



OHM Corporation

I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated into Contract Number N62470-93-D-3032, is in compliance with the Contract drawings and specifications to the best of my knowledge, can be installed in the allocated spaces, and is approved for use, approved for use subject to Government approval of proposed variation.

Certified by Submittal Reviewer [Signature] Date 6/16/95

Certified by QC Manager [Signature] Date 6/16/95

**ENVIRONMENTAL PROTECTION PLAN
FOR
TIME-CRITICAL REMOVAL ACTION
SITE 16
MCAS CHERRY POINT
CHERRY POINT, NORTH CAROLINA**

Prepared for:

DEPARTMENT OF THE NAVY
Contract No. N64270-93-D-3032
Delivery Order 0063

Prepared by:

OHM Remediation Services Corp.
Gallatin, Tennessee

[Signature]
Angelo Liberatore, CIH
Regional Health and Safety Officer

[Signature]
Cynthia A. Tschaepe
Project Manager

[Signature]
for George E. Krauter, P.E.
Program Manager

June 4, 1995
OHM Project 16874EPP

*Reviewed
by [Signature]
7/25/95*

TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
1.1	Purpose	1-1
1.2	Project Background and Scope of Work	1-1
1.3	Material to Be Encountered	1-2
2.0	ORGANIZATION STRUCTURE FOR IMPLEMENTATION	2-1
2.1	Responsible Parties	2-1
2.1.1	Department of the Navy/Marine Corps Air Station, Cherry Point	2-1
2.1.2	OHM	2-1
2.2	Emergency Services	2-1
2.2.1	Police	2-1
2.2.2	Fire Department	2-1
2.3	Coordination Responsibilities	2-1
2.3.1	Project Manager	2-4
2.3.2	Site Health and Safety Officer	2-4
2.3.3	On-Site Supervisor	2-4
2.3.4	Emergency Coordinator	2-4
2.3.5	Site Personnel	2-4
3.0	MATERIALS INVENTORY AND COMPATIBILITY	3-1
3.1	On-Site Materials	3-1
3.2	Airborne Contaminant Releases	3-1
3.3	Fuel and Flammable Liquids	3-2
3.4	Other Materials of Concern	3-2
3.5	Material Compatibility	3-2
4.0	EMERGENCY AND DECONTAMINATION EQUIPMENT	4-1
4.1	Emergency Equipment	4-1
4.1.1	Small-Scale Emergency Equipment	4-1
4.1.2	Large-Scale Emergency Equipment	4-1
4.2	Spill Response Equipment	4-2
4.3	Decontamination Equipment	4-2
5.0	SITE EVACUATION PLAN	5-1
5.1	Safe Distances and Places of Refuge	5-1
5.2	Evacuation Routes and Procedures	5-2
5.2.1	Evacuation Signals and Routes	5-2
5.2.2	Evacuation Procedures	5-2
6.0	SPILL PREVENTION AND RESPONSE	6-1
6.1	Potential Spill Sources and Spill Prevention Practices	6-1
6.1.1	Excavation Areas	6-1
6.1.2	Fuel Storage	6-1
6.1.3	Hauling Activities	6-1
6.2	External Factors	6-3
6.2.1	Power Outages	6-3
6.2.2	Flooding	6-3

TABLE OF CONTENTS

6.2.3	Severe Weather	6-3
6.2.4	Hurricanes	6-3
6.3	Protection of Natural Resources	6-3
6.4	Dust Control and Erosion Protection	6-4
7.0	PREVENTATIVE ACTIONS	7-1
7.1	Inspection	7-1
7.2	Equipment Maintenance	7-1
7.3	Calibration of Monitoring Equipment	7-1
7.4	Housekeeping Program	7-1
7.4.1	Small Spillage	7-2
7.4.2	Trucking	7-2
7.4.3	Temporary Vehicle Decontamination Stations	7-2
7.4.4	Worker Training	7-2
7.5	Air Monitoring Requirements	7-3
8.0	EROSION AND SEDIMENTATION CONTROL	8-1
8.1	Features of Project Areas	8-1
8.2	Project Activities	8-1
8.2.1	Soil and Debris Excavation	8-1
8.3	Run-off	8-1
8.4	Earthmoving Activities	8-2
8.4.1	Site Preparation	8-2
8.4.2	Installation of Silt Fence and Turbidity Curtain	8-2
8.4.3	Site Regrading and Revegetation	8-2
8.5	Temporary Control Measures	8-2
8.5.1	Silt Fence	8-2
8.5.2	Straw Bale Barriers	8-2
8.5.3	Temporary Vehicle Decontamination Stations	8-3
8.6	Permanent Control Measures	8-3
8.7	Maintenance Program	8-3

TABLES

Table 2.1	Emergency Telephone Numbers
Table 3.1	Material Inventory

FIGURES

Figure 1.1	Site Location Map
Figure 2.1	Organizational Structure for EPP and Emergency Situations
Figure 6.1	Diagram for Temporary Containment of Petroleum Contaminated Soils

APPENDICES

Appendix A	Air Station Order 11010.1E
Appendix B	Select Drawings from Erosion Control Plan

1.0 INTRODUCTION

OHM Remediation Services Corp. (OHM), a subsidiary of OHM Corporation, is pleased to submit this Environmental Protection Plan (EPP) for the time critical removal action at Site 16 at the Marine Corps Air Station, Cherry Point, North Carolina. The activities described herein are to be conducted as part of the tasks required by the Department of the Navy under Contract No. D62470-93-D-3032.

1.1 PURPOSE

The purpose of this EPP is to present information needed to minimize the hazards to human health and the environment from fires, explosions, spills, releases of organic vapors, or any unplanned or sudden release of constituents of concern from the Marine Corps Air Station. This plan contains pertinent information regarding potential environmental issues that could arise during site remedial activities.

This EPP fulfills the requirements set forth in Section 01010 of the Design Specifications, as well as meeting requirements outlined in the following documents:

- Code of Federal Regulations (CFR)
 - 29 CFR 1910 - Subpart G: Occupational Health and Environmental Control
 - 40 CFR 261: Identification and Listing of Hazardous Waste
 - 40 CFR 262: Generators of Hazardous Waste
 - 40 CFR 263: Transporters of Hazardous Waste
 - 40 CFR 264: Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - 40 CFR 300: National Oil and Hazardous Substances Pollution Contingency Plan
 - 49 CFR 178: Shipping Container Specification

- Corps of Engineers (COE)
 - COE EP-1165-2-304: 1976 Flood Plain Regulations for Flood Plain Management

This plan is intended for use during the construction stage of the time-critical removal at the site. It establishes guidelines which must be followed during activities at the site and must be used in conjunction with the other project plans and documents.

1.2 PROJECT BACKGROUND AND SCOPE OF WORK

The work involves the time-critical removal of surface debris and underground storage tanks (USTs) discarded above ground. The site is designated as Operable Unit 1 (OU-1), Site 16 at Marine Corps Air Station (MCAS) Cherry Point, North Carolina. The site is described as being located on East Prong Slocum Creek adjacent to Sandy Branch near the southern boundary of the Cherry Point Facility. The site consists of approximately 20 acres, which



were associated with landfilling activities between 1946 and 1948. This area was utilized as a scrap yard and disposal area for an unknown period of time and currently has numerous debris piles, tanks, empty storage vessels, and other solid waste scattered across the surface. A site location map, Figure 1.1, is located on the following page.

Halliburton NUS performed a pre-design investigation to determine the presence of contaminants at the site. The report identified areas contaminated with asbestos, lead and total petroleum hydrocarbons (TPH). Areas containing asbestos contaminated soil were delineated by extending debris pile limits approximately 25 feet where contamination was found in soil adjacent to the debris piles. The TPH contaminated soil areas consist of five locations, approximately 2,500 square feet each.

A Design Specifications and Drawings, Design Analysis, and Environmental Permit Report were prepared by Halliburton NUS in March 1995. These reports state that the primary objectives of the removal action are to construct access roads to the areas of the debris piles, remove the debris piles, excavate the contaminated soil areas, and restore the site. The sequencing of the removal activities is as follows:

- Install erosion and sediment control devices
- Prepare site
- Debris removal
- Excavate contaminated soil

Site restoration activities will consist of the following:

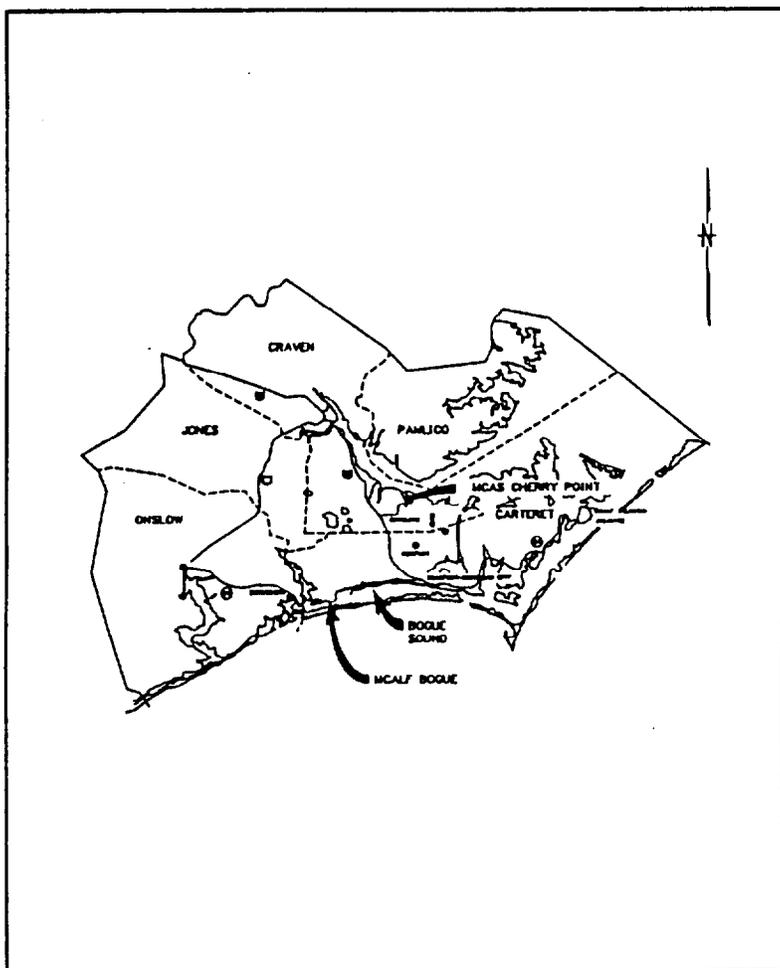
- Returning excavated areas to original grades
- Mitigation of wetland areas to the pre-construction conditions
- Maintenance of mitigation actions for one year
- Revegetation actions on disturbed areas

Upon establishment of revegetation, erosion and sediment control devices will be removed.

All on-site activities will be conducted in strict accordance with the Site-Specific Health and Safety Plan (SHSP), as well as with other specifications and construction documents.

