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BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

Prepared By:

Bloomfield Refining Company
P.O. Box 159
Bloomfield, New Mexico 87413

December 20, 1994

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

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OIL SPILL RESPONSE PLAN

LIST OF ATTACHMENTS

Attachment 1.....Safety Order S-1, BRC Emergency Plan

Attachment 2.....Response Contractor Information

Attachment 3.....Tank and Chemical Lists, Locations, Quantities

Attachment 4.....Spill Prevention Control & Countermeasure Plan

Attachment 5.....Storm Water Pollution Prevention Plan

Attachment 6.....Pipeline Spill Response Plan

Attachment 7.....Calculations, Attachment E-1 Worksheet

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.1 EMERGENCY RESPONSE ACTION PLAN

This section of the Oil Spill Response Plan is co-located to the front of this plan for easy access by response personnel during an actual emergency. Additional details may be available in the sections that follow this section.

1.1.1 Qualified Individual Information (Section 1.2)

BRC has a detailed procedure (Attachment 1, Safety Order S-1) for responding to any emergency that may occur at the facility. This would include fires, explosions, release of flammable vapor or gas, release of toxic vapor or gas, **release of crude oil, intermediates, or products**, and bomb threats. The command procedures for an oil spill would be the same as defined in Safety Order S-1. The Operation's Shift Supervisor, generally most available at any time of day or night, would assume initial command of emergency control efforts until arrival of the Safety Manager. The Shift Supervisor will transfer command to the Safety Manager, or, in the absence of the Safety Manager, to the Safety Supervisor.

Emergency Phone: (505) 632-8013 and/or
Home phone numbers

Name : Jim Stiffler
Position : Safety Manager
Home Address : 111 Wade Circle
Bloomfield, NM
Emergency Phone: (505) 632-2140

Name	: Randy Schmaltz	Vic Harrison
Position	: Safety Supervisor	Shift Supervisor
Home Address	: 3601 Buena Vista	803 N. Firwood
	Farmington, NM	Bloomfield, NM
Emergency Phone:	(505) 327-0985	(505) 632-9110

Name	: Richard Alexander	Mike Gomez
Position	: Shift Supervisor	Shift Supervisor
Home Address	: 404 N. 7th St.	18 Road 5097
	Bloomfield, NM	Farmington, NM
Emergency Phone:	(505) 632-2730	(505) 632-9395

Name	: Jack Bost	Larry Hawkins
Position	: Shift Supervisor	Shift Supervisor
Home Address	: 800 S. Newby Ln.	3270 La Plata Hwy.
	Bloomfield, NM	Farmington, NM
Emergency Phone:	(505) 334-0917	(505) 326-2823

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

1.1.2 Emergency Notification Phone List (Section 1.3.1)

<u>Priority</u>	<u>Organization</u>	<u>Phone No.</u>
1	BRC Qualified Individual, Jim Stiffler.....	632-2140
2	BRC Qualified Individual, Randy Schmaltz.....	327-0985
3	BRC call-out as per Safety Order S-1 to form Company Response Team	
4	Contract Responder, Tierra Environmental.....	325-0924
	Phil Nobis.....	632-1404
5	National Response Center (NRA)..... <i>~ Not National Rifle Association</i> <i>(NRC)</i>	1-800-424-8802
6	Bloomfield Fire Department.....	911
	Bloomfield Police Department.....	911
	San Juan County Sheriff.....	911
	State Police.....	911
	Ambulance.....	911
	County Fire Departments.....	911
7	Hammond Conservancy District.....	632-3043
8	Local Emergency Planning Committee (LEPC) John Dolan (Meridian).....	326-9700
	County Fire Marshall's Office.....	334-9481
9	State Emergency Response Commission (SERC).....	505-827-9126
10	New Mexico Oil Conservation Division.....	334-6178
11	New Mexico Environment Department.....	505-827-0187
12	Federal On-Scene Coordinator, 24-hour.... Don Smith.....	1-214-665-2222 1-214-665-6489
13	Navajo Reservoir Superintendent.....	632-3115
14	City of Farmington Water.....	326-1918
15	San Juan Regional Medical Center.....	325-5011
16	Radio, KENN..... KTRA.....	325-3541 326-6553
17	Television, KOBF.....	326-1141

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.1.3 Spill Response Notification Form (Section 1.3.1)

A Spill Response Notification Form (in this section and page 1-22) has been prepared to be used by the notifier to aid in making the initial report. The notifier should be prepared to provide as much information as is possible, but should not delay spill reporting to collect missing information. Be as factual as possible and clearly state what information is available.

1.1.4 Response Equipment List & Location (Section 1.3.2)

BRC has an extensive inventory of emergency response equipment immediately available (see partial list beginning on page 1-5). The equipment is all on refinery property with some placed in strategic locations throughout the refinery for ready access, some located in the refinery warehouse, and some located in the fire truck building. Refinery rolling stock is located in the maintenance yard behind the shop/warehouse building when not in use. Numerous hand tools are available from the tool room. The shift supervisor has access to all storage areas at all times. Enough refinery personnel are available for immediate response to operate any equipment deemed appropriate for response by the qualified individual that has assumed command of the emergency response in accordance with Safety Order S-1. Refinery personnel qualified to operate specific equipment know the location of that equipment.

In addition, there are numerous outside equipment resources (see page 1-28) available in the vicinity of BRC that can be called upon for fairly rapid deployment to assist in spill recovery. A professional responder (Tierra Environmental) is also immediately available to BRC to provide additional response capabilities in the event of a spill requiring implementation of the Oil Spill Response Plan.

BLOOMFIELD REFINING COMPANY
SPILL RESPONSE NOTIFICATION FORM

Reporter's Name: _____; Position: _____
Last, First M.I.

Phone Numbers: Work: (505) 632-8013; Home: (____) ____-____

Date and Time of This Notification: _____

Notification Made To: _____

Facility & Owner name: Bloomfield Refining Company (BRC)

Physical Address: #50 County Road 4990 (Sullivan Road)

Mailing Address : P.O. Box 159
Bloomfield, NM 87413

Facility Phone : (505) 632-8013

BRC Identification Numbers: FRP-06-NM-00015; EPA: NMD 089 416 416

Facility Type: Petroleum refinery; SIC Code: 2911

Were Materials Discharged? ____ (Y/N) Confidential? N (Y/N)

Meeting Federal Obligation to Report? ____ (Y/N)

Calling for Responsible Party? ____ (Y/N)

Incident Description: Source and/or Cause of Incident: _____

Date and Time of Incident: _____

Duration of Incident: _____

Incident Address/Location: _____

Medium Affected (air, water, land): _____

Description of Medium: _____

Nearest City: Bloomfield State: NM County: San Juan Zip: 87413

Distance from City: Across River, 500ft. Direction from City: South

Section: 26 & 27; Township: 29 North; Range: 11 West, N.M.P.M.

