



Naval Air Station Pen Installation Restoration Pro

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This is one in a series of fact sheets informing interested citizens about the environmental investigations and remedial actions at NAS Pensacola. Other fact sheets will be written at appropriate points in the program and in response to public interest. Distribution is coordinated through the Public Affairs Office at NAS Pensacola, (904) 452-2311.

N00204.AR.001556

NAS PENSACOLA

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FACT SHEET 11: U.S. Navy Final Proposed Plan Sites 9 and 29 (Operable Unit 6), Naval Air Station, Pensacola

INTRODUCTION

The U.S. Navy, as the lead agency cleaning up Naval Air Station (NAS) Pensacola, is issuing this Proposed Plan for Sites 9 and 29 (Operable Unit 6), the Navy Yard Disposal Area and soil south of Building 3460, to provide an opportunity for public comment on cleanup alternatives. After contaminated soil is removed in one area and soil samples confirm that the levels remaining are below cleanup goals, the site will not pose any adverse impacts to human health or the environment. The removal will be detailed in a closeout report. Based on the study and the removal action, the Navy is proposing the "No Action Alternative" for Operable Unit 6. The Navy, in consultation with the U.S. Environmental Protection Agency (USEPA) and the Florida Department of Environmental Protection (FDEP), will not select a final alternative until public comment has been considered.

The Navy issues this proposed plan as: 1) part of its public participation program as defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) section 117(a), and 2) to encourage community involvement in the remedial alternative selection. The plan provides background information on the site, the proposed action for the site, and outlines the public's role in helping the Navy make a final decision.

Words that first appear in bold print are defined in the glossary, starting on page 5.

This plan summarizes information described in the *Final Remedial Investigation (RI) Report* and other documents contained in the Administrative Record. The record and information repositories for NAS Pensacola may be found at the following locations:

NAS Pensacola Library

Building 633

Hours of Operation:

M-F 8 a.m. to 6 p.m.

Sat: 9:30 a.m. to 5 p.m.

John C. Pace Library

University of West Florida

Hours of Operation:

M-Th: 8 a.m. to 10 p.m.

Fri: 8 a.m. to 5 p.m.

Sat: 9 a.m. to 5 p.m.

Sun: 10 a.m. to 9 p.m.

COMMUNITY PARTICIPATION

The U.S. Navy relies on public comments to ensure that the selected alternative is fully understood and community concerns have been considered. The U.S. Navy will be accepting written comments from December 8, 1997 to January 22, 1998, to encourage public participation in the selection process. The comment period includes the opportunity for a public meeting at which the Navy would present the RI Report and Proposed Plan, answer questions, and receive comments from the public. The meeting will be held if there is a timely request from the public to have one. Comments will be summarized and responses provided in the responsiveness summary section of the Record of Decision (ROD). Written comments can be sent to the following person, along with any requests for additional information:

Commanding Officer

NAS Pensacola, Code 00500

Attn: Ron Joyner

190 Radford Blvd

Pensacola, Florida 32508-5217

SITE BACKGROUND

NAS Pensacola was placed on USEPA's **National Priorities List (NPL)** in December 1989. CERCLA governs cleanup for sites on this list. In addition, an environmental permit was issued in 1988 under the **Resource Conservation and Recovery Act (RCRA)**. This permit ensures that ongoing activities are environmentally sound and that any spills or leaks of hazardous waste and/or constituents are investigated and cleaned up. The **Federal Facilities Agreement (FFA)**, signed in October 1990, outlines NAS Pensacola's regulatory path through these complex federal laws. Operable Unit 6, which consists of Sites 9 and 29, is one of 13 operable units within NAS Pensacola. The purpose of each operable unit is defined in the **FY 1997 Site Management Plan** for NAS Pensacola which is in the A- Record.

Sites 9 and 29 (Operable Unit 6) are in the southwest portion of the former Chevalier Field (Figure 1). This area was used by the **Naval Aviation Depot (NADEP)** to rebuild, repair, and paint aircraft. Helicopter airframe work was conducted in two large hangars (Buildings 3460 and 3557) near the sites. This area was relatively flat, varying between 5 and 8 feet above mean sea level. NADEP was closed in October 1995, and Chevalier Field has been subject to extensive construction for the **Naval Air Technical Training Center**. As much as 5 feet of fill have been placed over all of Chevalier Field.