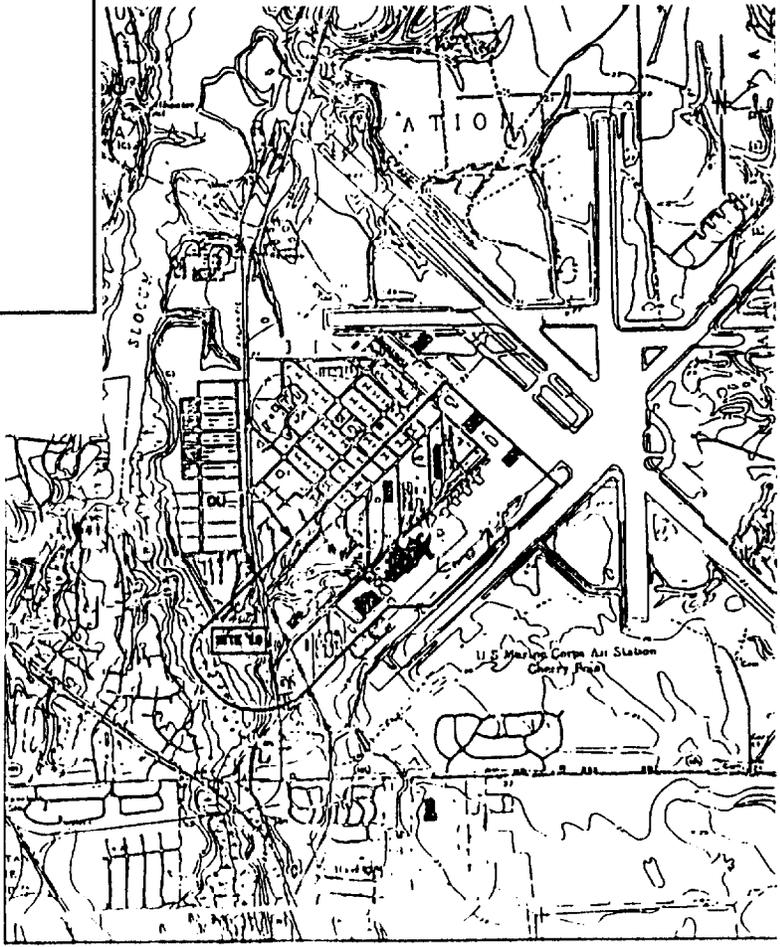
1.3 MATERIAL TO BE ENCOUNTERED

Testing performed by Halliburton NUS, identified the presence of the contaminants. Organic contaminants at the site were reported as below cumulative risk range of $\times 10^{-6}$ using the risk based concentration memorandum developed by EPA Region III, dated November 8, 1994. Polychlorinated biphenyls (PCBs) were detected in concentrations ranging from 0.078 to

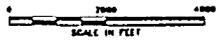


VICINITY MAP
NTS

See comment
NC Identify
Improve this map



LOCATION MAP



 OHM Remediation Services Corp. <small>HUNTSVILLE, GEORGIA A SUBSIDIARY OF OHM CORPORATION</small>			FIGURE 1.1 SITE LOCATION MAP		
DRAWN BY		-	6/8/95		
CHECKED BY		-	DATE		
APPROVED BY		-	DATE		
REV.	SHEET #	PROJECT NO.	16874		
0	-	-			
			DECONTAMINATION OF PLATING SHOP CHERRY POINT, N.C. PREPARED FOR DEPARTMENT OF THE NAVY CONTRACT NO. N62470-93-D-3032		



0.49 ppm. Magnesium and lead were the only metals detected above recorded background levels for Cherry Point. Lead was present at levels above background at nine locations, ranging from 163 ppm to 708 ppm, and requires cleanup operations in one additional area (SO12).

Asbestos was detected exceeding the regulatory level of 1 percent in three of the soil samples and 13 of the debris samples analyzed by Halliburton NUS.

TPHs were detected in five locations above the preliminary calculated action levels of 10 ppm for gasoline, 40 ppm for diesel, and 250 ppm for oil and grease.

2.0 ORGANIZATION STRUCTURE FOR IMPLEMENTATION

The following sections describe the personnel and required chain of command that will control and direct EPP activities at the site.

2.1 RESPONSIBLE PARTIES

This section details each responsible party and their respective task(s).

2.1.1 Department of Navy/Marine Corps Air Station, Cherry Point

The Marine Corps Air Station, Cherry Point is the Owner of the site and the responsible party for the site removal activities. The Navy has contracted OHM to perform the remediation activities. As part of the contractual arrangements with OHM, the Navy's technical representative will delegate the responsibility for the implementation of this EPP to OHM. Throughout the duration of the site remediation activities, OHM will notify the Navy and MCAS of any EPP incident as soon as possible.

2.1.2 OHM

OHM is responsible for implementing EPP procedures and is responsible for all information contained in this EPP.

Figure 2.1 depicts OHM's organizational structure for EPP and emergency situations.

2.2 EMERGENCY SERVICES

A summary of local and state emergency service agencies is listed in Table 2.1. Individual emergency agencies and responsibilities are as follows.

2.2.1 Police

The Marine Corps Air Station Base police will provide police support for blocking traffic, directing traffic, and other related duties during EPP situations. Unlawful entry into the site will also be reported to the Marine Corps Air Station Base Police.

2.2.2 Fire Department

All EPP situations requiring fire department personnel and equipment will be reported to the Marine Corps Air Station Base Fire Department.

2.3 COORDINATION RESPONSIBILITIES

All EPP provisions will be implemented by means of OHM's organizational structure shown on Figure 2.1. OHM is responsible for coordination, training, drills, notification, and other aspects of this EPP.

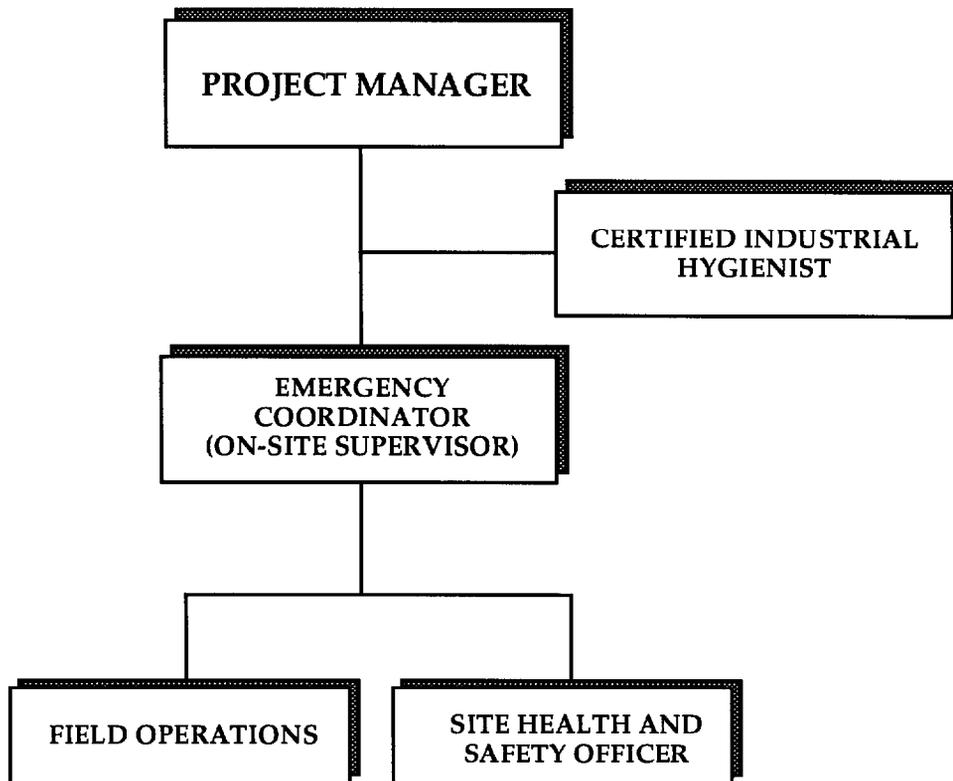


Figure 2.1

Organizational Structure for EPP and Emergency Situations



**Table 2.1
Emergency Telephone Numbers**

Local Agencies – All Services

City of Havelock	
Police Department	911
Sheriff	911
Fire Department	911
New Bern Ambulance	911

Hospital

Carteret General Hospital 3500 Arendell Street Morehead City	(919) 247-1616	<i>include d strip map to Carteret General Hospital to be posted in project trailer</i>
--	----------------	---

On-Base Facilities

Health Clinic	(919) 466-3960 or 4241	<i>include d strip map to Carteret General Hospital to be posted in project trailer</i>
Emergency Medical	466-4419 or 911	
Emergency Fire	466-3333 or 911	
Fire Chief – Cecil Moore	466-3615	
Police		
Regional Poison Control Center	800-672-1697	

State Agencies

State Highway Patrol	800-441-6127
----------------------	--------------

Federal Agencies

EPA Region Branch Response Center	(404) 347-3931
National Response Center	800-424-8802
Agency for Toxic Substances and Disease Registry	(404) 639-0615 (24 hours)

Navy ROICC/NTR *INCLUDE ROICC 24 hr Number*

U. S. Coast Guard	(804) 484-8192
National Response Center	800-424-8802

OHM Project Personnel

Cynthia A. Tschaepe	(615) 452-9900
Angelo Liberatore, CIH, Health and Safety Director	(404) 453-7671
OHM Corporation (24 hours)	800-537-9540

Note: Additional phone numbers are provided in Section 2.0 of the SHSP.



2.3.1 Project Manager

The Project Manager is ultimately responsible for completion of the project in accordance with the plans. He delegates the responsibility for the implementation, maintenance, and compliance of the project activities with the EPP and SHSP to the Site Health and Safety Officer (SHSO).

2.3.2 Site Health and Safety Officer

The SHSO will be responsible for all EPP and health and safety activities for air monitoring activities, overseeing the decontamination of equipment and materials leaving the contaminated area and for providing and enforcing the use of personal protective equipment and clothing, decontamination procedures and emergency response procedures. A Health and Safety professional will be responsible for training of on-site personnel. The SHSO has the authority to stop any operation that threatens the health and/or safety of the team or surrounding populace. The daily EPP inspections and health and safety activities may be conducted by the SHSO or the On-site Supervisor. The SHSO serves as back-up Emergency Coordinator on-site.

2.3.3 On-Site Supervisor

The On-site Supervisor is responsible for field implementation of the EPP procedures and the health and safety program when the SHSO is not present. This responsibility includes advising site workers of the specific health and safety requirements and consulting with the SHSO regarding appropriate changes to the EPP and SHSP. The On-Site Supervisor serves as the Emergency Coordinator.

2.3.4 Emergency Coordinator

The emergency coordinator (EC) will implement and coordinate all EPP procedures during spills and releases. During an emergency, the EC will activate alarm systems, notify emergency response agencies, identify the problem, assess the health or environmental hazards, and take all reasonable measures to stabilize the situation. The EC will also be responsible for follow-up activities after the incident such as treating, storing, or disposing of residues and impacted soil, decontamination and maintenance of emergency equipment, and submission of any reports. The EC is also responsible for personnel training and evacuation drills. The On-site Supervisor serves as the primary EC and the SHSO serves as back-up, depending on who is on site. The EC will be on-site during all remediation operations.

2.3.5 Site Personnel

All site personnel will be responsible for working in a safe and healthy manner, and will comply with all applicable local, State, and Federal rules and regulations.

3.0 MATERIALS INVENTORY AND COMPATIBILITY

The following section contains information regarding the materials that may be involved in a spill or release. Table 3.1 lists quantities of the materials present on site by their type.

Material	Unit	Location
Diesel Fuel	Gallons	Fuel Storage Area
Gasoline	Gallons	Fuel Storage Area
Oil	Quart	Fuel Storage Area
Acids	TBD(2)	Decontamination Trailer

Notes: Quantities to be determined during remedial activities

- (1) Amount and storage requirements will be determined based on mitigation of wetland needs.
- (2) Quantity and type of sample preservatives will be identified by need based on the final Contractor's Sampling and Analysis Plan.