Facility Latitude: 36°41'50"; Facility Longitude: 107°58'20"

Container Type: _____; Tank Oil Storage Capacity: _____ gallons

Facility Oil Storage Capacity: 32,487,000 gallons

Type of Material Discharged: _____

Total Released: _____ gallons; Amount to waterway: _____ gallons

Response Actions Taken to Correct, Control or Mitigate

Incident: _____

Impact: Number of Injuries: _____; Number of Deaths: _____

Were there Evacuations? ____ (Y/N); Number Evacuated: _____

Was there any Damage? ____ (Y/N); Damage Estimate: \$ _____

Additional Information: _____

Other Notifications: EPA? ____ (Y/N) NMED? ____ (Y/N) NMOCDD? ____ (Y/N)

Facility Contact for Additional Information: Chris Hawley

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
	Company Rolling Stock	
1	1992 Chevy GM4 Pickup, 058CRG	Harris
1	1994 Ford F-150 Pickup	King
1	1990 Ford F-250HD 4X4 Pickup, 269ATK	Terminals
1	1993 Chevy K-1500 Pickup, 244DNH	Kollasch
1	1994 Ford F-150 Pickup	Daniels
1	1990 Nissan Pickup, 411BCK	Warehouse
1	1989 Ford F250 Pickup, 257BTP	Maintenance
1	1988 Chevy S-10 Pickup, 307CNG	Operations
1	1994 Chevy 1/2-Ton Pickup	Hart
1	1993 Chevy K-1500 Pickup, 243DNH	Frost
1	1994 Chevy CK 10903 Pickup	Wright
1	1979 MTZ, MCT Utility Trailer	Terminals
1	Massey Ferguson 383 Tractor	Terminals
1	1979 Chevy C30 Fire Truck, 258BTP Twin agent, 450# purple-K, 100 gal foam.	Firehouse
1	1989 Foam Proportioning Trailer, w/1000 gal foam & 2000 gpm foam monitor.	Firehouse
1	John Deere 480C Forklift	Warehouse
1	1978 GMC C65 Fuel Truck, 260BTP	Maintenance
1	1980 Linkbelt 17-ton Crane	Maintenance
1	1980 Allis Chalmers Tractor, Model 5020	Maintenance
1	1975 International Vacuum Truck, 80 Bbl	Maintenance

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
1	1979 GMC 2-ton Winch Truck, 259BTP	Maintenance
1	John Deere 410B Backhoe	Maintenance
1	Cushman Cart	Maintenance
1	1989 Kawasaki Mule-1000, Model KAF 450-B1	Maintenance
1	1980 International F-4270 Dump Truck	Maintenance
1	1991 Chevy 1-ton 4x4 (dually) 663ATG	Maintenance
1	1993 Grove AP308 Carrydeck Crane	Maintenance
1	Case Front End Loader, 3-yard Bucket	Maintenance
	Company Equipment	
2	2000 gpm auto-start diesel fire engines	Pumphouse
1	1000 gpm manual-start diesel fire engine	Pumphouse
1	750 gpm manual-start electric fire engine	Pumphouse
1	750 gpm manual-start gas fire engine	Pumphouse
11,000	Feet of 6", 8", 10", 12" fire line	Underground
18	Fixed fire monitors	Various
4	Portable fire monitors	Various
38	Fire hydrants	Throughout
101	Hand portable fire extinguishers	Throughout
14	150# Wheeled extinguishers	Throughout
1	Water deluge system	TEL Bldg.
1	Automatic foam deluge system	Load rack
2	Foam cannons w/110 gallon foam	Unload rack

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
1	Automatic Halon extinguishers	Lab
2600	Gallons of AFFF/ATC foam concentrate	Firehouse
3	Foam systems on tanks 11, 12, and 13	Tankfarm
100	Sets of fire fighting bunker equipment assigned to employees, extras in firehouse	Various
1	Water deluge system	Wetgas comp
10	Self-contained breathing apparatus	Various
2	Air line breathing apparatus	Warehouse
2	First aid kits (large standard)	Control Rm/ Maintenance
2	First aid kits (trauma)	Firehouse
2	Medical oxygen units	Firehouse
1	Chlorine cylinder patch kit	Control Rm
3	Stretchers and rescue blankets	Firehouse
400	Feet of rescue rope & equipment	Control Rm
8	Safety showers	Various
7	Fire hose boxes with 400 feet hose, 3 nozzles, and 1 gated wye	Various
600	Feet of 2-1/2" fire hose	Firehouse
800	Feet of 1" fire hose	Firehouse
8	Nozzles	Firehouse
	Miscellaneous other fire appliances	Firehouse
	Assorted respiratory equipment for specific use	Warehouse
600	Pounds stock Purple-K Extinguisher Chem.	Firehouse

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
8	Acid resistant slicker suits	Various
1	2000 gpm portable foam monitor	Firehouse
150	Feet of oil skimmer boom, ACME Products, 6" flotation, 8" skirt x 50' sections, x 1/4" chain, flex couplers.	Maintenance
3	Rolls of oil sorbent blanket, Conweed, 3M-P100, (3/8"x36"x150' each)	Warehouse
1	Flat bottom boat, small two-man w/oars	Maintenance
	Numerous diaphragm pumps (10 to 300 gpm)	Maintenance
	Portable air compressors	Maintenance
1	1000 gpm portable diesel pump	Maintenance
	Assorted vacuum truck hoses w/attachments	Maintenance
	Numerous hand tools for any job	Toolroom
Communication Equipment		
4	Cellular phones 320-0343 320-0344 320-0549 320-0680	Operations Maintenance Kollasch Daniels
29	Two-way radios. All operations personnel, maintenance supervisors, safety personnel, and others as needed carry two-way radios. Channel one used by operations during emergency, Channel two used to direct emergency.	Operations Maintenance Safety Supervisors

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.1.5 Response Equipment Testing and Deployment (Section 1.3.3)

Response and safety equipment are inspected on a monthly basis by personnel responsible for the location where that equipment is stored. Inspection logs are returned to the safety department for review and filing. Since these inspection requirements are integral to the operating procedures of the refinery and are very comprehensive, they are not repeated in this plan. Their existence is certified in accordance with this plan.

Rolling stock of the refinery is inspected, at a minimum, in accordance with manufacturer's recommendations. An inspection log is maintained for each. For critical equipment, an inspection checklist is done every time the equipment is used. Inspection logs are maintained by the maintenance department. They are not repeated in this plan, but their existence is certified in accordance with this plan.

Major safety training exercises are done at least twice per year. During this time, safety equipment is deployed. Other rolling stock is used frequently for other purposes, essentially verified on a daily basis that it is ready to be deployed.

1.1.6 Facility Response Team (Section 1.3.4)

BRC has a detailed procedure (Safety Order S-1) for responding to any emergency that may occur at the facility. The facility is operated 24 hours per day, 365 days per year. A call out procedure with phone numbers is maintained in the control room. Response teams are dynamic; based on presence at the facility, normal refining duties, specialized training, and as assigned by the fire chief (qualified individual in charge of the emergency). With the exception of some of the office staff, all personnel at the refinery receive the same training. An Emergency Response Personnel list (from which a response team is created in accordance with Safety Order S-1) is included on the next page.

Phone numbers of all personnel are not included in this plan to avoid giving them out without authorization. They are maintained by qualified personnel in the refinery control room for immediate use in accordance with call-out guidance. Telephone numbers of key personnel are provided on pages 1-1, 1-2, 1-15, and 1-21.

Response training records are extensive and are maintained in the records of the Safety Manager.

Response contractors immediately available to BRC are listed on page 1-33.

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY RESPONSE PERSONNEL

<u>Name</u>	<u>Response Time-hrs</u>	<u>Responsibility</u>
Stiffler, Jim	0.5	Fire Chief, Qualified Individual
Schmaltz, Randy	1	Fire Scene Command, Qualified Ind.
Harrison, Vic	0.5	Fire Crew Leader, Qualified Ind.
Alexander, Richard	0.5	Fire Crew Leader, Qualified Ind.
Bost, Jack	0.5	Fire Crew Leader, Qualified Ind.
Gomez, Mike	1	Fire Crew Leader, Qualified Ind.
Hawkins, Larry	1	Fire Crew Leader, Qualified Ind.
Belt, Mike	1	Support
Bergquist, Shirley	1	Support
Brown, Dale	0.5	Fire Crew
Buczinski, Ron	0.5	Operations Supervisor, Fire Crew
Castor, Vicki	0.5	Fire Crew Leader, Supplies & Eq.
Cunningham, Cecil	0.5	Fire Crew Leader
Davis, Matt	1.5	Fire Crew, Technical Support
Evans, Nancy	0.5	Support
Garcia, Connie	0.5	Support
Garcia, Steve	1	Fire Crew, Supplies & Equip.
Hamlow, Hal	1	Fire Crew
Harris, Tom	2	Fire Crew
Hawley, Chris	1	Fire Crew, Reporting, Environmental
Hovland, Avis	0.5	Support
Hunter, John	1	Fire Crew
King, Chad	2	Operations Support, Fire Crew
Mackey, Janet	0.5	Support
Markle, June	1	Support
Meldrum, Craig	1	Fire Crew, Technical Support
Miller, Trent	1	Fire Crew
Owen, Ed	1	Fire Crew
Perry, Hines	0.5	Fire Crew Leader, Maint. Suprv.
Roderick, Dave	1	Refinery Manager, Fire Crew
Runyon, Becky	0.5	Support
Todacheene, Larry	0.5	Fire Crew, Supplies & Equip.
Walters, Diane	1	Support
Wimsatt, Don	1	Fire Crew Leader, Maint. Suprv.
Yancey, Debbie	0.5	Support
Zimmerman, Chris	1	Fire Crew, Technical Support
Brown, Vince	0.5	Fire Crew
Charley, Mike	0.5	Fire Crew
Daniels, Kevin	0.5	Fire Crew, Pipeline
Gibson, Bill	0.5	Fire Crew
Kollasch, Bill	1	Fire Crew, Pipeline
Montoya, Rick	0.5	Fire Crew

