the description of the **contaminants** encountered at this site is the IWTP Sewer Line. Therefore, the proposed investigative plan must be considered contingent upon review of the PWC files concerning the IWTP Sewer Line.

### Response:

The PWC **files** were reviewed before **beginning** field activities. A **soil boring/temporary** monitoring well was completed in two locations along the IWTP sewer line during E&E's **Phase I** investigation. **As** agreed to in the January **21, 1994 Partnering Meeting**, two **borings/temporary** wells will be completed in the area of the **IWTP** sewer line. **Also**, additional locations along the area of the IWTP sewer line **may** be investigated **as** part of the **three-phase** approach presented in the draft final **SAP**.

### Comment 2:

If the **area** where the workers were chemically burned cannot be determine through the **PWC** files, interviews, examination of the **concrete** for signs of the excavation, **etc.**, it **will** be necessary to systematically search for it. If it cannot be located through a systematic search, the site should be seriously considered for a **NFRAP**. **EPA** is **willing** to assist the Navy in suggesting **lines** of inquiry for locating **historical data**, and implementing a systematic search if necessary.

### Response:

The PWC **files** were reviewed before **beginning** field activities. Additional inquiries **will** be made during the contaminant **source survey**. A systematic sampling scheme was **agreed to** **during** the January **21, 1994 Partnering Meeting** **as part** of the **three-phase** investigative approach presented in the draft Final SAPs.

### Comment 3:

Given that the source of contamination at this **site has yet** to be identified, it is unlikely that the proposed sampling **will** delineate the extent of **soil** and groundwater contamination.

### Response:

As discussed in the **Partnering** meeting of January **21, 1994**, the sampling approach has been revised to a **three-phase** approach.

## SITE 34 - SOLVENT NORTH OF BUILDING 3557

### Comment 1:

Figure 4-1 does not locate the leak or the piping. The text also does not describe the leak in any detail. The type of solvent involved is not identified, nor is the reason that it cannot be identified provided. This information must be provided. During the RPM Meeting held October 13-14, 1993 at NAS Pensacola, NADEP was able to show EPA the location of the former leak. Personnel from NADEP and PWC should therefore be contacted prior to implementation of this investigation to determine the exact location and nature of this former leak.

### Response:

As discussed in the Partnering meeting of January 21, 1994, the investigation has been revised to a three-phase approach. During this meeting, sampling locations for the initial phase of field work were selected. Additional soil borings and monitoring wells will be completed during subsequent phases, as needed, to delineate the location and nature of the leak.

### Comment 2:

The presumed direction of groundwater flow in the shallow aquifer must be presented in order for the effectiveness of the proposed investigation to be determined.

### Response:

Groundwater in the vicinity of Site 34 flows westerly toward Wetland 5 (the creek bordering the western side of Chevalier Field). This flow direction will be confirmed during the initial field work, and the investigation will incorporate this information in subsequent fieldwork.

### Comment 3:

The discharge point of the unpaved ditch in the drainage area must be determined prior to implementing this SAP.

### Response:

The discharge point for this ditch is to Wetland 5 via a drainage ditch culvert system. If it appears that this ditch represents a migration pathway for Site 34 contamination (based on initial fieldwork results), sediment sampling to preliminarily characterize this pathway will be conducted (i.e., sediment sampling from the ditch immediately north of Site 34) during subsequent fieldwork.