EXPLORATION PLAN

PITAS POINT UNIT
OCS P-0234 WELL NO. 5

SANTA BARBARA CHANNEL
CALIFORNIA OCS

TEXACO Inc.
OPERATOR

March 10, 1978

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Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
TEXACO Inc.

3. ADDRESS OF OPERATOR
3350 Wilshire Blvd., Los Angeles, CA 90010

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface Calif. Coordinate System, Grid Zone 6
X=992,600 Y=789,800 or 6500' E and 2100'S of the NW
At proposed prod. zone corner of Block OCS P-0234

5. LEASE DESIGNATION AND SERIAL NO.
OCS P-0234

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
PITAS POINT

8. FARM OR LEASE NAME

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
T5ON, R64W, Calif Map 6B

12. COUNTY OR PARISH
Fed Wtrs

13. STATE
Near Calif

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
9 miles SSW from Carpinteria

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
2100' South of North lease line

16. NO. OF ACRES IN LEASE
5,760

17. NO. OF ACRES ASSIGNED TO THIS WELL
Unknown

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
None

19. PROPOSED DEPTH
9500'vss

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
WD 280 MLLW; KB to Ocean Floor 332'

22. APPROX. DATE WORK WILL START*
To be determined

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED C. P. Farmer/Lmc TITLE GENERAL SUPERINTENDENT DATE 3-15-78
C. P. FARMER

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

"PUBLIC INFORMATION COPY"

SUPERVISION AND TRAINING

A Texaco Inc. Drilling Foreman will supervise operations 24 hours per day. All Texaco Inc. Drilling Foremen in the Los Angeles Division have extensive experience and are familiar with all phases of drilling, including blowout, or kick control. Their experience includes company classroom type film and lecture, firsthand experience with a well in Saticoy, California, which is designed to simulate kicks and is fully equipped with BOPE, mud pumps, etc., to provide practical experience as well as several years of actual field drilling experience.

Safety meetings will be held on the drilling vessel at least once per week. Subjects for discussion and instruction will include all aspects of well, rig and vessel safety. Emphasis will be placed on well control with an instructional film on blowout prevention and control being used.

BOPE will be inspected, actuated and tested in accordance with OCS Order 2-E.

The Texaco Inc. Drilling Foreman will schedule weekly drills for each drilling crew to insure that all equipment is operational and that crews are trained properly to carry out emergency duties.

II. BOPE DESCRIPTION

1. A diverter will be installed after the 30" casing installation (see Drawing #1).

2. A 21-1/4" BOPE stack will be installed after the 20" casing installation and cementing. It will consist of 3 rams rated at 2,000 psi and one annular preventer rated at 2,000 psi.

3. A 13-5/8" BOPE stack will be installed after the 13-3/8" casing installation and cementing. It will consist of 4 rams rated at 10,000 psi and two annular preventers rated at 10,000 psi. This stack will be in place for the remainder of the program. (See Drawing #2.)

4. All pipe rams will be at a size to fit the drill pipe in use and the bore of all BOPEs and spools will permit the running of the largest tools that the casing below the preventers can accommodate.

5. All BOPE's will be equipped with:

   a. A hydraulic actuating system that provides sufficient accumulator capacity to close all blowout prevention equipment units with a 50 percent operating fluid reserve at 1,200 psi. A high pressure nitrogen or accumulator back-up system will be provided, with sufficient capacity to close all blowout preventers and hold them closed. Locking devices will be provided on the ram-type preventers.

   b. Two control stations, one at the driller's station and one remote in Tool Pusher's office. Manual control can also be accomplished at the accumulator unit.

6. The kill line will have a fail safe valve located next to the BOP stack. Auxiliary connections for an emergency kill or choke line will be provided below any preventer that is likely to be closed (see Drawings).

7. The kill line will have at least one control valve in addition to the master gate valve.

8. The choke manifold will be installed as shown in Drawing #3.

9. All valves, pipe and fittings that can be exposed to pressure from the wellbore will be of a pressure rating at least equal to that of the blowout prevention equipment.

II. BOPE DESCRIPTION (cont'd)

10. A top kelly cock will be installed below the swivel, and another will be installed at the bottom of the kelly and so designed that it can be run through blowout preventers.

11. A back-pressure valve shall be used in the drill string while drilling into potentially over-pressured zones.

12. An inside blowout preventer and a full opening drill string safety valve in the open position will be on the rig floor at all times while drilling operations are being conducted. Valves will be on the rig floor to fit all pipe that is in the drill string. A safety valve will be available on the rig floor to fit the casing string as it is being run in the hole.

13. The borehole shall be kept full of mud at all times. To assure early detection and thereby early reaction to swabbing, lost circulation or influx of formation fluids, the following mud system monitoring equipment (with derrick floor indicators) will be installed and used throughout the period of drilling after setting and cementing the conductor (20") casing.

    a. Recording mud pit level indicator to determine mud pit volume gains and losses. This indicator shall include a warning device.

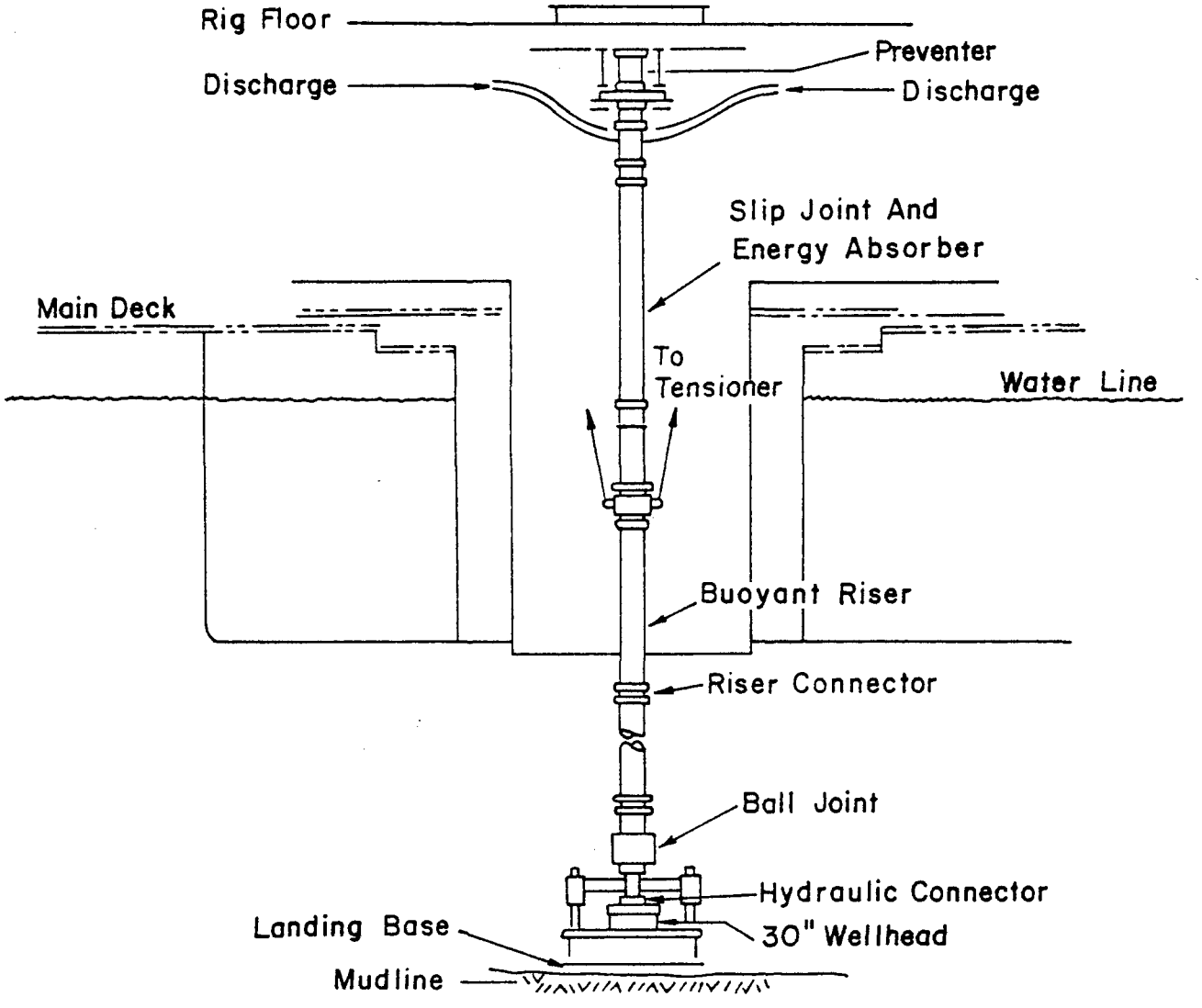
    b. Mud volume measuring device for accurately determining mud volumes required to fill hole on trips.

    c. Mud return or "full hole indicator."

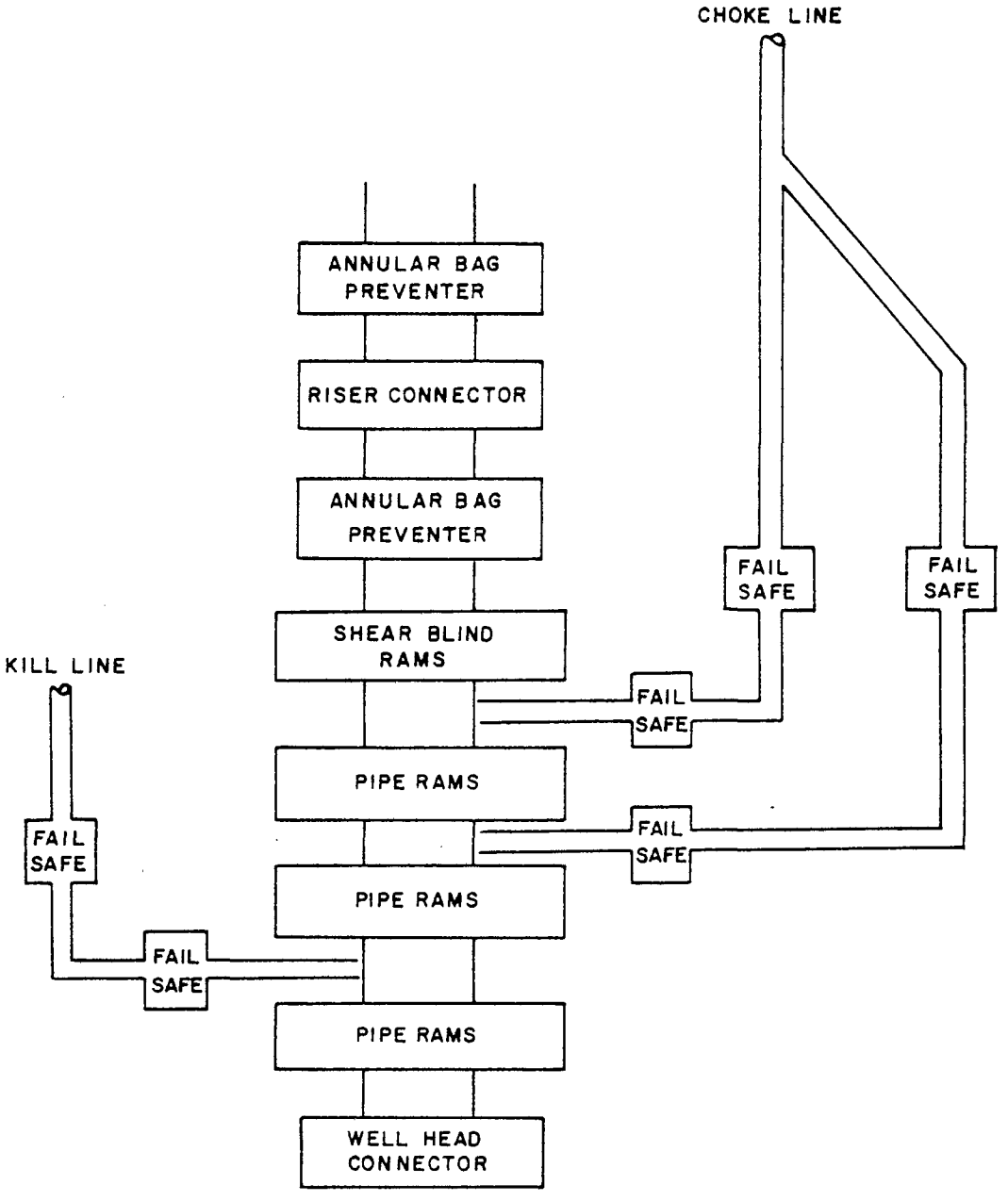
    d. Trip tank with 50 barrels capacity.

14. All BOPEs and associated equipment will be installed, tested and operated in accordance with OCS Order #2.

COMPONENTS OF DIVERTER
SYSTEM

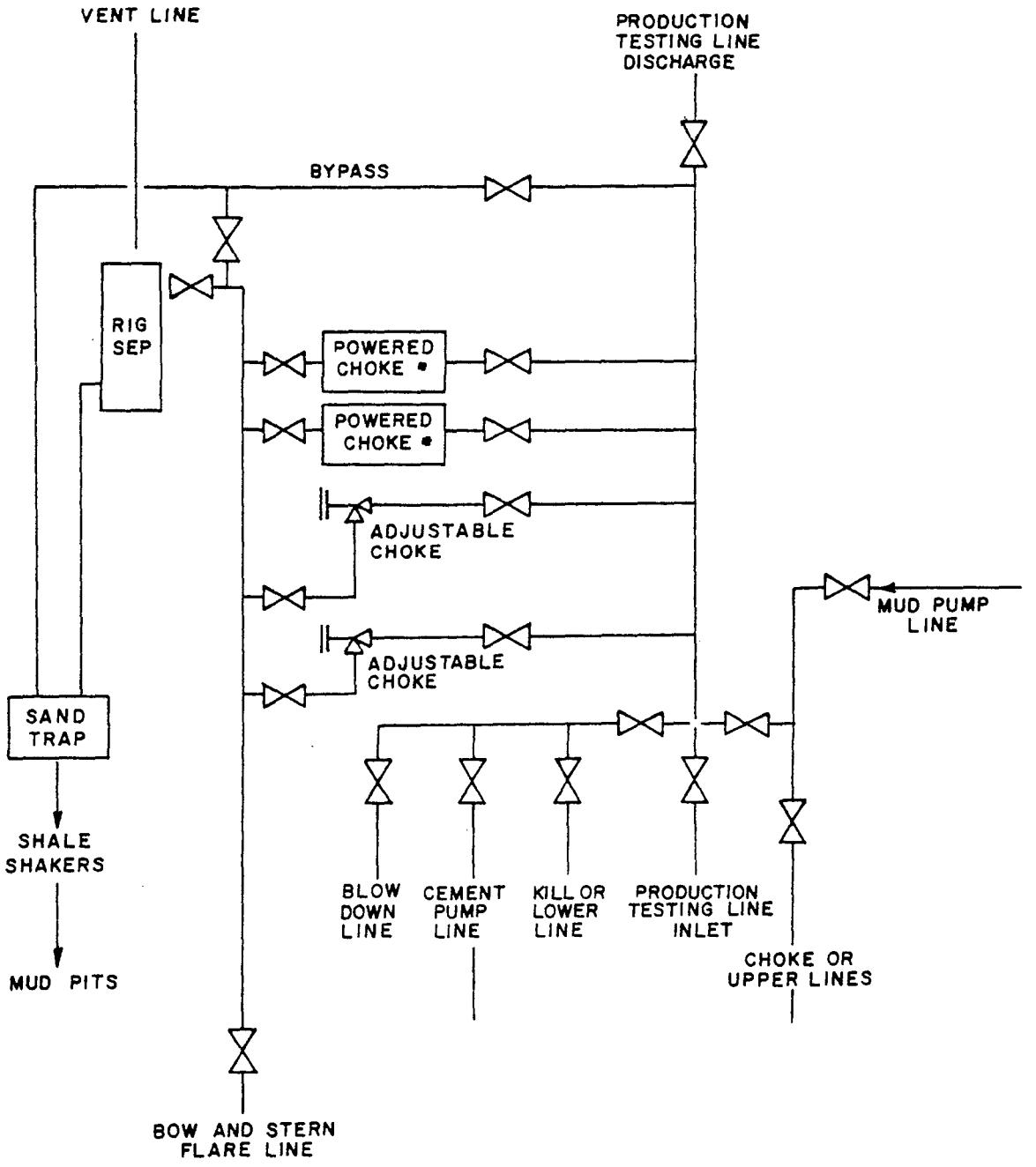


DRAWING No. 1



BLOWOUT PREVENTER ARRANGEMENT

DRAWING No. 2



STANDARD CHOKE MANIFOLD

* 10,000 PSI POWER OPERATED CHOKE

DRAWING No. 3

III. PLAN FOR DRILLING AND BOP INSTALLATION

This well will be drilled using subsea wellhead and blowout preventers complete with marine riser.

1. Drill a 36" hole to 100'± below the ocean floor with sea water. Returns to be left on ocean floor. Run and cement 100' of 30", 310#/ft, A-36 casing, 30" housing and permanent guide base.

2. Run marine riser with hydraulic latch and latch into 30" OD housing and install diverter at surface.

3. Drill a 14-3/4" hole to 300' beneath the ocean floor. Run logs to determine the presence of any shallow hydrocarbons. With approval of the USGS if no hydrocarbons are present, stand back the riser and open the hole from 14-3/4" to 26".

4. Run 20" casing with subsea housing. Land in 30" housing and cement 20" casing through drill pipe.

5. Install 21¼" ID, 2000 psi W. P. Blowout Preventer stack complete with choke and kill lines and marine riser. Reinstall surface diverter in marine riser and hook up all surface diversion lines.

6. Drill 14-3/4" hole to 1000' beneath the ocean floor and open hole to 17½" using the surface diverter for surface control in the event any hydrocarbons are encountered.

7. Run 13-3/8" OD casing and 13-5/8" housing on drill pipe and land in the 20-3/4" housing. Cement as required.

8. Pull the 21¼" BOP stack and riser and run the 13-5/8" high pressure stack and riser and connect to the 13-5/8" wellhead housing.

9. Drill a 12¼" hole to 2750' beneath the ocean floor.

10. Run 9-5/8" OD casing and hanger and land in the 13-5/8" housing. Cement as required.

11. Drill an 8½" hole to a depth of 9550' TVSS.

12. Run 7" OD casing and hanger and land in the 13-5/8" wellhead housing. Cement as required.

IV. CASING PROGRAM

Water Depth:	280 MLLW K.B.: 332' above sea floor
Structural:	30", 310#, A-36, Squnch Jt. to 100' below sea floor
Conductor:	20", 94#, K-55, Vetco L to 300' below sea floor
Surface:	13-3/8", 54.5#, K-55, Seal Lock to 1000' below sea floor
Intermediate:	9-5/8", 36#, K-55, Seal Lock to 2750' below sea floor
Production:	7", 23 and 26#, N-80, Seal Lock, 10,325' KB to sea floor

TEXACO INC.

OIL SPILL CONTINGENCY PLAN

OUTER CONTINENTAL SHELF

DRILLING OPERATIONS

PACIFIC AREA

APPENDIX A

Revised 8/1/77

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I. INTRODUCTION

This Oil Spill Contingency Plan has been prepared for the purpose of assisting Texaco Inc. and contract personnel in taking prompt and proper actions should an oil spill event occur during OCS, Pacific Area, drilling operations.

Preparation of the plan is in compliance with the Department of Interior, U.S.G.S. OCS Orders governing oil and gas lease operations in the Outer Continental Shelf, Pacific Area; specifically, OCS Order No. 7 Pollution and Waste Disposal.

Included in this plan are the resource capabilities available for commitment during an oil discharge, provisions for varying degrees of response effort depending on the severity of the oil discharge, and establishment of procedures for early detection and notification when an oil discharge is discovered.

Recipients of this plan should read it thoroughly; know the capabilities of on-hand containment and clean-up equipment and materials; know the sources of assistance and materials that can easily be located and obtained; and know their responsibilities.

II. OPERATIONAL SYSTEM

A. Precautions

1. The decks of the drilling vessel are to be surrounded by a coaming to prevent the spillage of drilling fluid, crude oil, fuel oil or other harmful pollutants directly into the ocean.
2. Drip pans or coamings are to be provided under or around all machinery that may discharge small quantities of oil or other pollutants.
3. Drill cuttings, sand and other solids containing oil shall not be disposed of into the ocean unless the oil has been removed.
4. All solid waste generated during OCS operations shall be incinerated or transported to shore for disposal in accordance with Federal, State or local requirements.
5. During fuel transfer operations from one vessel to another, a procedure shall be established and all necessary precautions shall be taken to prevent the discharge of any fuel into navigable waters.
6. All requirements of the U.S.G.S., Pacific Area OCS Order No. 7, Pollution and Waste Disposal shall be conformed with in every respect. (See Section VIII of Appendix)

B. Inspections, Drills, and Reports

1. Inspections

A monthly inspection will be made of all pollution control equipment and materials aboard the drill vessel. An inspection will also be made after any drills or necessary use of the equipment or materials. Any maintenance or repair found necessary will be performed immediately. Results of the inspections shall be recorded and maintained at the site.

2. Oil Spill Response Training Program

It shall be each Drilling Foreman's responsibility to be knowledgeable of all containment equipment aboard any drilling vessel he is supervising. If he is unfamiliar with the equipment he should conduct a deployment drill for the purpose of familiarizing himself and the crew with the operation and capabilities of the equipment available aboard the vessel. Boom, skimmer and storage bags shall actually be deployed in the water for this particular drill. Any required maintenance shall be conducted immediately following the drill. This deployment drill shall be entered in the vessel's and well's log. (Typical boom deployment situations can be found in Sections VI and VII of the Appendix).

A crew boat, powered life boat, work boat or helicopter can be used for deploying the boom. Containment of oil within a boom is ineffective if the boom is towed in excess of 1.5 knots per hour.

3. Deployment & Recovery Methodology:

Skimmer, boom and storage bags will be stored onboard the drilling vessel in a readily accessible place. Work crews and supervisors are trained in quick response procedures to remove them from storage, lower them by crane into work or crew boats and deploy them into service. The boom and skimmer can be lowered directly into the water and towed into position by support boats. Deployment of boom and skimmer should be accomplished in 20 minutes. After "mop-up" operations are completed, all of the above equipment will be recovered from the water, thoroughly cleaned, dried and then returned to storage. Any damaged or lost equipment will be replaced as soon as possible.

4. Spill Reports

A written report shall be made by the Drilling Foreman to his supervisor of all spills into navigable water regardless of the volume spilled. This report shall include:

a. Location

b. Material spilled

c. Source

d. Amount spilled (gallons)

e. Spill size (length, width in feet)

f. Spill movement

g. Weather and wave conditions

h. Action taken

i. Cleanup status

This report is in addition to any report required by government agencies

C. Reciprocal Notification

Texaco subscribes to the policy that operators shall notify each other upon observation of equipment malfunction or pollution resulting from another's operation.