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY RESPONSE PERSONNEL

<u>Name</u>	<u>Response Time-hrs</u>	<u>Responsibility</u>
Nolan, Al	0.5	Fire Crew
Salazar, Alex	0.5	Fire Crew
Weaver, Ron	0.5	Fire Crew Leader, Terminal Suprv.
Clark, Michal	0.5	Support
Frost, Doug	1	Support
Garcia, Patty	0.5	Support
Hart, Korbi	0.5	Fire Crew, Envr. Response
Ninos, Monica	1	Support
Poore, Roger	0.5	Support
Wright, Dale	1	Support
Adams, Bill	0.5	Fire Crew
Aldrin, Gordon	0.5	Fire Crew
Armenta, Bengie	0.5	Fire Crew
Armenta, Marvin	0.5	Fire Crew
Ashley, Irvin	2	Fire Crew
Begay, Hanley	1	Fire Crew
Bia, Nelson	2	Fire Crew
Bozarth, Leroy	0.5	Fire Crew
Brown, Todd	0.5	Fire Crew
Delaney, Mike	2	Fire Crew
DeLeon, Richard	0.5	Fire Crew
Dunn, Cindy	0.5	Fire Crew
Durden, Clyde	1	Fire Crew
Ervin, Emile	1	Fire Crew
Garlington, Jerry	0.5	Fire Crew
Hallmark, Joe	0.5	Fire Crew
Hartle, Jim	1	Fire Crew
Hefner, Richard	1	Fire Crew
Lasster, Melvin	1	Fire Crew
Lohman, Ed	1	Fire Crew
Lovell, Dan	0.5	Fire Crew
Mascarenas, Johnny	0.5	Fire Crew
McDaniel, Vic	0.5	Fire Crew
Prugh, Dean	1	Fire Crew
Salazar, Rudy	1	Fire Crew
Sanchez, Raymond	0.5	Fire Crew
Walter, Kay	0.5	Fire Crew
Boswell, Tom	0.5	Fire Crew
Cochran, Bill	0.5	Fire Crew
Eldred, Terry	0.5	Fire Crew
Faverino, Mike	0.5	Fire Crew
Fulton, Arnold	2	Fire Crew
Gammon, Larry	1	Fire Crew
Herman, Frank	0.5	Fire Crew
Rogge, Jay	1	Fire Crew

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY RESPONSE PERSONNEL

<u>Name</u>	<u>Response Time-hrs</u>	<u>Responsibility</u>
Lucero, Barney	1	Fire Crew
Perry, Bill	0.5	Fire Crew
Schrantz, Bill	1	Fire Crew
Scribner, Jack	1	Fire Crew
Sullivan, Frank	0.5	Fire Crew
Vigil, Bobby	1	Fire Crew
Williamson, Joe	0.5	Fire Crew
Willie, Herbert	0.5	Fire Crew
Andis, Nell	0.5	Fire Crew
Martin, Cheryl	1	Fire Crew

Notes:

1. Personnel listed with the responsibility of support are usually not qualified for fire crew duties, although there are some exceptions. They will be involved in duties at the Emergency Control Center.
2. Fire Crew has the same meaning as Response Crew since an emergency may not involve a fire.
3. Last Update: 12/16/94

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.1.7 Evacuation Plan (Section 1.3.5)

Evacuation procedures are included in Safety Order S-1 (Attachment 1). Routes are noted on the facility diagram.

1.1.8 Immediate Actions (Section 1.7.1)

All spills at BRC are considered serious. All resources identified in this plan (Section 1.3.2 Response Equipment List, and Section 1.3.4 Personnel) are available for mobilization to respond and will be requested immediately if the on-scene Qualified Individual (fire chief) determines the need. The outside contractor will be mobilized if the spill reaches a waterway or if needed onsite. This plan and Safety Order S-1 are the primary plans for spill response. Additional response training is part of the BRC training program, additional contracted help is available and noted in this plan, access to additional response equipment/experts is available and noted in this plan, and the ability to implement the response plans are documented with the training given all BRC employees.

1.1.9 Facility Diagram (Section 1.9)

A diagram to meet the requirements of this section is included in the envelope at the end of this plan.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.2 FACILITY INFORMATION

1.2.1 Name of facility: Bloomfield Refining Company

1.2.2 Type of facility: Onshore Facility - Petroleum Refinery

1.2.3 Location of facility: #50 County Road 4990
Bloomfield, New Mexico 87413

County: San Juan

Latitude: 36°41'50"

Longitude: 107°58'20"

1.2.4 Mailing address: Bloomfield Refining Company
P. O. Box 159
Bloomfield, NM 87413

1.2.5 Telephone Number: (505) 632-8013

1.2.6 Name and address of owner or operator:

Name : Bloomfield Refining Company
Address: P. O. Box 159
Bloomfield, New Mexico 87413

1.2.7 Wellhead Protection Area:

The facility is not located in nor drains into a wellhead protection area as defined by the Safe Drinking Water Act of 1986.

1.2.8 Date of Oil Storage Start-up: 1959

1.2.9 Current Operation:

Bloomfield Refining Company (BRC) operates a 18,000 barrel per day (nominal capacity) crude petroleum refinery designated with the Standard Industrial Classification (SIC) code 2911. The facility is engaged in the refining of crude petroleum into a range of petroleum products that include gasoline, kerosene, distillate fuel oils, residual fuel oils, military jet fuel (JP4), butane, and propane. Processing units include crude desalting, crude distillation, catalytic hydrotreating and reforming, fluidized catalytic cracking, catalytic polymerization, diesel hydrodesulfurization, and a sulfur recovery unit.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.2.10 Qualified Individuals

BRC has a detailed procedure (Safety Order S-1) for responding to any emergency that may occur at the facility. This would include fires, explosions, release of flammable vapor or gas, release of toxic vapor or gas, **release of crude oil, intermediates, or products**, and bomb threats. The command procedures for an oil spill would be the same as defined in Safety Order S-1. The Operation's Shift Supervisor, generally most available at any time of day or night, would assume initial command of emergency control efforts until arrival of the Safety Manager. The Shift Supervisor will transfer command to the Safety Manager, or, in the absence of the Safety Manager, to the Safety Supervisor.