Site 9 - Navy Yard Disposal Area

This site, used for trash and refuse disposal from 1917 until the early 1930s, included the large grassy area and parking lot west of former Building 3460. This site also included part of the concrete apron surrounding Buildings 3460 and 3557, as well as portions of Murray Road, Industrial Road, and the intersection of Murray and Moffett Roads with Ellyson Avenue. Several old maps show Site 9 as either the **Navy Yard Dump** or the **Warrington Village Dump**. Part of Site 9 was dug up in the late 1960s, while the Navy was trenching for the industrial sewer line.

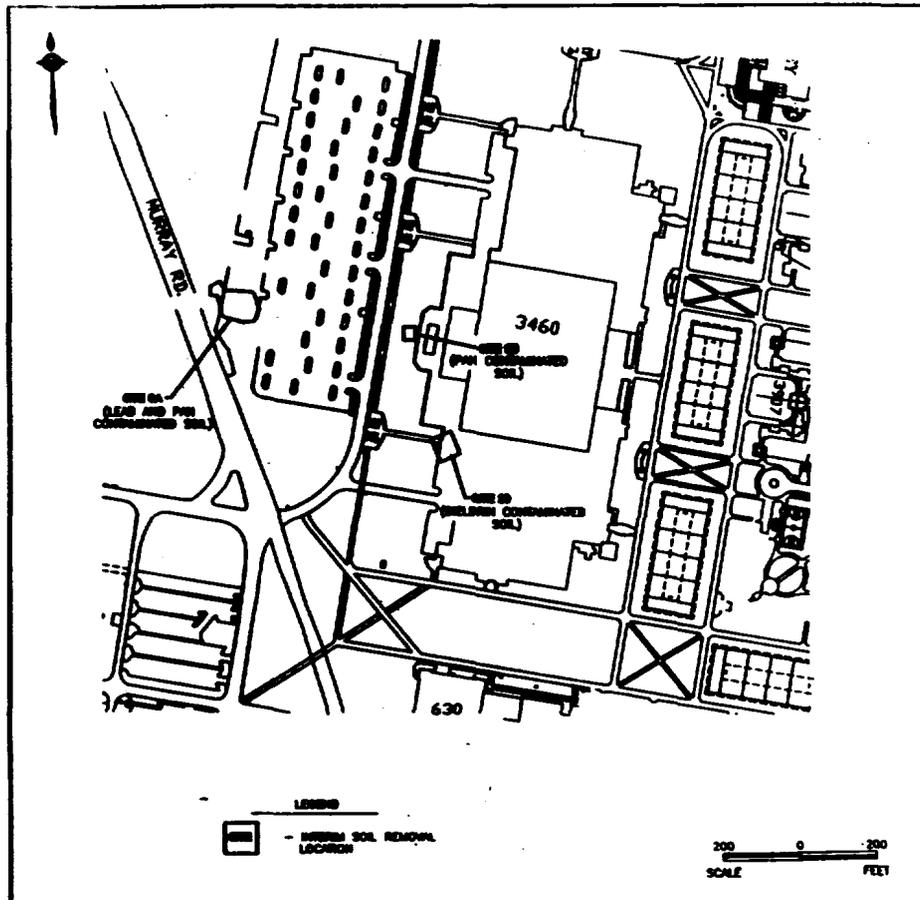


Figure 1 Site Map

Site 29

Most of Site 29 (the soil south of Building 3460) included the concrete aircraft parking apron on the southern side of former Building 3460. A small portion of the site's western side included a part of the flat grassy field described for Site 9. The site encompassed part of the industrial sewer line which serviced:

- The Chevalier Field NADEP buildings
- Other NADEP buildings in the southeast portion of Chevalier Field
- NADEP buildings near Pensacola Bay

According to an initial assessment study, workers excavating within the site in 1981, received minor skin burns from a black liquid in the soil. No further information or evidence has been found regarding this substance, or the work

that was performed. An industrial sewer line leak was repaired during September 1986. Very little information exists concerning the amount of leakage.