III. ALERT PROCEDURES

In the event of an oil spill or suspected spill from our facility, the first consideration is for personnel safety. Following this consideration, an effort should be made by the Texaco representative on the scene, normally the Drilling Foreman, to immediately identify the source of flow and take whatever necessary action to stop the flow, if possible. Every effort should be made to prevent additional pollutants from flowing into the ocean.

After initial emergency procedures to stop the flow have been taken, Texaco's Drilling Foreman aboard the vessel shall take immediate action to begin containment and recovery steps using available equipment aboard the drill vessel.

This vessel shall normally have stored upon it as a minimum:

1. 1500' of fast deployment-type boom.
2. Skimmer capable of recovering 50 barrels per hour of diesel oil.
3. One sea bag, capable of containing 1200 gallons.
4. 10 barrels of approved dispersant chemical w/spray application equipment. Before using any dispersant or other chemical, permission must be obtained from the Coast Guard and Supervisor of the U.S.G.S. (See Section III of Appendix for information needed to get Coast Guard and U.S.G.S. authorization for the use of a chemical agent).

If, in the opinion of the Drilling Foreman, equipment aboard the drill vessel is inadequate to contain and clean up a spill, he shall request, through his onshore supervisor, the necessary equipment and material from the closest available industry clean-up organization. Texaco is a participating member of Clean Seas Inc., SC-CPO and Clean Coastal Waters. Their available equipment is listed in Section V of the Appendix.

IV. NOTIFICATION PROCEDURE

A. Notification - General

The Texaco Drilling Foreman shall instruct all contract drilling personnel, crew members of the drilling vessel, crew boats, work boats, support helicopters or service company representatives to immediately inform the Texaco Drilling Foreman aboard the drill vessel, upon sighting oil or any other liquid pollutant in the water in the vicinity of the drill vessel or its support equipment.

B. Observation of Oil from an Unknown Source

Should an oil slick of unknown origin be detected, immediate steps should be taken to try to determine the source. If the source of the oil appears to be from some unknown facility, the Drilling Foreman shall report the oil slick to his onshore supervisor, who in turn shall verbally notify the U.S.G.S. and U.S. Coast Guard National Response Center of the existing slick as under Section D (Small Spills) below.

Any containment or clean up of oil from an unknown source must, however, be at the direction of, and under the responsibility of, the U.S. Coast Guard and/or the U.S. Geological Survey.

C. Activation and Response

Efforts to secure, contain and cleanup an oil spill are to begin immediately whenever an incident related to Texaco's operation is noticed or reported to the Texaco Drilling Foreman by any person. The responsibility for this action rests with the Texaco Drilling Foreman in charge. Rapid containment is vital to minimize the spread of oil. The tide, current, wind and time all work to increase the aerial extent of a spill. Immediate efforts to effectively contain an oil spill will:

1. Limit the area to be cleaned.
2. Contain the oil, making recovery more efficient.
3. Reduce the environmental impact to the immediate area.

The Texaco Drilling Foreman shall direct antipollution efforts until cleanup is complete or until relieved or re-assigned. The responsibility will move to the Response Commander or his designated representative should he arrive on the scene and take control of the situation.

D. Small Spills

Under most circumstances, spills of 7.9 cubic meters (50 barrels or 2100 gallons) can be contained and cleaned up using the pollution control equipment stored aboard the drill vessel.

All oil and liquid pollutant spills of less than 7.9 cubic meters (50 barrels or 2100 gallons) shall be reported orally to the Drilling Foreman's Supervisor, who in turn shall immediately relay an oral report to the U.S.G.S. District

Engineer and the U.S. Coast Guard National Response Center and shall confirm the report in writing on the U.S.G.S. Form 9-1880 entitled "Pollution Report". (See Section I of the Appendix for the U.S.G.S. District Engineer and Coast Guard telephone numbers.) Should the Texaco Onshore Supervisor not be available, the Texaco Drilling Foreman will make his initial oral report directly to the U.S.G.S. District Engineer and the U.S. Coast Guard National Response Center.

Before using any dispersant or other chemical, permission must be obtained from the Coast Guard and U.S.G.S. through the Texaco Response Commander. See Section III of the Appendix for information required before permission can be obtained to use chemicals.)

E. Large Spills

All spills of oil and liquid pollutants of a substantial size or quantity, which is defined as more than 7.9 cubic meters (50 barrels, or 2100 gallons), and those of any size or quantity which cannot be immediately controlled, shall be reported orally without delay to the Texaco Onshore Supervisor, who in turn, without delay, shall transmit an oral report to the U.S.G.S. District Engineer, the U.S. Coast Guard National Response Center, the local U.S.C.G. station and the Regional Administrator of the EPA. All oral reports shall be confirmed in writing. (See Section I of the Appendix for necessary telephone numbers.)

If the spill occurs in the State of California waters or moves within the three-mile limit, the State of California Office of Emergency Services shall be notified at

once in addition to the U.S.G.S. and the U.S.C.G. National Response Center. The Office of Emergency Services will notify the appropriate state agencies.

In the event the Texaco Drilling Foreman in charge determines that the spill is continuing, or of such volume that on-board equipment cannot adequately contain and recover the entire spill, he will contact his Supervisor, who will arrange for the dispatch of necessary additional pollution control equipment to the spill site. (See Section V of the Appendix for equipment available from Cleanup Organizations and contractors.)

The Drilling Foreman's Supervisor will need to develop the following information:

1. Cause of spill
2. Size of spill
3. Action being taken to control source of pollution
4. Containment efforts and result
5. Movement of spill (speed and direction)
6. Weather conditions
7. Sea conditions

The Drilling Foreman shall deploy the on-board containment and recovery equipment immediately upon detection of the spill and use it to contain and recover the maximum amount of pollutant until such time as additional supplemental equipment arrives on the scene.

V. LARGE SPILL RESPONSE

Upon notification by the Drilling Foreman that on-board pollution control equipment does not have the capability for immediate containment or recovery, his Supervisor shall, following notification of governmental agencies, notify the General Superintendent who in turn will notify management and start the mobilization of Oil Spill Cleanup Personnel, as required, to initiate the Company Response Plan in full, or in part, depending on the extent of the spill.

Prior to the arrival of Texaco's Oil Spill Response Team on scene, the Drilling Foreman's Supervisor shall assume the responsibilities of the Response Commander and the Drilling Foreman the responsibility of the Oil Spill Cleanup Coordinator. It is estimated that the Response Team will require 12 to 24 hours to be fully mobilized on scene.

The Onshore command post location will be determined by the Response Commander. This location will be determined by availability to the pollution site and available transportation and communications. (See Section IV of the Appendix for Texaco's Oil Spill Response Plan.

VI APPENDIX

APPENDIX

SECTION I

AGENCY NOTIFICATION

AGENCY NOTIFICATION

OCS Order No. 7, Section 2B, Pollution Reports, requires:

1. Minor Spills 7.9 cu. m. (50 bbls. - 2100 gals.) or less

All spills or leakage of oil and liquid pollutants shall be reported orally without delay to:

(a) Coast Guard National Response Center

(b) U. S. Geological Survey District Engineer

2. Major Spills over 7.1 cu. m. (50 bbls. - 2100 gals.)

All spills or leakage of oil and liquid pollutants of a substantial size or quantity and those of any size or quantity which cannot be immediately controlled, shall be reported orally without delay to:

(a) Coast Guard - National Response Center

(b) U. S. Geological Survey - Supervisor

(c) U. S. Geological Survey - District Engineer

(d) Environmental Protection Agency - Regional Director

U. S. Geological Survey

District Office	(805) 648-5131
District Engineer Michael F. Rietz (Home)	(805) 642-3043
Assistant District Engineers Denny Rau (Home) Ray Courtright (Home)	(805) 644-3219 (805) 642-0825
Los Angeles Office (7:30 AM - 4 PM)	(213) 688-2846
Area Oil and Gas Supervisor Fred Schambeck (Home)	(213) 861-5075
Deputy Oil and Gas Supervisor Harry Cypher (Home)	(213) 696-3319
Chief, Offshore Section Maurice Adams	(213) 282-6373

Coast Guard

Must be notified of any discharge of oil.

National Response Center, Wash. D.C.		(800) 424-8802

Also notify local U.S.C.G. station.

Santa Barbara	(24 Hr)	(805) 962-7430
Channel Island Harbor	"	(805) 487-9822
Long Beach	"	(213) 590-2321
San Diego	"	(714) 299-7033

Environmental Protection Agency

Los Angeles		(213) 688-3232
San Francisco	(24 Hr)	(415) 556-6254

California Office of Emergency Services

Will notify all state agencies	(800) 852-7550

Additional Phone Numbers for Reference

State Division of Oil and Gas

Long Beach - Offshore Unit	(213) 597-4439

State Lands Commission

Los Angeles	(213) 590-5201

California Dept. of Fish & Game

Long Beach	(213) 435-7741

California Regional Water Quality Control Board

Los Angeles Region	(213) 620-4460

SECTION II

MEDICAL AND EMERGENCY FACILITIES

MEDICAL AND EMERGENCY FACILITIES

A. Ambulances

Schaefers 1001 N. Wilmington Wilmington, CA	(213) 835-3101
Dilday Ambulance 1219 Pacific Ave Long Beach, CA	(213) 437-0801
Oxnard Ambulance Service 321 South "C" Street Oxnard, CA	(805) 486-6333
Coastal Ambulance 1913 State Street Santa Barbara, CA	(805) 963-3561
Courtesy - Ventura 3110 Loma Vista Rd Ventura, CA	(805) 643-5496

B. Hospitals

Memorial Hospital of Long Beach 2801 Atlantic Ave. Long Beach, CA	(213) 595-2133
Long Beach Community 1720 Termino Ave. Long Beach, CA	(213) 597-6655
St John's Hospital 333 North "F" Street Oxnard, CA	(805) 483-1141
Cottage Hospital 320 West Pueblo Santa Barbara, CA	(805) 963-1661
St. Francis Hospital 601 East Micheltorena Santa Barbara, CA	(805) 962-7661 or 966-1531
Community Memorial Hospital of San Buenaventura 2800 Loma Vista Rd Ventura, CA	(805) 648-3201

C. Doctors

Dr. H. Everett 3450 Loma Vista Rd Ventura, CA	(805) 642-8581
Dr. F. T. Gunn 2945 Loma Vista Rd Ventura, CA	(805) 648-6851
Dr. B. E. Johnson 1626 Avalon Blvd Wilmington, CA	(213) 834-2249
Dr. E. F. Kesling 1231 Avalon Blvd Wilmington, CA	(213) 834-6456
Dr. J. A. Morse Texaco - Box 817 Wilmington, CA	(213) 835-8261
Seaview Medical Clinic 900 Pine Ave Long Beach, CA Dr. R. N. Green Dr. A. Leonard Dr. H. H. Schroeder	(213) 432-4461
Dr. W. R. Anderson 593 W. 6th St San Pedro, CA	(213) 832-1126 or 833-4461
Dr. J. L. Atchison Dr. R. J. Bailey 5333 Hollister Ave Santa Barbara, Ca	(805) 967-3491 or 966-4181

D. Fire Department

Port Hueneme (County)	(805) 482-2777
Santa Barbara City	(805) 965-5252
Ventura City	(805) 643-6121
Oxnard City	(805) 483-2211
Long Beach	(213) 436-8211
Wilmington	(213) 832-4241
Long Beach Harbor Fire Boat	(213) 591-7631

E. Sea Rescue

U. S. Coast Guard Reserve Coordination Center	(213) 590-2311

F. Police Departments

Santa Barbara	(805) 965-5151
Santa Barbara County, Sheriff	(805) 963-1611
Ventura County Sheriff	(805) 648-3311
Oxnard	(805) 486-1663
Long Beach	(213) 435-7431
Wilmington	(213) 832-7211
Highway Patrol	Zenith 12000

G. Harbor Master

Santa Barbara	(805) 963-1737
Ventura	(805) 642-8536
Oxnard	(805) 487-5511
Long Beach	(213) 437-0041
Los Angeles	(213) 775-3231

SECTION III

REQUIRED INFORMATION FOR AUTHORIZATION TO USE A CHEMICAL AGENT

INFORMATION NEEDED TO REQUEST COAST GUARD AND U.S.G.S. AUTHORIZATION FOR USE OF A CHEMICAL AGENT*

Environmental Conditions

Call U. S. Coast Guard, and U. S. G. S. for authorization based on the following environmental conditions:

Location of Spill:

Type of Oil or Hazardous Substance Spilled:

Amount Spilled: Area of Spill: Thickness:

Type of Chemical to be used:

Water Depth:

Air Temperature: Water Temperature:

Wind Conditions: Directions_____ Speed_____

Wave Conditions: Calm, Choppy, or Rough Swell Size_____

Current Conditions: Speed_____ Direction_____

Debri Present: Yes or No Type of Floating Debris_____

Availability of Removal Equipment: Type_____ No._____

Aquatic Vegetation Present: On Surface or at Depth

Special Biological Factors such as: Waterfowl Sanctuary

Wildlife Refuge

Spawning or Nursery Grounds

Shellfish Beds

Swamp Area

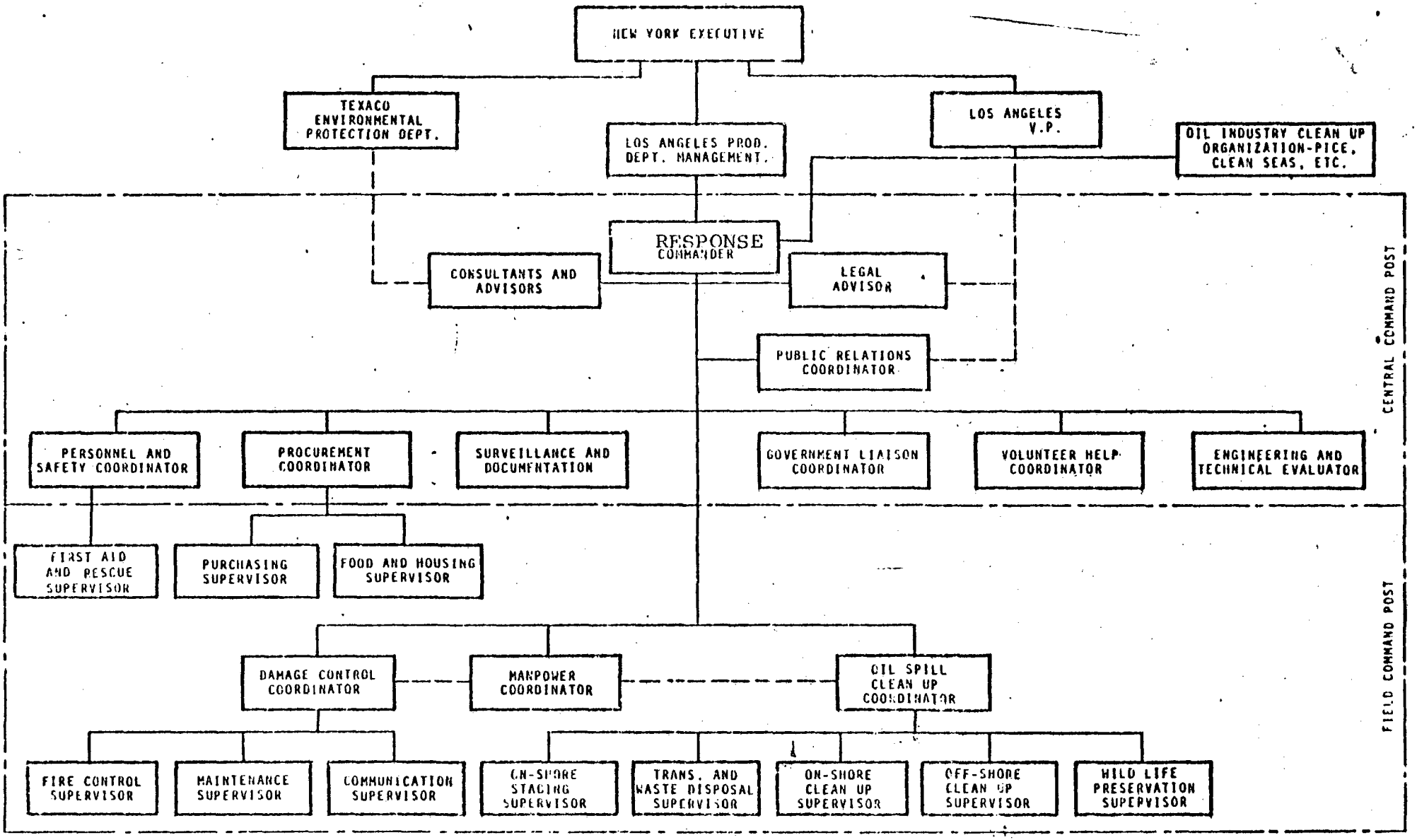
*Compliance with Section 2004.2, National Oil and Hazardous Substances Pollution Contingency Plan and Part 2003.2-1 Annex X National Oil and Hazardous Substances Pollution Contingency Plan.

SECTION IV

TEXACO INC

OIL SPILL RESPONSE PLAN

PRODUCING DEPT. - LOS ANGELES DIVISION
MAJOR OIL SPILL RESPONSE PLAN



OIL SPILL RESPONSE PLAN ASSIGNMENTS AND DIRECTORY

POSITION & NAME	HOME PHONE
Response Commander	
C. P. Farmer	(213) 883-3786
L. McCann (Alternate)e	(805) 259-1441
Legal Advisor	
C.eT. Mathewse	(213) 242-0612
M. A. Berkson (Al tern ate)e	(213) 341-3078
Public Relations Coordinator	
J.eW. Aucotte	(213) 691-2123
L. L. Bingaman (Alternate)e	(213) 439-9671
Personnel & Safety Coordinator	
S. J. Marshe	(213) 248-1673
R. D. Manning (Alternate)e	(805) 495-9321
Procurement Coordinator	
R. C. Andersone	(213) 421-4628
M. A. Day (Alternate)e	(213) 421-7456
Surveillance & Documentation Coordinator	
D.L.Shoenbergere	(805) 647-2737
V.J.Miller(Alternate)e	(213) 425-6979
Government Liaison Coordinator	
H. D. Pitchere	(213) 345-7845
J. P. Reynolds (Alternate)e	(213) 860-6357
Volunteer Help Coordinator	
R. Keetere	(714) 526-4839
R.eL. Howard (Alternate)e	(213) 439-0680
Engineering & Technical Evaluator	
R. G. Crippen	(213) 446-5641
J. J. Mendoza (Alternate)	(714) 532-4887

POSITION & NAME	HOME PHONE
Manpower Coordinator	
N. D. Ballard	(805) 238-5694
C. D. Fitzgerald (Alternate)	(714) 531-9618
Damage Control Coordinator	
C. R. Poynter (Prod.)	(805) 525-1744
A. C. LeValley (Plants)	(805) 525-5184
L. N. Spier (Drg.&Rem.)	(213) 429-2611
Oil Spill Clean Up Coordinator	
D. G. Gossett	(213) 346-4175
G. D. Furlow (Alternate)	(213) 381-2346
First Aid and Rescue Supervisor	
H. T. Thornton	(805) 647-4873
F. E. Thrower (Alternate)	(805) 647-6682
Purchasing Supervisors	
G. H. Johnson	(714) 524-8842
J. B. Coffee (Alternate)	(805) 529-0575
Food & Housing Supervisor	
P. O. Giddens	(213) 596-5455
J. H. Hunt (Alternate)	(805) 238-2543
Fire Control Supervisor	
D. H. Brandon	(805) 238-1100
R. L. Oglesby (Alternate)	(209) 935-1372
Maintenance Supervisor	
J. D. Robertson	(805) 524-1549
E. L. Jennings (Alternate)	(714) 893-0014
Communications Supervisor	
D. L. Hynek	(213) 368-6495
B. J. Clarkston (Alternate)	(805) 259-9521
On-Shore Staging Supervisor	
A. L. Morrison	(805) 466-1616
V. S. Rockhold (Alternate)	(714) 536-2841

POSITION & NAME	HOME PHONE
Transportation & Waste Disposal Supervisor	
J. Boswell	(213) 961-3802
L. Southwick (Alternate)	(805) 524-0309
On-Shore Clean Up Supervisor	
S. C. Griffin	(805) 872-2883
R. M. Coe (Alternate)	(805) 525-1137
Off-Shore Clean Up Supervisor	
R. Riley	(805) 238-5048
J. L. McClure (Alternate)	(805) 525-1317
C. L. Richards (Alternate)	(805) 647-7427
Wild Life Preservation Supervisor	
T. L. Hazen	(213) 363-3575
D. A. Smith (Alternate)	(805) 647-0838

Section II

ORGANIZATIONAL JOB RESPONSIBILITIES

New York Executives - Although New York Mangement is vitally interested in all aspects of an oil spill and will, in cases of massive spills, almost certainly become involved in making major decisions, the overall day-by-day cleanup effort will be directed by local managerial personnel. The actual degree of direct involvement by top Management will depend on circumstances--particularly damage and liability potential, public relations and other pertinent ramifications. Top Management's role will primarily include the development of decisions, policy, and guidance necessary to cope with a situation whose scope is beyond the authority of local managerial personnel involved.

Los Angeles Management - New York Management will hold Los Angeles Management responsible for the proper and effective conduct of the cleanup effort. In this direct involvement with the problem Los Angeles Management will exercise vested authority above and beyond that held by the Response Commander in the conduct of its duties which will include:

1. Maintaining overall surveillance and giving direction and guidance through the Response Commander.

2. Promptly and regularly informing New York Management of all pertinent events and progress associated with the cleanup and related efforts.

3. Promptly implementing the instructions of New York Management.

4. Exercising vested authority in rendering necessary decisions for the Response Commander.

5. Establishing and maintaining the necessary contact, communication and good rapport with pertinent Government and Industry Officials.

6. Devising and effecting a program to promote the best possible public relations, acting through the Public Relations Coordinator

Response Commander - Los Angeles Management will hold the Response Commander responsible for the proper and effective conduct of the cleanup effort.

The Response Commander's duties will include:

1. Exercising immediate judgment from which to develop the related decision as to the degree of implementation required.

2. Directing and supervising the overall cleanup effort, acting with the full authority vested in him through those coordinators and supervisors reporting directly to him.

3. Promptly and regularly informing Los Angeles Management of all pertinent events and progresses associated with the cleanup and related effort.

The Response Commander is the General Superintendent of Drilling and Production or who he delegates.

Public Relations Coordinator - The Public Relations representative will assist the Response Commander in all matters related to press and news media releases concerning the activities, plans, operation, etc. He will also provide recommendations to the Oil Spill Cooperative as to public information disclosure procedures.