Work Address : Same for all
Bloomfield Refining Company
#50 County Road 4990
Bloomfield, NM 87413

Emergency Phone: (505) 632-8013 and/or
Home phone numbers

Name : Jim Stiffler
Position : Safety Manager
Home Address : 111 Wade Circle
Bloomfield, NM
Emergency Phone: (505) 632-2140

Name	: Randy Schmaltz	Vic Harrison
Position	: Safety Supervisor	Shift Supervisor
Home Address	: 3601 Buena Vista	803 N. Firwood
	Farmington, NM	Bloomfield, NM
Emergency Phone:	(505) 327-0985	(505) 632-9110

Name	: Richard Alexander	Mike Gomez
Position	: Shift Supervisor	Shift Supervisor
Home Address	: 404 N. 7th St.	18 Road 5097
	Bloomfield, NM	Farmington, NM
Emergency Phone:	(505) 632-2730	(505) 632-9395

Name	: Jack Bost	Larry Hawkins
Position	: Shift Supervisor	Shift Supervisor
Home Address	: 800 S. Newby Ln.	3270 La Plata Hwy.
	Bloomfield, NM	Farmington, NM
Emergency Phone:	(505) 334-0917	(505) 326-2823

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.2.11 Specific Response Training Experience

Safety Manager (Jim Stiffler)

The safety manager has been involved in safety and emergency response activities since 1970. He has been manager of the safety program at BRC since 1979. Training has included attendance at the following:

- Ansul Fire Training School.
- State of New Mexico, SARA Title 3 Hazardous Materials Workshop.
- New Mexico State Fire Marshall Office, Hazardous Materials Transportation Emergencies.
- University of Nevada at Reno, Flammable Liquids Fire Protection (1985, 1986, 1987, 1989).
- National Fire Academy, Initial Company Tactical Operations.
- 29 CFR 1910.120 & 40 CFR 264.16/265.16, Hazardous Waste Operations and Emergency Response-"Hazwopper".
- Federal Emergency Management Agency, G300 Hazardous Materials.
- US EPA & Union Pacific Railroad, Hazardous Materials Emergency Response.
- USDOT, Emergency Medical Technician.
- Texas A&M, Industrial Fire Protection.
- New Mexico State Fire Marshall's Office, Incident Command.

Safety Supervisor (Randy Schmaltz)

The safety supervisor has been involved in safety and emergency response activities in a supervisory position since 1980. Training has included the following:

- University of Nevada at Reno, Fire Protection Training Academy (1989, 1990).
- National Fire Academy, Incident Command System.
- New Mexico Fire Marshall's Training, Handling L.P.G. Emergencies & Flammable Liquid Fires.
- J. T. Baker, Hazardous Chemical Safety.
- Scott, Allard & Bohannon, Inc., 24-hr Training for Hazardous Waste Operations.
- Ohmart Technical Training School, Principles & Practices of Radiation Protection & Emergency Procedures.
- Misers Inspection & Training, Inc., Asbestos Training.
- Colorado State Police & Grand Junction, Colorado Fire Department, Instructor for Hazardous Material Field Exercises.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

Shift Supervisors

The five shift supervisors have extensive experience in refinery operations. They are responsible for the day-to-day operations of the refinery equipment and process units. They are most familiar with the equipment that could fail and cause a release. Their experience in the refinery varies in the range from 13 to 19 years with a substantial portion of that experience in a supervisory position.

At least one of the shift supervisors will be at the facility at all times (24 hours per day, 365 days per year). Their training has included attendance at the following training activities:

- Texas A&M, Industrial Fire Protection.
- University of Nevada at Reno, Flammable Liquids Fire Protection.
- Hazardous Waste Operations & Emergency Response.
- In House Training, Incident Command & Fire Ground Leadership, Fire Company Tactical Operations, and Hazardous Materials Emergency Response.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.2.12 Dates and Type of Substantial Expansion

<u>Date</u>	<u>Type of Substantial Expansion</u>
Late 1950's	Original construction as a crude topping unit.
1950's-1963	Installed tanks 8, 9, 17, 18, 19, 20, 21, 22, 23, 24, 25, 29, and 30.
1964	Suburban Propane of New Jersey acquired facility.
1966	Increased the crude unit throughput to 4,100 barrels per calendar day (bpcd) and added a 1,850 bpcd reformer and naphtha hydrotreater. Installed tanks 3,4, and 5.
12/1967	Installed tanks 26 and 27.
4/1969	Installed tank 28.
1975	Crude unit expanded to 8,400 bpcd.
8/1977	Installed tank 31.
1979	Crude unit expanded to 18,000 bpcd. Added a 6,000 bpcd fluidized catalytic cracker, an unsaturated gas plant, and a treater unit. Increased the capacity of the reformer/hydrotreater to 2,250 bpcd.
12/1982	Installed tanks 11 and 12.
10/31/84	BRC acquired the facility from Suburban Propane (Plateau).
5/7/87	Upgraded the reformer and increased capacity to 3,600 bpcd.
9/1987	Relocated tanks 13 and 14 (originally built in 1959 and 1961) to the BRC facility.
1/16/88	Started up a 2,000 bpcd catalytic polymerization unit and put new tank 32 into service.
1988	Completed a cathodic protection system for the tank farm and underground piping. Rebuilt process area sewer system and added curbed, concrete paving to the unpaved process areas.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

<u>Date</u>	<u>Type of Substantial Expansion</u>
1989	Increased reformer throughput to 4,000 bpcd.
11/1989	Installed tank 44.
12/7/89	Put in service new 5-acre (25 acre-feet) double-lined evaporation pond.
9/15/90	Put in service second new 5-acre (25 acre-feet) double-lined evaporation pond.
12/22/93	Put a 3000 bpcd diesel hydrodesulfurization unit and a two ton per day sulfur recovery unit in service.
3/31/94	Retrofitted the south and north oily water ponds with two additional liners in accordance with RCRA minimum technology requirements.
11/30/94	Completed the installation of a Class 1, non-hazardous wastewater injection well.
4/30/95	Expected completion date for the installation of two 55,000 barrel storage tanks (numbers 34 and 35).

Date of Last Update: 12/20/94

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.3 EMERGENCY RESPONSE INFORMATION

BRC responds to all emergencies in accordance with the Safety Order S-1. All employees may be required to respond to the emergency. The emergency call-out and organizational procedures are detailed in the Safety Order. The Safety Order (see Attachment 1) is considered part of the Oil Spill Response Plan. Information specific to an oil spill response is repeated in this section.

1.3.1 Emergency Notification

1.3.1.1 Emergency Notification Phone List

In the event an emergency results in a crude oil, intermediate, or product discharge to the San Juan River or to Hammond Ditch (a discharge means one which creates a sheen or causes a sludge or emulsion to be deposited beneath the surface or upon adjoining shorelines) an immediate notification is required to the National Response Center (NRC). The demands of the emergency response take precedence over agency reporting, but reporting must be completed as soon as possible and within 24 hours.

In addition to the NRC and local emergency responders (those contacted to provide aid in the emergency), several other agencies must be contacted. These include the LEPC, SERC, New Mexico Oil Conservation Division, New Mexico Environment Department, and Federal On-Scene Coordinator. The telephone numbers for these agencies are listed on the Emergency Notification Phone List that follows this page along with the numbers of others that may require immediate contact.

The environmental manager (Chris Hawley) will be responsible for making the required notifications. If he is not promptly available, the qualified individual (see Section 1.10 of this Plan) will be responsible for making the reports.

1.3.1.2 Spill Response Notification Form

A Spill Response Notification Form (page 1-22) has been prepared to be used by the notifier to aid in making the initial report. The notifier should be prepared to provide as much information as is possible, but should not delay spill reporting to collect missing information. Be as factual as possible and clearly state what information is available.

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY NOTIFICATION PHONE LIST

<u>Priority</u>	<u>Organization</u>	<u>Phone No.</u>
1	BRC Qualified Individual, Jim Stiffler.....	632-2140
2	BRC Qualified Individual, Randy Schmaltz.....	327-0985
3	BRC call-out as per Safety Order S-1 to form Company Response Team	
4	Contract Responder, Tierra Environmental.....	325-0924
	Phil Nobis.....	632-1404
5	National Response Center (NRA).....	1-800-424-8802
6	Bloomfield Fire Department.....	911
	Bloomfield Police Department.....	911
	San Juan County Sheriff.....	911
	State Police.....	911
	Ambulance.....	911
	County Fire Departments.....	911
7	Hammond Conservancy District.....	632-3043
8	Local Emergency Planning Committee (LEPC) John Dolan (Meridian).....	326-9700
	County Fire Marshall's Office.....	334-9481
9	State Emergency Response Commission (SERC).	505-827-9126
10	New Mexico Oil Conservation Division.....	334-6178
11	New Mexico Environment Department.....	505-827-0187
12	Federal On-Scene Coordinator, 24-hour....	1-214-665-2222
	Don Smith.....	1-214-665-6489
13	Navajo Reservoir Superintendent.....	632-3115
14	City of Farmington Water.....	326-1918
15	San Juan Regional Medical Center.....	325-5011
16	Radio, KENN.....	325-3541
	KTRA.....	326-6553
17	Television, KOBF.....	326-1141

Date of Last Update: 11/28/94. See Page 1-28 for additional.