3.1 ON-SITE MATERIALS

The constituents of concern for the removal action include lead, TPHs, and asbestos. These contaminants are present in soils and debris at the site. On-site materials consist of soil and construction debris.

3.2 AIRBORNE CONTAMINANT RELEASES

The potential for organic vapor and asbestos contaminated airborne particulate releases exists during removal activities. Organic vapor concentrations in the air during excavation activities will be monitored using air monitoring equipment such as a photoionization detector (PID). In addition, monitoring will be performed with a real-time aerosol monitor (mini-ram) to identify airborne particulates downwind of active work areas during excavation operations. Air monitoring requirements are described in Section 7.5.

2 *Procedures Mark*

Physical boundaries will be established to assist in the prevention of the uncontrolled release of asbestos dust, fibers, or debris. Procedures for the prevention and control of airborne asbestos emissions will be detailed in the Site Abatement Asbestos Plan. Air monitoring will be performed in accordance with the plan to document that abatement controls are effective preventing off-site migration of asbestos during removal operations. Air sampling results will



be reviewed within 16 hours of the "time off" of the sample pumps. Immediate notification will be made to the Navy's Technical Representative (NTR) if any airborne levels of asbestos fibers exceed acceptable limits identified in the Site Asbestos Abatement Plan.

3.3 FUEL AND FLAMMABLE LIQUIDS

To complete the project, OHM will construct an on-site fuel depot that will contain fuels and oils for construction vehicles. The types of materials that may be stored at the fuel depot are as follows:

- Diesel fuel
- Gasoline
- Motor and transmission oils
- Greases
- Used oil

3.4 OTHER MATERIALS OF CONCERN

Other materials necessary to complete the project that have the potential for spills and releases are listed below. The exact quantity and type of these materials will be determined during remedial activities.

- Acids for sample preservation
- Agricultural lime for construction material during removal and restoration operations
- Fertilizer for restoration operations

3.5 MATERIAL COMPATIBILITY

The materials mentioned in Sections 3.1 to 3.4 are not anticipated to be mixed or combined during site operations. All of the compatibility data that exist for each material are noted on each MSDS provided in the SHSP.

4.0 EMERGENCY AND DECONTAMINATION EQUIPMENT

This section discusses the equipment necessary for emergencies, spill responses, and decontamination of site equipment.

4.1 EMERGENCY EQUIPMENT

The following section details the types of equipment that will be used for emergency and activities.

4.1.1 Small-Scale Emergency Equipment

Small-scale emergency equipment will include dry-chemical, ABC-rated fire extinguishers; spill control equipment; absorbent materials; decontamination equipment; air-supplied respirators; radio and telephone equipment; wind socks; and various hand tools. This equipment will be made accessible to all on-site workers. Locations of such equipment will be posted at OHM's trailer. Additional emergency equipment will include:

- Photoionization detector
- LEL, O₂ meter
- Pressure washer
- Generator – 5kw
- Visqueen
- Sorbent sausage

4.1.2 Large-Scale Emergency Equipment

Large-scale emergency equipment will include the same equipment used in the ongoing construction activities. The equipment will include front-end loaders, bulldozers, and excavators when equipment of such size and power is necessary to respond to a large-scale emergency. Other emergency equipment will be available from the local fire department and other agency's if needed. Large-scale emergency equipment will include:

- Backhoe
- Bulldozer
- Loader
- Decontamination trailer
- 1-ton stake truck
- Pickup truck
- Utility trailer



4.2 SPILL RESPONSE EQUIPMENT

OHM will provide adequate spill response equipment and materials. Spill response equipment will include absorbent materials, sand, chemical neutralizers, and other spill containment devices necessary to prevent spill migration. Other equipment will include construction equipment used in ongoing construction activities.

All equipment will be tested and maintained as necessary to assure its proper operation in time of emergency. After an emergency, all equipment will be decontaminated, cleaned, and fit for its intended use before normal operations resume.

*Flooding boom to ~~sup~~ control spills to
surface water?
you best? *

4.3 DECONTAMINATION EQUIPMENT

Equipment necessary for decontamination activities will be provided, installed, and verified in working order prior to any site operations. Equipment for the decontamination area includes the following items:

- Temporary decontamination pad and sump
- Clean water supply
- Detergent solution
- Brushes
- DOT-approved containers

The decontamination pad will be constructed in accordance with the drawings provided by Halliburton NUS.

5.0 SITE EVACUATION PLAN

The following sections provide detail regarding the evacuation of the site in the case of an emergency.

5.1 SAFE DISTANCES AND PLACES OF REFUGE

The emergency coordinator for all activities will be the SS. No single recommendation can be made for evacuation or safe distances because of the wide variety of emergencies which could occur. Safe distances can only be determined at the time of an emergency based on a combination of site and incident-specific criteria. However, the following measures are established to serve as general guidelines.

In the event of minor hazardous materials releases (small spills of low toxicity), workers in the affected area will report initially to the contamination reduction zone. Small spills or leaks (generally less than 55 gallons) will require initial evacuation of at least 50 feet in all directions to allow for cleanup and to prevent exposure. After initial assessment of the extent of the release and potential hazards, the emergency coordinator or his designee will determine the specific boundaries for evacuation. Appropriate steps such as caution tape, rope, traffic cones, barricades, or personal monitors will be used to secure the boundaries.

In the event of a major hazardous material release (large spills of high toxicity/greater than 55 gallons), workers will be evacuated from the building/site. Workers will assemble at the entrance to the site for a head count by their foremen and to await further instruction.

If an incident may threaten the health or safety of the surrounding community, the public will be informed and, if necessary, evacuated from the area. The emergency coordinator, or his designee will inform the proper agencies in the event that this is necessary. Telephone numbers are listed in Table 2.1.

Places of refuge will be established prior to the commencement of activities. These areas must be identified for the following incidents:

- Chemical release
- Fire/explosion
- Power loss
- Medical emergency
- Hazardous weather

In general, evacuation will be made to the crew trailers, unless the emergency coordinator determines otherwise. It is the responsibility of the emergency coordinator to determine when it is necessary to evacuate personnel to off-site locations.



In the event of an emergency evacuation, all the employees will gather at the entrance to the site until a head count establishes that all are present and accounted for. No one is to leave the site without notifying the emergency coordinator.

5.2 EVACUATION ROUTES AND PROCEDURES

All emergencies require prompt and deliberate action. In the event of an emergency, it will be necessary to follow an established set of procedures. Such established procedures will be followed as closely as possible. However, in specific emergency situations, the emergency coordinator may deviate from the procedures to provide a more effective plan for bringing the situation under control. The emergency coordinator is responsible for determining which situations require site evacuation.

5.2.1 Evacuation Signals and Routes

Two-way radio communication and an air horn will be used to notify employees of the necessity to evacuate an area or building involved in a release/spill of a hazardous material. Each crew supervisor will have a two way radio. A base station will be installed in the OHM office trailer to monitor for emergencies. Total site evacuation will be initiated only by the emergency coordinator; however, in his absence, decision to preserve the health and safety of employees will take precedence. Evacuation routes will be posted in each outside work area. Signs inside buildings will be posted on walls or other structural element of a building. Periodic drills will be conducted to familiarize each employee with the proper routes and procedures.

5.2.2 Evacuation Procedures

In the event evacuation is necessary, the following actions will be taken:

- The emergency signal will be activated.
- No further entry of visitors, contractors, or trucks will be permitted. Vehicle traffic within the site will cease in order to allow safe exit of personnel and movement of emergency equipment.
- Shut off all machinery if safe to do so.
- ALL on-site personnel, visitors, and contractors in the support zone will assemble at the entrance to the site for a head count and await further instruction from the emergency coordinator.
- ALL persons in the exclusion zone and contamination reduction zone will be accounted for by their immediate crew leaders (e.g., foreman). Leaders will determine the safest



exits for employees and will also choose an alternate exit if the first choice is inaccessible.

- During exit, the crew leader should try to keep the group together. Immediately upon exit, the crew leader will account for all employees in his crew.
- Upon completion of the head count, the crew leader will provide the information to the emergency coordinator.
- Contract personnel and visitors will also be accounted for.
- The names of emergency response team members involved will be reported to the emergency spill control coordinator.
- A final tally of persons will be made by the emergency coordinator or designee. No attempt to find persons not accounted for will involve endangering lives of OHM or other employees by reentry into emergency areas.
- In all questions of accountability, immediate crew leaders will be held responsible for those persons reporting to them. Visitors will be the responsibility of those employees they are seeing. Contractors and truck drivers are the responsibility of the Site Supervisor. The security guard will aid in accounting for visitors, contractors, and truckers by reference to sign-in sheets available from the guard shack.
- Personnel will be assigned by the emergency coordinator to be available at the main gate to direct and brief emergency responders.
- Re-entry into the site will be made only after clearance is given by the emergency coordinator. At his direction, a signal or other notification will be given for reentry into the facility.
- Drills will be held periodically to practice all of these procedures and will be treated with the same seriousness as an actual emergency.

6.0 SPILL PREVENTION AND RESPONSE

This section outlines areas of potential spill and the procedures necessary to prevent them. The Air Station Order 11010.1E is included in Appendix A and should be reviewed by all personnel in conjunction with other procedures set forth herein.

6.1 POTENTIAL SPILL SOURCES AND SPILL PREVENTION PRACTICES

The following section details OHM's procedures for implementing this portion of the EPP. Potential activities include containment, collection, and material disposal or reuse.

6.1.1 Excavation Areas

The excavation areas consisting of potentially contaminated TPH soil will be excavated and stored in accordance with the State of North Carolina's "Diagram for Temporary Containment of Petroleum Contaminated Soil" (Figure 6.1). This soil will be stockpiled and storage areas bermed with straw bales to prevent run-off of contaminants as well as run-on of water into the stockpile area. The potential spill source is run-off, or water from the excavation while awaiting confirmation sampling results. Backfill activities should commence immediately upon receipt of confirmation that all contamination appears to have been removed.

Ordnance from the 1940s and 1950s may have been disposed of in this area. Any suspected ordnance materials will not be moved. Notification will be made to Master Sergeant Hiepens, Ordnance EOD by calling (919) 466-3432. Also, the NTR will be notified immediately.