Normal functions of the Public Relations Coordinator would be as follows:

1. Assess the effect of the emergency on the public.

2. Based on this assessment, develop and obtain approval from Management for basic procedures to follow to keep the public advised of the progress of the emergency operation.

3. Make, subject to approval by Management, news releases on the operation.

4. Maintain good communications with all other members of the Oil Spill Cleanup Organization so that he will be well informed on what is taking place, and so that he can continually remind other members of the team to refer all news media personnel to the Public Relations Coordinator.

5. Maintain contact with the Management of all news media in the area and urge them not to jeopardize the effectiveness of the operation by seeking on-the-scene interviews with Operating Supervisors who are extremely busy and who are not authorized to issue news releases or offer opinions on any phase of the operation.

6. Provide information to top Management so that satisfactory public relations contacts with high level government officials may be conducted.

7. Maintain a detailed record of the emergency operations, documenting significant operations and events as they occur, so that a complete chronological history of the operation is obtained. Particular attention should be given to documenting all contacts and discussions with government representatives and the approvals obtained from various representatives of regulatory bodies for specific operations, such as the use of chemicals to disperse the oil on the water, burning of oil on the water, etc. (This function can be greatly aided by close liaison with the Spill Surveillance and Documentation Supervisor in order to obtain photographs, etc.)

Legal Advisor - It will be his primary function to outline legal guidelines for the OSC in regards to spill situations.

The primary functions of the Legal Advisor shall be:

1. To become thoroughly familiar with all legal ramifications of a major oil spill, including the liabilities involved and the legal precedence that has been set in prior major oil spills.

2. To render legal advise to New York and Los Angeles Management, and the Response Commander.

3. To provide qualified claims adjustors to investigate alleged claims of damage.

4. To advise Los Angeles Management when it appears desirable from a legal standpoint to immediately negotiate to settle damage claims where settlement can be made in full.

Government Liaison Coordinator - Continuing duties include maintaining a current roster of designated governmental agency representatives assigned to positions outlined in the National, USCG, EPA, and State Contingency Plans; awareness of revisions and modifications of pertinent rules and regulations; surveillance of governmental research and development programs; and the incorporation of pertinent legislation into the Company Response Plan where applicable.

In a spill situation, this representative is responsible for liaison efforts with the governmental agency representatives and reports directly to the Response Commander. The specific functions of the Government Liaison Coordinator will be:

1. To keep up to date on the activities, policies, and regulations of Federal, State, and other government bodies with respect to their position on major oil spills so that we will know how to work with the various agencies when a spill occurs. (In this regard, he should become personally acquainted with local representatives of these government bodies.)

2. To insure that all appropriate regulatory bodies have been advised of the spill.

3. To be stationed in the command post and contact all representatives of the Federal, State, County, and City Governments in order to be of assistance to them while they are carrying out their legally constituted responsibilities with regard to the spill.

4. To maintain liaison with representatives of the various governmental bodies and convey information, requests, and legally constituted directives to the Response Commander or to appropriate members of his staff.

5. To seek approval from appropriate governmental agencies for specific operations which are subject to regulations by law, such as the use of chemicals, utilization of government equipment or materials, access to government owned lands, etc.

6. To obtain clearance from the Response Commander of any release of information to various representatives of the different government agencies to insure that such information is consistent with what the Public Relations Coordinator releases to the news media.

The Government Liaison Coordinator shall have authority to conduct government representatives on observation tours to the scene of the emergency, provided such visits can be made safely and without interference with the operations in progress.

Damage Control Coordinator - The Damage Control Coordinator reports directly to the Response Commander for the purpose of providing and coordinating the necessary maintenance and communications support required for the cleanup effort. Manpower required will be provided and scheduled by the Manpower Coordinator.

Spill Surveillance and Documentation Coordinator - Primary duty includes surveillance of oil spills and predictions of movement utilizing both aerial and surface surveillance to provide a complete monitoring system. Based on his reconnaissance, the Response Commander can foresee what future action will be required to protect shorelines, beaches, and other sensitive areas in the vicinity of the oil spill.

Documentation of oil spills and movement of oil becomes very important in settling claims, public relations, and government relations, and, therefore, the Spill Surveillance and Documentation Coordinator should work closely with the Public Relations Coordinator.

Procurement Coordinator - Continuous duties include the preparation of guidelines and procedures to assist the Response Commander in equipment acquisition, inventory control, and cost accounting.

In a spill situation, this position becomes very important in procurement and expiditing functions requested by the various supervisors in carrying out their assigned duties. This will involve the direction of activities at the Field Command Post and other facilities selected for loading or unloading operations. Specific functions of the Procurement Coordinator shall be:

1. To purchase, rent, borrow, or otherwise obtain the following as specified by the Response Commander of other members of his organization:

   a. Equipment and Materials required to be be purchased for damage control, containment and cleanup, acting through the Purchasing Supervisor.

   b. Acting through the Food and Housing Supervisor provide for services for all those engaged in the operation, including food, lodging, clothing, safety, and protective equipment, tools and supplies

2. Acting through the Personnel and Safety Coordinator, make adequate arrangement with local doctors, ambulance services, and hospitals for handling and care of injured personnel.

Volunteer Help Coordinator - During an oil spill, there are many young people, of high school age and up, who insist on helping. In many respects, this volunteer help becomes more of a problem than help and results in unsupervised, indiscriminate scattering of straw, plunging into dangerous surf to rescue birds, etc. The Volunteer Help Coordinator is needed, therefore, to:

1. Set up an office and phone line where volunteers can call and to where they can be directed in order that their energies can be utilized in safe areas where manpower is needed and can be supervised (beach cleanup crews, bird cleaning stations, etc.).

2. Publicize through radio, TV, and newspapers the telephone number where volunteers may call for work direction.

3. Keep accurate record of names, addresses, and hours worked.

4. Work closely with the Manpower Coordinator and his staff.

Consultants and Advisors - In any major spill, there is a number of Company Consultants and Advisors who may be required to assist the Response Commander. These people are:

1. Environmental Protection Department Representative.

2. Marine Department Representative.

3. Medical and Safety Department Representative.

The list may not be complete but it is expected that the people shown will be made available as required when a major spill occurs, and thus should become familiar with this Response Plan and keep up-to-date on new technology in their specialized fields so that they can make effective recommendations to control and clean up a major spill.

Engineering and Technical Evaluator - Continuing duties include the evaluation and analysis of proposals and equipment related to oil spill cleanup operations; with recommendations to the Response Commander as to applicability or feasibility, operational performance, and developmental considerations.

In a spill situation, this staff member would be responsible for screening all manufacturers, promoters, inventors, etc., of all oil spill recovery devices and submit his recommendations to the Response Commander. Specifically, the functions of the Engineering and Technical Evaluator shall be:

1. To intercept and interview all salesmen and private citizens who come forward with ideas, materials, or equipment to assist in the operation. In making these contacts, the Engineering and Technical Evaluator will be guided by Legal Counsel with regard to submitted ideas.

2. To evaluate all proposals and pass along to the appropriate member of the Oil Spill Organization those proposals which appear to have merit. Provide appropriate final answers to those whose proposals have insufficient promise to warrant further consideration.

3. To provide technical assistance to the Oil Spill Clean-Up Coordinator or the Damage Control Coordinator.

Manpower Coordinator - In case of an oil spill, the Manpower Coordinator is responsible for the proper and effective scheduling of manpower, both Company and contract. The Coordinator will function under the Response Commander. His major responsibilities are:

1. Determine manpower requirements from meetings with Response Commander, Damage Control Coordinator and Oil Spill Clean-Up Coordinator.

2. Determine manpower available from Company sources and arrange to hire additional contract personnel if required.

3. Schedule personnel where needed and arrange transportation, food, and housing, etc., through the proper coordinators and supervisors.

Food and Housing Supervisor - This position will function under the direction of the Procurement Coordinator. It will be necessary to assure adequate food and housing for the personnel. Possibly a catering service could be engaged to supply food. Housing may involve mobile trailer units or motels, hotels, etc. The magnitude of the position, of course, depends upon the number of personnel involved, and, in the case of a major spill, could be quite great.

Personnel and Safety Coordinator - Primary duties are to provide health and safety coordination for all personnel involved in the oil spill clean-up effort. To accomplish this end, he will recommend and arrange for all necessary safety and personnel protection equipment. Control of personnel health will necessarily have to include the arrangement for services of qualified medical personnel. This Coordinator should also arrange for medical services convenient to each operating area, including first aid stations containing supplies of basic first aid equipment for minor cuts and bruises.

It will also be the responsibility of the Personnel and Safety Coordinator to provide for the necessary operations and staging areas security.

Fire Control Coordinator - In case of an oil spill and fire, the Fire Control Coordinator is responsible for the proper and effective conduct of the fire control effort.

Duties of the Fire Control Coordinator are as follows:

1. After evaluating the situation with the Response Commander and the Oil Spill Clean-Up Coordinator, start fire fighting in an organized manner.

2. Through the Response Commander, request any outside equipment or personnel needed.

3. Assign one member of Company to meet and direct outside concerns requested.

4. Provide for gas tests, if it is felt necessary.

5. Recommend to Response Commander the evacuation of personnel and equipment if situation warrants.

Onshore Staging Supervisor - The duties of the Staging Area Supervisor and his alternate (3) will include the organization of the staging area; preparation and coordination of all equipment, materials, and supplies to be dispatched to the operation; inventory and status control; maintaining a detailed check list as to readiness of equipment. His duties will also include maintaining close liaison with the Transportation and Waste Disposal Supervisor and Procurement Coordinator to insure a coordinated effort. This will include obtaining rental office trailers to be used as Mobile Command Posts, and close contact on a regular basis to assure a continuing supply of equipment and materials.

Wildlife Preservation Supervisor - During an oil spill, some of the public becomes more concerned over oil soaked birds and their preservation than damage to public or private property. Consequently, this position becomes most important.

In the event of an oil spill, the appropriate local office of the Department of Fish and Game will take responsibility for wildlife preservation. It will be the job of the Wildlife Preservation Supervisor to assist the Department of Fish and Game as necessary. At present, the Department indicates that labor and truck transportation will be the only assistance required.

In a spill situation, the functions of the Wildlife Preservation Supervisor shall be to:

1. Provide liaison between the Company and the Department of Fish and Game.

2. Arrange for labor and truck transportation, as requested, by the Department

3. Advise the Oil Spill Clean-Up Coordinator of the potential effect on marine life of the use of chemicals and other cleanup materials.

4. Arrange for factual documentation by expert consultants on the effect of the spill on critical wildlife areas. This documentation will tend to prevent distortion by the news media and unrealistic claims of damage by the public or the fishing industry.

5. Keep fully informed of the progress of control, containment, and cleanup operations.

6. Prepare in advance, a list of qualified consultants who can be contacted in the event of an oil spill.

Transportation and Waste Disposal Supervisor - Adequate transportation must be provided for equipment, materials, and personnel on a 24 hour basis, and on very short notice. In order to reasonably insure trans-ortation availability, it will be necessary for the Transportation and Waste Disposal Supervisor to plan and schedule as far in advance as possible.

Following are some of the duties of the Transportation and Waste Disposal Supervisor:

1. Make necessary arrangements for the use and standby of helicopters.

2. Maintain a current list of available trucks, classified as to type of service and use.

3. Arrange with local boat owners and contractors for possible use of their vessels.

4. Arrange with the Petroleum Industry Emergency Cooperative members for use of vessels, where required.

5. Arrange with local charter aircraft companies for light plane charter service.

6. Arrange transportation for equipment, material, and personnel needed to carry out the containment and cleanup and damage control operations.

7. To work with Government Liaison Coordinator in obtaining governmental approval to burn solid oily waste material on the beaches; if practical, or to dispose of this material at approved waste disposal sites.

Communication Supervisor - Continuing duties include the acquisition, installation, and maintenance of the recommended communication system.

Spill situation duties include providing for, and, the supervision, operation, and maintenace of the communications system to insure 100% reliability during oil spill cleanup operations as follows:

1. Provide necessary radio, telephone, and other communication facilities in the General Command post, Field Command Post, Mobile Command Post(s), and other field locations.

2. Be available to the various command posts in order to maintain existing communications gear and to recommend to the Response Commander installation of any additional equipment that would facilitate coordination of the operation.

Oil Spill Clean-up Coordinator - The Oil Spill Clean-Up Coordinator is the front lineman for oil spill control and cleanup operations. His duties will be divided between the Central Command Post, the Field Command Post, and on-site operations and will include the following;

1. Determine from the Response Commander his duties in each case.

2. Establish a firm schedule of communications with the Response Commander's office.

3. Organize and manage the field supervisors in in their establishment of such special emergency facilities as may be required.

4. Become familiar with any oil spill cleanup contingency plans presently developed by Cleanup Organizations and review with the Response Commander.

5. Select or develop a firm cleanup plan.

6. Review and clear plan with the Response Commander.

7. Determine the manpower transportation, supplies, food, communications, and other requirements for carrying out the cleanup plan and arrange for the related procurements.

8. Implement the cleanup plan and follow the progress of this work regularly.

9. Work with the Engineering and Technical Evaluator in the interest of improving the cleanup operation.

10. Direct, supervise, and coordinate the efforts of all cleanup supervisors in the conduct of their work.

11. Communicate with all groups and operations which have a bearing on cleanup operations; i.e., government liaison, damage control, etc.

12. Insure, through supervisors, that all cleanup work assignments are being carried out.

13. Prepare and forward to Response Commander daily a special progress report.

Offshore Clean-Up Supervisor - It will be the duty of this supervisor and his alternate(s) to prepare detailed deployment and operational procedures for all open sea equipment in the Clean Up Organizations Industry and government inventory. He

will confer regularly with the other companies' Oil Spill Clean-Up Coordinator(s) for the review of the Plan of Action as related to offshore cleanup operations.

Spill duties will include the direction of all offshore oil spill cleanup operations under the direct supervision of the Oil Spill Clean-Up Coordinator.

Onshore Clean-Up Supervisor - It will be the duty of this supervisor and his alternate(s) to prepare detailed deployment and operational procedures for all calm water and onshore equipment in the Company. He will confer regularly with other companies' Oil Spill Clean-Up Coordinators for the review of the Plan of Action as related to Onshore Clean-Up operations. Spill duties will include the direction of all onshore cleanup operations, under the direct supervision of the Response Commander.

First Aid and Rescue Supervisor - In case of an oil spill, the First Aid and Rescue Supervisor is responsible for the proper and effective conduct of the rescue and first aid effort.

Duties of the First Aid and Rescue Supervisor are as follows:

1. Report to the scene of spill and evaluate the situation with the Response Commander, Personnel and Safety Coordinator, and Oil Spill Clean-Up Coordinator.

2. Coordinate and supervise first aid through the the Personnel and Safety Coordinator

3. Work closely with the Personnel Coordinator in acquiring any outside aid if conditions should require additional aid.

4. Inspection and control of sanitation problems including drinking water and food.

5. Identifying dead or injured personnel.

6. Maintaining records of all first aid cases.

7. Keeping the supply team informed of additional first aid supplies needed.

8. Arranging for transportation through Transportation Supervisor of injured employes to first aid stations or hospitals.

9. Command search and rescue operations, if required.

Maintenance Supervisor - In case of an oil spill, the Maintenance Supervisor is responsible for the proper and effective conduct of the maintenance and repair effort.

Duties of the Maintenance Supervisor are as follows:

1. Respond to call from Damage Control Coordinator on matters related to Maintenance. This would include the following items:

   a. Emergency lighting and power sources.

   b. Pumping facilities and drainage

   c. Repair of equipment, including damaged lines, vessels, dikes, etc.

2. Manpower for the maintenance team will be supplied from the Company Maintenance force and contract personnel and scheduled by the Manpower Coordinator.

Purchasing Supervisor - This position will function under the direction of the Procurement Coordinator and will assist him in locating sources of supplies and equipment, and arranging for their delivery when and where needed.

SECTION V

RESOURCES

POLLUTION CONTROL EQUIPMENT AND MATERIALS

SP-CPO

SOUTHERN CALIFORNIA-PETROLEUM CONTINGENCY ORGANIZATION

CHARLES D. BARKER

GENERAL MANAGER

SUITE 2302 - INTERNATIONAL TOWER

666 E. OCEAN BLVD., LONG BEACH, CA 90802

TELEPHONE: (213) 432-8494

SC-FCO EQUIPMENT STATUS

FEBRUARY 1977

C. D. BARKER
(213) 4[illegible]8494

EQUIPMENT	EFFECTIVE USE	LOCATION	DATE AVAILABL
2 Mark II Skimmers on Trailers	Simple 14' X 30' weir type towed or tied along side vessel of opportunity. Recovers lt. oil to Bunker C with rates of 50-200 gpm in relatively calm seas.	Alameda Staging Serv. 444 N. Alameda Wilmington, CA. 90748 Berth 200, G & H Phone: 549-8242	NOW
2 Vikoma Sea Packs on Trailers	23' hull contains 1600 Ft. of sea boom - very fast response - excellent reports on performance North Sea, English Channel. In significant waves up to 6' and winds of 20-25 knots. Reports substantiated by CSI.	"	NOW
3100 Ft.-Goodyear Boom (12" X 24")	Excellent harbor protection - boom material can withstand chafing against rip-rap, pilings, etc. Also excellent open ocean boom.	Crowley Terminal - Long Beach for quick deployment.	NOW
4100 Ft.-Kepner Compacti Boom. 16" freeboard and 23" draft.	Excellent open ocean boom. Excellent harbor boom.	ASSI (3000' in 40'van) 1000'-Catalina Isl.(Air lift).	NOW
1000 Ft.-Expandi Boom 11" X 18"	Excellent open ocean or harbor boom.	Catalina Isl. (Airlift)	3/77
2 SeaVac Oil Recovery Systems	Excellent recovery system in open ocean or harbor. Consists of slurp skimmer oil water separator, pump, floats, hoses, etc. Relatively calm seas.	ASSI - 1 Catalina - 1	NOW
3 Kepner Sea Bags	1200 Gal. oil container - these bags to be used with recovery systems until barge or other containment vessel is on site.	ASSI - 2 Catalina - 1	NOW

REV 2/3/77

SC-PCO EQUIPMENT STATUS

FEBRUARY 1977

EQUIPMENT	EFFECTIVE USE	LOCATION	DATE AVAILABLE
1 - 050 Cyclonet	Small, effective recovery unit. Centrifuge system used with vessel of opportunity for larger units. May prove to be excellent on site unit for off shore rigs.	ASSI	NOW
- 150 Cyclonet	Very large & effective total recovery system. Fast deployment & rapid recovery speed, 3-4 knots. Fitted to large service vessels of 35-45' beam.	Outlying terminal for rapid response. Four vessels to be equipped with holding plates.	3/77
- Dunlap Dracones	Heavy duty sea bag used with any skimmer - holds 1000 Imp. Gal.. Equipped with towing hose assemblies & fittings.	2-Outlying terminal for rapid response. 1 - Catalina Isl.	3/77
Acme Skimmers	Excellent harbor or open sea skimmers once oil contained in boom.	ASSI	NOW
Komara Mini Skimmer	Excellent skimmer - harbor or open sea. Often used with Vikoma Sea Boom.	Catalina Isl.	NOW
Double diaphrgm pumps	Excellent high volume rugged pumps. Used with Mark II Skimmers.	ASSI	NOW
- 100 psig Joy Air ompressor	To be used with double diaphrgm pumps.	ASSI	NOW
Power Pack unit & ower Source.	Used for recovery of Vikoma Boom.	ASSI	NOW

RADIO EQUIPMENT

Frequencies	1 UHF & 1 VHF
Portable Repeaters and other necessary gear.	
8 Portable Radios	
Repeater:	Santa Cruz Island
Repeaters:	Santa Catalina Island

C S I

CLEAN SEAS INCORPORATED

C. W. WAAGE

MANAGER

18 MARINE CENTER BUILDING

BREAKWATER

SANTA BARBARA, CALIF. 93109

24-HR. TELEPHONE: (805) 963-3488

2701 CLEAN SEAS - INVENTORY OF OWNED EQUIPMENT

MATERIAL AND/OR EQUIPMENT	STORAGE AREA	QUANTITIES	REMARKS	CONTACTS
2701.01 MK-II Skimmer System				
1. MK-II Skimmer	CSI Yard - Carpinteria	2	All grades of oil can be recovered at rates up to 200 GPM in light sea states	(805)963-3488 (805)684-4719
2. 80 Barrel Vacuum Tank	" " "	1		
3. Suction Hoses -3"	" " "	150'		
4. Trailers for transportation	" " "	2		
2701.02 CSI Skimmer System				
1. Skimmer 45'x 17'x 6'	Anchored - St.B.Harbor	1	The system is capable of recovering all grades of oil from light to bunker fuel at rates up to 2000 gallons per minute. It will operate successfully in moderate sea states.	See above
2. 30" Kepner Boom	On Skimmer			
3. 100 barrel tanks	CSI Yard - Carpinteria			
4. Oil & Water Pumps	" " "			
5. 120 Bbl. Floating Storage Bag	On Skimmer			
6. 4" Suction/Discharge Pump	" "			
2702.03 Sea Dragon System				
1. Sea Dragon Skimmer	Anchored - St.B.Harbor	1	Heavy duty, moderate volume skimmer (45'long and with 26'beam). The system will recover all grades of oil and large amounts of solid materials. It is operable in a moderate sea state.	See above
2701.04 Bottom Tension Boom				
1. 4'x 13' Floats, 8' Curtain	CSI Yard - Carpinteria	2000'	Use as containment boom in heavy seas. Curtain in 250' lengths on spools. B-T line in 500' lengths on spools. Booms can be used in 500' lengths or multiples of 500'.	See above
2701.05 Floating Weir Skimmers	CSI Yard - Carpinteria	3	6' diameter floating weirs with air driven Acme-type pumps. Use in conjunction with B-T Boom or may be used independently. Will no handle debris. Handles most oils.	See above