BLOOMFIELD REFINING COMPANY
SPILL RESPONSE NOTIFICATION FORM

Reporter's Name: _____; Position: _____
Last, First M.I.

Phone Numbers: Work: (505) 632-8013; Home: (____) _____-

Date and Time of This Notification: _____

Notification Made To: _____

Facility & Owner name: Bloomfield Refining Company (BRC)

Physical Address: #50 County Road 4990 (Sullivan Road)

Mailing Address : P.O. Box 159
Bloomfield, NM 87413

Facility Phone : (505) 632-8013

BRC Identification Numbers: FRP-06-NM-00015; EPA: NMD 089 416 416

Facility Type: Petroleum refinery; SIC Code: 2911

Were Materials Discharged? ____ (Y/N) Confidential? N (Y/N)

Meeting Federal Obligation to Report? ____ (Y/N)

Calling for Responsible Party? ____ (Y/N)

Incident Description: Source and/or Cause of Incident: _____

Date and Time of Incident: _____

Duration of Incident: _____

Incident Address/Location: _____

Medium Affected (air, water, land): _____

Description of Medium: _____

Nearest City: Bloomfield State: NM County: San Juan Zip: 87413

Distance from City: Across River, 500ft. Direction from City: South

Section: 26 & 27; Township: 29 North; Range: 11 West, N.M.P.M.

Facility Latitude: 36°41'50"; Facility Longitude: 107°58'20"

Container Type: _____; Tank Oil Storage Capacity: _____ gallons

Facility Oil Storage Capacity: 32,487,000 gallons

Type of Material Discharged: _____

Total Released: _____ gallons; Amount to waterway: _____ gallons

Response Actions Taken to Correct, Control or Mitigate

Incident: _____

Impact: Number of Injuries: _____; Number of Deaths: _____

Were there Evacuations? ____ (Y/N); Number Evacuated: _____

Was there any Damage? ____ (Y/N); Damage Estimate: \$ _____

Additional Information: _____

Other Notifications: EPA? ____ (Y/N) NMED? ____ (Y/N) NMOCED? ____ (Y/N)

Facility Contact for Additional Information: Chris Hawley

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.3.2 Response Equipment List

BRC has an extensive inventory of emergency response equipment immediately available (see partial list beginning on page 1-24). The equipment is all on refinery property with some placed in strategic locations throughout the refinery for ready access, some located in the refinery warehouse, and some located in the fire truck building. Refinery rolling stock is located in the maintenance yard behind the shop/warehouse building when not in use. Numerous hand tools are available from the tool room. The shift supervisor has access to all storage areas at all times. Enough refinery personnel are available for immediate response to operate any equipment deemed appropriate for response by the qualified individual that has assumed command of the emergency response in accordance with Safety Order S-1. Refinery personnel qualified to operate specific equipment know the location of that equipment.

In addition, there are numerous outside equipment resources (see page 1-28) available in the vicinity of BRC that can be called upon for fairly rapid deployment to assist in spill recovery. A professional responder (Tierra Environmental) is also immediately available to BRC to provide additional response capabilities in the event of a spill requiring implementation of the Oil Spill Response Plan.

Tierra Environmental is approved (as evidenced by EPA referrals to companies involved in spills in the area) by EPA Region 6 for emergency response. There are 120 vacuum trucks, each with a capacity of 80 barrels, available in the area to respond for Tierra Environmental or BRC.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
	Company Rolling Stock	
1	1992 Chevy GM4 Pickup, 058CRG	Harris
1	1994 Ford F-150 Pickup	King
1	1990 Ford F-250HD 4X4 Pickup, 269ATK	Terminals
1	1993 Chevy K-1500 Pickup, 244DNH	Kollasch
1	1994 Ford F-150 Pickup	Daniels
1	1990 Nissan Pickup, 411BCK	Warehouse
1	1989 Ford F250 Pickup, 257BTP	Maintenance
1	1988 Chevy S-10 Pickup, 307CNG	Operations
1	1994 Chevy 1/2-Ton Pickup	Hart
1	1993 Chevy K-1500 Pickup, 243DNH	Frost
1	1994 Chevy CK 10903 Pickup	Wright
1	1979 MTZ, MCT Utility Trailer	Terminals
1	Massey Ferguson 383 Tractor	Terminals
1	1979 Chevy C30 Fire Truck, 258BTP Twin agent, 450# purple-K, 100 gal foam.	Firehouse
1	1989 Foam Proportioning Trailer, w/1000 gal foam & 2000 gpm foam monitor.	Firehouse
1	John Deere 480C Forklift	Warehouse
1	1978 GMC C65 Fuel Truck, 260BTP	Maintenance
1	1980 Linkbelt 17-ton Crane	Maintenance
1	1980 Allis Chalmers Tractor, Model 5020	Maintenance
1	1975 International Vacuum Truck, 80 Bbl	Maintenance

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
1	1979 GMC 2-ton Winch Truck, 259BTP	Maintenance
1	John Deere 410B Backhoe	Maintenance
1	Cushman Cart	Maintenance
1	1989 Kawasaki Mule-1000, Model KAF 450-B1	Maintenance
1	1980 International F-4270 Dump Truck	Maintenance
1	1991 Chevy 1-ton 4x4 (dually) 663ATG	Maintenance
1	1993 Grove AP308 Carrydeck Crane	Maintenance
1	Case Front End Loader, 3-yard Bucket	Maintenance
	Company Equipment	
2	2000 gpm auto-start diesel fire engines	Pumphouse
1	1000 gpm manual-start diesel fire engine	Pumphouse
1	750 gpm manual-start electric fire engine	Pumphouse
1	750 gpm manual-start gas fire engine	Pumphouse
11,000	Feet of 6", 8", 10", 12" fire line	Underground
18	Fixed fire monitors	Various
4	Portable fire monitors	Various
38	Fire hydrants	Throughout
101	Hand portable fire extinguishers	Throughout
14	150# Wheeled extinguishers	Throughout
1	Water deluge system	TEL Bldg.
1	Automatic foam deluge system	Load rack
2	Foam cannons w/110 gallon foam	Unload rack

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
1	Automatic Halon extinguishers	Lab
2600	Gallons of AFFF/ATC foam concentrate	Firehouse
3	Foam systems on tanks 11, 12, and 13	Tankfarm
100	Sets of fire fighting bunker equipment assigned to employees, extras in firehouse	Various
1	Water deluge system	Wetgas comp
10	Self-contained breathing apparatus	Various
2	Air line breathing apparatus	Warehouse
2	First aid kits (large standard)	Control Rm/ Maintenance
2	First aid kits (trauma)	Firehouse
2	Medical oxygen units	Firehouse
1	Chlorine cylinder patch kit	Control Rm
3	Stretchers and rescue blankets	Firehouse
400	Feet of rescue rope & equipment	Control Rm
8	Safety showers	Various
7	Fire hose boxes with 400 feet hose, 3 nozzles, and 1 gated wye	Various
600	Feet of 2-1/2" fire hose	Firehouse
800	Feet of 1" fire hose	Firehouse
8	Nozzles	Firehouse
	Miscellaneous other fire appliances	Firehouse
	Assorted respiratory equipment for specific use	Warehouse
600	Pounds stock Purple-K Extinguisher Chem.	Firehouse

