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NO FURTHER RESPONSE ACTION PLANNED OR FURTHER REMEDIAL ACTION DECISION REPORT FOR POTENTIAL SOURCE OF CONTAMINATION 27 (PSC27) NAS JACKSONVILLE FL

5/1/1999

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POTENTIAL SOURCE OF CONTAMINATION 27
NO FURTHER RESPONSE ACTION PLANNED OR FURTHER REMEDIAL ACTION DECISION REPORT

In this report, the Remedial Response Decision System (RRDS) is applied to Potential Source of Contamination (PSC) 27, the Ex-Polychlorinated Biphenyl (PCB) Transformer Storage Area, located at the Naval Air Station (NAS) Jacksonville. This No Further Response Action Planned (NFRAP) or Further Remedial Action Decision Report is an attachment to Appendix D to Volume 2 of the Naval Installation Restoration Program (NIRP) Plan.

This attachment follows RRDS as described in Volume 2 of the NIRP Plan and is divided into the following 10 chapters:

1.0 PSC Background
2.0 Regulatory Authority Evaluation
3.0 Previous Action Evaluation
4.0 Contaminant Source Evaluation
5.0 Exposure Pathway Analyses
6.0 Data Sufficiency Evaluation
7.0 Risk Analyses
8.0 Applicable or Relevant and Appropriate Requirements (ARARs) Evaluation
9.0 Recommendation
10.0 References

1.0 PSC BACKGROUND

This chapter discusses the available background information for PSC 27, Ex-PCB Transformer Storage Area. The discussion is divided into four sections: 1.1, PSC Information and History; 1.2, PSC Description and Environmental Setting; 1.3, Previous Regulatory Review; and 1.4, Data Assessment. The background information was obtained during a records search by Harding Lawson Associates (HLA). The records search included a review of documents and memoranda on file at HLA and an examination of relevant maps.

1.1 PSC INFORMATION AND HISTORY. PSC 27 is called the Ex-PCB Transformer Storage Area and is adjacent to PSC 26, the Old Main Registered Disposal Area (Figure 1). The two PSCs have been designated as Operable Unit 1 (OU 1). PSC 27 was officially identified in 1980. It was registered (along with PSC 26) with the U.S. Environmental Protection Agency (USEPA) on June 11, 1980, and reported to the Florida Department of Environmental Protection (FDEP) (formerly Florida Department of Environmental Regulation) and the City of Jacksonville Bio-Environmental Service Division on June 10, 1980.

No documentation has been found that definitively states when storage of PCB transformers began in this area. It is believed that vandalism to the transformers occurred in 1978 and resulted in the release of dielectric fluid containing PCBs. Storage of transformers ended sometime after the vandalism incident (ABB Environmental Services, Inc. [ABB-ES], 1992). Not until 1979, when light nonaqueous phase liquids (LNAPLs) were discovered and investigated by Geraghty & Miller at PSC 26, was PCB contamination documented. The study discovered that leaking electrical transformers containing PCB-contaminated

