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NAS WHITING FIELD
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INVESTIGATION DERIVED WASTE MANAGEMENT PLAN NAS WHITING FIELD FL
9/1/1992
ABB ENVIRONMENTAL SERVICES, INC

**INVESTIGATION DERIVED WASTE
MANAGEMENT PLAN**

**NAVAL AIR STATION WHITING FIELD
MILTON, FLORIDA**

Contract No. N62467-89-D-0317

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GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
AOC	area of contamination
ARARs	applicable or relevant and appropriate requirements
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CLEAN	Comprehensive Long-Term Environmental Action, Navy
CLP	USEPA Contract Laboratory Program
DE	disposable equipment
EC	environmental coordinator
EIC	Engineer-in-Charge
FAC	Florida Administrative Code
FDER	Florida Department of Environmental Regulation
FDOT	Florida Department of Transportation
FOL	field operations leader
FR	Federal Register
°F	degrees Fahrenheit
HDPE	high density polyethylene
HWSF	Hazardous Waste Storage Facility
IDW	investigation-derived wastes
LDR	land disposal restrictions
$\mu\text{g}/\ell$	micrograms per liter
NAS	Naval Air Station
NCP	National Contingency Plan
NPL	National Priority List
PCBs	polychlorinated biphenyls
PID	photoionization detector
PPE	personal protective equipment
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation and Feasibility Study
SOUTHNAV- FACENCOM	Southern Division, Naval Facilities Engineering Command
SVOC	semi-volatile organic compound
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure

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GLOSSARY (Continued)

TL	technical leader
TOM	task order manager
TSD	treatment, storage, and disposal
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
WWTP	wastewater treatment plant

1.0 INTRODUCTION

ABB Environmental Services (ABB-ES), Inc. is under contract with Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) Contract No. N62467-89-D-0317 to perform a Remedial Investigation/Feasibility Study (RI/FS) at Naval Air Station (NAS) Whiting Field.

When collecting environmental samples to characterize a potential hazardous waste site, a variety of potentially contaminated investigation-derived wastes (IDW) are generated (i.e., soil, groundwater, used personal protective equipment (PPE), disposable equipment (DE), and decontamination fluids). These IDW materials must be managed in a responsible manner that does not leave the site in a worse condition than existed previously or pose an immediate threat to human health or the environment.

1.1 PURPOSE. The intent of this IDW plan is to have a permanent, consistent program for managing wastes derived from investigation of identified sites at NAS Whiting Field. Further, this plan will ensure that health and safety, regulatory, and the Naval Air Station requirements are satisfied. This plan defines the roles and responsibilities for ABB-ES personnel, ABB-ES subcontractors, and NAS Whiting Field representatives.

1.2 ORGANIZATION OF THE PLAN. The U.S. Environmental Protection Agency's (USEPA) guidance document *Management of Investigation-Derived Wastes During Site Inspections* (USEPA, May 1991) provides detailed information on managing IDW at Superfund sites. This site specific IDW Plan, was developed by extracting the key elements from the USEPA guidance document and provides the general guidelines and set requirements. Section 2.0 provides site-specific plans for the sites undergoing investigation in the current phase of the RI/FS. Section 3.0 describes the responsibility of each office that is involved in managing IDW and identifies appropriate points of contact.

2.0 SITE-SPECIFIC IDW PLAN

This section presents the RI site-specific IDW management plan for NAS Whiting Field. Section 2.1 discusses and defines types of IDW expected to be generated at NAS Whiting Field. Disposal options available for each type are also presented. Section 2.2 presents site-specific IDW management and a table depicting the expected disposal methods to be used at each site. Section 2.3 describes equipment and logistics that will be used for IDW management at NAS Whiting Field.

2.1 TYPES OF IDW. The types of IDW expected to be generated during the RI at NAS Whiting Field include: drill cuttings and mud, excavated soils, purge and development water, decontamination fluids, PPE, and DE. The following subsections describe each type of IDW and the available disposal options.

2.1.1 Drill Cuttings and Mud Depending on site conditions, drill cuttings and mud may be disposed of in various ways. At isolated sites (Sites 1, 2, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 31), cuttings and mud will be spread on the ground adjacent to the well where they were generated or buried in a disposal pit located within the area of contamination (AOC). At paved industrial areas (where drill cuttings and mud can not be spread or buried) the drill cuttings and mud from soil borings will be piled into two separate piles (one for saturated soils and one for unsaturated soils) on plastic sheeting at a designated area and covered.