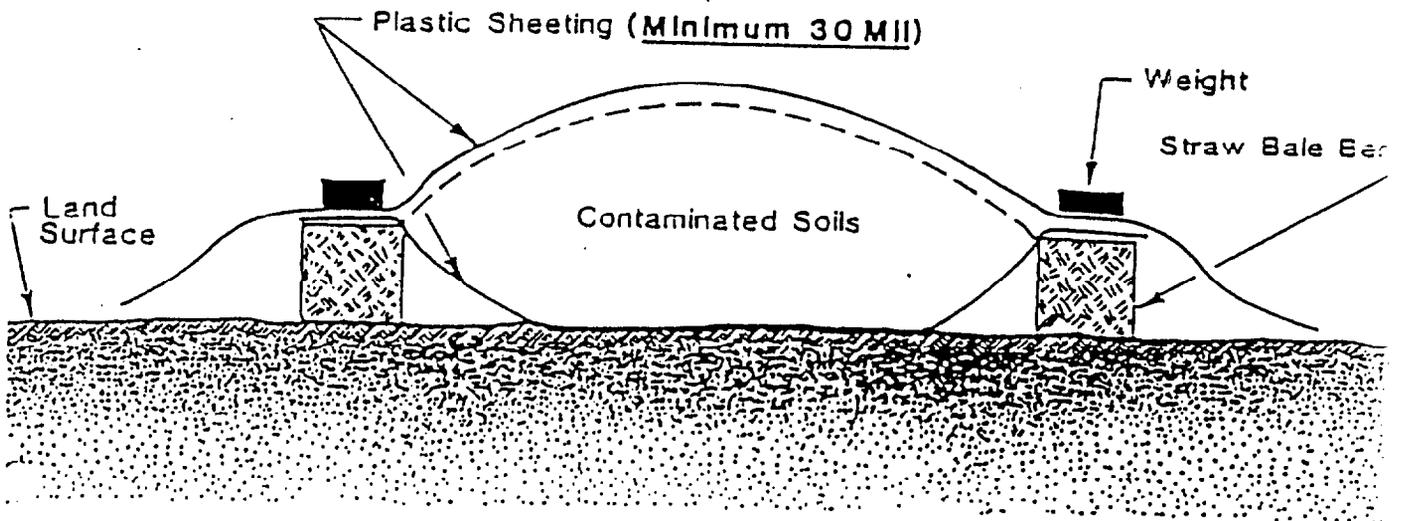
6.1.2 Fuel Storage

Vehicle fuels and oils will be stored in fuel depot areas in approved storage containers. The fuel tanks will be anchored to the ground, stabilized on skids, or placed on saddles to prevent overturning and rolling. Containers will be placed outside of the maximum turning radius of all vehicles, as well as turnaround or unloading zones. Secondary containment is required for all fuel containers larger than 5 gallons. Secondary containment will be 110 percent of the aggregate storage volume. All tanks will be placarded with the National Fire Protection Association (NFPA) for hazardous material classification and the tanks will be properly electrically bonded and grounded. Personnel should refer to Air Station Order 11010.1E (Appendix A) for additional guidance.

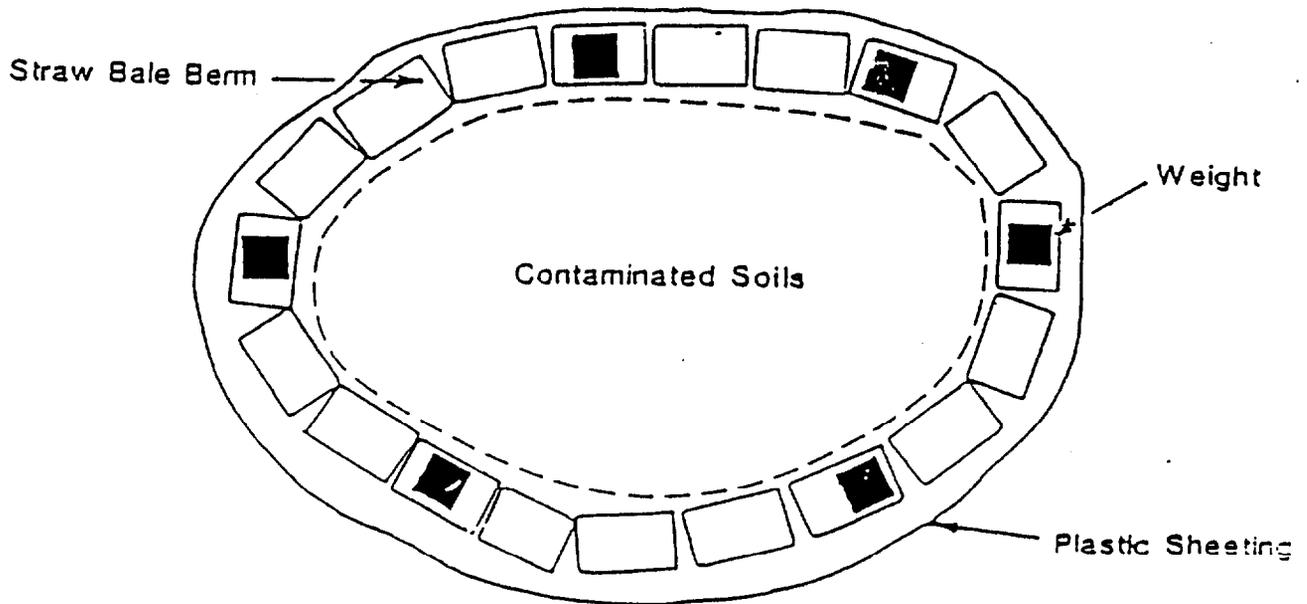
6.1.3 Hauling Activities

Any spillage that occurs during the hauling activities will be placed within the containers on-site. All vehicles prior to leaving the site shall be inspected and routed to the decontamination pad for either dry and/or wet decontamination of exterior and/or wheels.

CROSS-SECTION VIEW



MAP VIEW



**OHM Remediation
Services Corp.**
NORCROSS, GEORGIA
A SUBSIDIARY OF OHM CORPORATION

DRAWN BY	-	6/8/95
CHECKED BY	-	DATE
APPROVED BY	-	DATE
REV. 0	SHEET # -	PROJECT NO. 16874

FIGURE 6.1

DIAGRAM FOR TEMPORARY CONTAINMENT
OF PETROLEUM CONTAMINATED SOIL

DECONTAMINATION OF PLATING SHOP
CHERRY POINT, N.C.

PREPARED FOR
DEPARTMENT OF THE NAVY
CONTRACT NO. N62470-93-D-3032



6.2 EXTERNAL FACTORS

The following describes actions to be taken to alleviate effects to public health and safety or the environment from factors external to the site.

6.2.1 Power Outages

Power will be supplied from utility service drops and/or contractor supplied generators. OHM will have access to a backup generator in case of failure of the primary service drops and/or generator(s) where such failure may impact the public health or safety of the environment.

6.2.2 Flooding

Flooding has the potential to be a spill instigation factor at this site. Since the site is subject to North Easterly squalls, the On-site Supervisor will be responsible for monitoring for such events. Should conditions indicate that a squall is moving towards the site from the North East, measures will be taken to cover exposed excavated areas with earth if severe weather or flooding is eminent. To prepare for this contingency, sufficient quantities of visqueen will be stockpiled on site to line the excavation prior to replacement of excavated soils. If clean fill is available and with the approval of the NTR, clean fill maybe placed in the excavated area even if the conformation sample results have not been received and/or reviewed. It is recognized that the use of clean soil to backfill excavations prior to receiving confirmation sample results is a judgement call by the NTR, in that additional contaminated soil could be created if the confirmation samples show contamination beyond acceptable levels.

6.2.3 Severe Weather

Short-duration, high-intensity rain showers may create unexpected erosion and drainage problems such as slope and containment berm erosion. Immediately after such events, all containment devices will be closely inspected for integrity. Also, spillage or leakage will be immediately corrected. Repair to these containment devices will be made as soon as possible or at least before construction continues. All excavated materials should be covered and secured as soon as possible.

6.2.4 Hurricanes

When a hurricane warning is issued excavated areas will be secured and covered (where applicable). Equipment should be removed to a safe location as time provides. Evacuation of personnel should follow the designated inland route and abide with directions given by the local emergency management agency.

6.3 PROTECTION OF NATURAL RESOURCES

Protection of natural resources will be in accordance with the Erosion Control Plan furnished by Halliburton NUS and contained in Appendix A of the Environmental Permit Report dated



March 1995. Protection of water resources is covered under Section 8.0 - Erosion Sediment Control. Protection of land resources is also discussed in part.

In general, OHM will limit the extent of clearing operations to the areas required for access to the excavation areas, debris pile areas, and support facilities. All reasonable attempts will be made to keep the excavation area sizes to a minimum; similarly, the size of staging and support zones will be kept to a minimum.

All reasonable attempts will be made to minimize landscape defacement. This will include the trimming of trees and brush instead of removal, wherever possible. Operation of equipment will be limited to the confines of the excavation areas to minimize the potential for residual damage to landscape features.

It is expected that restoration of the wetlands will occur immediately after the removal is completed. Vegetation removed as part of the planned clearing of the wetland will be replaced in accordance with Section 02950 of the Design Specifications and Drawings dated March 1995.

6.4 DUST CONTROL AND EROSION PROTECTION

Water trucks with sprinkling attachments will be used, as necessary, to control dust in the excavation areas and haul roads, and during placement of fill materials in the excavation area. The water source for the trucks will be approved by the NTR prior to utilization. Water will be applied in sufficient quantity to prevent creation of dust, but excessive watering that may result in a muddy condition that may be transferred to the haul roads will not be permitted. Determination of the need for dust control will be the responsibility of the OHM On-site Supervisor as dictated by changes in site conditions on a continuing basis.

7.0 PREVENTATIVE ACTIONS

This section discusses the daily inspections that will be performed to ensure a safe working environment for both site and base personnel.

7.1 INSPECTION

Daily inspections of site areas will be performed by OHM's On-site Supervisor to ensure that procedures for proper storage, handling, and transport of materials are being followed. Inspection and monitoring methods will be through visual observation. Monitoring equipment as described in Section 7.5 will be used when necessary. Such areas include the following:

- Excavation areas
- Fuel depots - various fuels and oils
- Erosion control measures

Other areas and items that will be monitored and noted in the site logbook:

- Evidence of spilled materials along drainage ditches
- Effectiveness of housekeeping practices
- Various shipping and storage containers used throughout the site
- Disposal staging areas
- Proper placards and labeling of truck and tank contents

7.2 EQUIPMENT MAINTENANCE

All construction equipment will be properly maintained to ensure safe operation. Equipment (especially trucks) will be properly maintained to minimize spillage or leakage which may occur during on-site transport operations. Further preventive maintenance on trucks is described in Section 7.4.2.

7.3 CALIBRATION OF MONITORING EQUIPMENT

It is imperative that all environmental monitoring equipment be calibrated so that accurate readings of potential spilled or leaked materials may be detected upon inspection. Calibration frequency and procedures will be followed as per the manufacturer's recommendations. OHM will retain calibration records on site.

7.4 HOUSEKEEPING PROGRAM

OHM's housekeeping program includes many items such as: neat and orderly storage of materials, proper truck and tank placards, prompt removal of spillage, regular refuse pickup



and disposal, maintenance of roads and surfaces, and provisions for the storage of material and equipment to prevent protrusion onto walkways, or roads.

7.4.1 Small Spillage

Small spills may include solid materials or liquid materials being mishandled, dumped, leaked, knocked over, etc. Any material spillage will be immediately contained and collected and placed on the drying pad for later disposal. Excavation of pits will be performed such that exposed source material remains within the limits of excavation or below the limits of temporarily constructed soil berms. All spilled liquids will be contained and collected by absorbent materials and the materials taken to the drying pad area. Spilled fuel and impacted soil will be placed on the drying pad for later disposal.

7.4.2 Trucking

All hauling vehicles will be maintained in good operating condition. Tires will be properly inflated and will have adequate tread depth as per the tire manufacturer's recommendations. Trucks will not be overloaded, since overloaded trucks increase the possibility of material spillage. Truck end-gates will be inspected to ensure they close and seal properly.

7.4.3 Temporary Vehicle Decontamination Stations

A temporary vehicle decontamination station will be established at the site exit near Ingersol Street. This will minimize the potential for any material spillage onto Ingersol and B Streets. Any spillage that should occur will be removed as described in the Small Spillage Section 7.4.1.

?

*How about locating this
as close to the work as possible*

7.4.4 Worker Training

All employees involved with hazardous waste operations and emergency response on-site will be required to attend and complete an Occupational Health and Safety Administration (OSHA) 40-hour Health and Safety Course (Hazardous Waste Operations and Emergency Response) as per 29 CFR 1910-120. Employees having this training will attend an 8-hour OSHA refresher course if the 40-hour class was taken over one year before that employee is to be on site.