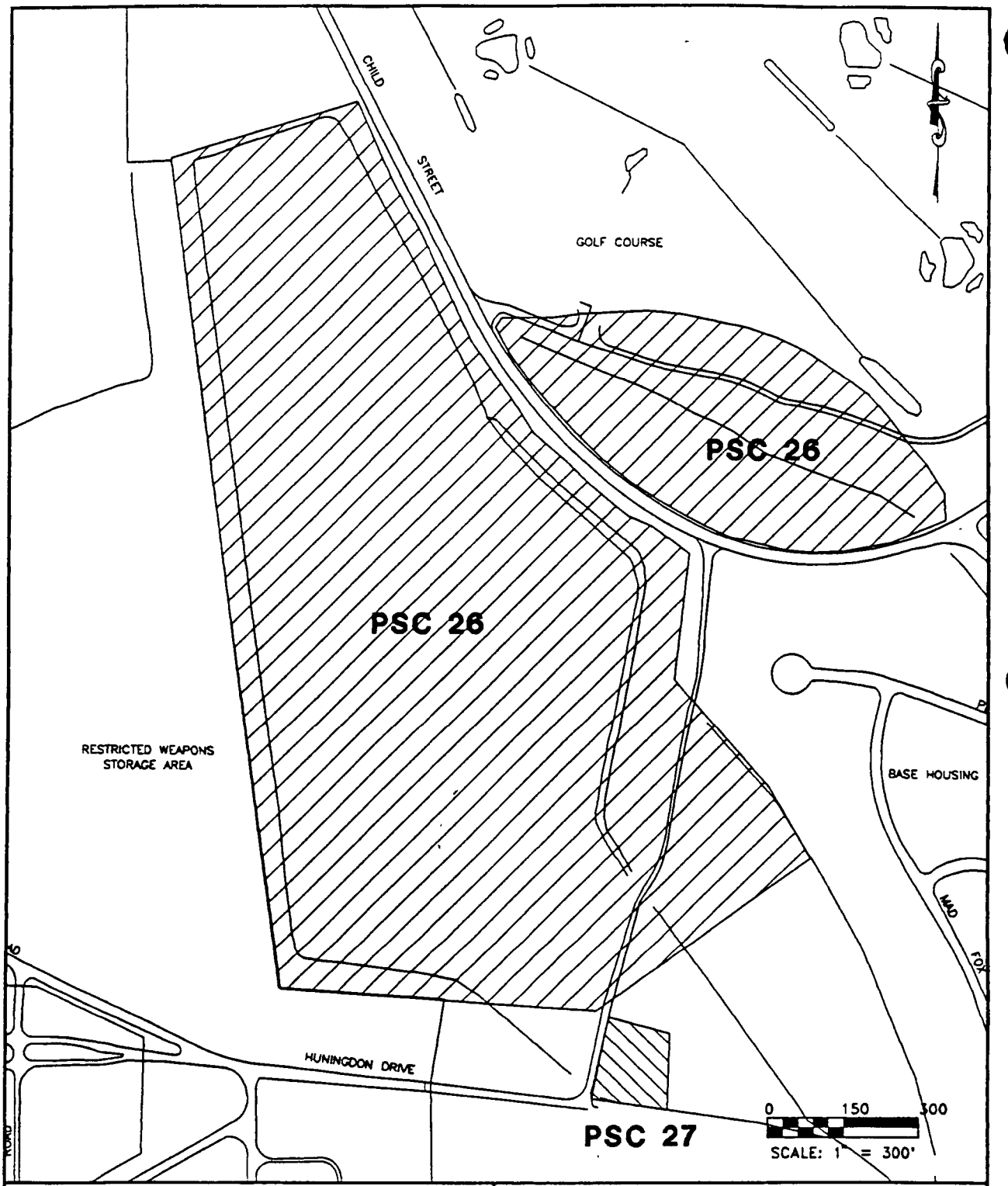

FIGURE 1
LOCATION OF PSC 27, EX-PCB TRANSFORMER STORAGE AREA

REMEDIAL RESPONSE DECISION SYSTEM

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dielectric fluid at PSC 27 had contaminated soils and groundwater (Geraghty & Miller, 1980).

Based on this finding, four soil samples were collected from PSC 27 at depths between 6 to 12 inches and analyzed for PCBs. Two of the samples did not contain detectable concentrations of PCBs. The other two samples contained PCBs at concentrations of 673 milligrams per kilogram (mg/kg) and 1,592 mg/kg (Geraghty & Miller, 1980).

An initial assessment study (IAS) was completed at NAS Jacksonville in 1983 (Fred C. Hart Associates, 1983). The IAS report stated that, "two sites (No. 26 and 27) were recommended for a confirmation study prior to this IAS and are in the process of cleanup." However, there is no record that a confirmation study was ever conducted at PSC 27.