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

<u>Quantity</u>	<u>Description (Manufacturer, Make, Model)</u>	<u>Location</u>
8	Acid resistant slicker suits	Various
1	2000 gpm portable foam monitor	Firehouse
150	Feet of oil skimmer boom, ACME Products, 6" flotation, 8" skirt x 50' sections, x 1/4" chain, flex couplers.	Maintenance
3	Rolls of oil sorbent blanket, Conweed, 3M-P100, (3/8"x36"x150' each)	Warehouse
1	Flat bottom boat, small two-man w/oars	Maintenance
	Numerous diaphragm pumps (10 to 300 gpm)	Maintenance
	Portable air compressors	Maintenance
1	1000 gpm portable diesel pump	Maintenance
	Assorted vacuum truck hoses w/attachments	Maintenance
	Numerous hand tools for any job	Toolroom
	Communication Equipment	
4	Cellular phones 320-0343 320-0344 320-0549 320-0680	Operations Maintenance Kollasch Daniels
29	Two-way radios. All operations personnel, maintenance supervisors, safety personnel, and others as needed carry two-way radios. Channel one used by operations during emergency, Channel two used to direct emergency.	Operations Maintenance Safety Supervisors

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

RESPONSE EQUIPMENT LIST

Outside Equipment Resources

Oil Spill Cleanup
Tierra Environmental Company.....325-0924
Environtech Inc.....632-0615

Water Tankers & Vacuum Trucks
Chief Transport.....325-2396
C & J Trucking.....325-7770
Dawn.....327-6314
Sunco Trucking.....327-0416 or 326-2266
Shiprock Transport.....327-5096
Triple S Trucking Co.....334-6193

Earth Moving Equipment
Adobe Construction (Ernie Motto).....632-1486 or 334-6696
Atchison Construction.....327-6276
Four Way, Inc.....327-0401

Wrecker or Rig Up Trucks
Robinson Towing.....334-1671 or 327-7511
Mr. G's.....325-0669
Drake Well Service.....327-7301
ODECO Inc.....632-3392

Aerial Ladder or Basket 911 or
City of Farmington Utility.....327-7701
Farmington Fire.....325-3501
Bloomfield Fire.....632-8011
Aztec Fire.....334-6101

Foam Supplies
Pennzoil Roosevelt Refinery.....801-722-5128
Thunderbird Sales.....505-881-6222
Boots & Coots.....713-999-0276

Other Emergency Contacts

Poison Control.....1-800-432-6866
Bomb Personnel (State Police Office).....325-7547
Ethyl Corporation (TEL Emergencies).....504-344-7147
CHEMTREC (Chemical Emergencies).....1-800-424-9300
City of Farmington (Electrical Utility).....327-7701
Kay-Ray (Radiation accident at Precipitator).....708-803-5100
Contact of New Mexico (Call-out assistance).....325-1873
Mobile Inspection (Radiography Assistance).....327-9473

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.3.3 Response Equipment Testing/Deployment

Response and safety equipment are inspected on a monthly basis by personnel responsible for the location where that equipment is stored. Inspection logs are returned to the safety department for review and filing. Since these inspection requirements are integral to the operating procedures of the refinery and are very comprehensive, they are not repeated in this plan. Their existence is certified in accordance with this plan.

Rolling stock of the refinery is inspected, at a minimum, in accordance with manufacturer's recommendations. An inspection log is maintained for each. For critical equipment, an inspection checklist is done every time the equipment is used. Inspection logs are maintained by the maintenance department. They are not repeated in this plan, but their existence is certified in accordance with this plan.

Major safety training exercises are done at least twice per year. During this time, safety equipment is deployed. Other rolling stock is used frequently for other purposes, essentially verified on a daily basis that it is ready to be deployed.

1.3.4 Personnel

BRC has a detailed procedure (Attachment 1, Safety Order S-1) for responding to any emergency that may occur at the facility. The facility is operated 24 hours per day, 365 days per year. A call out procedure with phone numbers is maintained in the control room. Response teams are dynamic; based on presence at the facility, normal refining duties, specialized training, and as assigned by the fire chief (qualified individual in charge of the emergency). With the exception of some of the office staff, all personnel at the refinery receive the same training. An Emergency Response Personnel list (from which a response team is created in accordance with Safe Order S-1) is included on the next page.

Phone numbers of all personnel are not included in this plan to avoid giving them out without authorization. They are maintained by qualified personnel in the refinery control room for immediate use in accordance with call-out guidance.

Response training records are extensive and are maintained in the records of the Safety Manager.

Response contractors immediately available to BRC are listed on page 1-33.

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY RESPONSE PERSONNEL

<u>Name</u>	<u>Response Time-hrs</u>	<u>Responsibility</u>
Stiffler, Jim	0.5	Fire Chief, Qualified Individual
Schmaltz, Randy	1	Fire Scene Command, Qualified Ind.
Harrison, Vic	0.5	Fire Crew Leader, Qualified Ind.
Alexander, Richard	0.5	Fire Crew Leader, Qualified Ind.
Bost, Jack	0.5	Fire Crew Leader, Qualified Ind.
Gomez, Mike	1	Fire Crew Leader, Qualified Ind.
Hawkins, Larry	1	Fire Crew Leader, Qualified Ind.
Belt, Mike	1	Support
Bergquist, Shirley	1	Support
Brown, Dale	0.5	Fire Crew
Buczinski, Ron	0.5	Operations Supervisor, Fire Crew
Castor, Vicki	0.5	Fire Crew Leader, Supplies & Eq.
Cunningham, Cecil	0.5	Fire Crew Leader
Davis, Matt	1.5	Fire Crew, Technical Support
Evans, Nancy	0.5	Support
Garcia, Connie	0.5	Support
Garcia, Steve	1	Fire Crew, Supplies & Equip.
Hamlow, Hal	1	Fire Crew
Harris, Tom	2	Fire Crew
Hawley, Chris	1	Fire Crew, Reporting, Environmental
Hovland, Avis	0.5	Support
Hunter, John	1	Fire Crew
King, Chad	2	Operations Support, Fire Crew
Mackey, Janet	0.5	Support
Markle, June	1	Support
Miller, Trent	1	Fire Crew
Meldrum, Craig	1	Fire Crew, Technical Support
Owen, Ed	1	Fire Crew
Perry, Hines	0.5	Fire Crew Leader, Maint. Suprv.
Roderick, Dave	1	Refinery Manager, Fire Crew
Runyon, Becky	0.5	Support
Todacheene, Larry	0.5	Fire Crew, Supplies & Equip.
Walters, Diane	1	Support
Wimsatt, Don	1	Fire Crew Leader, Maint. Suprv.
Yancey, Debbie	0.5	Support
Zimmerman, Chris	1	Fire Crew, Technical Support
Brown, Vince	0.5	Fire Crew
Charley, Mike	0.5	Fire Crew
Daniels, Kevin	0.5	Fire Crew, Pipeline
Gibson, Bill	0.5	Fire Crew
Kollasch, Bill	1	Fire Crew, Pipeline
Montoya, Rick	0.5	Fire Crew

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY RESPONSE PERSONNEL

<u>Name</u>	<u>Response Time-hrs</u>	<u>Responsibility</u>
Nolan, Al	0.5	Fire Crew
Salazar, Alex	0.5	Fire Crew
Weaver, Ron	0.5	Fire Crew Leader, Terminal Suprv.
Clark, Michal	0.5	Support
Frost, Doug	1	Support
Garcia, Patty	0.5	Support
Hart, Korbi	0.5	Fire Crew, Envr. Response
Ninos, Monica	1	Support
Poore, Roger	0.5	Support
Wright, Dale	1	Support
Adams, Bill	0.5	Fire Crew
Aldrin, Gordon	0.5	Fire Crew
Armenta, Bengie	0.5	Fire Crew
Armenta, Marvin	0.5	Fire Crew
Ashley, Irvin	2	Fire Crew
Begay, Hanley	1	Fire Crew
Bia, Nelson	2	Fire Crew
Bozarth, Leroy	0.5	Fire Crew
Brown, Todd	0.5	Fire Crew
Delaney, Mike	2	Fire Crew
DeLeon, Richard	0.5	Fire Crew
Dunn, Cindy	0.5	Fire Crew
Durden, Clyde	1	Fire Crew
Ervin, Emile	1	Fire Crew
Garlington, Jerry	0.5	Fire Crew
Hallmark, Joe	0.5	Fire Crew
Hartle, Jim	1	Fire Crew
Hefner, Richard	1	Fire Crew
Lasster, Melvin	1	Fire Crew
Lohman, Ed	1	Fire Crew
Lovell, Dan	0.5	Fire Crew
Mascarenas, Johnny	0.5	Fire Crew
McDaniel, Vic	0.5	Fire Crew
Prugh, Dean	1	Fire Crew
Salazar, Rudy	1	Fire Crew
Sanchez, Raymond	0.5	Fire Crew
Walter, Kay	0.5	Fire Crew
Boswell, Tom	0.5	Fire Crew
Cochran, Bill	0.5	Fire Crew
Eldred, Terry	0.5	Fire Crew
Faverino, Mike	0.5	Fire Crew
Fulton, Arnold	2	Fire Crew
Gammon, Larry	1	Fire Crew
Herman, Frank	0.5	Fire Crew
Lucero, Barney	1	Fire Crew