Industrial Area To determine if the waste piles in the industrial area can be classified as hazardous or non-hazardous, Resource Conservation and Recovery Act (RCRA) hazardous waste criteria will be used. A RCRA solid waste is hazardous if it is listed or exhibits a hazardous characteristic. Listed RCRA hazardous wastes include any waste listed in Subpart D of 40 CFR 261. Characteristic RCRA Hazardous Wastes are any waste exhibiting one of the following characteristics, as defined in 40 CFR 261: ignitability, corrosivity, reactivity or toxicity.

To make the hazardous or non-hazardous determination, one sample will be collected at the end of the drilling program from each soil pile and analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL inorganics, and total cyanides (Level V DQOs).

If the results of the TCL and TAL soil analysis exceed 20 times the toxicity characteristic leaching procedure (TCLP) regulatory level for any of the 39 listed contaminants, TCLP analysis will be conducted for those contaminants. If TCLP results indicate a concentration above the regulatory level for any of the 39 listed contaminants, the waste is classified as hazardous and the Navy will be responsible for appropriate disposal.

If the laboratory results indicate contaminants are below the RCRA hazardous waste criteria, the soils will be transported and spread at a designated area on the installation.

Isolated Locations Disposal When disposed of at isolated well locations, drill cuttings and mud will be spread out to prevent a nuisance condition, physical hazard, or drainage problem. The wastes will be placed so that they will not be eroded by surface water and rainfall and/or create sediment loads to nearby surface waterways such as ditches, curbs, or swales.

The USEPA guidance document *Management of Investigation-Derived Wastes During Site Inspections* (EPA/540/G-91/009) will be followed for disposal of drill cuttings and mud. The document states that "burying RCRA hazardous soil cuttings within the AOC unit, so long as no increased hazard to human health and the environment will be created" is consistent with the National Contingency Plan (NCP) and RCRA Land

Disposal Restrictions (LDRs). In addition, the IDW guidance document also states "containerization and testing are not required for onsite disposal."

For disposal into a pit, a trench will be constructed so that the bottom does not penetrate the water table. If the Field Operations Leader (FOL) deems it necessary, the trench will be lined with plastic (10 mil thickness, minimum). Drilling material (cuttings and mud) to be placed in the trench will be screened with a photoionization detector (PID) the same day the material reaches the surface. The waste will be transported to the trench within 2 days. After the drilling phase is completed, the IDW (cuttings and mud) will be covered with a plastic liner (10 mil thickness, minimum), then a 6-inch clean fill cover. Additional fill material will be purchased if the amount of soil remaining from the trench construction is insufficient to completely cover the pile. The trench will be seeded with rye grass to prevent erosion.

Each trench will contain and isolate its contents and prevent exposure to humans and the environment. If any site requires remediation or if leachate is encountered, then the trenched material will be laboratory tested to determine if the materials within the trench should be removed. If removal is warranted, then the material will be removed as part of the remediation of that site. All trenches will be marked and readily identifiable by concreting in place a polyvinyl chloride (PVC) pipe stake (or other nondegradable stake) at each corner. The location of each disposal cell will be surveyed.

Soil removed during the excavation of a test pit will be returned to the excavation upon completion of the exploration. Once the excavation has been filled, the surface will be leveled to grade and will be seeded with rye grass to prevent erosion.

Drummed Drill Cuttings or Mud In the event any drill cuttings or mud are drummed and labeled hazardous, the drummed materials left by field personnel at the site will become the property of the Navy. ABB-ES will maintain a log of the drums and will clearly identify the containers using weather-resistant labels. The labels indicate the drum contents, site and sample location number, date filled, and corresponding log entry number. NAS Whiting Field will take responsibility for the drums and their contents.

The materials will be handled, transported, and disposed of according to Applicable or Relevant and Appropriate Requirements (ARARs) for IDW. The ARARs may include RCRA, the Clean Water Act (CWA), the Toxic Substances Control Act (TSCA), and/or any other existing state regulations. Non-hazardous (non-contaminated) materials will be returned to the site from which they originated and disposed onsite or in a dumpster, as appropriate.