In 1991, Geraghty & Miller conducted a soil sampling event at OU 1 because of contamination from previous oil and solvents disposal at PSC 26. PCBs were again detected (Geraghty & Miller, 1991). In 1992, initial remedial investigation (RI) field activities at OU 1 were conducted. Due to the magnitude of contamination from PSC 26, the field activities were comprehensive in that a geophysical survey was conducted; soil gas, ambient air, surface water and sediment, soil, and groundwater were sampled; and an ecological study was conducted. The results of these activities are summarized in the Preliminary Characterization Summary Report for OU 1 (ABB-ES,1992).

A second round of RI field activities was begun in 1993 and PCBs were again detected in PSC 27 soil and adjacent surface water sediments. The RI and feasibility study (FS) for OU 1 (which includes PSC 27) was completed in 1996 (ABB-ES, 1996). The OU 1 RI/FS report presents the findings from Round 2 field investigations, including the human health and ecological risk assessments. Also included in the report are the remedial alternatives that were developed to address the risk associated with the contaminants found at PSC 26 and 27. On September 23, 1997 a Record of Decision (ROD) was signed and the selected alternative was implemented (ABB-ES, 1997).

1.2 PSC DESCRIPTION AND ENVIRONMENTAL SETTING. OU 1 is located south of Child Street in the south-central part of NAS Jacksonville (Figure 1). PSC 27 is a 100-foot by 100-foot area located on the southwestern edge of OU 1 and is within a fence that surrounds both PSC 27 and the southern part of PSC 26. The southern part of PSC 26 bounds PSC 27 to the north, station housing is to the east, a restricted weapons storage area is to the west, and a forested area is to the south.

The elevation of the land surface at OU 1 varies from approximately 20 feet to about 34 feet above mean sea level (ABB-ES, 1992). Surface water drainage flows south through the forested area to an unnamed perennial stream that flows south to the St. Johns River. The St. Johns River is located approximately 2,400 feet to the south of OU 1.

Further information on the geologic, hydrologic, and hydrogeologic conditions at OU 1 is contained in Volume 5 of the NIRP Plan (Geraghty & Miller, 1991). Regional information pertaining to NAS Jacksonville (such as geography, demographics, physiography, climate, soils, geology, and hydrology) is contained in the Preliminary Characterization Summary Report for OU 1 (ABB-ES, 1992).

1.3 **PREVIOUS REGULATORY REVIEW**. Volume 1 of the NIRP Plan recommended an RI/FS for PSC 27. Volume 5 of the NIRP Plan is the RI/FS workplan for OU 1. The following comments were received from regulatory authorities regarding Volume 1 and Volume 5:

USEPA Region IV: no specific comments were received as to whether or not PSC 26 and PSC 27 should proceed to RI/FS; however, several comments were received concerning the RI/FS schedule. USEPA felt that it should take only 18 to 24 months to finalize the RI/FS, not 28 months as proposed in the NIRP Plan.

FDER, Dr. James J. Crane, Environmental Administrator, Technical Review Section, Bureau of Waste Cleanup, memorandum dated November 21, 1990: agreed that all PSCs recommended for RI/FS (including PSC 26 and PSC 27) were acceptable.

City of Jacksonville, Florida, Gerald A. Young, Associate Pollution Control Engineer, Hazardous Materials Control, Water Resources Division, Department of Health, Welfare & Bio-environmental Services, letter dated January 4, 1991: agreed that, "sites 26 and 27 should have the highest cleanup priority and work on these sites should proceed without delay."

The draft revision of this attachment, dated August 12, 1994, indicated that a recommendation under RRDS was not yet appropriate because PSC 27 was undergoing the RI/FS process as part of OU 1. The draft revision recommended that the attachment be updated to reflect the results of the study, when available. The following comments were received from regulatory authorities regarding this recommendation:

USEPA Region IV, James W. Hudson, Remedial Project Manager, Federal Facilities Branch, November 14, 1994: concurred with the recommendation.

FDEP, Jorge R. Caspary, Remedial Project Manager, October 18, 1994: concurred with the recommendation.