2701 CLEAN SEAS - INVENTORY OF OWNED EQUIPMENT

MATERIAL AND/OR EQUIPMENT	STORAGE AREA	QUANTITIES	REMARKS	CONTACTS
2701.06 Acme Skimmers	CSI Yard - Carpinteria	2	51 & 39T Floating Weir Skimmers, gasoline engine or air driven. Handles most oils in light to moderate seas.	(805)963-3488 (805)684-4719
2701.07 Vikoma Seapacks	CSI Yard - Carpinteria	2	Immediate response containment boom. The 23' hull containg 1600' of inflatable seaboom can be towed to the oil slick at high speed. The boom can be fully operational within 12 minutes of arrival onsite.	See above
2701.08 Kepner Sea Curtain				
1. 480' (240'per unit)	CSI Yard - Carpinteria	480'		See above
2. 2000' 8"x12"(400'per unit)	" "	2000'		
3. 2000' 16"x12"(200'per unit)	" "	2000'		
2701.09 Barge - Tide-Mar VII	Moored at Port Hueneme Harbor	1	160'x39'x13' Tank Barge, 7800 bbl. capacity in 10 tanks. Has 6 diesel driven pumps and 2 diesel driven 50 KW generators.	See above
2701.10 Absorbents-Collecting Agents				
1. Strickite (Not Licensed)	CSI Yard - Carpinteria	142-35lb.bags	Good sorbent for all grades of oil.	See above
2. Dow Imbiber (Licensed)	" "	Large Quantities	Good sorbent for most grades of oil	See above
3. Conwed (Licensed)	" "	Large Quantities	Good sorbents of all grades of oil.	See above
4. Shell Oil Herder (Licensed)	" "	8-5 gal.cans	Good sorbents for all grades of oil	See above
2701.11 Boats (Work)	Santa Barbara Harbor Marina #1, Slip #19 &	1	19' Larson Fiber Glass with 125HP Johnson motor. Not safe in adv adverse weather.	
	CSI Yard - Carpinteria	1	14' Valco Aluminum 15HP O/B	

Revised 7-75
Replaces 10-74

2701 CLEAN SEAS - INVENTORY OF OWNED EQUIPMENT

MATERIAL AND/OR EQUIPMENT	STORAGE AREA	QUANTITIES	REMARKS	CONTACTS
2701.12 Chemicals				
1. Gold Crew (Dispersant)	CSI Yard - Carpinteria	4-55gal drum	Good cleaning agent and dispersant. Not licensed.	(805)963-3488 (805)684-4719
2701.13 Compressor	CSI Yard - Carpinteria	1	Gardner-Denver 600 cfm rotary diesel engine driven.	See above
2701.14 Radio System				
1. Repeater-Motorola	Santa Ynez Peak	1	49.04/48.62 - 45 watts	-----
2. Santa Barbara base	St. Barbara office	1	49.04/48.62 43 "	-----
3. Carpinteria base	CSI Yard - Carpinteria	1	49.04/48.62 - 50 "	-----
4. Portable base	" " "	1	49.04/48.62 - 48 "	-----
5. Portable - Handie Talkie	" " "	13	49.04/48.62 - 5 "	-----
6. Mobile	1971 Ford	1	49.04/48.62 & 48.66/49.42 - 50 "	-----
2701.15 Wilden M-15 Pump	CSI Yard - Carpinteria	2	For use on the MK-II Skimmers and miscellaneous pump requirements.	See above
2701.16 Flat storage tanks 100 bbl.	CSI Yard - Carpinteria	4	Used with MK-II Skimmers or other systems.	See above
2701.17 Goodyear Sea Sentury Boom	" "	1210'	Moderate duty - harbor protection	See above
2710.18 Kepner Floating Storage Bags	" "	4	2-5000 gals, 2-1200 gals. emergency storage	See above
2701.19 2-1/2 T.Flatbed Truck	" "	1	Used for towing	See above
2701.20 Oil Mop MK-9	" "	1	Used for absorbing in a harbor situation or protected waters.	See above

Revised 7-75
Replaces 9-74

CCW

CLEAN COASTAL WATERS

T. A.J. BUSH
ANAGER

FORMERLY PICE CO-OP
Suite 510, Fidelity Federal Plaza, 555 E. Ocean Blvd., Long Beach, CA 90802

(213) 435-5306
24 hour phone (213) 433-8346

LINE OF SUCCESSION

TO EXECUTIVE COMMITTEE

	Office Phone	Home Phone
Present Executive Committee:		
A. R. Wesslen/ARCO	213-436-9071	213-596-2021
Jack Dirksen/Chevron	213-322-3450	213-379-7054
P. J. Vaiana/Continental Oil	213-834-2004	213-375-1426
A. J. Bush/CCW	213-435-5306	213-832-7872
24-hour answering service	213-433-8346	
Succeed in Alphabetical Order of Participants:		
Roy C. McClymonds/Aminoil	213-592-5501	714-537-6974
E. H. Kelly/Aminoil	213-592-5501	714-673-5046
John Steele/Exxon	213-426-8844	714-968-2073
E. L. McBee/Exxon	213-426-8844	714-892-3663
C. C. Booth/Gulf	213-921-3581	714-830-2374
F. A. Becker/Gulf	213-921-3581	714-639-6006
T. J. Abshier/Mobil	213-683-5802	714-879-9824
N. H. Smith/Mobil	213-683-5957	213-831-3097
W. D. Fritz/Mobil	213-683-5919	213-691-1034
J. E. Parker/GATX	213-830-5666	213-425-8797
B. D Oliveira/GATX	213-830-5666	213-425-2260
G. W. Jones, Jr./Shell	213-835-5611	213-427-1278
Wayne Clark/Texaco	213-835-8261	213-431-8260
Robert L. DeLine/Texaco	213-835-8261	213-425-5383
L. H. Mikkelson/Time Oil	213-938-7151	213-630-5297
Hal Jones/Union	213-834-3421	213-831-9709
D. M. Waldorf/Union	213-834-3421	213-375-0915
Carl H. Levi/Champlin	213-432-6923	714-828-3566
W. Z. Elmore/Champlin	213-432-6923	213-430-4357
J. W. Parkin/City of LB-DOP	213-437-0041	213-433-6076
Robert T. Blair/City of LB-DOP	213-437-0041	213-630-4962
W. H. Garrison/City of LB-DOP	213-437-0041	213-425-3160

Revision #5
February 1976

CLEAN COASTAL WATERS (CCW) EQUIPMENT

Equipment List

At Pacific Towboat & Salvage (PACTOW), Long Beach Berth 35:

3000' of 20" Kepner Sea Curtain Boom stowed on barge
2000' of 20" Kepner Sea Curtain Boom stowed on dock
MARCO Class II Skimmer
Oil Barge to service skimmer

At Shell Oil Marine Terminal, Los Angeles Berth 169:

5000' of 14" Kepner Sea Curtain Boom

At CCW Office, Suite 510, 555 E. Ocean Blvd., Long Beach

Radio System consisting of 2 portable base stations and 8 handsets. a permanent repeater station is located atop Palos Verdes to insure good coverage of the CCW area of interest.

Procedure to Obtain Equipment

1. Before CCW equipment is operated, a verbal release must be obtained from a member of the CCW Executive Committee. Page 500.1-4 lists those members. Note: If no member of the Executive Committee is available, refer to page 500.1-4 for a list of those who may then act on their behalf. Advise the member which equipment is desired, and, in the case of the 14" boom, who will deploy it.

2. After obtaining equipment release from the Executive Committee member, call the company which will operate the equipment (other than radios) and give them your instructions. Following is a list of phone numbers for this purpose:

Pacific Towboat & Salvage (24 hr.)	213-432-6487
If no answer, call one of the following:	
Hal Malterre (home)	714-962-5038
Kermit Hayden (home)	213-596-3954
John Turner (home)	213-427-5101
John Boyd (home)	213-832-7180
Don Johnston (home)	213-323-6627
Crosby & Overton (24 hr.)	213-432-5447
Hutchison & Sons (24 hr.)	213-830-1720

The Executive Committee member who released the equipment will also call the equipment operator and confirm the release.

The CCW radio equipment is readily available at the CCW office during regular business hours. Outside regular business hours the Manager, A. J. Bush, normally may be reached at home (213-832-7872), or if not at home, via pageboy (call the answering service 213-433-8346). He has keys to the building and CCW office spaces. The CCW Chairman, A. R. Wesslen (office phone 213-436-9071, home phone 213-596-2021), and the CCW Secretary, Gail S. Thomas (home phone 213-433-4681) also have keys to gain access to the CCW office spaces after hours.

Who may operate equipment

The equipment kept at the PACTOW facility, LB Berth 35 will be operated only by PACTOW or their designee.

The 14" boom stored at the Shell Oil Marine Terminal, LA Berth 169 will be operated by any competent contractor chosen by the spiller, e.g., Crosby & Overton, Hutchison & Sons, Pacific Towboat & Salvage.

The radio equipment will be operated by anyone designated by the spiller who is familiar with basic radio telephone procedure, particularly use of call signs as required by the FCC.

Terms and Conditions

CCW equipment is released to a spiller on condition that the spiller pay all costs for operating the equipment and be responsible for promptly returning the equipment when no longer needed in good order, clean, and properly stowed to the satisfaction of the CCW Committee.

Revision #3
Sept. 1975

PACIFIC TOWBOAT & SALVAGE CO.

FLOATING EQUIPMENT LIST

TUGS	Length-Breath-Draft	Horsepower Continuous-Maximum	Engines	Built	Towing Gear
PACIFIC RANGER Single Screw	122' x 30' x 15'	2850/3200	EMD	Rebuilt 1970	2"-2000'
PACIFIC GEMINI Twin Screw,Steel	80' x 22' x 12'	1500/2200	CATS	1970	1-3/4"-1800'
PACIFIC SATURN Twin Screw,Steel	80' x 23' x 11'	1500/2200	CATS	1967	Double Drum 1-3/4"-1800' 2"-1800'
PACIFIC APOLLO	165' x 36' x 15'	2800/3200	CATS	1968	NONE
PACIFIC POLARIS Single Screw,Steel	67' x 17' x 6'	750/900	CAT	Rebuilt 1967	1-1/8"-1650'
PACIFIC RETRIEVER Single Screw,wood	67' x 18' x 7'	750/900	CAT	Rebuilt 1966	1-1/8"-1500'
CREW BOAT PACIFICO 28 Passenger,steel	48' x 14' x 7'	850/950	GMC	1960	
DERRICK BARGE PACIFIC EAGLE Clyde Whirly,Wood Hull, Diesel Elect.	141' x 56' x 4'	Steel Boom 100', Stepped 17' Above Deck, 50 Ton @ 35' Topping Lift 11 parts - 1", Main Fall 9 parts - 7/8" Whip 4 parts - 7/8", Main Engine - 3 Drum, 2-2 Drum Electric Anchor Winches, 1 1/4" - 2200' each, 25' Center Boom Section Available.			

Revision #3
Sept. 1975

PACIFIC TOWBOAT & SALVAGE CO.

FLOATING EQUIPMENT LIST

TUGS	Length-Breath-Draft	Horsepower Continuous-Maximum	Engines	Built	Towing Gear
PT&S #26 Small Tank Barge, Steel	80' x 30' x 9'			1959	
PT&S #28 Roll on/ Roll Off, Tows with landing ramp aft, 1945	320' x 50' x 10'	Capacity 2500 dwt, light: 1.6 Fwd, 3.6' Aft. Ramp opening 27'6", 4 Anchor Winches, Compressor, Barge designed to Place Amidship the Clyde Whirly Crane from the PACIFIC EAGLE.			
PT&S #250 With Bow Ramp, Steel, 1944	191' x 34' x 8'	Capacity 1000 dwt.			
PT&S #379 Flat Deck Steel, 1967	178' x 50' x 12	Capacity 1850 dwt, light: 1.7", loaded 8'11". Also used as water barge 420,000 gals. (10,000 bbls)			

PACTOW has rigged and ready all types of marine and salvage gear - Pumps, Compressors, Generators, Winches, Wire Rope, Anchors, Chain, Buoys, Welding and Cutting Gear, Land Cranes, Cats, and a complete shop with electricians, carpenters, machinists, welders and riggers.

Effective: 1 July 1975

SECTION VI

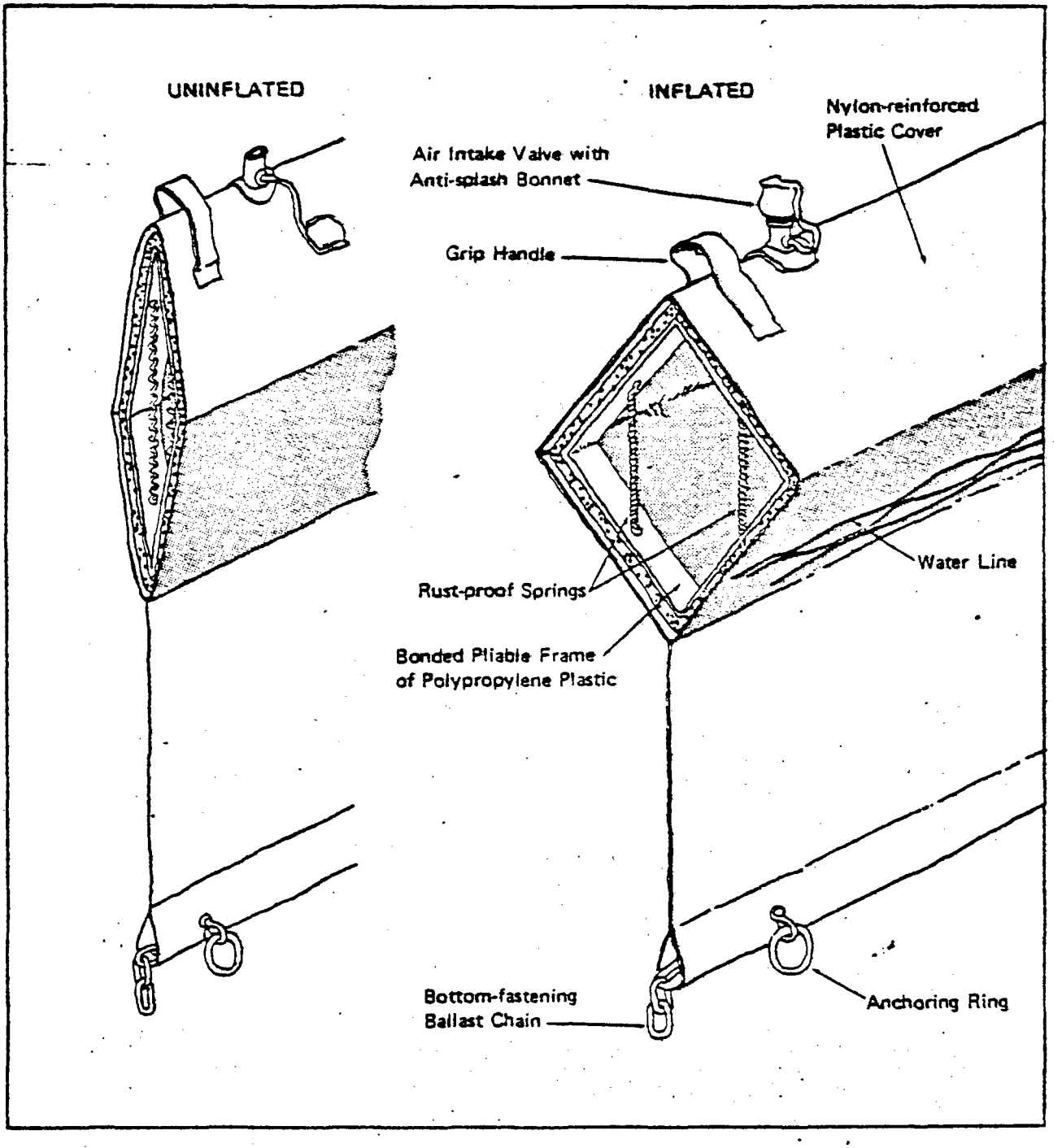
BOOMS, SPECIFICATIONS

AND

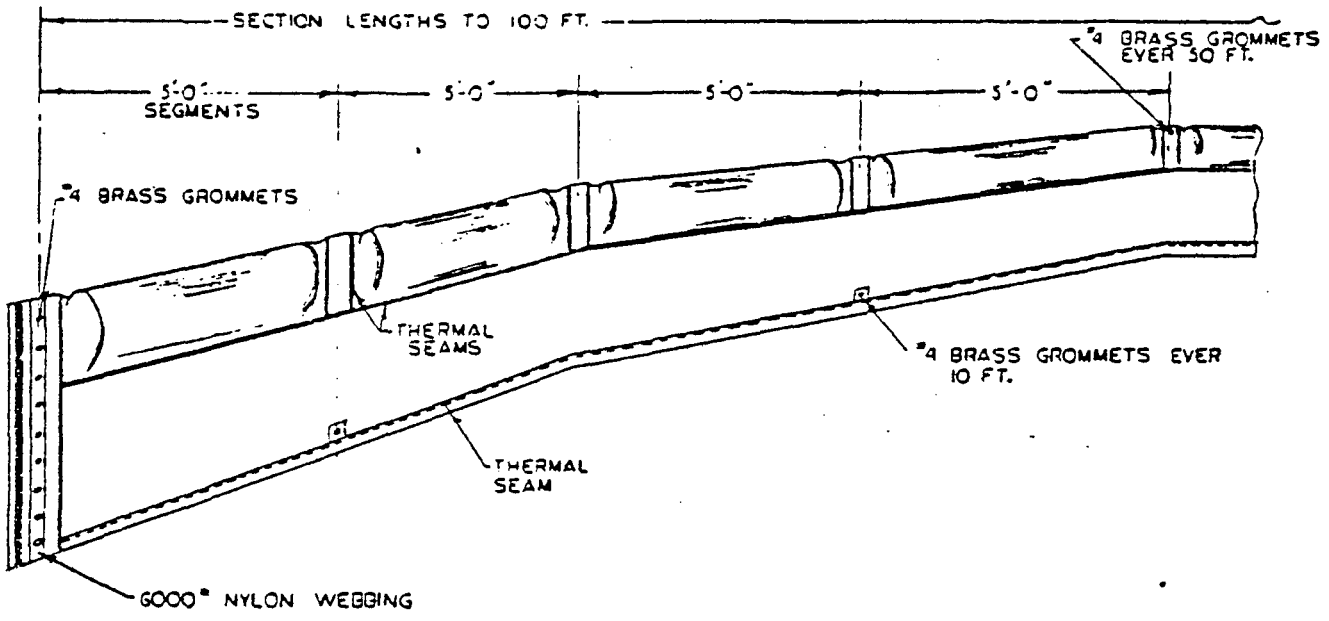
TYPICAL DEPLOYMENT SITUATIONS

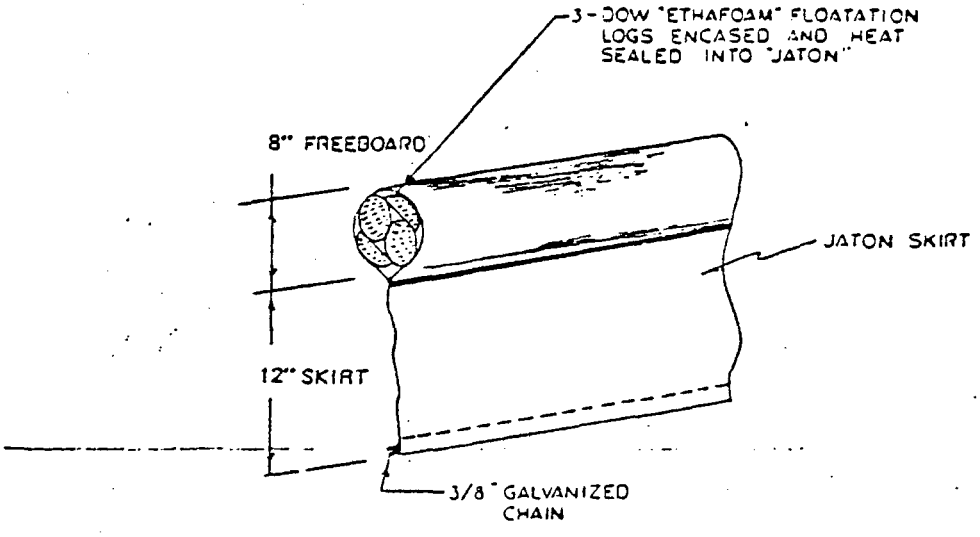
BOOM SPECIFICATIONS

Boom Name	Expandi Boom	Acme Curtain Boom
Model		A142108
Manufacturer	Whitaker Corp.	Acme Products
Primary Function Use Information and Storage Location	Fast-deployable boom, 3000' stored at Yakutat supply base. Deployed from boat.	Fast-deployable boom, 2000'stored at Yakutat supply base. Deployed from shore or from boat.
Type	Collapsible Curtain	Curtain
Freeboard (inches)	18	8
Draft (inches)	25½	12
Section, Joint	50'; clip, ring, and handle	100'; quick latch
Weight (lb/ft)	3.5	1.5
Skirt Material	Nylon-reinforced plastic	Nylon coated with Polyvinyl chloride
Vertical Stiffening/ Ballast	Polypropylene plastic/ chain	3/8" chain in skirt
Tension Member	Chain	None
Flotation	Air-filled chambers	8" dia. solid ethafoam cylindrical float
Remarks	Very compact storage; fast deployment	