2.1.2 Purge and Development Water Purge and development water will be disposed of by pumping on the ground within the AOC or by drumming and pumping into a tanker truck. If RCRA non-hazardous, liquid waste will be pumped on the ground downgradient of the well within the area of contamination (AOC) and allowed to percolate into the soil, care will be taken to assure that the liquid waste does percolate into the ground and does not flow into surface waterways such as ditches, curbs, or swales. Purge and development water from monitoring wells in the industrial area of NAS Whiting Field, that appear to be free of contamination (based on OVA readings) but have no analytical data, will be pumped from the wells into 55-gallon drums and transported and emptied into a 10,000-gallon tanker truck. Purge and development water from contaminated monitoring wells (based on existing analytical data or elevated OVA readings) will be drummed and emptied into a second 10,000 gallon tanker. Once either tanker is full, a water sample will be collected and analyzed for TCL VOCs, SVOCs, pesticides and PCBs, TAL inorganics, and total cyanides (Level V DQOs). If the laboratory results indicate contaminants are below the RCRA hazardous waste criteria (as described in Section 2.1.1) and/or the detection limits, the wastewater will be transported to the NAS Whiting field wastewater treatment plant for disposal. If contaminants in the purge and development water

exceed RCRA criteria (see Section 2.1.1), the water will be classified as a hazardous waste and the Navy will be responsible for appropriate disposal.

2.1.3 Decontamination Fluids IDW in the form of decontamination fluids will either go to the NAS Whiting Field Wastewater Treatment Plant (WWTP) or be discharged onto the ground within the AOC.

The equipment wash rack, (Building 2858), located adjacent to the northwest water tower on the base, will be used to steam clean drill rigs and decontaminate selected field equipment. The use of this facility will be coordinated with the base operating services contractor. Rinse water from decontamination operations will be drained directly to the wastewater treatment plant.

Decontamination fluids produced from decontamination of equipment at isolated locations will be discharged onto the ground and allowed to percolate into the ground within the AOC.

2.1.4 Personal Protective Equipment (PPE) and Disposable Equipment (DE) PPE (gloves and tyvek suits) and DE (tubing, respirator cartridges, etc.) will be used only at selected sites. PPE and DE may be disposed of in one of two ways. If non-hazardous, PPE and DE will be double-bagged and disposed of in a dumpster. Or, if contaminated, used PPE and DE will be drummed, labeled, and stored at the NAS Whiting Field Hazardous Waste Storage Facility (HWSF) and the Navy will be responsible for appropriate disposal.

The FOL will determine in the field if PPE and DE are to be drummed and sent to the HWSF or double-bagged and disposed of in a local trash dumpster. The FOL's decision will be based on the contamination exposure level encountered at each site.

2.2 SITE-SPECIFIC IDW MANAGEMENT. Table 2-1 presents the anticipated IDW generated from the Phase II-A RI field program and disposal methods associated with each site at NAS Whiting Field.

2.3 EQUIPMENT AND LOGISTICS. The following sub-sections describe the type of materials and equipment that will be used at NAS Whiting Field for handling IDW. Also outlined are responsibilities and transportation requirements.

2.3.1 Containers The majority of the containers used onsite will be 55-gallon steel drums (H or F type). The drums will be in compliance with U.S. Department of Transportation (USDOT), 49 CFR 173. Open head drums (H type) will be constructed of 16-gauge steel, top, bottom and body, as a minimum. Tops will be secured with a 12-gauge bolt ring, bolt, nut, and a sponge rubber gasket. Closed head drums (F type) will be constructed of 18-gauge steel, top, bottom, and body, as a minimum. F type drums will have two vents on the top, 2-inch and 0.75-inch, one for filling and one for venting.

Other containers that may be used onsite for monitoring well purge and development water storage include a water truck/tanker or 500 to 1,000 gallon high density polyethylene (HDPE) tanks.

2.3.2 Labels All drums containing IDW stored on-site will be labeled in accordance with USDOT requirements (HM-181).

Drummed material will be clearly marked with the following information: Comprehensive Environmental Response and Liability Act (CERCLA) material, well number, and date containerized.