REMEDIAL INVESTIGATION SUMMARY

During the study, various chemicals, including metals and other contaminants, were detected in laboratory-analyzed soil samples. The soil data were compared to the more protective of either the Florida or USEPA risk-based, surface soil Preliminary Remediation Goals (PRGs) from 1995. Soil was removed so the sites could be cleaned up before the training center was constructed. In 1996, after state/federal leachability goals became available, soil contaminants were compared to these goals, which are protective of groundwater.

Parameters above PRGs consisted of heavy metals, cyanide, pesticides, polycyclic aromatic hydrocarbons (PAHs) such as petroleum byproducts, and chlorinated and nonchlorinated volatiles (chemicals found in solvents, strippers, and paint removers).

soil

Site 9 soil conditions were characterized by metals and PAHs above PRGs. The highest levels were at a single location in the center of the site. Pesticides were present in Site 9 surface soil with levels above PRGs in nine areas. The PAH contamination likely is associated with a release (spill or leak) from Site 23, a petroleum site adjacent to Site 9. Soil from the most contaminated areas was removed except for the west central portion of the site (Area 9A). That area of contamination will be removed to below the cleanup goal of 400 ppm for lead. The removal action will be detailed in a closeout to the RI report. For details on the findings, see the RI report in the information repository.

Metals, PAHs, and dieldrin (a pesticide) were present at Site 29 above PRGs. Manganese is present in the surface and/or subsurface soil in specific areas and is found at Site 29 at levels similar to naturally occurring conditions. Several PAHs are present in specific areas throughout the site, with benzo(a)pyrene (a petroleum by-product) found in subsurface soils at a single area in the northwest portion of Site 29. At the same location, the pesticide dieldrin was present above its PRG. Soil at this location was removed.

Groundwater

NAS Pensacola receives its potable water supply from the Naval Technical Training Center Corry Station four miles away. Therefore, the current potable water supply will not be impacted by chemicals detected in groundwater at Sites 9 and 29. The groundwater at both sites contains manganese above state and federal secondary standards. Samples at Site 29 had a single detection of cyanide above its standard; however, no source of cyanide in the soil and no history of its use at this site were verified.

The comparisons with 1996 leachability goals indicate that the previously mentioned soil areas and several other isolated locations may pose a threat to groundwater. Based on current soil and groundwater data, any metals leaching to groundwater appear to pose minimal threat. Dieldrin was the only organic compound that exceeded its soil goal, and then only in isolated spots just slightly above the state's goal for leaching potential.

Interim Removal Actions

The contaminated areas of Site 29, along with a PAH-contaminated area on the eastern portion of Site 9, were subject to interim soil removals. A confirmatory sampling program confirmed that an adequate amount of soil had been removed in the targeted areas. The metals- and PAH-contaminated area in the west central portion of Site 9 was not included in the soil removals, but was redesignated as Site 9A and is scheduled for removal. Approximately 150 tons will be removed from the area. The removal will continue until soil samples confirm that soil remaining is below 400 ppm, the cleanup goal for lead.

RISK CHARACTERIZATION

Federal regulations requires that a Baseline Risk Assessment (BRA) be completed to determine if an NPL site poses an unacceptable human health or environmental threat if no cleanup measures are taken. This study provides a basis for determining whether cleanup is needed and what the cleanup levels should be. In the Sites 9 and 29 BRA, the human health risk associated with exposure to contaminants was assessed for future site residents under residential land use. This study can be found in the *Final Remedial Investigation Report*.