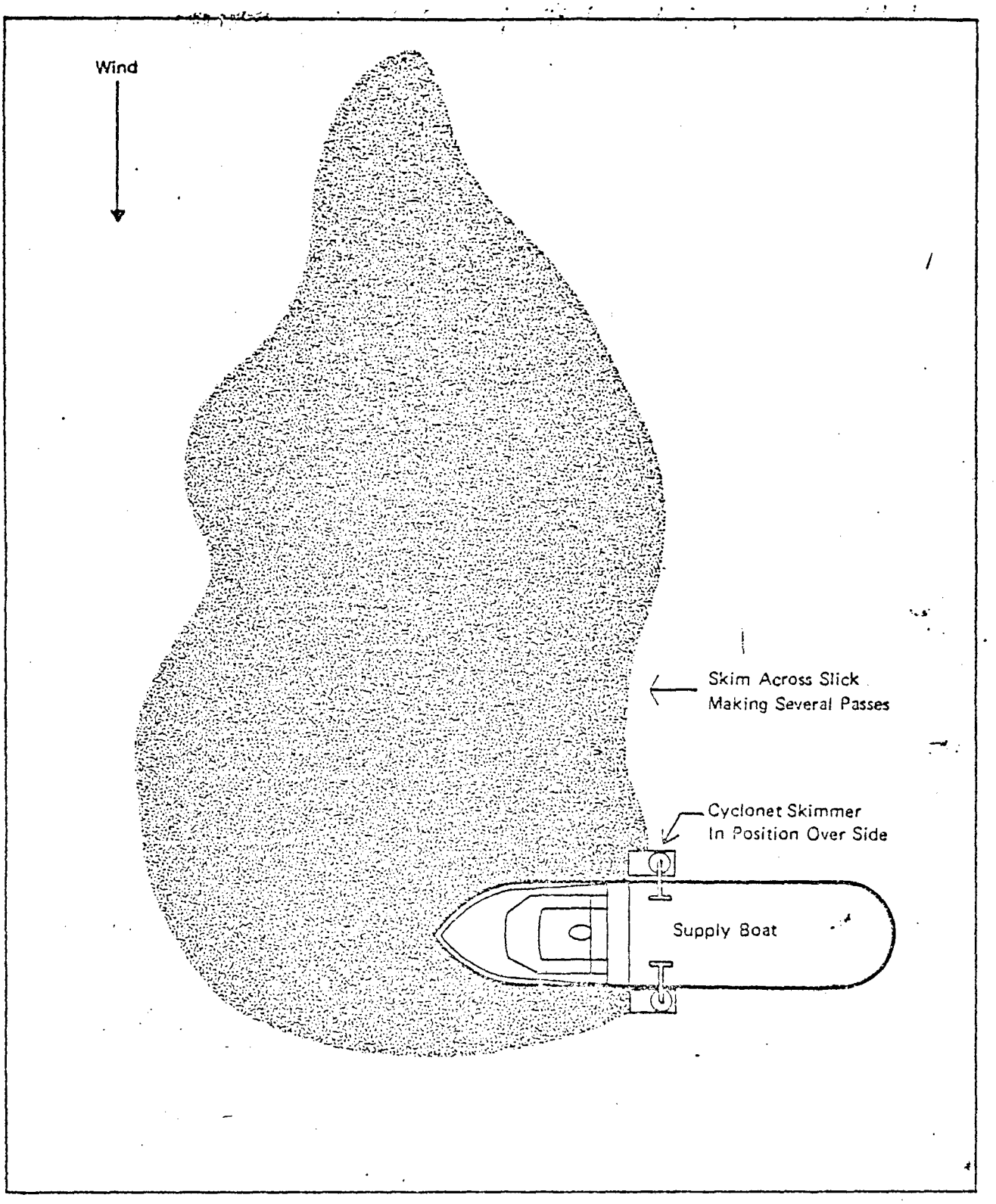


EXPANDI BOOM

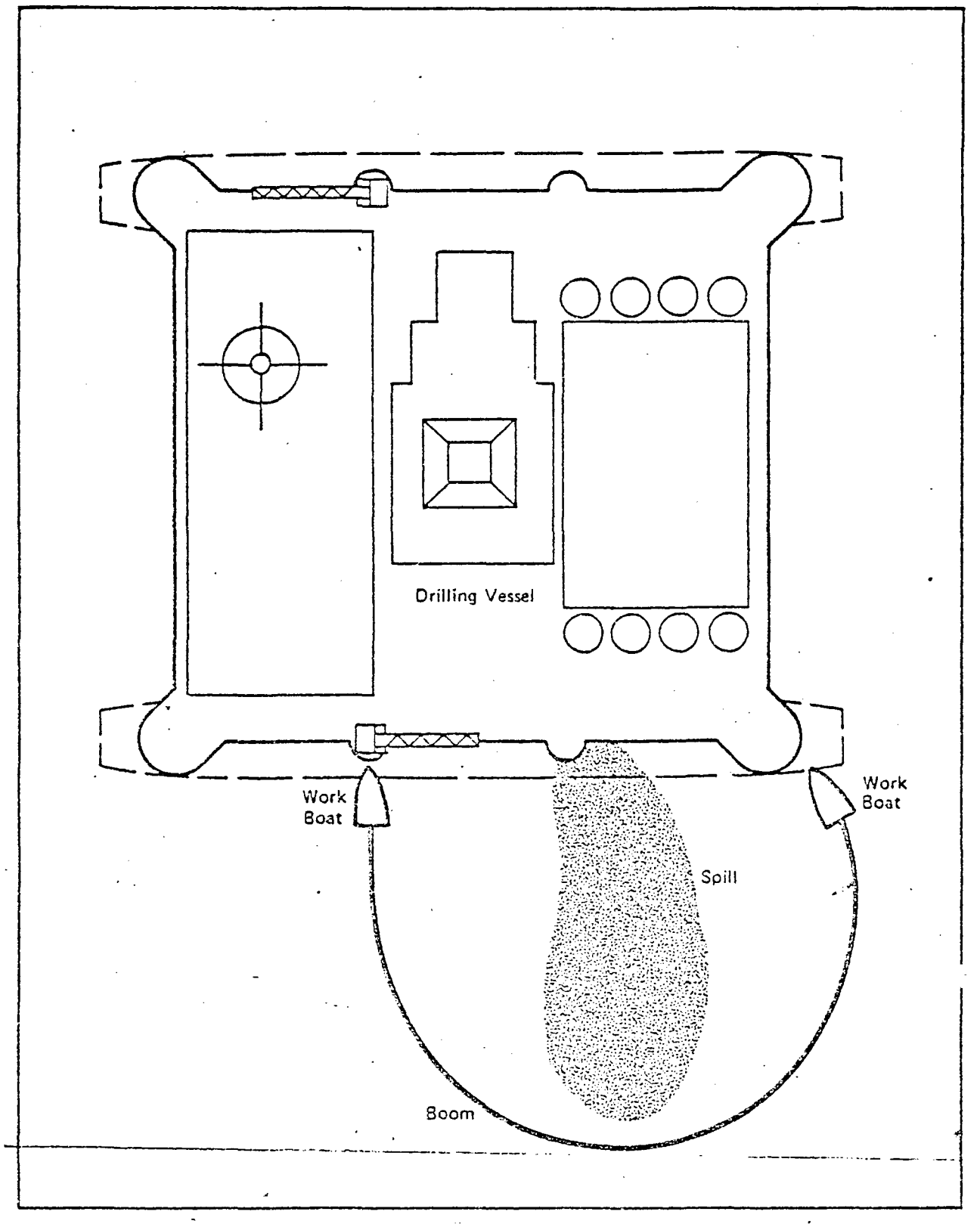




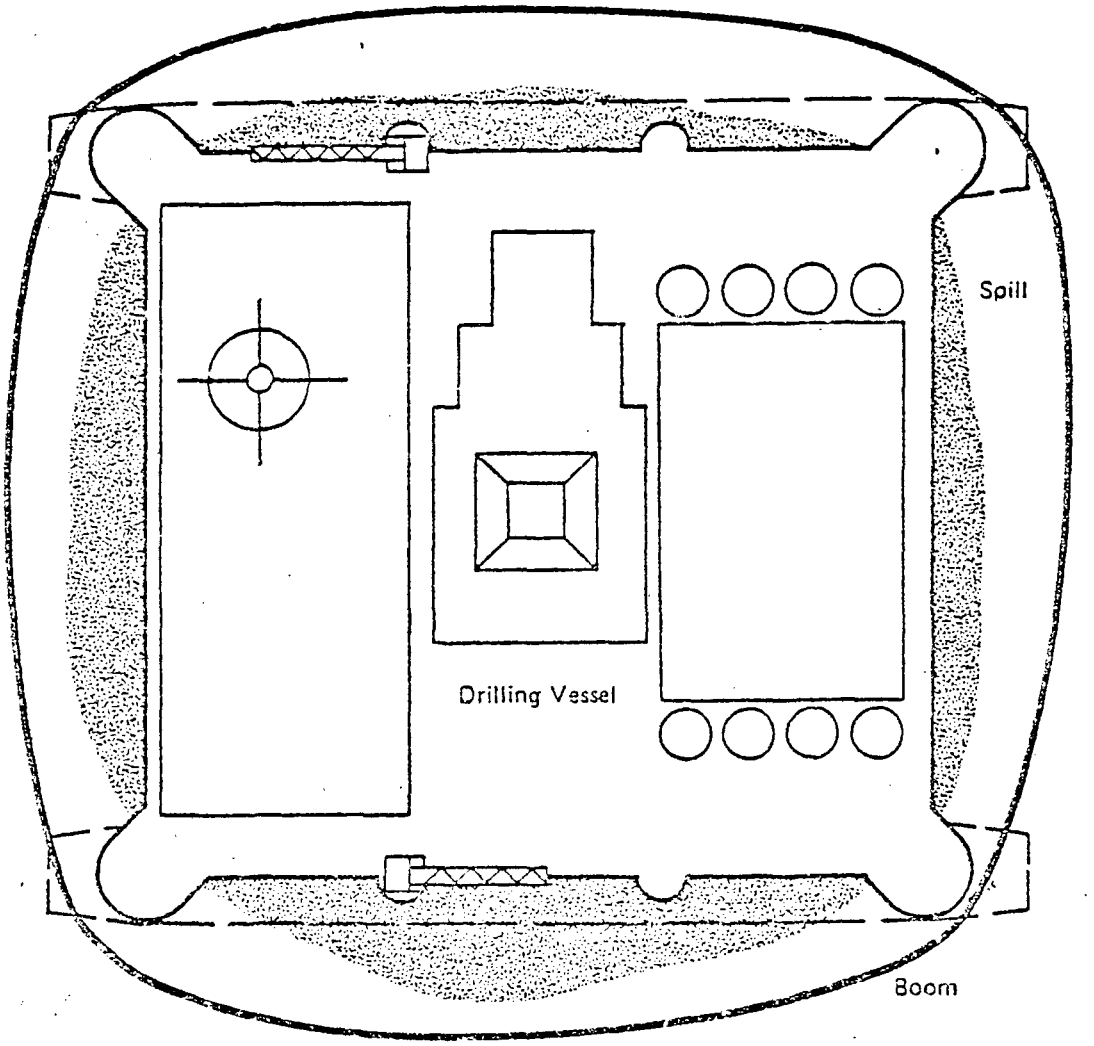
ACME CURTAIN BOOM



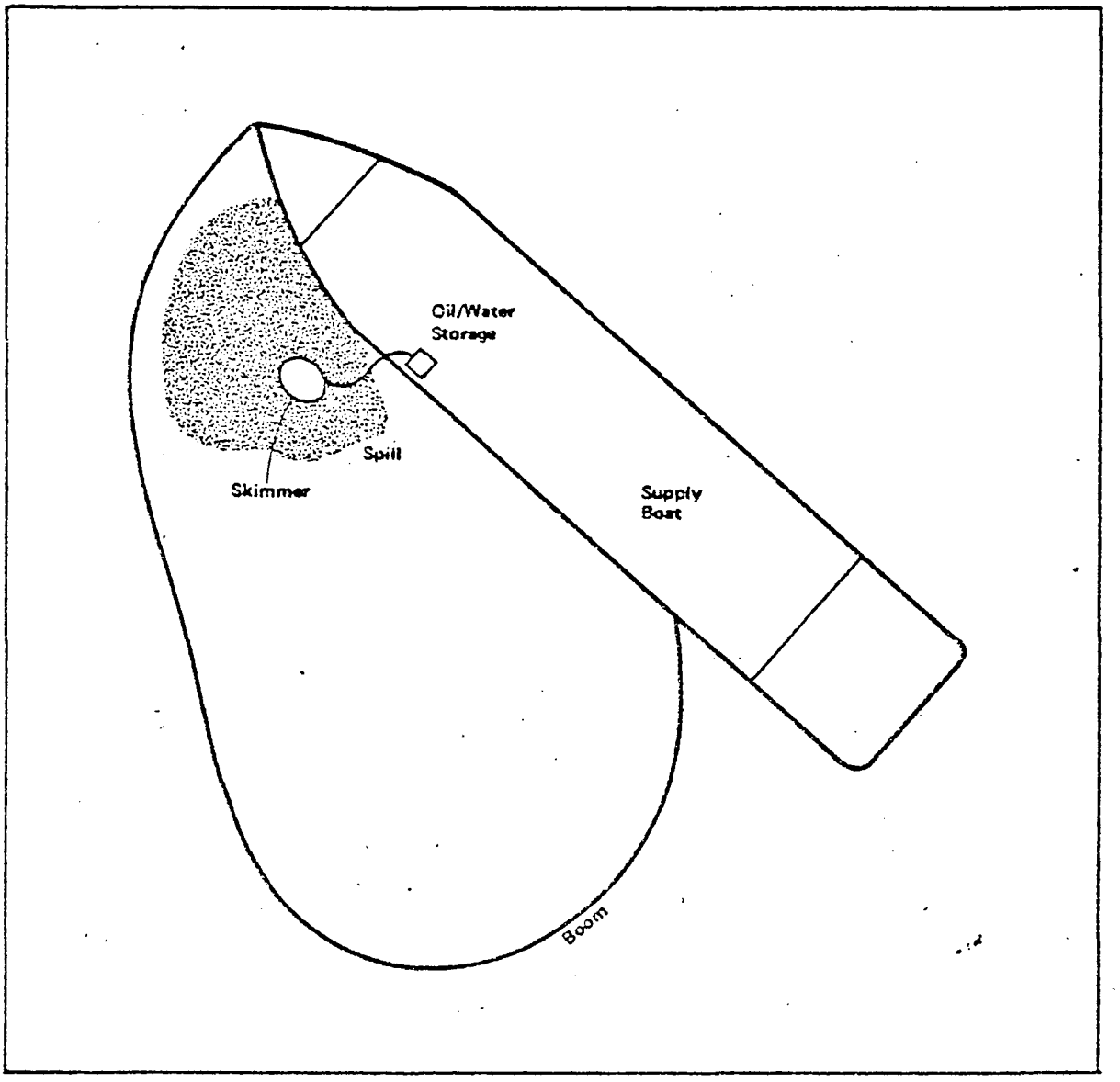
SKIMMING UNCONTAINED SPILLS WITH CYCLONET SKIMMER



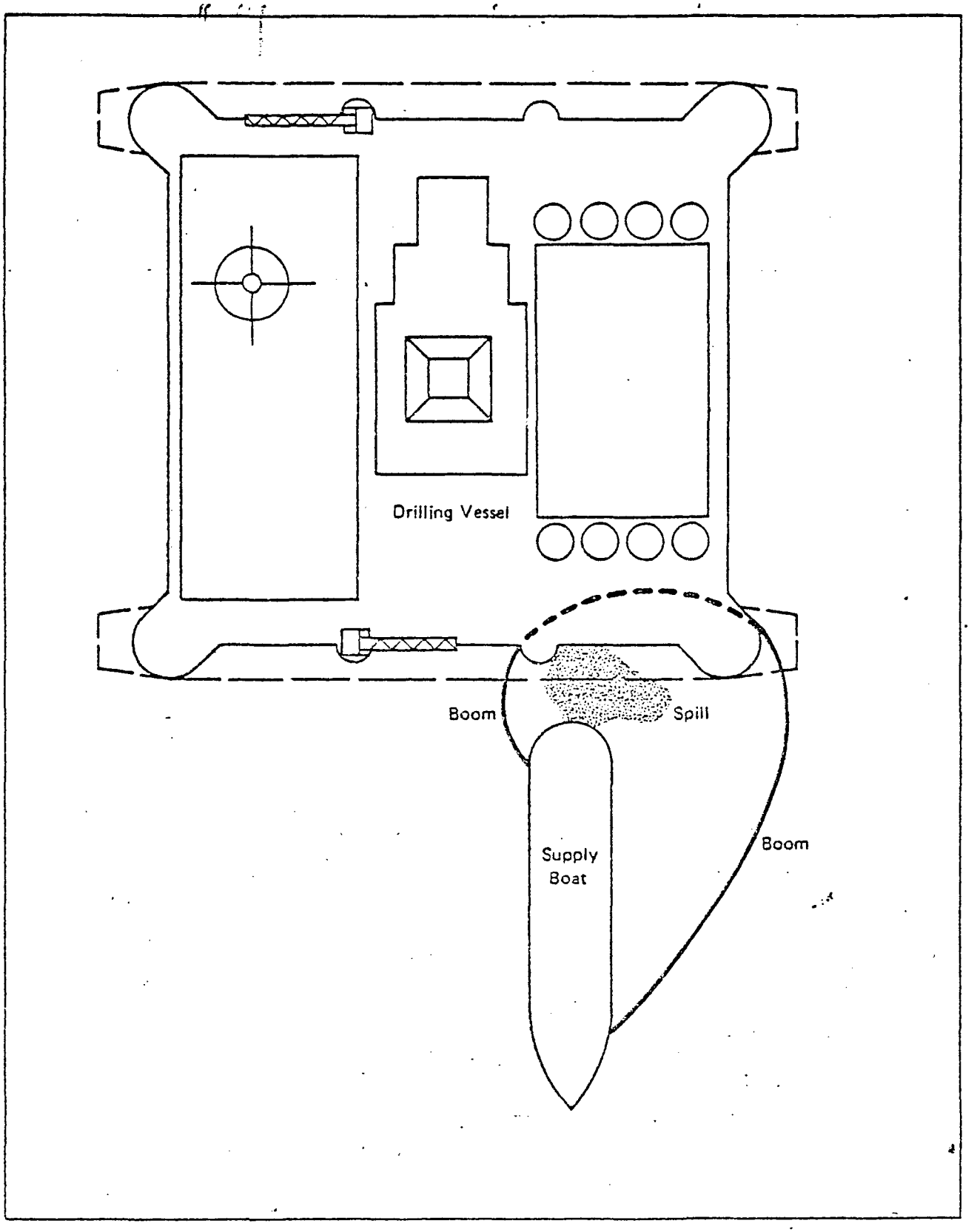
CONTAINING A CONTINUING SPILL AT A DRILLING VESSEL