**Table 2-1
Anticipated Investigation Derived Waste (IDW) Disposal Methods**

Investigation Derived Waste Management Plan
Naval Air Station Whiting Field, Milton, Florida

Site	Drill Cuttings and Mud	Test Pitting Soils	Purge and Development Water	Decontamination Fluids	PPE and DE
1	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
2	spread/bury within AOC	NA	pump on ground at the well	NASWF WWTP	Dumpster
3	pile, cover, & analyze	NA	drum and empty into tanker	NASWF WWTP	Dumpster
5	pile, cover, & analyze	NA	drum and empty into tanker	NASWF WWTP	Dumpster
6	spread/bury within AOC	NA	drum and empty into tanker	NASWF WWTP	Dumpster
9	spread/bury within AOC	NA	pump on ground at the well	NASWF WWTP	Dumpster
10	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
11	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
12	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
13	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
14	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
15	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
16	spread/bury within AOC	return to excavation	pump on ground at the well	NASWF WWTP	Dumpster
17	spread/bury within AOC	NA	pump on ground at the well	discharge on ground within AOC	Dumpster
18	spread/bury within AOC	NA	pump on ground at the well	discharge on ground within AOC	Dumpster
29	pile, cover, & analyze	NA	drum and empty into tanker	NASWF WWTP	Dumpster
30	pile, cover, & analyze	NA	drum and empty into tanker	NASWF WWTP	Dumpster
31	spread/bury within AOC	NA	pump on ground at the well	NASWF WWTP	Dumpster
32	pile, cover, & analyze	NA	drum and empty into tanker	NASWF WWTP	Dumpster
33	pile, cover, & analyze	NA	drum and empty into tanker	NASWF WWTP	Dumpster

Notes: DE - disposable sampling equipment
PPE - personal protective equipment
WWTP - wastewater treatment plant
NA - not applicable
NASWF - Naval Air Station Whiting Field

2.3.3 Transportation ABB-ES or its subcontractor will transport all liquid waste that has been drummed, stored in a tanker, or stored in a HDPE tank to the WWTP or HWSF. Transportation will be via pick-up truck, flatbed, or tanker, as required.

ABB-ES or its subcontractor will transport all drummed hazardous solid IDW to the base HWSF. Transportation will be via van or flatbed pick-up truck. ABB-ES will coordinate the drum delivery with the NAS Whiting Field hazardous waste coordinator. Also, ABB-ES will provide the analytical results so that the Navy can properly classify each drum.

3.0 POINTS OF CONTACT

This section describes key roles in the management of IDW at NAS Whiting Field and identifies key points of contact.

3.1 ORGANIZATION.

Southern Division Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). SOUTHNAVFACENGCOM is responsible for establishing policy and guidance for the Comprehensive Long-Term Environmental Action Navy (CLEAN) program. SOUTHNAVFACENGCOM awards contracts, approves funding, and has primary control of report release and interagency communication.

NAS Whiting Field Environmental Coordinator (EC). The NAS Whiting Field EC, Mr. Jim Holland, will coordinate and monitor IDW activities. The EC will provide local support and be the primary point of contact with the HWSF Manager and the local, state, and federal regulatory agencies.

Southern Division Engineer-in-Charge (EIC). The SOUTHNAVFACENGCOM EIC, Ms. Kim Queen, is responsible for the technical and financial management of the IDW activities at NAS Whiting Field.

Task Order Manager (TOM). The ABB-ES TOM, Mr. Rao Angara, is responsible for evaluating the appropriateness and adequacy of the technical and engineering services provided during the handling of IDW.

RI/FS Technical Leader (TL). The ABB-ES TL, Mr. Eric Blomberg, will be responsible for the quality and completeness of the IDW disposal data gathered during the field program, including overall management and coordination of field work, and supervision and scheduling of work.

Field Operations Leader (FOL). The ABB-ES FOL, Mr. Salvatore Consalvi, will be responsible for ensuring the field activities are performed consistent with the IDW plan. This will include appropriate documentation of all IDW activities at NAS Whiting Field.

3.2 IDW MANAGEMENT TEAM MEMBER LIST. The following is a list of phone numbers for members of the NAS Whiting Field IDW management team.

Navy CLEAN EIC	Kim Queen	(803) 743-0341
Whiting Field EC	Jim Holland	(904) 623-7181
Whiting Field HWSF Manager	Jim Holland	(904) 623-7181
ABB-ES Task Order Manager	Rao Angara	(904) 656-1293
ABB-ES Technical Leader	Eric Blomberg	(904) 656-1293
ABB-ES Field Trailer Phone	Salvatore Consalvi	(904) 623-7754
USEPA Project Manager	Robert Pope	(404) 347-3016
FDER Project Manager	Jorge Caspary	(904) 481-0190