The site specific training program will involve at least one hour of instruction per employee. At a minimum, the training program will ensure that personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures and emergency equipment systems including, where applicable: procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment; key parameters for automatic cut-off systems; communication and alarm procedures; response to fires and explosions; site evacuation procedures; and, shut-down of operations. In addition, the employee training program will address other aspects of the EPP, such as preventive maintenance, inspection and monitoring, housekeeping practices, etc.



Job specific EPP and health and safety instructions will be reviewed before beginning each new phase of work. Weekly, or more often if conditions require, the SHSO or On-site Supervisor will conduct follow-up training related to the change in operations or any other training deemed necessary by the SHSO. OHM will hold daily safety meetings prior to work to discuss the current project site safety considerations.

Site evacuation training will be provided as described in Section 5.2.

7.5 AIR MONITORING REQUIREMENTS

Air monitoring will be performed as required in the site Health and Safety Plan. A photoionization detector (PID) will be used to provide real-time organic vapor concentrations in and around the breathing zone of workers and downwind of active work areas. This instrument will be calibrated daily and organic vapor concentration will be monitored during site activities.

Dust monitoring will be performed utilizing a mini-ram. When action levels identified in the SHSP are exceeded, dust suppression techniques will be employed to limit the generation of airborne particulates during excavation operations.

The OHM SHSP identifies additional air monitoring instrumentation. The SHSP also defines action levels for upgrading employee protection and instituting emergency actions. Air monitoring procedures will determine airborne particulate and organic vapors in ambient air and workers' breathing zone. Air monitoring results will be compared to the site action levels to confirm that the proper level of protection is provided to site personnel. The SHSO will compare instrument readings with these site action levels, as derived by a Certified Industrial Hygienist (CIH) and determine when an upgrade in the level of protection is required.

Asbestos monitoring will be in accordance with the Asbestos Abatement Plan.

A wind sock will be installed to monitor the wind direction. The wind direction will be noted by the EC and other evacuation leaders so that evacuation procedures place personnel upwind of the situation. The wind sock will be placed in the project trailer area.

8.0 EROSION AND SEDIMENTATION CONTROL

This section outlines erosion and sedimentation control measures for the project.

8.1 FEATURES OF PROJECT AREAS

This plan includes one drawing from the Erosion and Sediment Control Plan describing features of the project area and a drawing of the erosion and sedimentation controls. The Erosion and Sediment Control Plan located in Appendix A of the Environment Permit Report should be consulted for details on Implementation Sand Plan.

Sheet C-2 of the Erosion and Sediment Control Plan depicts the existing topography, as well as major project features. Excavation areas and debris piles, and other site features are also shown on Sheet C-2. The proposed erosion and sedimentation controls for the remedial action are shown on Sheet C-2. Erosion and sedimentation control measure details are shown on Sheet C-3. Sheets C-2 and C-3 are located in Appendix B.

8.2 PROJECT ACTIVITIES

All of the project activities that could contribute to erosion and sedimentation are discussed in the following sections.

8.2.1 Soil and Debris Excavation

Excavation of potentially contaminated soil and debris will occur as the project continues. Non-contaminated soil will be backfilled into the excavation areas, upon completion of contaminated material removal. Additional soil will be mounded to promote drainage away from the excavation.

8.3 RUNOFF

The erosion and sedimentation control facilities will minimize the run-on/run-off affecting the project site. The existing drainage ditches and swales in the topography will be used to divert upgradient run-on around the project site. The diverted water will follow the existing drainage flow pattern where ever possible. A drainage ditch will be established along the perimeter of the proposed access road allowing runoff from the upgradient watershed to flow into the creek at the south westerly side of the construction site. A turbidity curtain will be installed at the point of discharge to prevent sedimentation from the drainage ditch entering the creek. Measures discussed in the Erosion and Sedimentation Control Plan will minimize the impact to the creek from project activities.



8.4 EARTHMOVING ACTIVITIES

The anticipated project activities that require erosion and sedimentation controls are described in the following sections.

8.4.1 Site Preparation

The first tasks at the site will consist of site preparation activities. Project areas will be cleared and grubbed, and roads will be constructed. Site utilities and office trailer areas will be located and completed. Silt fence and straw bale dikes will be installed at the locations shown on the drawings and as needed to accommodate project site conditions. Surface water management features will be constructed. Aggregate will be placed on the site access road in accordance with the technical specifications.

8.4.2 Installation of Silt Fence and Turbidity Curtain

Prior to commencement of clearing and grubbing activities the silt fence and the turbidity curtain will be installed in accordance with the Erosion and Sediment Control Plan.

8.4.3 Site Regrading and Revegetation

The final task at the site will involve the regrading and revegetation of the excavation and project areas. Mitigation of the wetland area will be as described in Section 02950 of the Design Specifications and Drawings dated March 1995. All silt fencing will be removed after vegetation is established. The areas disturbed for the ancillary features (temporary decontamination pad, trailers, etc.) will also be seeded after the facilities have been removed.

8.5 TEMPORARY CONTROL MEASURES

This section describes the various temporary erosion and sedimentation controls that will be used during earthmoving activities at the site. The specific use of the controls is described in Section 8.5. All controls will comply with the technical specifications and the drawings presented in Appendix B.

8.5.1 Silt Fence

Silt fencing will be utilized as a temporary sedimentation control measure around the project areas as shown on Sheet C-2. Silt fencing will also be placed as necessary to accommodate site conditions at the direction of the site supervisor and/or NTR.

8.5.2 Straw Bale Barriers

Straw bales will be used in places where flow over disturbed areas must be minimized while vegetation is established. Locations of the straw bales, if used, will be decided in the field.



8.5.3 Temporary Vehicle Decontamination Stations

A temporary vehicle decontamination station will be constructed as described in Section 8.5.1. Wash water will be collected in sumps for proper transport and disposal.

8.6 PERMANENT CONTROL MEASURES

Permanent erosion and sedimentation controls will be used during and upon completion of earthmoving activities at the site. The specific use of the controls is described in Section 8.5. All controls will comply with the technical specifications presented in the 100 Percent Design Submission and the Erosion Control Plan.

All lay-down and road access areas will be vegetated upon project completion with a long-term seed mixture. No other permanent control measures are anticipated. Wetland mitigation will follow the replanting specified in Section 02920 of the 100 Percent Design Submittal.

8.7 MAINTENANCE PROGRAM

*5/11/95
CDA*

Maintenance of the erosion and sedimentation controls during the project will be performed by OHM On-site Supervisor or his designated representative in his absence from the site. All controls will be inspected daily, as well as after each storm event. Any changes to the Erosion Control Plan will be documented in red on Sheet C-2. A weekly record will be turned into the NTR showing any and all changes that occurred in the implementation of the Erosion Control Plan on a "marked-up" Sheet C-2. Sediment removed from controls will be collected and bulked with excavation materials for off-site disposal.

Appendix A

Air Station Order 11010.1E



UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA 28533-5001

AirSta0 11010.1E
LCM
23 Sep 1991

AIR STATION ORDER 11010.1E

From: Commanding General
To: Distribution List

Subj: OIL AND HAZARDOUS SUBSTANCES SPILL CONTINGENCY PLAN FOR MCAS, CHERRY POINT, MCALF, BOGUE, AND MCOLF, ATLANTIC

Ref: (a) Federal Water Pollution Control Act of 1972 (as amended)
(b) MCO P11000.8 Real Property Facilities Manual, Volume 5

Encl: (1) Spill Prevention, Containment, Cleanup, and Disposal Guidelines
(2) Petroleum, Oils, and Lubricants (POL) and Hazardous Material/Hazardous Waste (HM/HW) Spill Contingency Plan
(3) Spill Report Memorandum - Sample Format

1. Purpose. To revise existing POL's and HM/HW related pollution abatement and prevention procedures for MCAS, Cherry Point; MCALF, Bogue; and MCOLF, Atlantic; and to provide a coordinated response capability for oils and hazardous substance spills that may pose a threat to public health, welfare, environment, and fish and wildlife in accordance with references (a) and (b).

2. Cancellation. AirSta0 11010.1D.

3. Background. It is the continuing policy of the Commanding General to actively participate in environmental pollution abatement, to take positive planning and programming action to abate and correct POL's and HM/HW related pollution problems, and to incorporate appropriate pollution control and prevention facilities in all new construction aboard MCAS, Cherry Point; MCALF, Bogue; and MCOLF, Atlantic. The intent of this policy is to carry out the applicable measures of federal, state, and county regulatory agencies and to prohibit the discharge of POL's and HM/HW.

4. Responsibilities

a. Unit commanders and department heads are responsible for preventing spillage and other unauthorized discharges of POL's and HM/HW within their own areas; developing and implementing plans and procedures to prevent, contain, and clean up spillage or unauthorized discharge; and to report spills in compliance with applicable laws, rules and regulations, and enclosure (1).

b. The Station Fire Chief or his designated representative will provide initial response, containment, and assistance on any reported spill of POL's and HM/HW as outlined in enclosure (1) and shall act as on-scene coordinator (OSC) until relinquishing control to Facilities Maintenance Department (FMD) for cleanup. The Security Department, Fire Division, will provide a spill response truck. Materials to stock the truck will be provided by FMD.

c. The S-4, Marine Wing Support Squadron-271 (MWSS-271), MCALF, Bogue, will develop and implement a written procedure for the containment and cleanup of POL's and HM/HW spills aboard MCALF, Bogue, and forward copies to the Natural Resources and Environmental Affairs Officer (NREAO), the Station Fire Chief, Joint Safety Manager, Preventive Medicine Officer, Facilities Maintenance Officer (FMO), Naval Hospital/Industrial Hygiene Officer, and the Director of Supply. Procedures will be consistent with applicable regulations and enclosure (2).

d. Prior to approval of training exercises at MCOLF, Atlantic, the Operations Directorate shall require each unit to submit spill contingency plans specific to the planned exercise to NREAO. Spill contingency plans shall list the equipment and resources the unit will have on hand, and must demonstrate that the unit can contain and dispose of spills without relying on the limited garrison forces located at MCOLF, Atlantic. Spill contingency plans shall follow the same general format as enclosure (2).

e. The NREAO will maintain overall cognizance of the POL's and HM/HW management plan and:

(1) Report and enforce regulations on unauthorized discharges of POL's and HM/HW and related significant environmental problems involving unauthorized handling and disposal of POL's and HM/HW regulated by federal, state, and local authorities.

(2) Provide administrative and technical training/guidance as related to this Order.

f. The FMO or his designee will:

(1) Assume responsibility as OSC upon arrival at the scene of a POL or HM/HW spill unless the spill requires self-contained breathing apparatus and/or encapsulation suits. Under these conditions, the Fire Division will retain OSC cognizance until the specialized protective equipment is no longer required, then the FMO will assume the OSC role.

(2) Assume responsibility of OSC upon arrival at the scene of a POL or HM/HW spill once the Station Fire Chief or his representative has determined it is safe to do so.

(3) Provide central storage, collection, and transportation of HW and waste petroleum products (in designated areas) aboard MCAS, Cherry Point.

(4) Be responsible for the administration of a Station HW storage/transfer facility.

(5) Periodically inspect and maintain in good working order all booms, skimmer dams, and/or related facility/structure at Station drainage checkpoints and the Navy Boat Docks.

(6) Maintain a Spill Response Team with appropriate personnel training and backup support as directed by this Order.

g. The Chief Petty Officer, Utility Boat Docks, is responsible for: -

(1) Training Navy Utility Boat Dock personnel to include POL spill cleanup and the use of the boom for spill containment in large bodies of water such as Slocum and Hancock Creeks and the Neuse River.