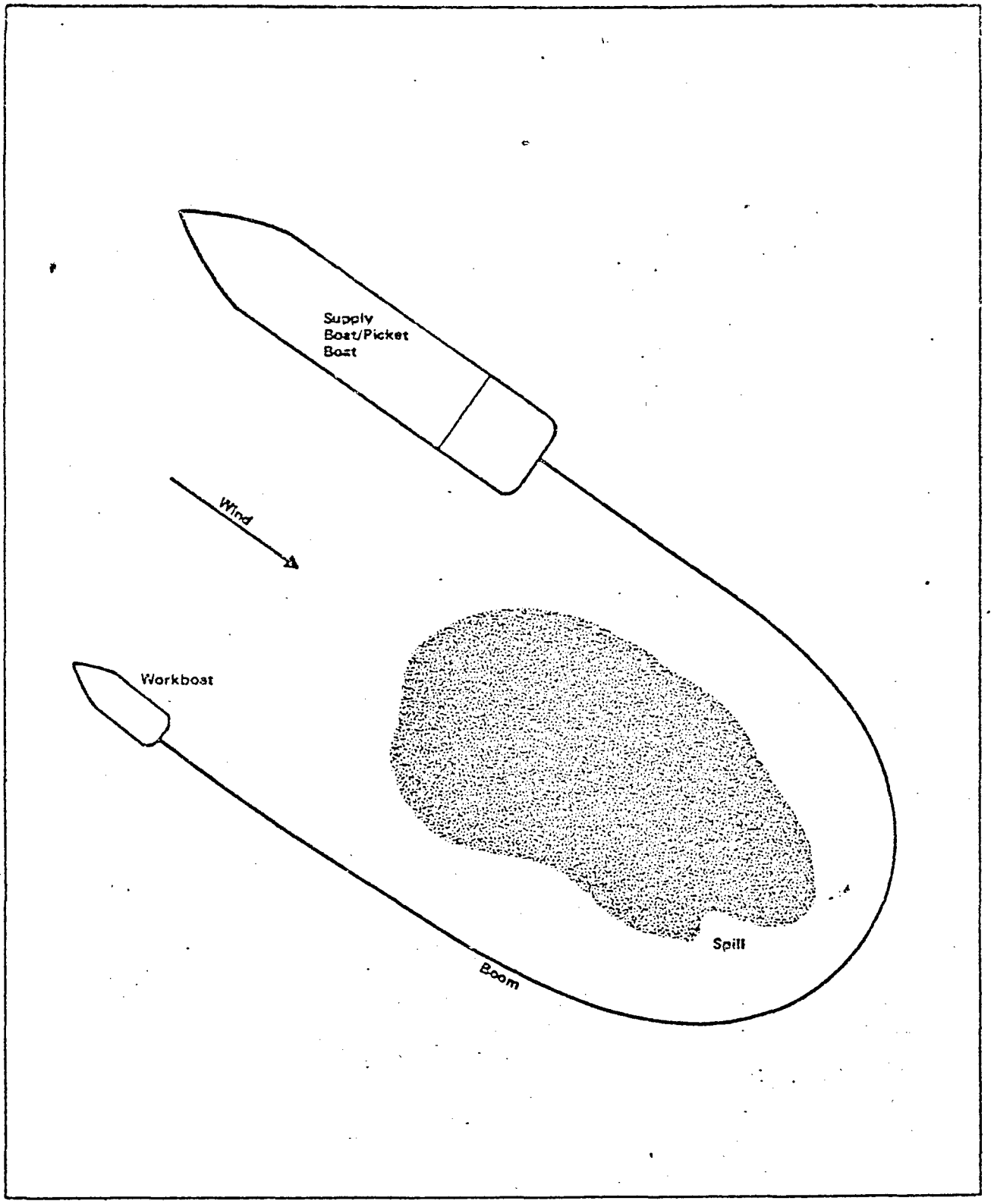
BOOM DEPLOYED AROUND DRILLING VESSEL



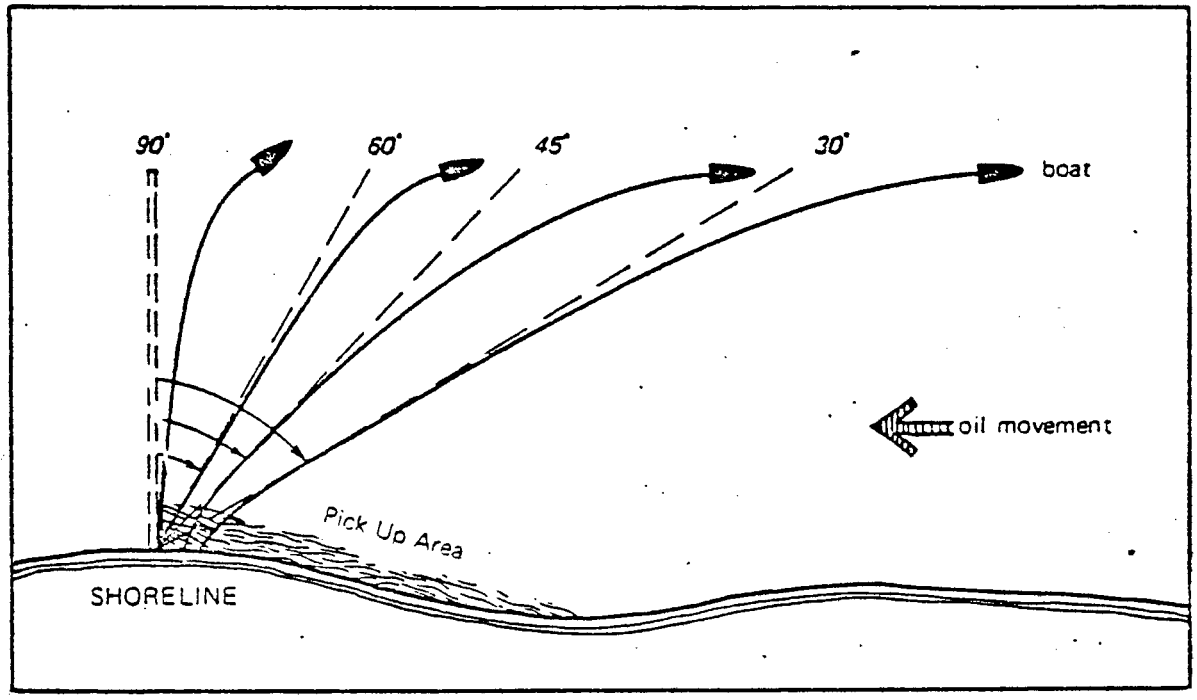
CLEANUP OF CONTAINED OIL SPILL



CONTAINMENT: FUEL OIL TRANSFER AT DRILLING VESSEL

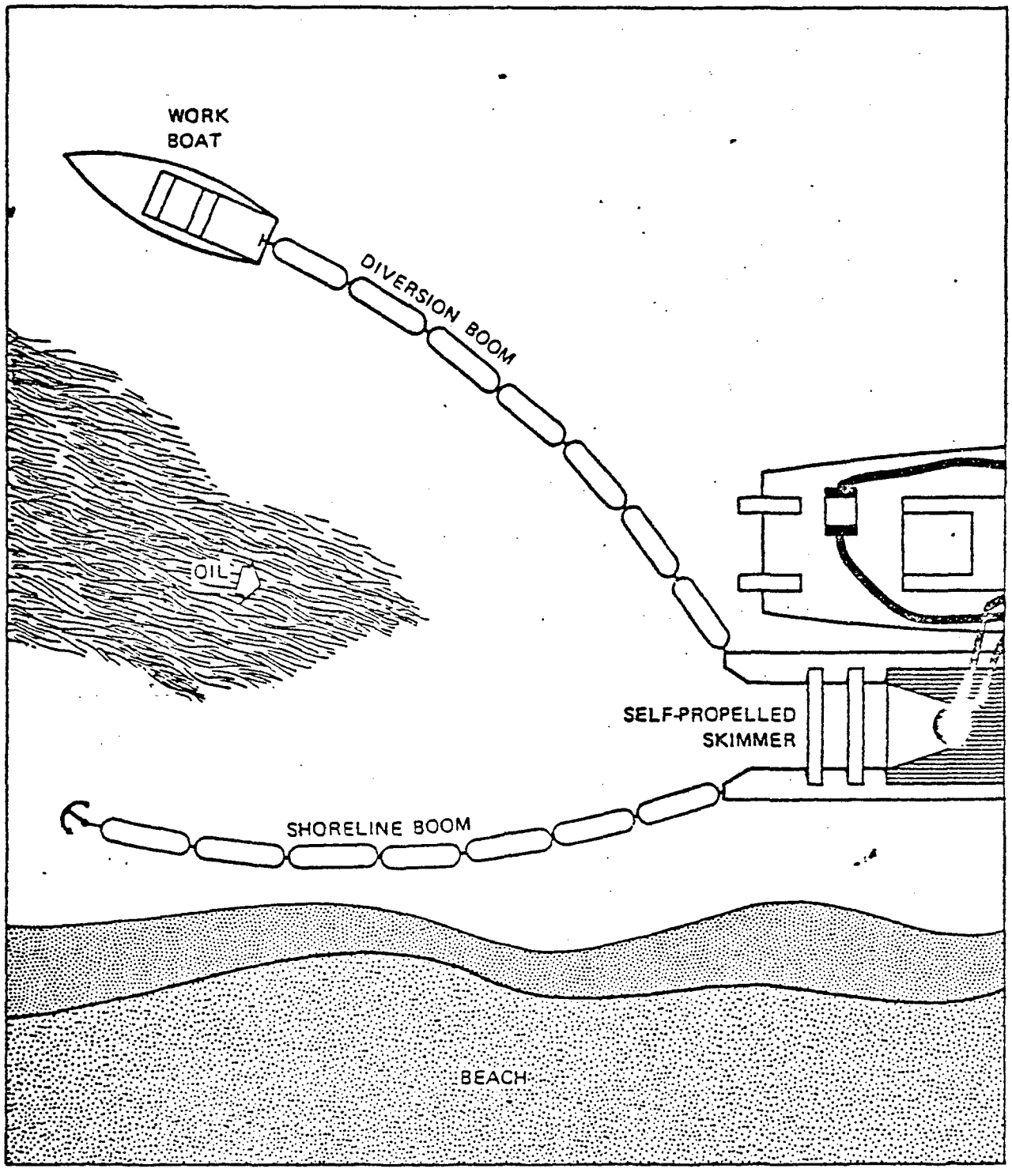


OIL SPILL CONTAINMENT – CONVENTIONAL BOOM

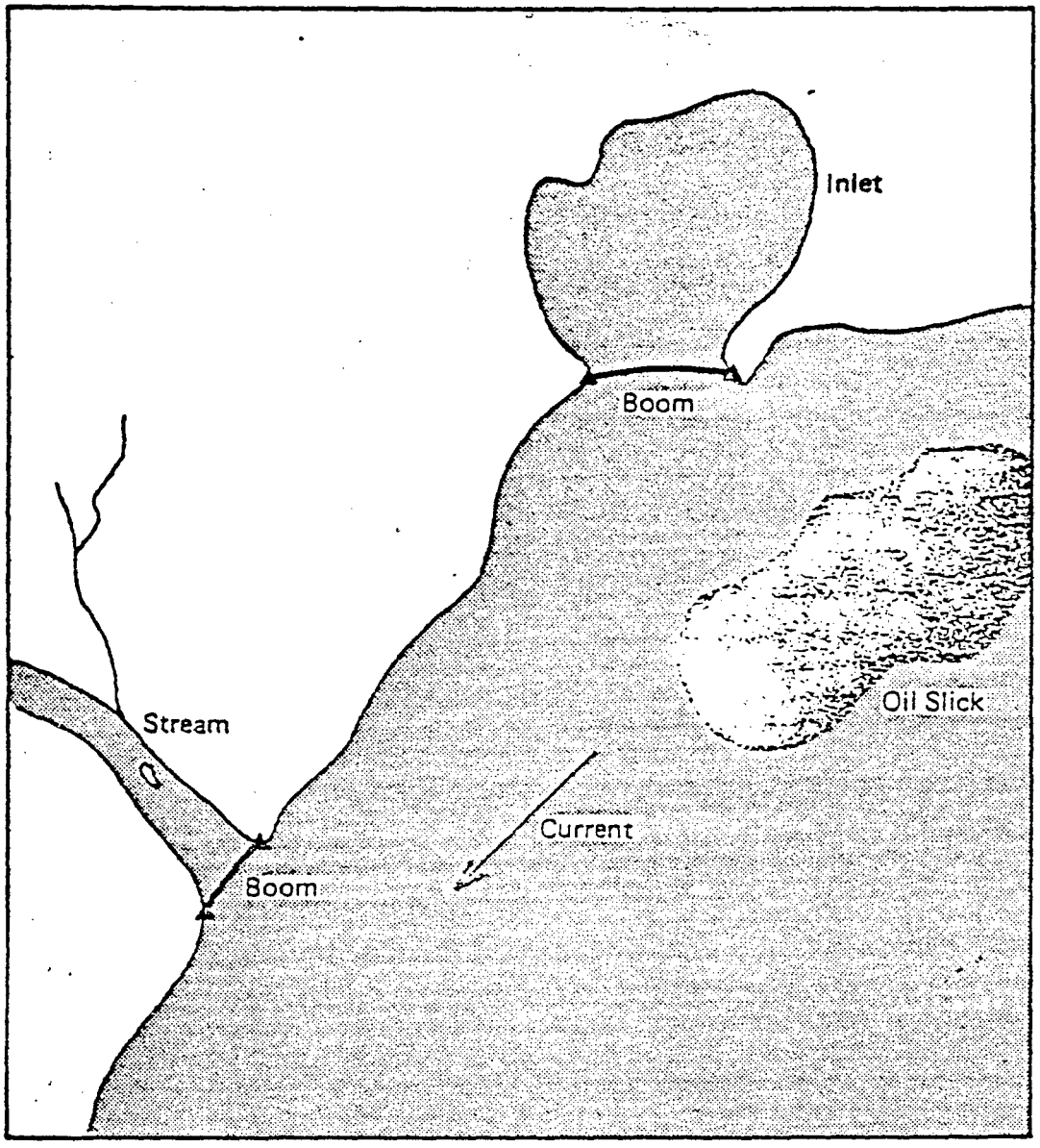


Current (kts.)	Current (fps.)	Boom (angle)
1.5	2.5	70
1.6	2.7	60
1.7	2.8	55
1.8	3.0	50
2.0	3.4	45
2.2	3.7	40
2.5	4.2	35
2.8	4.8	30