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY RESPONSE PERSONNEL

<u>Name</u>	<u>Response Time-hrs</u>	<u>Responsibility</u>
Perry, Bill	0.5	Fire Crew
Rogge, Jay	1	Fire Crew
Schrantz, Bill	1	Fire Crew
Scribner, Jack	1	Fire Crew
Sullivan, Frank	0.5	Fire Crew
Vigil, Bobby	1	Fire Crew
Williamson, Joe	0.5	Fire Crew
Willie, Herbert	0.5	Fire Crew
Andis, Nell	0.5	Fire Crew
Martin, Cheryl	1	Fire Crew

Notes:

1. Personnel listed with the responsibility of support are usually not qualified for fire crew duties, although there are some exceptions. They will be involved in duties at the Emergency Control Center.
2. Fire Crew has the same meaning as Response Crew since an emergency may not involve a fire.
3. Last Update: 12/16/94

BLOOMFIELD REFINING COMPANY
OIL SPILL RESPONSE PLAN

EMERGENCY RESPONSE CONTRACTORS

Tierra Environmental Company, Inc.

Phone Number: (505) 325-0924

	<u>Home</u>	<u>Mobile</u>
Contacts: Phil Nobis:	(505) 632-1404	(505) 320-1016
Ron Castleberry:	(505) 326-4859	(505) 320-1501

Response time: One (1) hour.

Capabilities: Tierra Environmental Company, Inc. is a full service environmental firm with emergency response resources available for immediate deployment to BRC.

Tierra Environmental Company, Inc. is under contract with BRC for response, if needed.
(see Attachment 2 for additional information).

Call-out Authority: The Qualified Individual is authorized to immediately request assistance from Tierra Environmental.

Envirotech, Inc.

Phone Number: (505) 632-0615

	<u>Home</u>	<u>Mobile</u>
Contacts: Morris Young:	(505) 325-6436	
Verl Farnsworth:	(505) 632-3800	(505) 500-6777

Response time: One (1) hour.

Capabilities: Envirotech, Inc. is a full service environmental firm with emergency response resources available for immediate deployment to BRC.

Envirotech, Inc. is an acceptable contractor.

Call-out Authority: The Qualified Individual is authorized to immediately request assistance from Envirotech, Inc.

Date of Last Update: 12/2/94

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.3.5 Evacuation Plan

Evacuation procedures are included in Safety Order S-1 (Attachment 1). Routes are noted on the facility diagram.

1.3.6 Qualified Individual's Duties

The qualified individual, known as the fire chief in Safety Order S-1, and identified on page 1-15 of this plan, will have duties as specified on page 3 of Safety Order S-1. These duties, which can be delegated by the fire chief, include the following:

1. Ensure that all internal alarms and hazard communication systems to notify all facility personnel have been activated;
2. Ensure that the notification process for needed response personnel is in process;
3. Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;
4. Ensure that the proper notifications are made to the appropriate Federal, State, and local authorities with designated response roles, including the NRA, SERC, and the LEPC (see Emergency Notification Phone List);
5. Assess the interaction of the spilled substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;
6. Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release;
7. Assess and implement prompt removal actions to contain and remove the substances released;
8. Coordinate rescue and response actions as specified in Safety Order S-1;
9. Use authority to immediately access company funding to initiate cleanup activities; and
10. Direct cleanup activities until properly relieved.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.4 HAZARD EVALUATION

1.4.1 Hazard Identification

1.4.1.1 Tanks and Chemical Storage

Information about all chemicals stored at BRC is included in Attachment 3. Tank information, including identifying numbers, average quantities, maximum capacities, substance stored, locations, dates, and types, is included in Attachment 3. All tanks at BRC are aboveground. BRC has not had a reportable tank release.

1.4.1.2 Surface impoundments

BRC operates seven surface impoundments for wastewater treatment and evaporation. They are summarized in the following Table.

Hazard Identification Surface Impoundments (SIs)

SI No.	BRC Identity	Substance Stored	Quantity Stored (Gals.)	Surface Area (Sq. Ft)	Maximum Capacity (Gals.)
1	SOWP	Wastewater	216,000	6,652	216,000
2	NOWP-W	Wastewater	411,500	10,000	411,500
3	NOWP-E	Wastewater	360,000	8,440	360,000
4	NEP	Wastewater	2,750,000	123,000	5,500,000
5	SEP	Wastewater	2,850,000	95,000	5,700,000
6	NDLP	Wastewater	4,075,000	217,800	8,150,000
7	SDLP	Wastewater	4,075,000	217,800	8,150,000

The SOWP, NOWP-W, and NOWP-E are operated under a RCRA Part B Permit for removal of low concentrations of benzene. They were first lined in 1982 and upgraded in March, 1995 to meet minimum technology standards for surface impoundments. The NEP and SEP were installed in 1977. They are clay-lined evaporation ponds, scheduled to be removed from service in 1995. The SDLP and NDLP are HDPE double-lined evaporation ponds. They were installed in December, 1989 and September, 1990, respectively.

The SOWP, NOWP-W, and NOWP-E are operated full (to the freeboard limit). The NEP, SEP, NDLP, and SDLP are generally full at some time during the year and nearly empty at other times on an individual basis.

BRC has not had a reportable surface impoundment release.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.4.1.3 Loading and Unloading Operations

BRC operates a truck loading and unloading facility. Products are loaded into tank trucks at a maximum loading rate of 120,000 gallons per hour (four trucks at one time). This operation is explained in more detail in BRC's SPCC Plan (Attachment 4).

1.4.1.4 Day-to-day Operations

Day-to-day operations are very complex at BRC. They are done in accordance with many operational procedures. Some additional details are included in BRC's SPCC Plan (Attachment 4).

1.4.1.5 Secondary Containment

Secondary containment for refinery tankage is designed to exceed the maximum capacity of the largest tank within the applicable secondary containment. The tank berms are noted on the enclosed facility site plan and topograph.

1.4.1.6 Daily Throughput

Processing units operate in a fairly narrow throughput range that is generally near capacity. Quantities of oils in the units are relatively minor when compared to storage capacity. Processing throughput would have a negligible impact on potential discharge volumes. Quantities of oils in tanks, however, vary significantly on an individual basis. They are seldom full, so the risk of a worst case scenario is reduced substantially by this factor.

1.4.2 Vulnerability Analysis

The BRC facility is situated such that approximately 30.76 undeveloped acres lie north of the center line of the San Juan River. The remainder of the facility property, 256.17 acres including the refinery, is located south of the San Juan River on a terrace approximately 120 feet above the present river level.

Immediately north of the San Juan River is Bloomfield, New Mexico, a small town of about 5,500 people. Federal property managed by the Bureau of Land Management borders the facility to the south. Undeveloped private and public lands in addition to several gravel pits border the property to the east, and private undeveloped land lies to the west to Highway 44. The majority of undeveloped land in the vicinity of the refinery is used for oil and gas production and, in some instances, grazing.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

The nearest residences include two homes located about 400 feet south of the property line, south of the product terminals. Additional residences are located just north of the undeveloped refinery property across the San Juan River in the town of Bloomfield (about 1400 feet north of the active refinery site). The nearest school is about a mile to the north in the town of Bloomfield. Some minor effect (possible odors) of airborne volatile organic compounds resulting from a spill may be possible in Bloomfield.