(2) Deployment and retrieval of the booms which are staged at the docks.

h. The Civilian Personnel Department will provide training for OSC and cleanup workers to meet Occupational Safety and Health Administration (OSHA) and Resource Conservation and Recovery Act (RCRA) requirements.

i. The Provost Marshal Officer will provide personnel to control access to the spill site when requested by the OSC in order to preserve the safety of the response crew or other persons nearby.

5. Action. Prohibit the discharge of POL's or HM/HW into or upon the land, streams, rivers, adjoining shorelines, or navigable waters in and around MCAS, Cherry Point; MCALF, Bogue; and MCOLF, Atlantic. Cognizant officers will take necessary action to assure compliance.

6. Summary of Revision. This Air Station Order has been completely revised and should be reviewed in its entirety.

7. Concurrence. The Commanding General, 2d Marine Aircraft Wing; the Commanding Officer, Naval Aviation Depot; the Commanding Officer, Naval Hospital; the Commanding Officer, Combat Service Support Detachment-21; and the Property Disposal Officer, Defense Reutilization and Marketing Office, concur with the contents of this Order insofar as it pertains to members of their commands.


J. CLARK
Chief of Staff
Acting

Distribution: A-2 plus LC (5)

SPILL PREVENTION, CONTAINMENT, CLEANUP, AND DISPOSAL GUIDELINES

1. The prevention of POL and HM/HW spills and the resultant environmental damage is the responsibility of all unit commanders.
2. All unit commanders and department heads will publish and prominently post directives setting forth detailed policies and procedures for the control, disposal, and prevention of hazardous substance and POL pollution applicable to their organization/area and consistent with this Order and applicable regulations.
3. All unit commanders and department heads will take the following actions:
 - a. Take positive measures to prevent spills to include a semiannual review of the maintenance, operational implementation, and training procedures used when handling POL's and HM/HW.
 - b. Conduct inspection of areas and facilities assigned to ensure compliance with published procedures and/or directives. A HW/HM coordinator designated by unit commanders/department heads shall:
 - (1) Inspect areas of responsibility to ensure that no POL's or hazardous substance is creating or has created a spill and keep inspection records.
 - (2) Inspect containers of POL's or HM/HW to ensure that they are in good condition. This is of particular importance for containers of corrosive materials. Further ensure that containers are capped, plugged, and/or protected to prevent infiltration of rainwater.
 - c. Establish immediate action procedures to improve pollution controls including the stocking of materials required to contain and/or clean up small POL and HM/HW spills.
 - d. Ensure that all personnel within their command are thoroughly indoctrinated regarding the environmental impact of POL's and HM/HW.
 - e. Encourage maximum reuse of technically contaminated fuels by multi-fuel, engine-powered tactical vehicles.
 - f. Other POL's may be deposited in approved containers for recycling or disposal. Contact FMD, extension 4364, to arrange for pickup by FMD and testing by NREAD.
 - g. POL saturated soil and/or cleanup material should be disposed of as directed by the OSC and any removed soil should be replaced with fresh earth and reseeded.
 - h. To dispose of water-contaminated aviation fuels, contact FMD, extension 4364.

ENCLOSURE (1)

AirSta0 11010 1E
23 Sep 1991

i. Disposal of POL's and HM/HW such as acids, poisons, and solvents through any drainage system to include sinks, washracks, storm drains, and natural drainage systems is specifically prohibited. These products will be segregated, stored in suitable containers, and disposed of in accordance with instructions provided by Air Station Order 6280.1.

j. POL containers will be disposed of according to standing instructions from the NREAO, extension 3631, and/or recycled, if appropriate, with the exception of 55-gallon drums and durable metal containers which will be disposed of through the Defense Reutilization and Marketing Office, extension 5905.

k. Personnel changing POL's from other than government-owned vehicles/equipment will use established MCX Service Station or Morale, Welfare, and Recreation facilities, and deposit waste POL's in any one of the authorized collection tanks.

l. All supplies of HM/HW and POL's shall be stored in areas that, upon spillage or container rupture, would curtail chance of spread of pollution into other areas; i.e., drainage ditch or structure that would eventually lead to stream, pond, or treatment facility. If such an area is not available, an impervious berm sufficient to contain any expected spill shall be built around the containers. Prior to initiating action contained within this report, contact will be made with the NREAO, extension 3631. POL's and gasoline storage containers of 55-gallon capacity or more will be diked to include a rainwater drainage line and valve. The valve will only be operated by personnel authorized by the unit commander/department head.

n. Aircraft, aircraft wing tanks, etc., will be washed only at washracks associated with the Industrial Waste Treatment Facility. There are three such washracks on this Air Station: one at the corner of 6th Avenue and "A" Street, northeast of Tank Farm "A," and one at the C-130 washrack. Purging fuel tanks of all excess fuel shall ONLY BE DONE INTO APPROPRIATE CONTAINERS and shall be done PRIOR to washing out the tanks at the above designated washracks.

o. POL's from leaking aircraft parked on the flight line have been known to accumulate in flight line distribution pits (wells); i.e., air, electrical, etc. Accumulated POL's in these pits constitute a potential safety hazard. The following procedures will be adopted to prevent explosions in POL-filled pits (wells):

(1) Drip pans will be placed under the fuel tanks of secured aircraft that are parked where leakage could accumulate in the pits.

(2) Maintenance personnel from the appropriate units will be assigned to check the pits periodically and call the Fire Division if POL's are present.

4. Field operations will comply with the following guidance:

a. All tactical refueling systems installed on base must first be approved by the Director of Facilities.

ENCLOSURE (1)

b. Fuel stored in tactical refueling systems will be properly diked as required by current regulations; i.e., the dike must be capable of containing at least 1 1/2 times the volume of the container.

c. When using fuel tanker vehicles, the following actions will be taken:

(1) Hoses, nozzles, and connections will be checked frequently for serviceability to avoid leakage of fuel.

(2) Refueler/defueler operators will stay with the vehicle during refueling/defueling operations.

(3) Refueler/defueler vehicles containing fuel will be parked in such a manner as to avoid the possibility of fuel entering natural or manmade drainage systems.

(4) During recirculation operations, nozzles will be secured to the vehicle.

(5) All waste petroleum products generated during field exercises will be stored (55-gallon drums, etc.) and disposal instructions obtained from the NREAQ, extension 4186.

5. Unit commanders and department heads should contact the Facilities Development Officer, Facilities Directorate, for temporary and permanent facilities needed at their sites for storage of POL's and HM/HW. Prevention of POL and HM/HW spills, through proper storage and handling, shall be achieved by strict adherence to procedures outlined in these guidelines.

ENCLOSURE (1)

PETROLEUM, OIL, AND LUBRICANTS (POL) AND HAZARDOUS MATERIAL/HAZARDOUS WASTE (HM/HW)
SPILL CONTINGENCY PLAN

1. Reporting Spills of POL's and HM/HW. All spills of POL's or HM/HW shall be reported immediately and followed up by spill report memorandum, enclosure (3), to responsible parties (OSC to NREAO). The report shall include the approximate amount, type of substance, and movement of the substance to any drains or waterways if contained and if cleanup is in progress, plus the name and phone number of the reporting personnel.

a. Runway Areas. POL's and/or HM/HW spills on runways shall be reported immediately to the Crash Crew Officer, extension 2131/2420, giving the above information. The Crash Crew Officer will dispatch personnel to contain the spill.

b. Non-Runway Areas. POL's or HM/HW spills shall be reported immediately to the Fire Division, extension 2241, who will respond and notify FMD.

c. HM or HW Spills. Spills of HM or HW, regardless of their location, shall be reported as above. HM or HW will be contained with an absorbent material but will not be removed until authorized by the NREAO or the designated HM Industrial Hygienist.

d. Reporting Off-Station. The North Carolina Division of Environmental Management will be contacted by the NREAO when a spill enters any type of water source. After apprising the Director of Facilities, the NREAO will be responsible for placing the call during normal working hours. After working hours or when the NREAO is not available, the OSC shall assume this responsibility. As soon as practical thereafter, the NREAO shall draft a message to cognizant parties as required by applicable MC directives.

e. Responsibilities for Ensuring Personnel and Public Safety. If a spill threatens surrounding civilian communities, the OSC in charge of spill removal shall contact the Joint Public Affairs Officer, the designated HM Industrial Hygienist, and the Station Security Officer. The provisions of the Mutual Assistance Agreement for Hazardous Materials Spills and Leaks apply.

f. Posting Spill Contingency Procedures. Notices will be posted in a prominent, highly visible location in every building/tank location and field service location where POL's or HM/HW are stored, used, and/or generated. These notices will be issued by the OSC (i.e., FMO) upon request of unit commanders or department heads and will contain the following information (may be typed or printed on yellow paper, 8 1/2 by 11 inches, and placed in plastic or a picture frame):

"In case of a POL or HM/HW spill:

On Non-Runway Areas: Call Security Department, Fire Division

On Base.....2241/3333
Off Base.....466-2241/3333

ENCLOSURE (2)

On Runway Areas: Call Crash Crew Office

On Base.....2131/2420

Report to NREAO, extension 4186/3631, substance spilled, estimated quantity, movement of substance in water, and name and telephone number.

Remain in area at a safe distance. Do not wash down with water and keep personnel out of the area. Block run-off with earth materials when possible to prevent spreading."

2. Spill Containment and Cleanup

a. After notification by the Fire Division and/or Crash Crew Officer, the appropriate OSC shall take the following actions immediately, including activating the Oil Spill Response Team when required.

b. Small Spills (less than one gallon)

(1) Gasoline or fuel oil spills that occur at refueling and or defueling locations from over-filling or blow-back must be reported to NREAO, extension 4186/3631, who will notify the appropriate OSC, if required. The spill must be promptly cleaned up, normally by the person at the scene.

(2) Containment Procedures Prior to Arrival of On-Scene Coordinator

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) Cover entire spill with sand or absorbent material and continue to add more material as long as the liquid appears on the surface of the sand or absorbent material.

(c) Clean up contaminated sand or absorbent material with brooms and shovel and place it in a metal container for disposal or possible reuse.

(d) Reapply a second coat of sand or absorbent material in a very light layer to assure all gasoline or fuel oils have been blotted up. Brush material back and forth over the area and sweep up completely and containerize.

(3) After completion of spill cleanup, if storage bins of sand or absorbent material are one-half full or less, request (via chain of command) the purchase of additional material.

c. Spills (more than one gallon) On Runway Areas (paved or unpaved)

(1) Reporting: Call Station Crash Crew, extension 2131/2420.

(2) Containment Procedures Prior to Arrival of On-Scene Coordinator

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

ENCLOSURE (2)

(b) The person on site shall erect a two-to three-inch high sand or earth dam downstream and/or in the direction that the spill is flowing. A trench or sump may be used in lieu of a dam.

(c) Apply sand or absorbent materials that are available around the perimeter of the spill until the Station Crash Crew personnel arrive. Keep other personnel away from the area.

(d) Station Crash Crew personnel shall continue abatement methods using equipment available until the appropriate OSC arrives to determine further containment and cleanup requirements.

d. Spills (more than one gallon) on Non-Runway Areas

(1) Reporting: Call the Fire Division, extension 2241/3333.

(2) Containment Procedures

(a) DO NOT FLUSH INTO STORM SEWER OR DRAINAGE DITCH.

(b) The person on site shall erect a minimum three inch high sand or earth dam downstream and/or in the direction the spill is flowing. The dam should be made higher if the liquid pool behind the temporary dam rises to within two inches of the top. A trench or sump may be used in lieu of a dam.