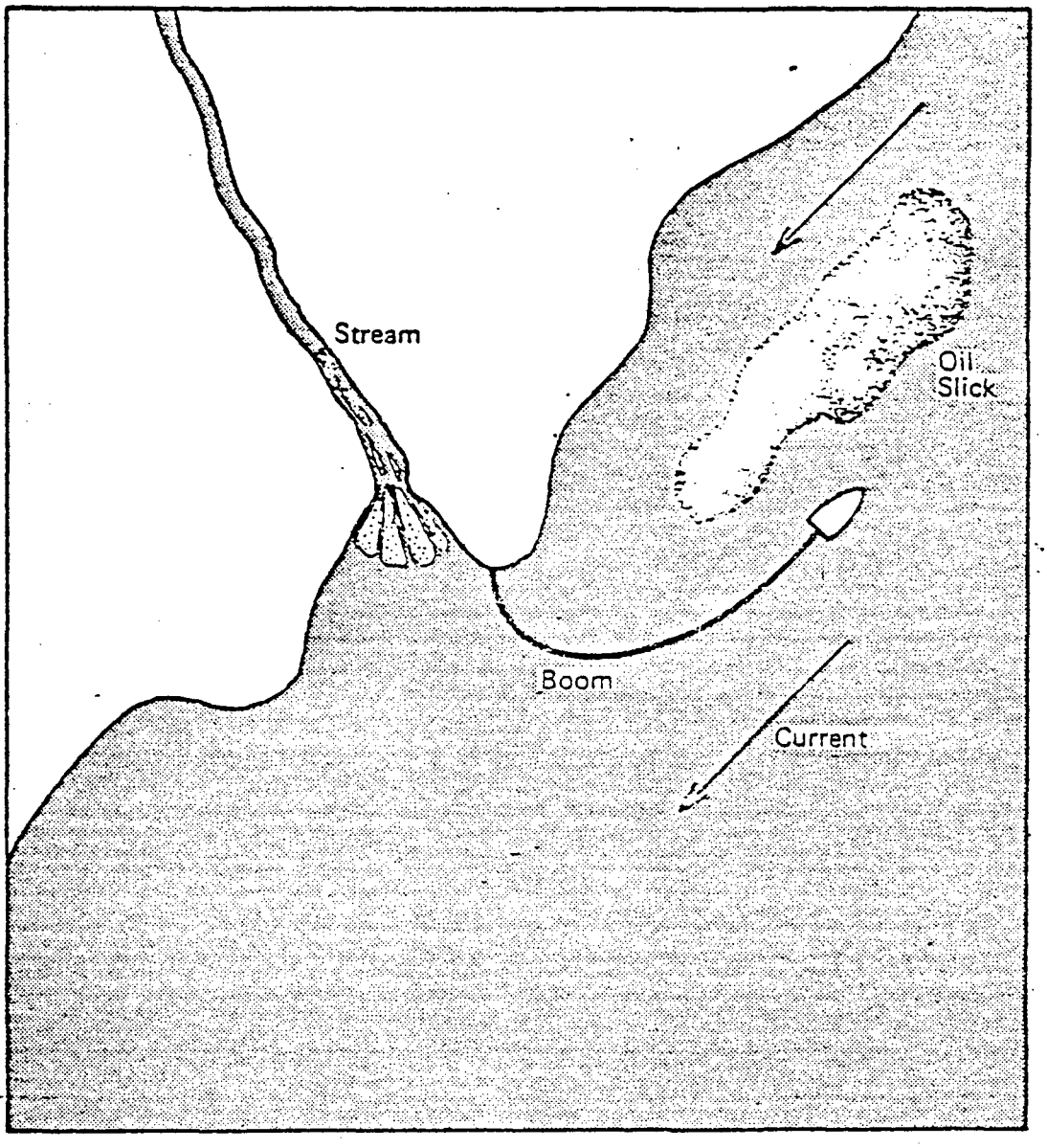
BOOM DEPLOYMENT ANGLES



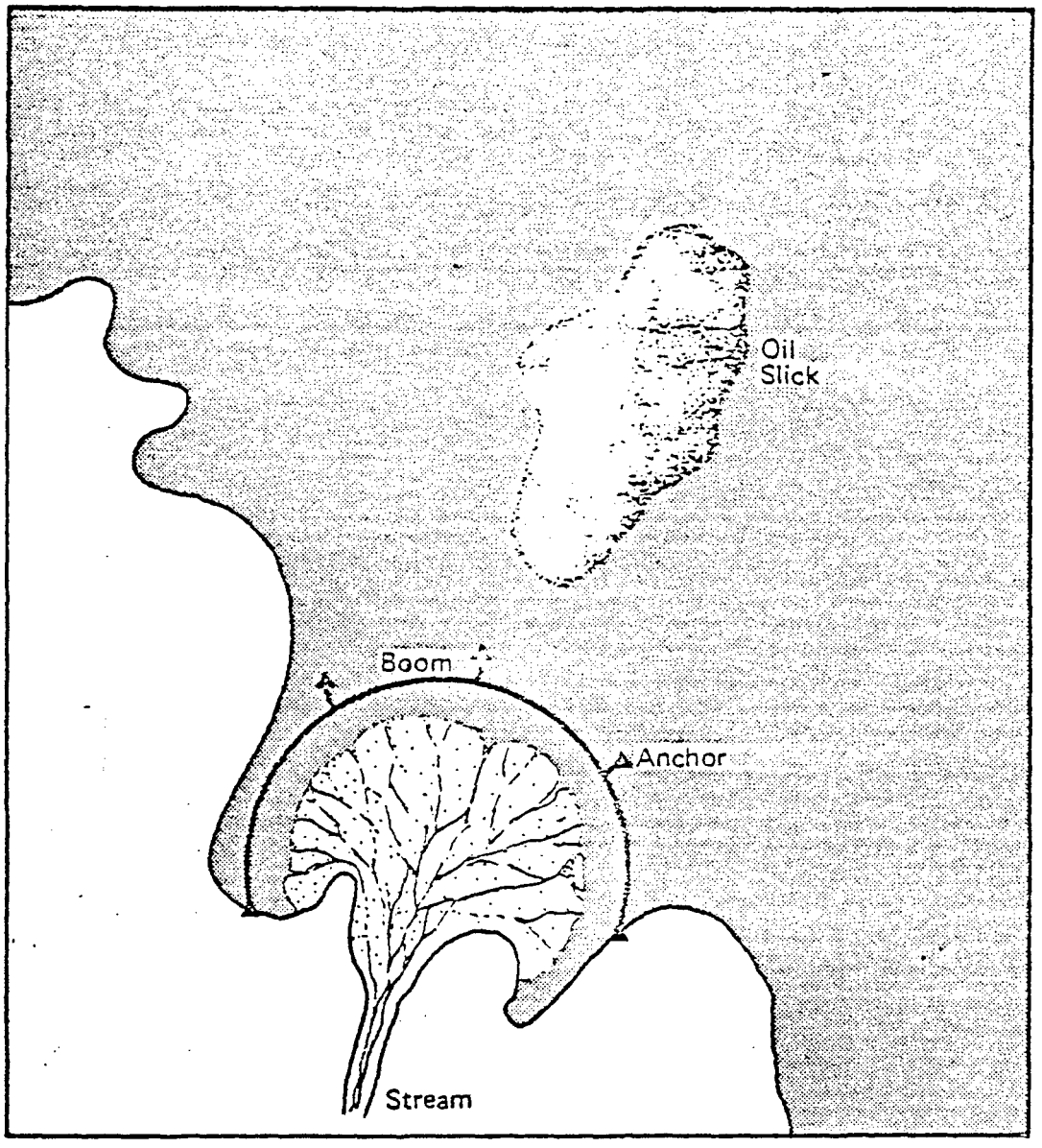
PROTECTING SENSITIVE SHORELINE WITH TWO BOOMS



ENCLOSURE BOOMING



DIVERSION BOOMING TO PROTECT A STREAM DELTA



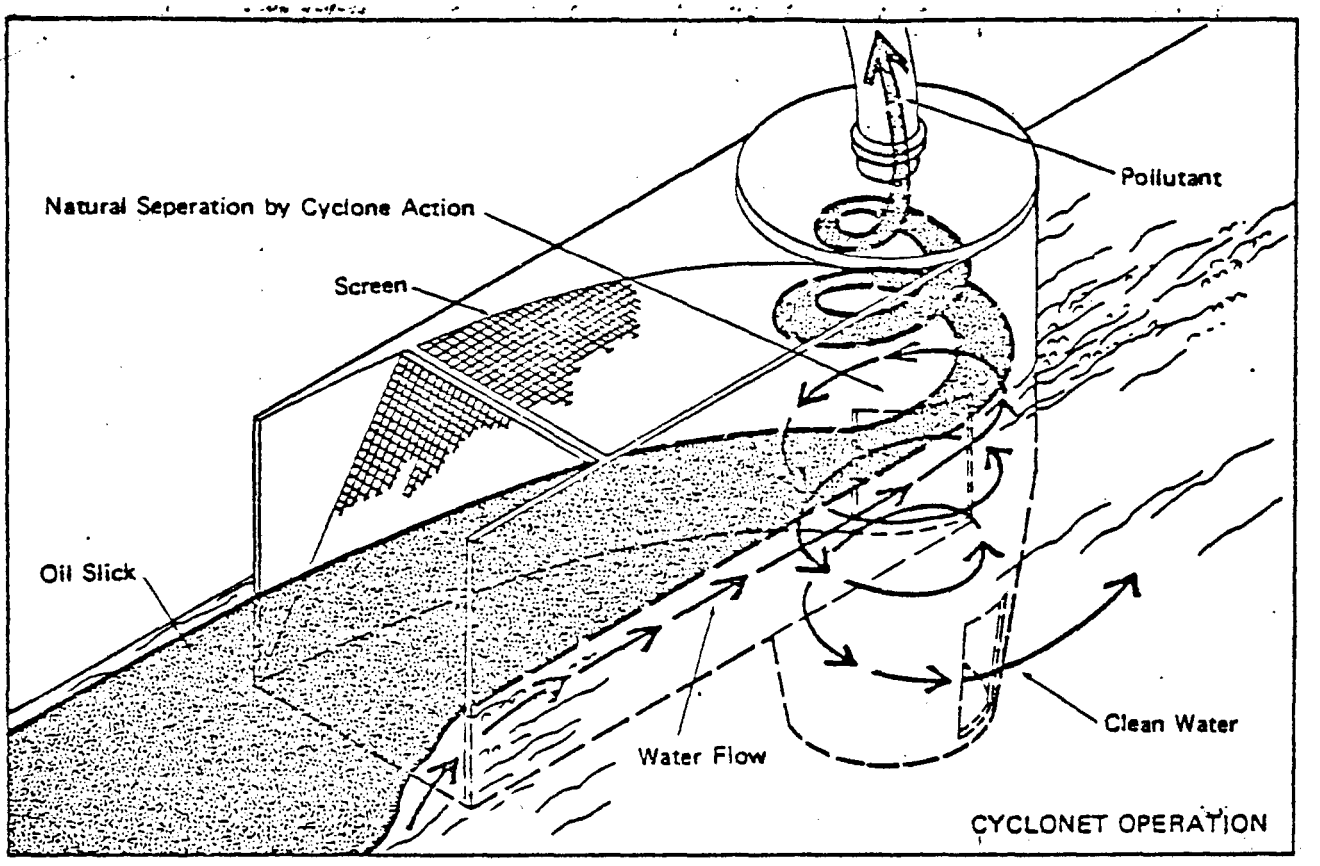
ENCLOSURE BOOMING OF A STREAM DELTA

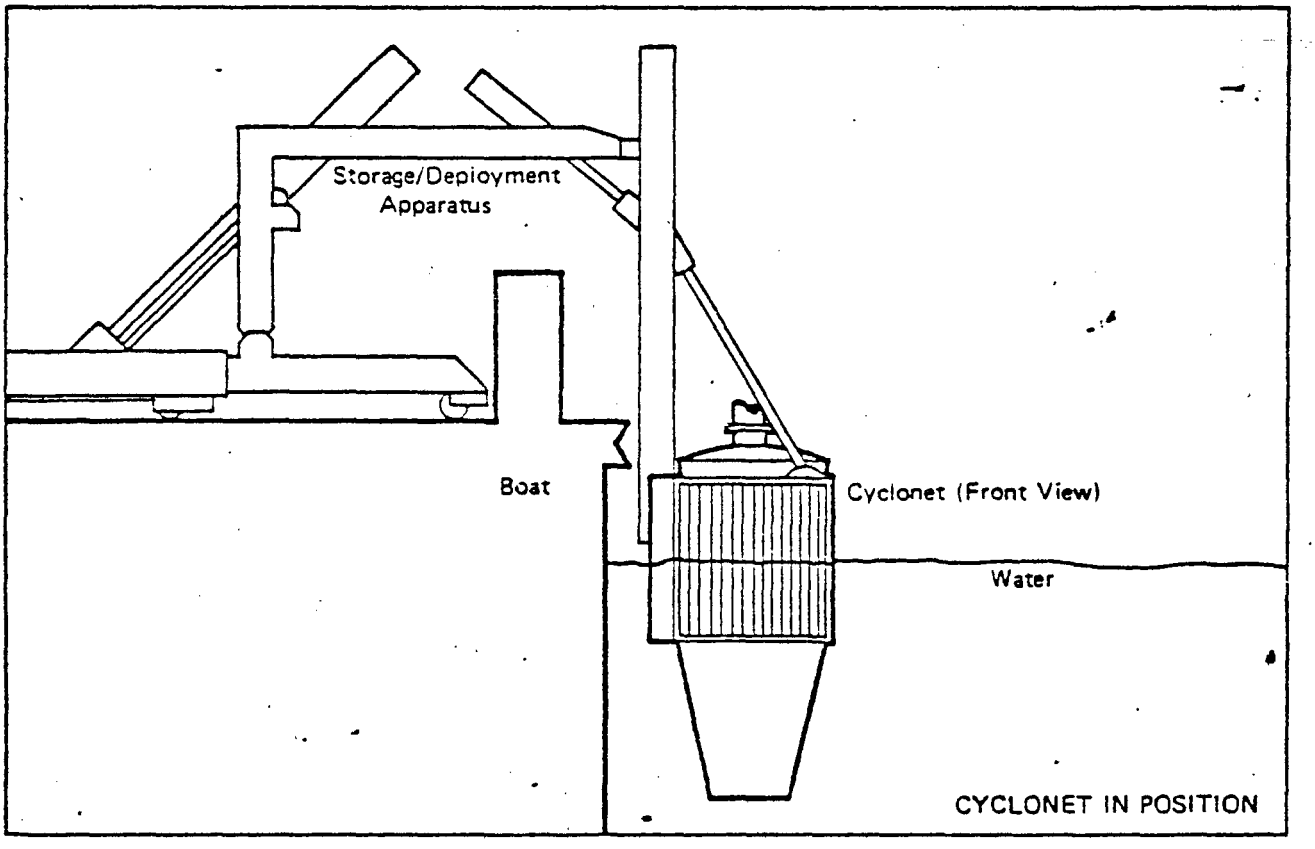
SECTION VII

SKIMMERS & SKIMMER SPECIFICATIONS

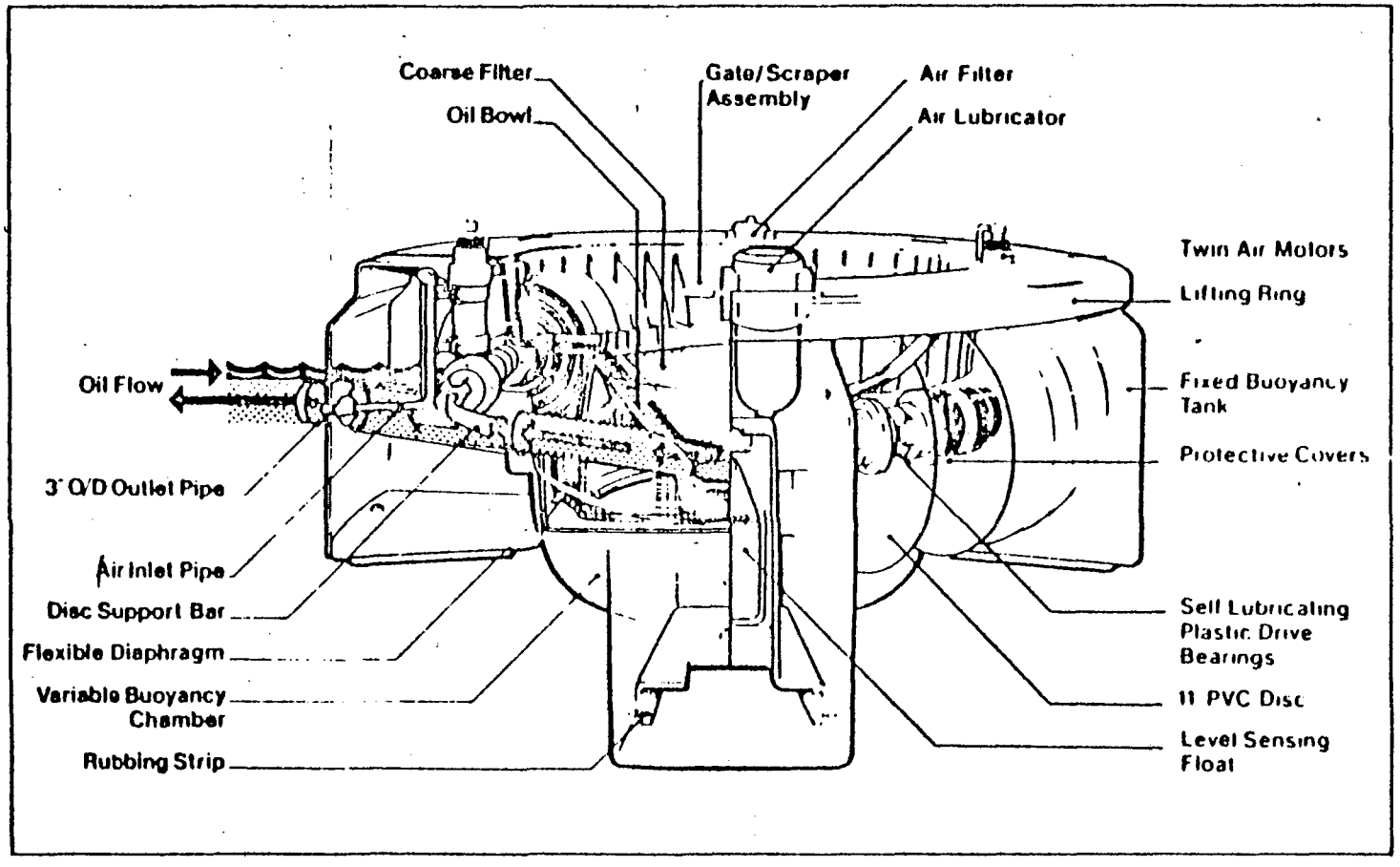
SKIMMER SPECIFICATIONS

Name (model)	Cyclonet	Komara	Acme 39-T
Principle	Hydrocyclone	Disc	Weir
Dimensions	150-cm diameter	46-inch diam.	46-inch diam.
Draft (ft)	Draft of vessel	0.6	0.8
Weight (lb)	-	115	138
Recovery Rate (gpm)	440-880	50	100-250
Power Source and type	Hydraulic	Diesel-hydraulic	Gas
Onboard Storage Capacity (bbl)	Storage capacity of vessel	0	0

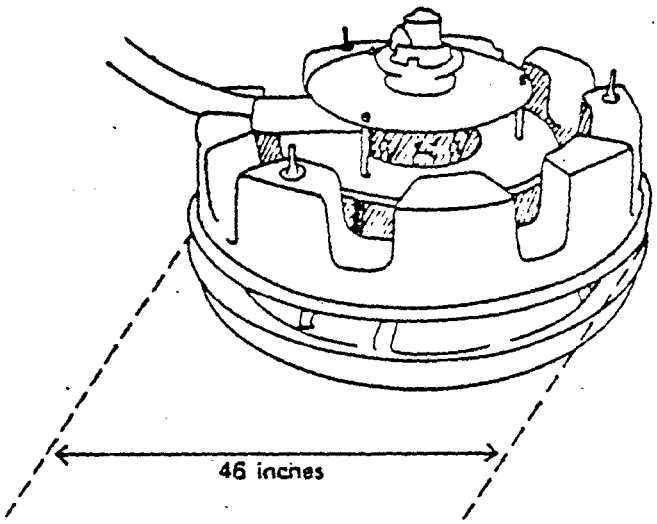




CYCLONET SKIMMER



KOMARA MINISKIMMER



ACME FLOATING SAUCER SKIMMER

SECTION VIII

USGS PACIFIC AREA
OCS ORDER NO. 7

POLLUTION & WASTE DISPOSAL

Notice to Lessees and Operators of Federal Oil and Gas Leases in the Outer Continental Shelf Pacific Area

OCS ORDERS

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
CONSERVATION DIVISION

WESTERN REGION
PACIFIC AREA

OCS Order No. 7
June 1, 1971

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION
BRANCH OF OIL AND GAS OPERATIONS
PACIFIC REGION

NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL AND GAS LEASES IN THE OUTER CONTINENTAL SHELF, PACIFIC REGION

POLLUTION AND WASTE DISPOSAL

This Order is established pursuant to the authority prescribed in 30 CFR 250.11 and in accordance with 30 CFR 250.43. Section 250.43 provides as follows:

(a) The lessee shall not pollute land or water or damage the aquatic life of the sea or allow extraneous matter to enter and damage any mineral- or water-bearing formation. The lessee shall dispose of all liquid and non-liquid waste materials as prescribed by the supervisor. All spills or leakage of oil or waste materials shall be recorded by the lessee and, upon request of the supervisor, shall be reported to him. All spills or leakage of a substantial size or quantity, as defined by the supervisor, and those of any size or quantity which cannot be immediately controlled also shall be reported by the lessee without delay to the supervisor and to the Coast Guard and the Regional Director of the Federal Water Pollution Control Administration. All spills or leakage of oil or waste materials of a size or quantity specified by the designee under the pollution contingency plan shall also be reported by the lessee without delay to such designee.

(b) If the waters of the sea are polluted by the drilling or production operations conducted by or on behalf of the lessee, and such pollution damages or threatens to damage aquatic life, wildlife, or public or private property, the control and total removal of the pollutant, wheresoever found, proximately resulting therefrom shall be at the expense of the lessee. Upon failure of the lessee to control and remove the pollutant the supervisor, in cooperation with other appropriate agencies of the Federal, State and local governments, or in cooperation with the lessee, or both, shall have the right to accomplish the control and removal of the pollutant in accordance with any established contingency plan for combating oil spills or by other means at the cost of the lessee. Such action shall not relieve the lessee of any responsibility as provided herein.

(c) The lessee's liability to third parties, other than for cleaning up the pollutant in accordance with paragraph (b) of this section, shall be governed by applicable law.

The operator shall comply with the following requirements. Any departures from the requirements specified in this Order shall be subject to approval pursuant to 30 CFR 250.12(b).

1. Pollution Prevention. In the conduct of all oil and gas operations, the operator shall not pollute land or water. The operator shall comply with the following pollution prevention requirements.

   A. Liquid Disposal.

      (1) The disposal of produced waste water and sewage shall be in accordance with the provisions of OCS Order No. 8.

      (2) Oil shall not be disposed of into ocean waters.

      (3) Liquid waste materials containing substances which may be harmful to aquatic life or wildlife, or injurious in any manner to life or property, shall be treated to avoid disposal of harmful substances into the ocean waters.

      (4) Drilling mud containing oil or toxic substances shall not be disposed of into the ocean waters.

   B. Solid Waste Disposal.

      (1) Drill cuttings, sand, and other solids containing oil shall not be disposed of into the ocean waters.

      (2) Mud containers and other solid waste materials shall be transported to shore for disposal.

   C. Production Facilities.

      (1) All production facilities, such as separators, tanks, treaters, and other equipment, shall be operated and maintained at all times in a manner necessary to prevent pollution.

(2) The operator's personnel shall be thoroughly instructed in the techniques of equipment maintenance and operation for the prevention of pollution. Non-operator personnel shall be informed in writing, prior to executing contracts, of the operator's obligations to prevent pollution.

2. Inspections and Reports. The operator shall comply with the following pollution inspection and reporting requirements and operators shall comply with such instructions or orders as are issued by the Supervisor for the control or removal of pollutants:

A. Pollution Inspections.

(1) Manned drilling and production facilities shall be inspected daily to determine if pollution is occurring. Such maintenance or repairs as are necessary to prevent pollution of ocean waters shall be immediately undertaken and performed.

(2) Unattended facilities, including those equipped with remote control and monitoring systems, shall be inspected at intervals as prescribed by the District Engineer and necessary maintenance or repairs immediately made thereto.

B. Pollution Reports.

(1) All spills or leakage of oil and liquid pollutants shall be reported orally without delay to the District Engineer and the Coast Guard and shall be followed by a written report to the District Engineer showing the cause, size of spill, and action taken.

(2) All spills or leakage of oil and liquid pollutants of a substantial size or quantity and those of any size or quantity which cannot be immediately controlled, shall be reported orally without delay to the Supervisor, the District Engineer, the Coast Guard, and the Regional Director, Environmental Protection Agency.

(3) Operators shall notify each other upon observation of equipment malfunction or pollution resulting from another's operation.

3. Control and Removal.

A. Corrective Action. Immediate corrective action shall be taken in all cases where pollution has occurred. Each operator shall have an emergency plan for initiating corrective action to control and remove pollution and such plan shall be filed with the Supervisor. Corrective action taken under the plan shall be subject to modification when directed by the Supervisor.

B. Equipment. Standby pollution control equipment shall be maintained at each operation or shall be immediately available to each operator at an onshore location. This equipment shall include, but need not be limited to, containment booms, skimming apparatus, and chemical dispersants and shall be available prior to the commencement of operations. This equipment shall be the most effective available resulting from the current state of pollution control and removal research and development efforts. The equipment shall be regularly inspected and maintained in good condition for use. The equipment and the location of land bases shall be approved by the Supervisor. Chemical dispersants shall not be used without prior approval of the Supervisor. The operator shall notify the Supervisor of the location at which such equipment is located for operations conducted on each lease. All changes in location and equipment maintained at each location shall be approved by the Supervisor.

D. W. Solanas

D. W. Solanas
Supervisor

Approved: June 1, 1971

Russell G. Wayland

Russell G. Wayland
Chief, Conservation Division

CRITICAL OPERATIONS

AND

CURTAILMENT PLAN

APPENDIX B

CRITICAL OPERATIONS AND CURTAILMENT PLANS

The safety of personnel and the protection of the environment have highest priority when conducting any of Texaco's operations. Preplanning and scheduling of work is made with these factors in mind.

Texaco recognizes the hazards of operating offshore with its confined areas to conduct work and the possibility of contamination of the Marine environment. Every effort is made to minimize the possibility of pollution and to provide maximum safe work conditions for its personnel.

In planning any critical operation, we would not schedule such work where the risk would be increased due to weather conditions that might impede or prevent transportation of men, material, or cleanup equipment in case of an emergency.

Listed below are operations which are considered as critical. Such operations would not be started if conditions were not favorable and would be curtailed or stopped if conditions became adverse during the conduct of the work.

a. Drill-stem testing.

b. Drilling into zones of known lost circulation problems.

c. Drilling operations which would require work boats or barges to be tied along side.

d. Cutting and recovering casing.

e. Certain types of welding of a non-emergency nature.

f. Logging or wireline operations.

g. Running and setting upper casing strings.

h. Fuel transfer.

Attached in table form are the restrictions placed on operations because of adverse weather, disaster, failure of safety equipment, or lack of personnel and material.

RESTRICTIONS ON CRITICAL OPERATIONS CONDUCTED ON PLATFORM

TYPE OF OPERATION	WIND GREATER THAN 60 KNOTS	SIGNIFICANT WAVES GREATER THAN 10 FEET	FOG DENSE	DISASTER OR SEVERE STORM	BOP FAILS TO TEST	LUBRICATOR FAILS TO TEST	LACK OF WELL CONTROL MATERIAL	LACK OF MANPOWER	LACK OF TRANSPORTATION OR CLEAN-UP CAPABILITY
DRILLING									
Spud-in	Do Not Start	Do Not Start	Do Not Start	Do Not Start			Do Not Start	Do Not Start	Do Not Start
Tripping	Do Not Start	Do Not Start		Do Not Start	Do Not Start		Do Not Start	Do Not Start	Do Not Start
Drill Stem Test	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start		Do Not Start	Do Not Start	Do Not Start
Run Casing	Do Not Start	Do Not Start		Do Not Start	Do Not Start		Do Not Start	Do Not Start	Do Not Start
Cut & Pec. Casing	Do Not Start	Do Not Start		Do Not Start	Do Not Start		Do Not Start	Do Not Start	Do Not Start
Perforating	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start
Swabbing	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start	Do Not Start		Do Not Start	Do Not Start
CONSTRUCTION & MAINTENANCE									
Open Pressure Vessels	Do Not Start	Do Not Start		Do Not Start				Do Not Start	Do Not Start
Welding	Do Not Start	Do Not Start		Do Not Start				Do Not Start	
Off Loading	Do Not Start	Do Not Start	Do Not Start	Do Not Start				Do Not Start	Do Not Start
Loading	Do Not Start	Do Not Start	Do Not Start	Do Not Start				Do Not Start	Do Not Start

4-17-74

HYDROGEN SULFIDE

- H_2S -

CONTINGENCY PLAN

APPENDIX C

TEXACO Inc.
1976

TABLE OF CONTENTS

HYDROGEN SULFIDE (H_2 S) CONTINGENCY PLAN

A. INTRODUCTION

This plan provides for personnel safety and training programs, operating procedures, precautionary measures, safety equipment, and emergency procedures in the event toxic gases are encountered, and sets forth responsibilities and duties of personnel pertaining to the drilling operations.

This plan is to be put into effect prior to drilling below the surface casing on exploratory wells. Any subsequent drilling will have the plan put into effect prior to penetration of known or suspected H_2S bearing formations.

The plan requires the cooperation and effort of each person participating in the drilling of the wells. Each person must know his responsibilities and duties in regard to normal drilling operations and emergency and safety procedures. He should be thoroughly familiar with and be able to use at a moment's notice all safety equipment on the rig while performing his normal duties if required by circumstances. He should, therefore, familiarize himself with the location of all safety equipment and see that his equipment is properly stored, easily accessible at all times and routinely maintained.

Texaco Inc. intends to make every effort to provide adequate safeguards against harmful effects to persons on the rig, and immediate vicinity from toxic gases which may, under emergency conditions, be released to the atmosphere. The burden of responsibility rests with the individual in utilizing the safeguards provided. The ideas and suggestions of each individual involved in the drilling of these wells are highly welcomed.

B. GENERAL INFORMATION ON HYDROGEN SULFIDE & SULFUR DIOXIDE EXPOSURE

Hydrogen Sulfide (H_2S)

Hydrogen sulfide is an insidious, poisonous gas, which in the air in low concentrations is normally detectable by its characteristic "rotten egg" odor and sweetish taste. H_2S under normal conditions is a colorless and flammable gas. It is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly destroyed due to deadening of the olfactory nerves, allowing lethal concentrations to be accumulated without warning. H_2S is 18% heavier than air, and hence, tends to hang close to the floor or ground and to accumulate in hollows, inside of firewalls around tanks, in manifold pits, in sumps, and above the roofs of floating roof tanks.

In low concentrations, H_2S has an irritant action on the air passage, mucous membranes, and the cornea of the eye. Where concentrations in the range of 200 ppm or more are encountered, the olfactory nerves are rapidly paralyzed, destroying the sense of smell as a warning indicator. In higher concentrations, in excess of 500 ppm, it has a systemic effect and unconsciousness usually results within 2 minutes and respiratory failure within 15 minutes. Death will result if the victim is not rescued immediately to a safe area and breathing restored by artificial respiration.

See Exhibit I - Threshold of Various Gases and Exhibit II - Physical Effects of Hydrogen Sulfide and Sulfur Dioxide Exposure.

Sulfur Dioxide (SO_2)

Sulfur dioxide is a colorless nonflammable, transparent gas which is produced during the burning of H_2S. Although SO_2 is over twice as heavy as air, it will be picked up by a breeze and carried downwind at elevated temperatures. Because sulfur dioxide is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect.

See Exhibit I - Threshold of Various Gases and Exhibit II - Physical Effects of Hydrogen Sulfide and Sulfur Dioxide Exposure.

C. SAFETY PROCEDURES, EQUIPMENT AND TRAINING

Personnel Safety and Protection

All operations conducted in an area of a potential hydrogen sulfide environment shall be conducted in accordance with the

Outer Continental Shelf Standard
Safety Requirements for Drilling Operations
in a Hydrogen Sulfide Environment
United States Geological Survey Outer Continental Shelf
Standard No. 1
GSS-OCS-1
First Edition
February 1976

All personnel shall undergo an eardrum examination before assignment to H_2S prone areas. Personnel with perforated eardrums shall be prohibited from working in an H_2S environment.

Safety Equipment

The drill vessel will be equipped with a minimum of at least the following safety equipment for H_2S detection and personnel safety:

1. Hydrogen sulfide (H_2S) monitoring and alarm system. Monitoring points will be located at the bell nipple, rig floor, working area of the shale shaker, living quarters, and other areas where H_2S gas might accumulate in hazardous quantities. The monitors will be equipped with both audible and visible alarms. The first alarm will be activated at ten (10) PPM concentrations of H_2S.
2. Resuscitator with mask, oxygen bottle, and spare oxygen bottle. (Gas masks are not approved for use in a H_2S environment. The use of gas masks is limited to SO_2 environment).

a) Storage locations shall include the following:

1) Rig floor
2) Any working area above the rig floor
3) Mud logging facility
4) Shale-shaker area
5) Mud pit area
6) Mud storage area
7) Pump rooms (mud and cement)
8) Crew quarters
9) Each briefing area
10) Heliport.

3. Ventilating blower fans for rig floor to disperse H_2S.
4. Portable hydrogen sulfide detectors.
5. A system of breathing-air manifolds, hoses and masks shall be provided on the rig floor and in the briefing rooms.
6. Workboats and helicopters attendant to drilling vessel operations shall be equipped with a protective breathing apparatus for all personnel.
7. Wind direction indicating equipment at prominent locations.
8. Coast Guard approved first aid kit, sized for the normal number of working personnel.
9. Stokes litter, or equivalent.
10. Retrieval ropes with safety harnesses, chalk boards, bull horns, and flashing lights.
11. A sufficient quantity of H_2S scavenger chemicals shall be stored on board the drill vessel to counteract any hydrogen sulfide encountered. Refer to Mud Engineer responsibilities, Section F, for H_2S scavenger materials.

Flare System

H_2S gases removed from the mud system by the degasser shall be piped into a closed flare system and safety vented.

Training Program

An H_2S training program, which includes a weekly drill and training session, will be conducted to assure all personnel on the drilling vessel will be familiar with the location and proper use of on-board safety equipment, and will also include the rapid instruction of outsiders (who could be present in an emergency). All personnel in the working crew will be trained in basic first aid. They will be informed of H_2S monitors and alarms prominently located on the drill vessel, breathing equipment location, ventilation equipment, warning systems, prevailing winds and wind direction indicating equipment prominently located on the drill vessel, briefing areas, evacuation procedures and equipment. Record of attendance shall be maintained on the drilling facility.

Smoking Rules

During Condition II - Moderate Danger to Life episodes there shall be No Smoking except in disignated areas such as the safe briefing area.

During Condition III - Extreme Danger to Life episodes there shall be No Smoking.

First Aid - Buddy System

In this plan, reference is made to the "Buddy" system. This means that personnel should watch out for each other and, when possible, should work in pairs. Everyone should be aware of first

aid procedures in the event someone else becomes careless. First aid for H_2S victims is based primarily on rescue breathing and includes:

1. Move the victim to fresh air at once. Don't jeopardize your own safety. Wear a mask, then get a mask on the victim.
2. If the victim is unconscious and not breathing, take him at once to the Safe Briefing Area and apply mouth-to-mouth artificial respiration, without interruption, until a resuscitator is available. Use the resuscitator until normal breathing is restored. Symptoms may pass off rapidly; however, keep the victim warm, even during artificial respiration.
3. Summon a doctor as soon as possible.
4. Summon transportation if required by doctor. When the patient has recovered and can be safely moved, he must be sent to the hospital by an ambulance and never allowed to stand until released by the doctor.

D. SAFE BRIEFING AREAS

At least two safe briefing areas shall be established on each drilling facility. Preferably one area in the forward sectioh of the facility and the other in the aft section of the facility.

The designated safe briefing area for any particular episode will be the one which is upwind from the toxic fume source area and will be dependent upon wind conditions existing at that time.

During Condition I - Moderate Danger, all nonworking personnel shall proceed to the safe briefing areas.