Incremental lifetime cancer risk (ILCR) refers to the cancer risk that is over and above the background cancer risk in unexposed individuals. ILCRs are determined by multiplying the intake level with the cancer potency factor. Child and adult exposure to potential carcinogen is combined for a lifetime weighted average (LWA) to calculate ILCR. The calculated risk are probabilities which are typically expressed in scientific notation (e.g., 1E-6). For example, an ILCR of 1E-4 means that one additional person out of ten thousand may be at risk of developing cancer due to excessive exposure at a site if no actions are conducted. The USEPA's acceptable target risk range is 1E-4 to 1E-6. Florida's acceptable risk is 1E-6. Potential concern for noncarcinogenic effects of a single contaminant in a single medium is expressed as the hazard quotient (HQ). By adding the HQs for all contaminants within a medium or across all media to which a given population may reasonably be exposed, the hazard index (HI) can be generated. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media. The HI refers to noncarcinogenic effects and is the ratio for the level of exposure to an acceptable level for a contaminant of potential concern. An HI greater than or equal to 1.0 indicated that there may be a concern for noncarcinogenic health effects. Table 1 summarizes the total ILCRs and HIs calculated for OU 6 for future site residents.

Table 1
Hazard Index and Incremental Lifetime Cancer Risks
Groundwater Ingestion

	Future Resident Adult HI	Future Resident Child HI	Future Resident ILCR LWA
Site 9	2	3	2E-5
Site 29	1	1	1E-6

Notes:

ILCR LWA = Incremental Lifetime Cancer Risk, Lifetime Weighted Average

HI = Hazard Index

Bolded values indicate excess risk above acceptable values.

Human Health: Soil — Because most of Site 9 and 29 was covered with fill material during the construction at Chevalier Field, human exposure to soil would be very limited. Therefore, human exposure to soil was not considered.

Human Health: Groundwater — Manganese, a naturally occurring element, exceeded its state and federal secondary standard, and contributes to human health risk. Other chemicals which contribute to risk include arsenic which is naturally occurring, dieldrin, and cyanide. Arsenic, which was the primary contributor to carcinogenic risk at Site 9, was below its federal and state standard. Dieldrin was not detected in a second sampling round, and was below its Florida Groundwater Guidance Concentration. The groundwater at the sites is not currently used as a drinking water source and there are no indications that it will be used in the future as a source. Drinking water for NAS Pensacola is supplied from Corry Station.

Ecological Risk — Potential ecological impacts from groundwater migration to Pensacola Bay (Site 42), Bayou Grande (Site 40), and base wetlands (Site 41) will be evaluated during the investigations for those water bodies.

Because no risk exists from exposure to soil and the only groundwater standard exceedance was manganese, a feasibility study to evaluate cleanup alternatives for Sites 9 and 29 was not conducted, and the nine evaluation criteria do not apply.

PROPOSED ALTERNATIVE

Because the removal action will eliminate the area of soil contamination, the no action alternative is proposed. The no-action alternative considers the current and reasonable maximum exposure scenarios after the removal. The removal will continue until soil samples confirm that soil remaining is below 400 ppm, the cleanup goal for lead. No additional sampling or monitoring will be required because the site will no longer pose a threat to human health and



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the environment. **This** alternative **allows** for unrestricted use of the site. **Because** this remedy does not result in hazardous **substances** onsite above health-based levels, **the** five-year review **does not** apply to this action.

GLOSSARY

This glossary defines terms used in this proposed plan. **The** definitions apply specifically to **this** proposed plan **and** may have other meanings when used in different circumstances.

Baseline Risk Assessment: A study that supplements a remedial investigation to determine **the** nature **and** extent of contamination at an NPL site **and** **the** risks posed to public health **and/or** **the** environment.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health **and/or** **the** environment. The noun "cleanup" is **often** used broadly to **describe** various actions or **phases** such as Remedial Investigation/Feasibility Study.

Comment period: A time for **the** public to review **and** comment on various documents **and** actions taken, either by **the** Department of Defense installation or **the** USEPA. For **example**, a comment period is provided when USEPA proposes to **add** sites to **the** National Priorities List. A minimum **45-day** comment period is held to allow community members time to review **the** Administrative Record **and** **review** **and** comment on **the** Proposed Plan.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law passed in **1980** **and** modified in **1986** by **the** Superfund Amendments and Reauthorization Act (SARA). The act created a special tax that goes into a trust fund, commonly known as "Superfund," to investigate **and** clean up abandoned or uncontrolled hazardous waste sites.