(3) Apply sand or absorbent materials that are available around the perimeter of the spill until the Fire Division arrives. Keep other personnel away from the area.

(4) The Fire Division shall continue abatement methods using equipment available until the OSC arrives to determine further containment and cleanup requirements.

(5) The liable unit or activity shall install dams, straw barriers, absorbents, pumping equipment, and other abatement or cleanup equipment as directed by the OSC, with assistance from the Spill Response Team.

e. Spills Entering Storm Drainage Systems

(1) Reporting: Call the Fire Division, extension 2241/3333 immediately and emphasize that the liquid has entered a catch basin, manhole, drainage ditch, or any structure (pit) below ground.

(2) Containment Procedures Prior to Arrival of On-Scene Coordinator

(a) DO NOT ADD WATER TO FLUSH OUT STORM SEWER OR STRUCTURE.

(b) The person on site shall apply sand or absorbent materials that are available around the perimeter of the spill and at the manhole or catch basin until the Fire Division arrives.

ENCLOSURE (2)

(c) The Fire Division shall continue abatement methods using equipment available until the appropriate OSC arrives to determine further containment and cleanup requirements.

(d) The liable unit or activity, in conjunction with the Spill Response Team, shall place oil booms across the storm drain to prevent further contamination. After booms are in place, cleanup will be initiated. Action may include the following:

- 1 All confined spaces must be certified "gas-free" prior to entry.
- 2 Inspect downstream manholes for evidence of oil progression toward discharge. If storm system has a very low flow, install straw barrier or absorbent dam inside manhole.
- 3 Install plug in upstream side of manhole spill if extremely low flow exists to help curtail spill movement.
- 4 If the drainage system has an open ditch, install straw bale dams or absorbent dam to collect spilled materials.
- 5 Isolate street with contaminated manholes to prevent fires or explosions.

(3) The appropriate OSC shall determine further containment and cleanup requirements after arriving on the scene.

f. Spills Entering Surface Waters

(1) Reporting: Call the Fire Division, extension 2241/3333 immediately and emphasize that the liquid is discharging directly into the surface waters.

(2) The Fire Division will notify NREA0 immediately.

(3) Containment Procedures Prior to Arrival of OSC

(a) The person at the site should check the source of the spill to be assured that no further discharge can occur. Close valves, remove hose, or isolate the source to prevent any further release of materials.

(b) Do not allow boats or equipment to enter the surface waters where the spill has occurred. If surface type oil absorbents are available, begin spreading this material wherever an oil skim is observed. Do not enter the water to apply this material until the Fire Division arrives.

(c) The Fire Division shall continue abatement methods using equipment available until the appropriate OSC arrives to determine further containment and cleanup requirements.

ENCLOSURE (2)

(d) The liable unit or activity, in conjunction with the Spill Response Team, shall install booms, skimmers, pumps, and other abatement or cleanup equipment as directed by the OSC.

(e) When the spill necessitates deployment of the boom stored at the Utility Boat Docks, the Chief Petty Officer will respond as directed by the OSC. This would normally be necessary when a spill occurs on large bodies of water such as the Neuse River or Hancock or Slocum Creeks.

3. Secondary Response to Spill

a. FMD

(1) The FMD will purchase and maintain the materials and equipment necessary for spill cleanup.

(2) The FMD or his designee will assume the duties of OSC when the Station Fire Chief or his representative declare such action to be safe and shall perform the following duties:

(a) Report spills that discharge into the inland or coastal waters to NREAO.

(b) Request U.S. Coast Guard assistance, via appropriate channels, for water spills that cannot be contained promptly by the Spill Response Team.

(c) If the source of the spill cannot be determined, or if weather conditions or spill circumstances warrant immediate action, the Spill Response Team will be responsible for the total cleanup.

(d) If the source of a spill can be determined, the OSC will inform the responsible unit's commanding officer (for 2dMAW, contact Wing Environmental Protection Officer, extension 3505/3510). He will task the unit with providing a cleanup crew. The crew will be assembled within one-half hour, will contact the OSC, and will take directions from him on removing the spill in conjunction with the Spill Response Team.

(e) Monitor all areas designated by the NREAO and activate spill contingency plans if POL's and/or HM/HW are found.

(f) The FMD will provide cleanup materials for spills in drains and waterways as required; i. e., absorbent, pads, booms, etc.

b. Spill Response Support Team

(1) Commanding officers of the following organizations will provide a five-man detail to serve on a rotation basis as the Spill Response Support Team.

H&HS, STATION
SOES

MWSG-27
MACG-28

Enclosure (2)

MWHS-2
MAG-14

CSSD-21
MAG-32

(2) The detail will consist of one NCOIC (sergeant or above) and four Marines (lance corporals or below). The commanding officers of these organizations shall be responsible for staffing the Spill Response Support Team and having it available immediately during normal duty hours (0730-1600, Monday through Friday) or within one-half hour during non-duty hours for duty under the direction of the OSC. Members will serve for a period of one month and will be subject to duty on a 24-hour basis, seven days a week. Scheduling (two weeks in advance) will be the responsibility of the FMD's OSC.

(3) The NCOIC of the Spill Response Support Team, once assigned that duty, shall receive training from NREA in spill cleanup and will not be granted leave except in emergency cases during the period his unit is responsible for providing the team. The NCOIC shall maintain a roster of available unit personnel for the team. His name shall be furnished to the FMD one week prior to assignment.

(4) The Spill Response Support Team will not be used by the Naval Aviation Depot (NAVAVNDEPOT) since that Command has its own capability for quick spill response. However, the NAVAVNDEPOT must report spills to NREA for off-Station reporting requirements. The Naval Hospital is not tasked with providing a team as it has small potential for POL's or HM/HW spillage. The Hospital must also report spills to NREA for off-Station reporting requirements.

c. Transportation. At the request of the OSC, the Motor Transport Officer, Facilities Directorate, will provide a vehicle or vehicles as required to transport the Spill Response Support Team or cleanup crew(s) and to carry supplies and spill wastes to and from the spill site.

d. Supplies

(1) The FMD will be responsible for obtaining and storing supplies necessary for removing spills.

(2) Units will be responsible for stocking sufficient supplies of absorbent material and appropriate containers to take care of small spills.

e. Responsibilities for Ensuring Public Safety

(1) Overall responsibility for ensuring the safety of personnel involved in the containment and cleanup of POL and HM/HW spills is assigned to the Station Fire Chief or his senior representative. The Station Fire chief, or his representative, shall continue to monitor the situation and will provide required standby personnel and equipment. The Station Fire Chief will request the assistance of the Joint Safety Officer and Naval Hospital Industrial Hygienist as needed and shall keep the OSC informed of any safety considerations affecting the containment and cleanup of the spill. In the event of an imminent hazard to personnel involved in the spill cleanup or to the public, the Station Fire Chief shall take appropriate action as directed by references (a) and (b). The OSC shall assist the Station Fire Chief in implementing the required safety procedures.

Enclosure (2)

(2) The Joint Safety Officer and the Naval Hospital Industrial Hygienist shall dispatch a representative to the spill scene upon request from the Station Fire Chief, his representative, or the OSC. The representative will remain at the scene until advised by the Station Fire-Chief, his representative, or the OSC that assistance is no longer required. The Safety representative will monitor all activity at or near the spill and make appropriate recommendations to the Station Fire Chief or the OSC.

f. Fiscal. In circumstances when the unit responsible for the spill is determined after spill cleanup is completed, the unit will be charged for the cost of the non-unit cleanup materials and labor by the Director of Facilities. In cases where the unit responsible for the spill is known and has provided a cleanup team, they shall be charged, through the Director of Facilities, for the cost of any cleanup materials used.

g. Natural Resources and Environmental Affairs Officer. The NREAO will develop maps of drainage systems as required for boom placement and drainage points to be monitored.

ENCLOSURE (2)

SPILL REPORT MEMORANDUM - SAMPLE FORMAT

The following format should be followed in submitting a spill report:

(UNIT/ACTIVITY)
Marine Corps Air Station
Cherry Point, North Carolina 28533-5000

6280 (Code)
(Date)

From: (Unit/Activity)
To: Natural Resources and Environmental Affairs Officer
Via: (Chain of Command)

Subj: POL AND HM/HW SPILL REPORT

Ref: (a) AirSta0 11010.1

1. Per the reference, the following report of a hazardous substance spill is made:

- a. Date: (Date spill occurred) Time: (Time spill occurred)
- b. Unit: (Unit responsible for spill)
- c. Name/Rank: (Name/rank of person reporting spill)
- d. Location: (Location of spill, squadron, building, etc.)
- e. Amount/Type: (Amount and type of hazardous substance spilled)
- f. Elimination Steps: (Steps used to eliminate spill/fire hazard)
- g. Response Supervisor: Name/rank responding Crash/Fire/Rescue
- h. Notification (checklist):

(1) Security Department, Fire Division (2241/3333)	Yes	___	No	___
(2) FMO (4363)	Yes	___	No	___
(3) NREAD (4591 working hours only)	Yes	___	No	___
(4) Duty Officer (of unit if after hours)	Yes	___	No	___
(5) Naval Hospital Industrial Hygienist (3833/4561)	Yes	___	No	___

ENCLOSURE (3)

AirSta0 11010.1E
23 Sep 1991

2. Additional Comments: (Cause of spill, description of damage, etc.)

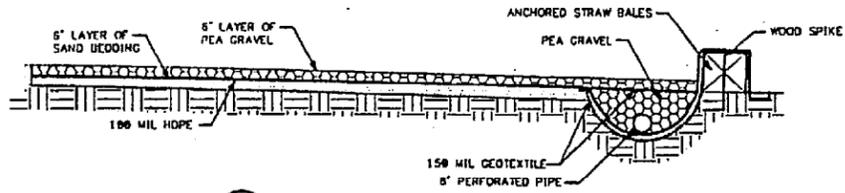
3. Section Leader's Signature: _____

4. Supervisor's Signature: _____

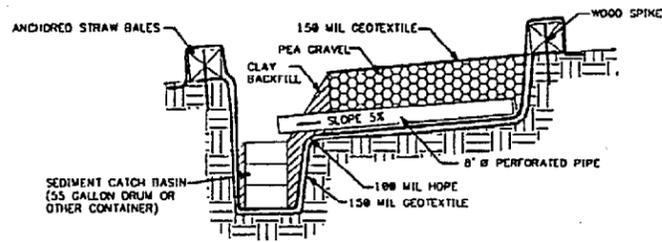
ENCLOSURE (3)

Appendix B

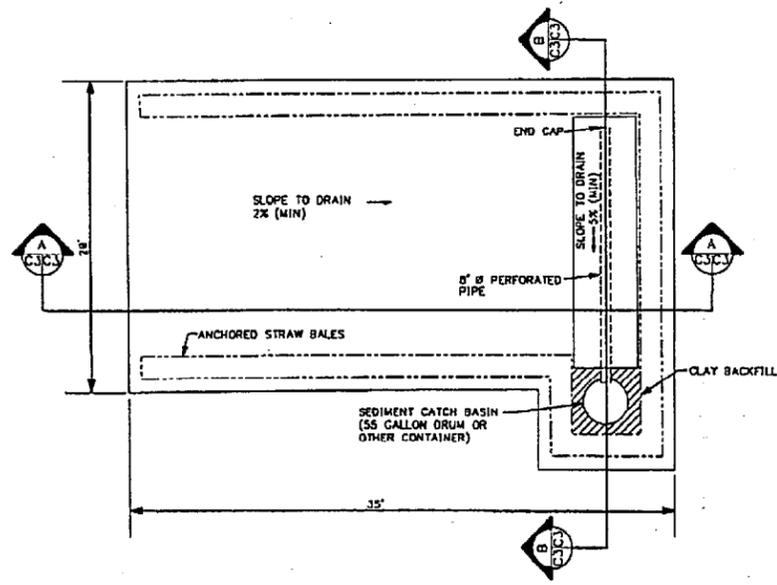
Select Drawings from Erosion Control Plan