During Condition II - Extreme Danger, all non-essential personnel shall assemble at the designated safe briefing area for evacuation.

E. SAFETY PROCEDURES FOR OPERATING CONDITIONS

General

Drilling operations in known H_2S zones, or when H_2S has been detected in the drilling fluid, will be performed under the three following described conditions:

Condition I - Potential Danger

Warning Sign : None

Alarm : Less than 10 PPM - None

Characterized by : Drilling operations under control. Routine drilling operations in zones that may contain hydrogen sulfide. This condition will be in effect continuously from the surface casing shoe to total depth unless it is necessary to go to Condition II or III. This condition remains in effect until H_2S is detected.

General Action :

1. Be alert for a condition change.
2. Check all safety equipment and monitors for proper functioning. Keep equipment available and working.
3. Perform all drills for familiarization and proficiency.

Condition II - Moderate Danger to Life

Warning Sign : "DANGER - H_2S" signs on each side of the drilling ship. Hoist red flags.

Alarm : Activated at 10 PPM - Horn blast warning device.

Characterized by: Drilling operations under control. Routine drilling in zones containing hydrogen sulfide. Toxic gases present in concentrations below threshold levels and may or may not be detectable by odor (see Threshold Limit of Various Gases, Exhibit I). This condition will be in effect continuously from the time H_2S is first detected to total depth unless it is necessary to go to Condition III. This condition remains in effect up to H_2S concentration of 20 PPM. Action to take under this condition is contained under H_2S Emergency Safety Procedures, Condition II - Moderate Danger to Life, page E-1.

General Action :

1. Be alert for a condition change. No smoking except in designated areas.
2. Check safety equipment for proper functioning. Keep it available. No welding or open fires, without permission from the Drilling Rig Tool Pusher or Drilling Foreman.

3. Follow instructions of supervisor.
4. All non-working personnel shall proceed to the safe briefing areas.

Condition III - Extreme Danger to Life

Warning Sign : "DANGER - H_2S" signs on all sides of the ship. 2' x 3' red flags flown.

Alarm : Activates at 20 PPM - Horn blast warning device.

Characterized By: Toxic gases may be present or expected to be present at or above threshold level (as defined in Exhibit I, Threshold Limit of Various Gases).

General Action :
1. All personnel will wear self-contained breathing apparatus.
2. All non-essential personnel assemble in the "Safe Briefing Area," if not specifically assigned to correct or control the situation.
3. Non-essential personnel or all personnel as appropriate will be evacuated if the H_2S concentration reaches 50 PPM.
4. Follow the instructions of the Drilling Foreman and Drilling Rig Tool Pusher.

5. If the gas is ignited, the burning hydrogen sulfide will be converted to sulfur dioxide which is also poisonous. Therefore, DO NOT ASSUME THAT THE AREA IS SAFE AFTER THE GAS IS IGNITED. CONTINUE TO OBSERVE EMERGENCY PROCEDURES AND FOLLOW THE INSTRUCTIONS OF SUPERVISORS.
6. Refer to Section F, Condition III, for additional instructions if the H_2S concentration exceeds 20 PPM.

F. HYDROGEN SULFIDE EMERGENCY SAFETY PROCEDURES

The emergency procedures outlined in this section will be implemented under the following operating conditions:

Condition II - Moderate Danger to Life

If, at any time, as much as 10 PPM of H_2S is detected, the following steps shall be taken:

1. Driller shall shut down mud pumps and continue to rotate drill pipe.
2. If the well attempts to flow, the driller will stop rotating the drill pipe and close the blow out preventors.
3. The following personnel shall immediately put on their breathing equipment without the mask.
   a. All personnel on the rig floor
   b. All personnel at the mud pits, and
   c. All personnel required to work below and down wind of rig floor.
4. Notify the Drilling Foreman and the Drilling Rig Tool Pusher.
5. The Drilling Foreman will alert all personnel that Condition II exists. The Drilling Rig Tool Pusher should be prepared to shut off the forced air circulating system.
6. All non-working personnel proceed to the safe briefing areas.

7. Display "Danger" signs and hoist red flags.
8. The Mud Engineer shall run a sulfide determination of the flowline mud.
9. Immediately begin to ascertain the origin of the H_2S and take counter measures to suppress the H_2S. Drilling will not proceed until the source is determined and the well is circulated. Rig Floor and mud pit personnel will keep breathing equipment on while monitoring this circulation.
10. The Drilling Rig Tool Pusher shall make sure all non-essential personnel are out of the danger areas, i.e., mud pit area, mud shack, mud storage room, holds below main deck, etc. All persons who remain in expected danger areas must utilize the "Buddy System."
11. Order all personnel to check their safety equipment for proper operation and location.
12. Notify the Texaco Operations Office of condition and action taken. The Onshore Coordinator will then notify the USGS and USCG. Refer to the Oil Spill Contingency Portion (Section I) of the Plan of Operation for the list of names and telephone numbers of the various agencies listed in the Notification Section of this "Hydrogen Sulfide Contingency Plan".
13. Check all gas monitoring devices and increase gas monitoring activities with the portable hand operated H_2S and Gas Detector Units.

14. Alert the onshore base station to assure continuous radio watch.

Condition III - Extreme Danger to Life

If the H_2S concentration exceeds 20 PPM, the following steps will be taken:

1. Driller will shut down mud pumps and continue to rotate drill pipe.
2. If the well attempts to flow, the driller will stop rotating the drill pipe and close the blow out preventor.
3. All personnel will immediately put on their breathing masks.
4. Once air breathing equipment is on, the driller will notify the Drilling Foreman and Drilling Rig Tool Pusher.
5. The Drilling Rig Tool Pusher will alert all personnel that a Condition III exists. He should see that the forced air circulation system has been shut off.
6. All non-essential personnel must take their assigned breathing equipment and assemble at the designated Safe Briefing Area and follow the instructions of the Off-Duty Driller or Designated Contractor's employe for evacuation.
7. Always put on a portable air breathing mask before proceeding to assist anyone affected by the gas and utilize the "Buddy System". If the affected person is stricken in a high concentrated area, put on a safety belt with at least 50' of tail line and obtain

standby assistance before entering the area. Always use the "Buddy System" when entering possible contaminated areas.

8. Notify work boats to go upwind, stay on power, and maintain a 24-hour radio and visual watch. Fly 2' x 3' red flags.
9. Alert the onshore base station to assure continuous radio watch.
10. When H_2S is determined to have reached the injurious level (50 PPM) all non-essential personnel or all personnel as appropriate shall be evacuated.

The Drilling Foreman and Drilling Rig Tool Pusher will assess the situation and assign duties to each person to bring the situation under control. When the severity of the situation has been determined, all persons will be advised. The Drilling Foreman and Drilling Rig Tool Pusher will:

1. Direct corrective action.
2. Notify Texaco's Operations Office and the Contract Drilling Rig Supervisors.

Texaco's Onshore Coordinator will be responsible for notifying the USGS, USCG, and other regulatory agencies.

Should a zone be penetrated which contains concentrations of H_2S that would ordinarily require specialized metallurgy and H_2S resistant materials for continued safe operation, the well would be plugged back, temporarily nonoperated, and re-entered at a later date when proper equipment is available for such an operation.

and H_2S resistant materials for continued safe operation, the well would be plugged back, temporarily nonoperated, and re-entered at a later date when proper equipment is available for such an operation.

G. RESPONSIBILITIES AND DUTIES OF PERSONNEL

Each individual is responsible for his assigned safety equipment to see that it is properly stored, easily accessible, and routinely maintained. Each person must familiarize himself with the location of all safety equipment aboard the rig and be able to use all safety equipment promptly.

Any person who sees any indications of H_2S should immediately advise those in the area, as well as the Drilling Foreman, and Drilling Rig Tool Pusher.

The following named personnel are assigned the responsibilities and duties so indicated:

DRILLING FOREMAN

1. Responsible for thoroughly understanding and complying in all aspects with the United States Geological Survey Outer Continental Shelf Standard No. 1 (GSS-OCS-1).
2. Responsible for thoroughly understanding and enforcing all aspects of this "H_2S Contingency Plan." (With special emphasis on Page C-3 "Training Program")
3. Responsible for seeing that all safety and emergency procedures outlined in the "H_2S Contingency Plan" are observed by all personnel on board during drilling in H_2S zones.
4. Will advise the Texaco Operations Office whenever the necessary procedures as specified herein are complied with.
5. Responsible for setting up the equipment for drilling.

6. Responsible for personnel training in conjunction with the Drilling Rig Tool Pusher.
7. Responsible for the mud logging unit with associated detection equipment.
8. Responsible for ascertaining that the Mud Engineer has a sufficient supply of zinc carbonate - zinc lignosulfonate blend, or an approved equivalent scavenger chemical, on board the drill vessel.
9. If the presence of H_2S is reported and confirmed, the Drilling Foreman is responsible for immediately advising the Drilling Rig Tool Pusher and all personnel on the rig that the condition exists.
10. Responsible for performing a weekly inventory and inspection to assure that all safety equipment is being properly stored and maintained and is easily accessible.
11. Shall restrict the number of personnel on the drilling rig to a minimum during Condition III operations.
12. Responsible for maintaining a "Drilling Foreman's Check List" of routine duties, hardware, and safety equipment.
13. Responsible for surveillance of other check lists by the Tool Pusher, Mudlogger, and Mud Engineer.
14. Responsible for documentation of compliance by appropriate notes and additions in Drilling Foreman's morning report.

Drilling Rig Tool Pusher

1. In conjunction with the Drilling Foreman, is responsible for seeing that all safety and emergency procedures outlined in this "H_2S Contingency Plan" are observed by all personnel aboard the drill vessel.

2. Shares the responsibility of the Drilling Foreman in training all personnel aboard the drill vessel.
3. Responsible for thoroughly understanding the contents of this "H_2S Contingency Plan." In the absence or incapacitation of the Drilling Foreman, the Drilling Rig Tool Pusher will assume all responsibilities designated herein to the Drilling Foreman.
4. Responsible for maintaining a "Drilling Contractor's Check List" of routine safety duties and equipment.
5. Responsible for inspecting and maintaining the degasser.

Drilling Rig Driller

1. Must be completely familiar with the steps he must follow during a Condition II and Condition III emergency as outlined under "H_2S Emergency Safety Procedures".
2. Must be completely familiar with all of his drilling duties, which shall include well control and lost circulation problems.
3. In the absence or incapacitation of the Drilling Foreman and Drilling Rig Tool Pusher, the on-duty Driller will assume their responsibilities as designated herein.
4. The Off-duty Drilling Rig Driller or Designated Contractor's employe will be responsible for instructing personnel at the designated Safe Briefing Area of the emergency action required.

Mud Engineer

1. Responsible for assuring that the rig has a sufficient supply of zinc carbonate-zine Lignosulfonate blend, or an approved equivalent scavenger chemical.
2. Must be familiar with the mud treating procedures for H_2S cut mud.
3. Must have adequate equipment for measuring the sulfides in the mud.
4. Responsible for becoming knowledgeable in the operation and use of breathing equipment and H_2S detection.
5. Responsible for maintaining a "Mud Engineer's Safety Equipment Check List".

Mudlogger

1. Along with his normal duties, the Mudlogger will be responsible for rigging up and monitoring all H_2S continuous recording monitoring-type detectors.
2. Responsible for the switch inside the mudlogging unit that controls the forced air duct leading to the unit.
3. Responsible for a hand operated Multi-Gas detector which will be kept in the mudlogging unit.
4. Responsible for becoming knowledgeable in the operation and use of breathing equipment.
5. Responsible for maintaining a "Mudlogger's Safety Equipment Check List".

Off-Duty Drilling Rig Driller or Designated Contractor's Employe

1. Responsible for shutting off the forced air circulation system in the quarters and advising off-duty personnel of alert conditions.
2. Determine the Safe Briefing Area. Another safe assembly point may be designated if the originally designated briefing areas are found to be unsafe for the conditions.
3. Is responsible for keeping all personnel advised of the current Safe Briefing Area and supervising orderly evacuation of non-essential personnel under Condition III.
4. Is responsible for alerting all off-duty and quarters personnel during a "Condition II or III" alert and for assigning personnel to display warning signs and flags.
5. Is responsible for notifying all personnel in the area of the drill rig of a change in conditions.

H. EVACUATION PLAN

The evacuation of personnel will be in accordance with emergency procedures set forth in the U. S.Coast Guard Station Bill as prepared by the Master of the Vessel. All personnel to be evacuated shall report to the designated Safe Briefing Area for evacuation as directed.

I. TRANSPORTATION SERVICES

A listing of designated helicopter and crew boat services will be posted near the radio station on the drilling rig.

J. AGENCY NOTIFICATION

The following agencies shall be immediately notified under the alert conditions indicated: See Section I (Agency Notification) in the Oil Spill Contingency Plan for names and telephone numbers.

Condition II - Moderate Danger to Life

- When H_2S concentration reaches 10 PPM -

U. S. Coast Guard

U. S. Geological Survey

(Call District Engineer first, in his absence proceed down list until one person is notified.)

Condition III - Extreme Danger to Life

- When H_2S concentration reaches 20 PPM -

U. S. Coast Guard

U. S. Geological Survey

(Call District Engineer first, in his absence proceed down list until one person is notified.)

Department of Defense

Immediately has been defined by the Coast Guard as within one hours.

Every effort should be made to contact the Onshore Coordinator within the first hour after the H_2S concentration reaches 10 PPM so that the Onshore Coordinator can telephone the necessary agencies listed above. However, if for some reason contact with the Onshore Coordinator has not been established within one hour, the Drilling Foreman will notify the required agencies. In the absence or incapacitation of the Drilling Foreman, the Drilling Rig Tool Pusher shall contact the required agencies. In the absence or incapacitation of the Drilling Rig Tool Pusher, the on-duty Drilling Rig Driller shall contact the required agencies.

EXHIBIT I - THRESHOLD LIMIT OF VARIOUS GASES*

Common Name	Chemical Formula	Specific Gravity Air [1]	Threshold[1] Limit
Hydrogen Sulfide	H_2S	1.18	10 ppm
Sulfur Dioxide	SO_2	2.21	5 ppm
Methane	CH_4	0.55	1000 ppm

[1]Threshold limit values refer to airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect.

*Data from American Conference of Governmental Industrial Hygienists.

EXHIBIT II - PHYSICAL EFFECTS OF HYDROGEN SULFIDE AND SULFUR DIOXIDE EXPOSURE

HYDROGEN SULFIDE (H_2S)

%	PPM	Gr/100 SCF	Physical Effects
.001	10	.65	Obvious and unpleasant odor.
.002	20*	1.30	Safe for 8 hours exposure.
.01	100	6.48	Kills smell in 3 to 15 minutes; may sting eyes and throat.
.02	200	12.96	Kills smell shortly; stings eyes and throat.
.05	500	32.96	Dizziness; breathing ceases in a few minutes; needs prompt artificial respiration.
.07	700	45.36	Unconscious quickly; death will result if not rescued.
.1	1000	64.80	Unconscious at once; followed by death within minutes.

SULFUR DIOXIDE (SO_2)

%	PPM	Physical Effects
.0005	3 to 5	Pungent odor. Normally a person can detect SO_2 in this range.
.001	10*	Safe for 8-hour exposure.
.0012	12	Throat irritation, coughing, constriction of the chest, tearing and smarting of eyes.
.015	150	So irritating that it can only be endured for a few minutes.
.05	500	Causes a sense of suffocation, even with first breath.

* Data from American Conference of Governmental Industrial Hygienists

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

Office of Coastal Zone Management
3300 Whitehaven Street, N. W.
Washington, D. C. 20235

May 23, 1978

Mr. M. V. Adams
Acting Oil and Gas Supervisor (Pacific Area)
U. S. Geological Survey
7211 Federal Building
300 No. Los Angeles Street
Los Angeles, California 90012

Dear Mr. Adams:

Thank you for the opportunity to respond to the Environmental Report (Exploration) and the Exploration Plan for Well No. 5, Pitas Point Unit in the Santa Barbara Channel. I apologize for not responding sooner and hope that my comments may still be useful to you.

I have only one comment to make on the Environmental Report, Section 10.0 entitled Consistency of California's Coastal Zone Management Program with Federal Requirements. This section is incorrect as it stands. The title is misleading and should be relabled to read: Consistency of This Activity with the California Coastal Management Program. It is not a matter of the State program being consistent with Federal requirements as it is with Federal activities being consistent with the State program.

The second and third paragraph of Section 10 are also incorrect statements. The court has allowed the Secretary of Commerce (responsibility delegated to the Assistant Administrator for Coastal Zone Management) to approve the whole California Coastal Management Program but has enjoined them from invoking the automatic use of Section 307 of the Federal Coastal Zone Management Act. The Program was approved on November 7, 1977.

FACSIMILE TRANSMISSION

Hour & Date Recd. 5-23-78 9:37 Sent

To Mr. Frazier

From Huguenot

Remarks:

I offer the following rewording for your consideration:

> "A preliminary injunction has been issued by the Federal District Court in Los Angeles in response to legal action brought by industry against the U. S. Secretary of Commerce. A court order permitted the U. S. Government to approve the California Coastal Management Program but prohibited application of the Federal Consistency provisions of the Coastal Zone Management Act (CZMA, Section 307) to the program until the court case is resolved after a hearing on the merits. Therefore, at this time California is not certifying activities as to their consistency under the authority of the CZMA."

These comments apply as well to Section 10.0 of the Environmental Report (Exploration) for Well No. 1, Lease OCS-P 0213, Santa Barbara Channel.

The Office of Coastal Zone Management recognizes that this is the first such project under your new regulations and applauds your efforts to encourage more widespread comment on activities that may have far-reaching effects on State and local governments and the public. We also appreciate the fact that you have established a good working relationship with the California Coastal Commission and believe that this will facilitate better development of the OCS resources while minimizing environmental, social and economic impacts onshore as well as offshore.

Sincerely,

Richard B. Mieremet
Deputy Pacific Region Manager

985,000 990,000 995,000 1,000,000 1,005,000

800,000 795,000 790,000 785,000 780,000

LINE 200 LINE 202 LINE 204 LINE 206 LINE 208 LINE 210 LINE 212 LINE 214 LINE 216 LINE 218

LINE 201 LINE 203 LINE 205 LINE 207 LINE 209 LINE 211 LINE 213 LINE 215 LINE 217 LINE 219 LINE 221 LINE 223 LINE 225 LINE 227 LINE 229 LINE 231 LINE 233 LINE 235

250 275

PROPOSED LOCATION

P-0234

34° 18'

119° 36' 119° 34'

N

LEGEND:
- SPARKER SHOTS
- SPARKER RESHOOT
- BOOMER SHOT
- DRILL SITE

FAIRFIELD INDUSTRIES
MARINE DIVISION

SANTA BARBARA CHANNEL

O.C.S.-P0234
(50N-64W)

BATHYMETRY

SCALE: 1"= 1000'

0 1000 2000 3000 4000 FEET

CONTOUR INTERVAL 5 FT. INTERPRETED BY: D.J.W.

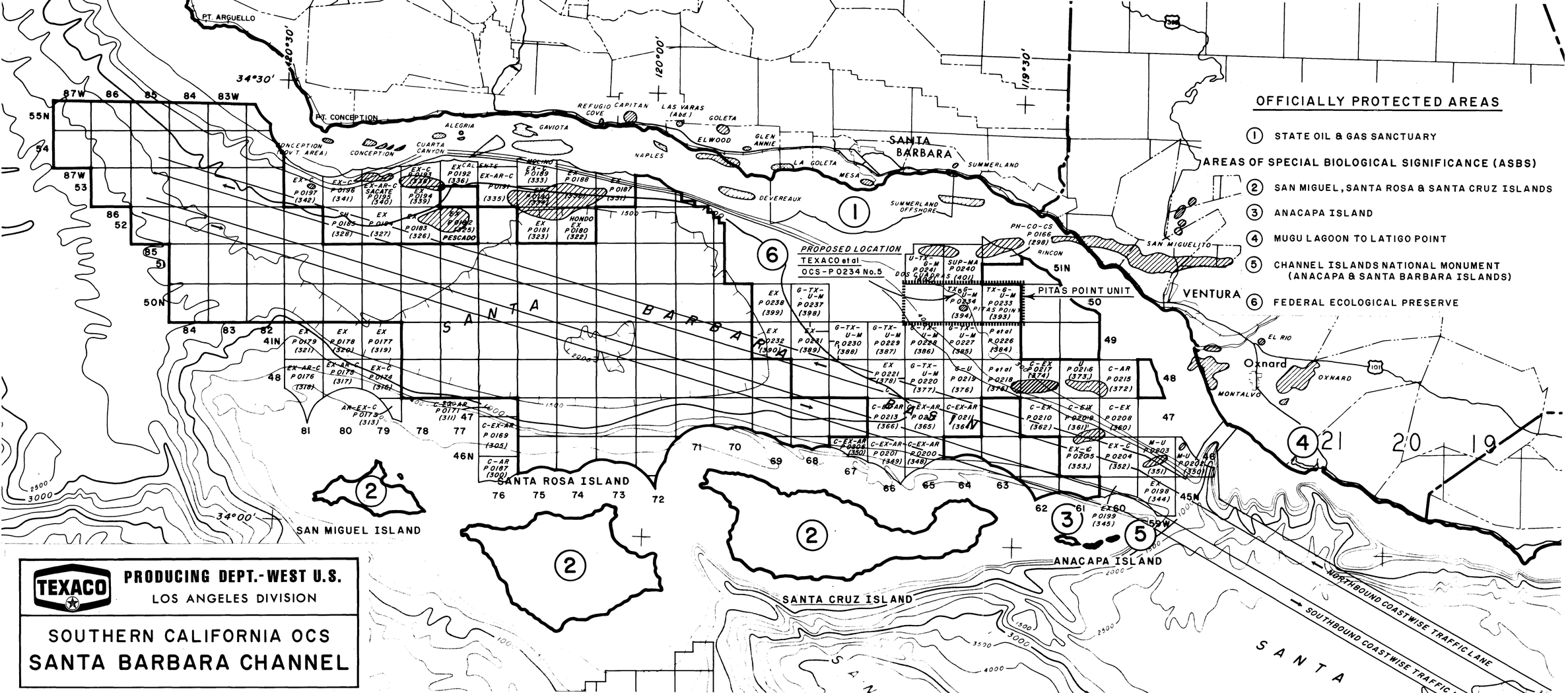
DATUM: SEA LEVEL DATE: 2-17-78

DRILL SITE COORDINATES: X=992740 Y=789900

TEXACO, INCORPORATED

DWG. No. 26237

FIGURE 2



TEXACO

PRODUCING DEPT.- WEST U.S.

LOS ANGELES DIVISION

SOUTHERN CALIFORNIA OCS
SANTA BARBARA CHANNEL