The final RI/FS report for OU 1 was completed in March 1996. Based on the findings of the RI/FS, a proposed plan and ROD were developed. Comments received on the ROD from regulatory personnel are summarized below.

FDEP, Virginia B. Wetherell, Secretary, October 17, 1997: FDEP agrees with the Navy's selected alternative for OU 1.

USEPA Region IV, Richard D. Green, Director Waste Management Division, August 3, 1998: USEPA concurs with the findings and the selected remedy presented in the ROD.

1.4 **DATA ASSESSMENT**. Data assessment for RRDS decision making was not conducted because PSC 27 was undergoing RI/FS activities.

2.0 REGULATORY AUTHORITY EVALUATION

A regulatory authority evaluation was conducted for PSC 27 as part of the OU 1 RI/FS activities.

3.0 PREVIOUS ACTION EVALUATION

A previous action evaluation for RRDS decision making was conducted for PSC 27 as part of the OU 1 RI/FS activities.

4.0 CONTAMINANT SOURCE EVALUATION

An evaluation of the source of contaminants was conducted for PSC 27 as part of the OU 1 RI/FS activities.

5.0 EXPOSURE PATHWAY ANALYSES

Exposure pathway analyses were conducted for PSC 27 as part of the OU 1 RI/FS activities.

6.0 DATA SUFFICIENCY EVALUATION

Data for PSC 27 were collected and analyzed as part of the RI/FS. Further data sufficiency evaluation for RRDS decision making was not required.

7.0 RISK ANALYSES

Risk analyses were conducted for PSC 27 as part of the OU 1 RI/FS activities.

8.0 ARARS EVALUATION

An ARARs evaluation was conducted for PSC 27 as part of the OU 1 RI/FS activities.

9.0 RECOMMENDATION

An RI/FS for OU 1, which includes PSC 27, was completed and the ROD was signed and implemented. The ROD specified that PCB-contaminated sediments in the tributary (located along the south side and to the east of PSC 27) be excavated and placed under the landfill cap at PSC 26. The contaminated soils at PSC 27 were covered with 18 inches of compacted soil over which was placed a 6-inch vegetative soil cover for a total soil cover of 2 feet. For more details on the RI/FS findings and the selected remedial alternative, see the OU 1 RI/FS report (ABB-ES, 1996) and the ROD (ABB-ES, 1997).

10.0 REFERENCES

ABB Environmental Services, Inc. (ABB-ES). 1991. *Remedial Investigation and Feasibility Study Workplan for OU 1, Oil and Solvents Disposal Pits Area, Naval Installation Restoration Plan, Volume 5, Naval Air Station (NAS) Jacksonville, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), North Charleston, South Carolina (September).

ABB-ES. 1992. *Preliminary Characterization Summary Report (PCSR) for Operable Unit No. 1, Naval Installation Restoration Program, NAS Jacksonville, Jacksonville, Florida, Final Draft*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (December).

ABB-ES. 1996. *Remedial Investigation and Feasibility Study, Operable Unit 1, NAS Jacksonville, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (March).

ABB-ES. 1997. *Record of Decision, Potential Sources of Contamination 26 and 27, Operable Unit 1, NAS Jacksonville, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (September).

Fred C. Hart Associates, Inc. 1983. *Initial Assessment Study, NAS Jacksonville, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (March).

Geraghty & Miller, Inc. 1980. *Contamination of Soil and Groundwater from the Disposal of Volatile Products Into Pits at the NAS Jacksonville, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

Geraghty & Miller, Inc. 1991a. *Volume 5, Remedial Investigation and Feasibility Study Work Plan for OU 1, Oil and Solvents Disposal Pits Area, Navy Installation Restoration Program Plan, NAS Jacksonville, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (December).

Geraghty & Miller, Inc. 1991b. *Navy Installation Restoration Program Plan, Volume 1, Organization and Planning, NAS Jacksonville, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (September).