Under **the** program the USEPA can either:

- Pay for site cleanup when parties responsible for **the** contamination **cannot** **be** located or are unwilling or unable to perform the work.
- Take legal action to force **parties** responsible for site contamination to clean up the site or pay the federal government for **the** cost of the cleanup.

Feasibility Study: See Remedial Investigation/Feasibility Study.

Groundwater: Water **beneath** **the** earth's surface that fills pores **between** materials such as sand, soil or gravel. In aquifers, groundwater occurs in sufficient quantities for drinking water, irrigation, **and** other uses.

Information Repository: A file **containing** information, technical reports, **and** reference documents regarding an NPL site. Information repositories for NAS Pensacola are at the John C. Pace Library at the University of West Florida. **and** **the** NAS Pensacola Library in Building 633 at the Naval Air Station, Pensacola, Florida.

Leachability: **The** ability of a chemical, pesticide, or other contaminant to wash out of **the** soil.

Metals: Metals are naturally **occurring** elements in **the** earth **and** are characterized by their luster **and** ability to conduct heat **and** electricity. Barium, beryllium, chromium, lead, **and** nickel are examples of metals. Exposure to **some** metals, such as lead, can have a toxic effect on tissues, while **metals** such as iron **and** zinc are essential to **the** metabolism of animals **and** humans.

National Priorities List (NPL): The USEPA's list of **the** most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial **response** using money from **the** trust fund.

Proposed Plan: A public participation requirement of SARA in which the lead agency summarizes the preferred cleanup strategy, **and** **the** rationale for **the** preference. reviews the alternatives presented in the detailed analysis of **the** remedial investigation/feasibility study, **and** presents any waivers to cleanup standards of Section 121(d)(4) that may **be** proposed. This may **be** prepared either as a fact sheet or as a separate document. In either case, it must actively solicit public review **and** comment on all alternatives under agency consideration.

Record of Decision (ROD): A public document that explains which cleanup alternative(s) will be used at NPL sites. The Record of Decision is based on information and technical analysis generated during the remedial investigation/feasibility study and consideration of public comments and community concerns.

Remedial Investigation/Feasibility Study (RI/FS): Investigation and analytical studies usually performed at the same time in an interactive process. They are intended to: (1) gather the data necessary to determine the type and extent of contamination at a NPL site; (2) establish criteria for cleaning up the site; (3) identify and screen cleanup alternatives for remedial action; and (4) analyze in detail the technology, and costs of the alternatives.

Resource Conservation and Recovery Act (RCRA): A federal law that established a regulatory system to track hazardous substances from the time of generation to disposal. The law requires safe and secure procedures to be used to treat, transport, store, and dispose of hazardous substances. RCRA is designed to prevent new, uncontrolled hazardous waste sites.

Responsiveness Summary: A summary of oral and written public comments received by the lead agency during a comment period on key documents, and the response to these comments prepared by the lead agency. The responsiveness summary is a key part of the ROD and highlights community concerns for USEPA decision-makers.

Superfund Amendments and Reauthorization Act (SARA): A public law enacted on October 17, 1986, to reauthorize the funding provisions, and to amend the authorities and requirements of CERCLA and associated laws. Section 120 of SARA requires that all federal facilities "be subject to and comply with this act in the same manner and to the same extent as any nongovernmental entity."

Fold on dotted line, staple, stamp and mail

Name _____
Address _____
City _____ State ___ Zip _____

Place
Stamp
Here

**Commanding Officer
NAS Pensacola, Code 00500
Attn: Ron Joyner
190 Radford Blvd
Pensacola, Florida 32508-5217**

DEPARTMENT OF THE NAVY

COMMANDING OFFICER
CODE 00500
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190 RADFORD BLVD
PENSACOLA FL 32508-5217

OFFICIAL BUSINESS

MAILING LIST ADDITIONS/CORRECTIONS

If you would like your name and address placed (or corrected) on the mailing list for the Installation Restoration Program at NAS Pensacola, please complete this form and return to Ron Joyner, NAS Pensacola, 190 Radford Boulevard, Code 00500, Pensacola, Florida 32508-5217.

NAME: _____

AFFILIATION: _____

ADDRESS: _____

TELEPHONE: _____