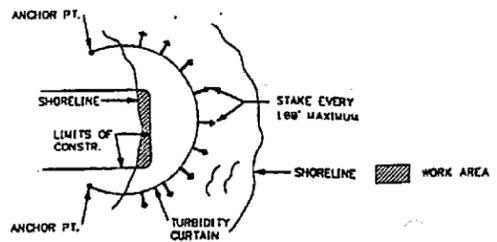
SECTION A
NTS



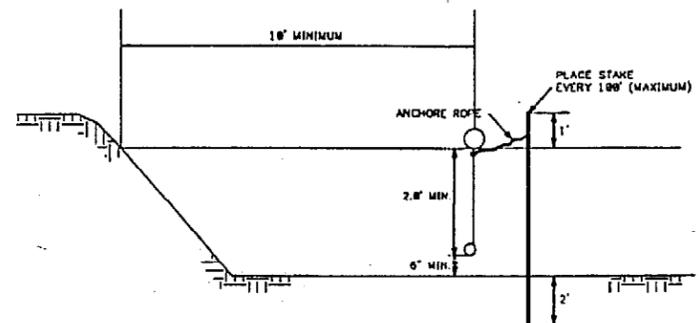
SECTION B
NTS



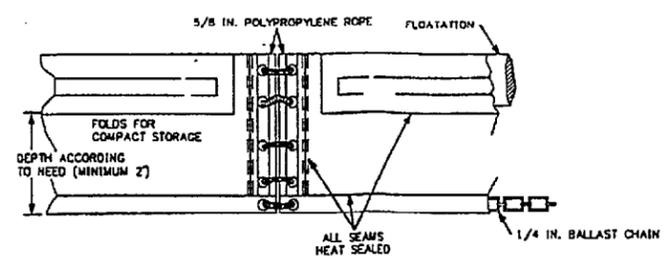
SECTION 1
EQUIPMENT DECONTAMINATION PAD
NTS



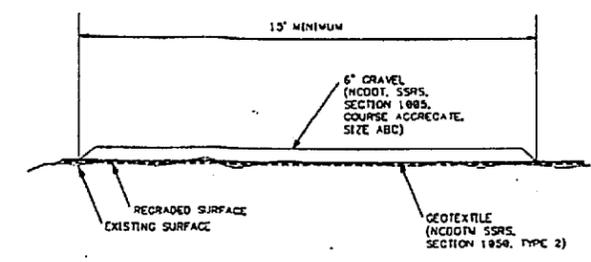
2
TYPICAL TURBIDITY CURTAIN LAYOUT
NTS



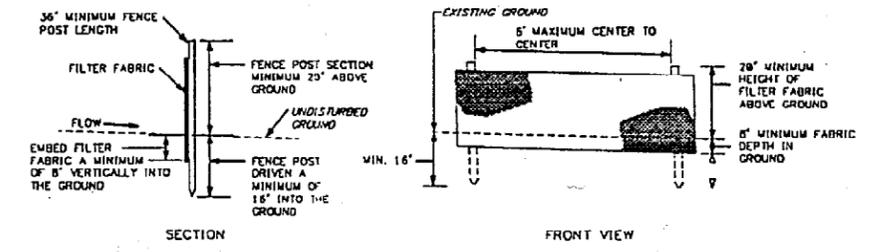
SECTION VIEW
NTS



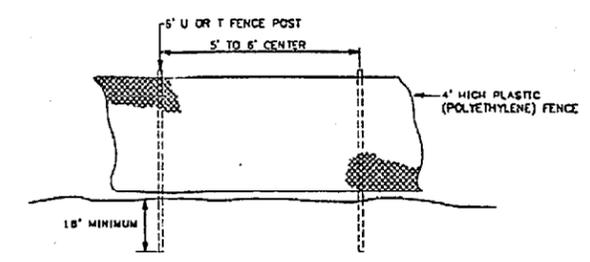
3
FRONT VIEW
TYPICAL TURBIDITY CURTAIN DETAIL
NTS



4
GRAVEL ROAD
NTS



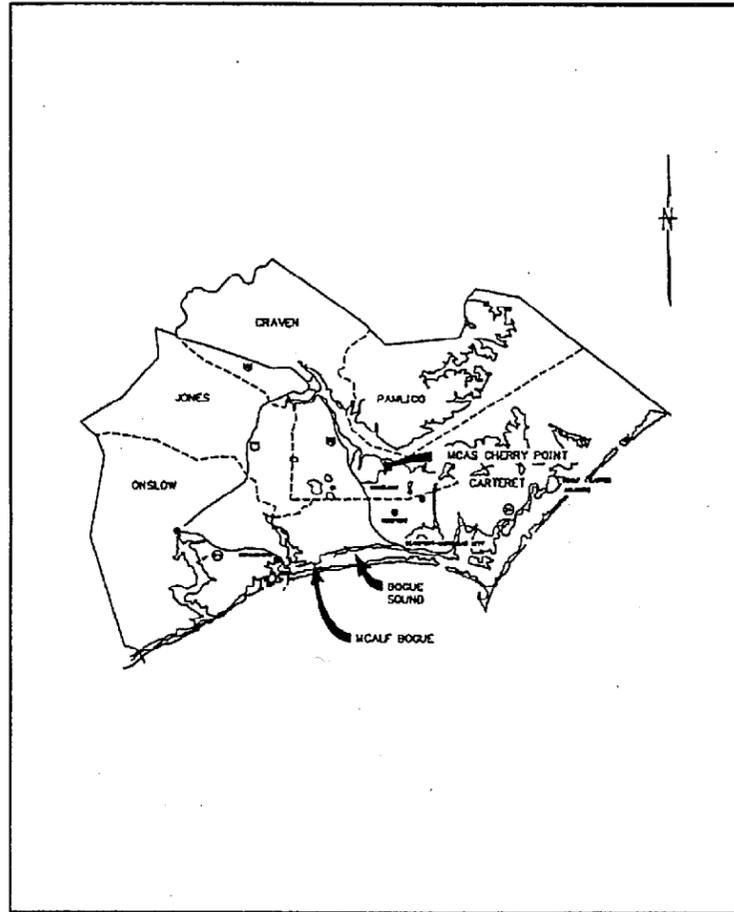
5
TYPICAL SILT FENCE
NTS



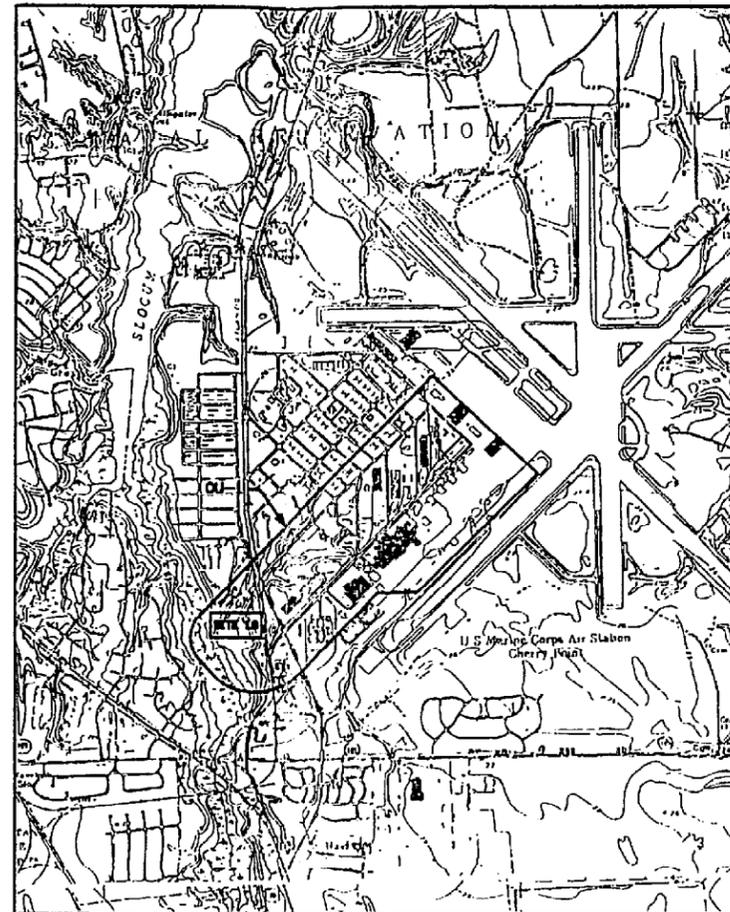
6
TYPICAL CONSTRUCTION FENCE
NTS

PREP BY DATE APPROV NIS NIS	REV. DESCRIPTION NIS	NAVAL FACILITIES ENGINEERING COMMAND PHILADELPHIA, PA CHERRY POINT, NORTH CAROLINA DEPARTMENT OF THE NAVY NAVAL BASE MARINE CORPS AIR STATION CHERRY POINT	ATLANTIC DIVISION DEBRIS PILE REMEDIATION CONSTRUCTION DETAILS	SHEET 1 OF 1 SIZE: D DIS. SH. NO. C-3
-----------------------------------	-------------------------	---	--	---

OPERABLE UNIT 1 - SITE 16 DEBRIS PILE REMEDIATION MCAS CHERRY POINT CHERRY POINT, NORTH CAROLINA



VICINITY MAP
NTS



LOCATION MAP
SCALE 1" = 1000'

DRAWING INDEX

- T-1 TITLE SHEET
- C-1 EXISTING SITE CONDITIONS
- C-2 REMEDIAL ACTION SITE PLAN
- C-3 CONSTRUCTION DETAILS
- C-4 EXISTING WETLANDS AND PLANT COMMUNITIES
- C-5 WETLANDS RESTORATION PLAN

GENERAL NOTES

1. ALL AREAS SHALL BE GRADED TO DRAIN.
2. MAXIMUM PROTECTION SHALL BE PROVIDED FOR EXISTING UTILITIES WHICH ARE TO REMAIN IN SERVICE. CONTRACTOR SHALL PROVIDE ALL TEMPORARY SERVICE.
3. THE CONTRACTOR SHALL THOROUGHLY INSPECT THE SITE PRIOR TO CONSTRUCTION TO VERIFY EXISTING SITE CONDITIONS.

DEPARTMENT OF THE NAVY NAVAL BASE MARINE CORPS AIR STATION CHERRY POINT PHILADELPHIA, PA. CHERRY POINT, NORTH CAROLINA	NAVAL FACILITIES ENGINEERING DIVISION ATLANTIC DIVISION TITLE SHEET OU-1 SITE 16 - DEBRIS PILES	PREP BY: _____ DATE: _____ APPROVD: _____ DATE: _____	PROJECT NO. _____ DRAWING NO. _____ SHEET NO. _____ OF _____ DATE: _____
SEAL AREA		SA1 10 _____ DATE _____ CODE I.D. NO. 04901 SCALE: AS SHOWN SPEC. NO. 24 - _____ CONSTR. CONTR. NO. N02472 NAVFAC DRAWING NO. _____ SHEET 1 OF 1 SIZE: D T-1	

NOTE: DRAWING PREPARED FROM MAPPING PROVIDED BY SURVEY COMPANY, DATE: 04/21/93