The San Juan River is the only perennial stream in the vicinity of the refinery. The River is neither a gaining nor losing stream along its reach near the facility. Its alluvium-filled channel is incised into the impermeable clay of the Nacimient Formation. The flow of the San Juan River at Bloomfield is regulated by the Navajo Dam which minimizes the possibility of flooding by the River. The flow of the River is regulated between a minimum of 500 cfs and a maximum of 5000 cfs. Access for booms and vacuum trucks in the vicinity of BRC can be found along most of the northern bank. Access to the southern bank is more limited in the immediate vicinity, with the first location at the river terrace immediately north of the refinery and the second near highway 44.

In addition to the San Juan River, the Hammond Irrigation Ditch passes through the refinery property from east to west, between the refinery and the San Juan River. The ditch is about 27 miles long with about 12 miles of its length downstream of the refinery. The capacity of the canal varies from 90 cubic feet per second at the headworks to 5 cfs at the terminus. The ditch flows through an inverted siphon beneath Sullivan Road on the east side of the property. The section of the ditch through the refinery is clay lined (poorly) and is excavated into the Quaternary Jackson Lake Terrace deposits. The course of the ditch through the refinery property is shown on the topographic map provided in this plan. The Hammond Ditch conveys water only during the irrigation season from mid-April to mid-October. Seepage from the ditch and into the cobble bed is significant. This is evidenced by the fact that trees, bulrushes, marsh grass and other vegetation choke the valleys of the majority of intermittent stream channels descending from the Jackson Lake Terrace south of the San Juan River. A service road borders the ditch to the north so access for booming and vacuum trucks is easily available.

The San Juan River provides recreational use, irrigation water, drinking water, and wildlife habitat both upstream and downstream. It is known to contain certain endangered species,

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

most notably the Colorado squawfish (*Ptychocheilus lucius*) and the razorback sucker (*Xyrauchen texanus*). In addition to its status as a navigable waterway, the New Mexico Oil Conservation Division has proposed that the river channel be considered a "vulnerable area". The Hammond Irrigation channel is used to irrigate farmland and also empties back into the San Juan River. The nearest drinking water intake is at the town of Farmington, New Mexico about 13 miles downstream. The nearest industrial water intake (excluding the BRC intake) is by Sunterra at the intersection of highway 44 (bridge) and the San Juan River. BRC submits that the San Juan River, Hammond Ditch, and the shorelines of these waterways are vulnerable areas. An oil spill onto these vulnerable areas would have an impact to some degree.

The nearest distance from the refinery's secondary containment to a sensitive environment is essentially zero feet, since the refinery is immediately adjacent to the sensitive environment.

1.4.2.1 San Juan River Planning Distance

Calculation of San Juan River Planning Distance

$$\begin{aligned}\text{Velocity: } v &= 1.5/n \times r^{2/3} \times s^{1/2} \\ n &= 0.5 \\ r &= 3(\text{feet mid-channel depth}) \times 0.667 \\ s &= 0.00267 \\ v &= 1.5/0.05 \times 2^{2/3} \times 0.00267^{1/2} \\ v &= 2.5 \text{ ft/sec under worst case flow conditions}\end{aligned}$$

$$\begin{aligned}\text{Planning Distance: } d &= v \times t \times c \\ v &= 2.5 \text{ ft/sec} \\ t &= 27 \text{ hours from Table 3} \\ c &= 0.68 \text{ sec-mile/hr-ft} \\ d &= 2.5 \times 27 \times 0.68\end{aligned}$$

$$\text{Planning Distance (d)} = 46 \text{ miles}$$

1.4.2.2 Hammond Ditch Planning Distance

$$\begin{aligned}\text{Planning Distance: } d &= v \times t \times c \\ v &= 1.53 \text{ ft/sec} \\ t &= 27 \text{ hours} \\ c &= 0.68 \text{ sec-mile/hr-ft} \\ d &= 1.53 \times 27 \times 0.68 = 28 \text{ miles}\end{aligned}$$

Time for oil to reach spillback (12 miles downstream):

$$\begin{aligned}t &= d/v \\ t &= (12 \text{ miles} \times 5280 \text{ ft/mi}) / 1.53 \text{ ft/sec} \\ t &= 41,412 \text{ secs} = 11.5 \text{ hours}\end{aligned}$$

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.4.3 Analysis of the Potential for an Oil Spill

The probability for a spill occurring within the facility is high because of the complexity of the refinery and the possibility of human error. This probability is reduced to the extent possible with training and operational procedures (see SPCC plan for summaries of these procedures).

The potential for an oil spill (reportable under the Oil Pollution Prevention Act of 1990 or other Federal regulations) is reduced because:

1. BRC processing and storage facilities are not in a 100-year floodplain;
2. Secondary containment is extensive;
3. Seismic activity is unlikely;
4. 100-year, 24-hour rainfall is only 2.6 inches, allowing the management of most stormwater by the facility's zero discharge plan. Concrete pads with curbs collect stormwater falling directly into process area units. The process units are equipped with peripheral stormwater drains that collect stormwater falling outside the curbed areas. This water is routed to the API separator for subsequent treatment in the wastewater treatment system. Refinery berms and tank dikes will contain any other on-site flood water (see Stormwater Pollution Prevention Plan in Attachment 5).
5. There are tertiary containment features (runoff ponds-see topographic map) to the north that would make it nearly impossible for a spill to reach the river from the north side of the refinery.
6. Tank, piping, and equipment maintenance and repair procedures follow appropriate industry practices to insure that they are in good operating condition.

Hammond ditch may be impacted by a spill to the north, but is diked during the non-irrigation season reducing this risk by 50%.

Should a spill occur to the south that would require a very unlikely breach of secondary containment, it could follow the ditch along Sullivan Road to a point downgradient where this water is diverted to the river. This point is 1200 to 2400 feet distance depending on the spill location.

1.4.4 Facility Reportable Oil Spill History

BRC has had no spills that would be reportable under the requirements of the Clean Water Act and its amendments.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.5 DISCHARGE SCENARIOS

BRC's primary potential cause for an oil spill that could significantly affect a waterway is from a catastrophic failure of refinery tankage accompanied by a simultaneous failure of secondary containment. Other scenarios are possible through such events as fires and/or explosions where oil is transported over secondary containment by the force of the release or carried into the waterway with water used to fight the fire.

Petroleum and petroleum products are complex mixtures of hydrocarbons with various weights. Common names of the potential contaminants are identified in the SPCC plan and Attachment 3. Potential contamination could consist of dissolved toxic components, floating components, or sinking components of the hydrocarbon mixtures that reach the waterway. Substantial portions of the potential spills would evaporate very rapidly, would soak into the onsite soil, or would be contained by secondary and other features of the facility to substantially reduce the release potential to a waterway.

Any discharges that are limited to facility property are handled in accordance with a discharge plan submitted pursuant to section 3-106 of the New Mexico Water Quality Control Commission Regulations. This plan details BRC's efforts to minimize the potential for spills. It includes a description of the controls for loading and unloading facilities; procedures for facility maintenance; requirements for piping, tank and impoundment inspections; requirements for corrosion protection; requirements for sumps; and other information.

1.5.1 Small and Medium Discharges

Any small and medium discharge that results in a reportable oil spill will be handled in the same manner as a worst case discharge. The qualified individual will mobilize some or all of the response personnel as necessary to respond to the discharge.

1.5.2 Worst Case Discharge

BRC has calculated a worst case discharge of 4,620,000 gallons using the guidance provided in Appendix D to Part 112. This volume is based on the maximum capacity of the largest tank (No. 31) at the facility. Based on the location of this tank and the very substantial tank berm to the south (the direction to reach a possible pathway to the San Juan River), it is highly unlikely

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

that any portion of a spill from this tank will reach a waterway. A "real" worst case discharge (2,310,000 gallons) would be based on a spill from tank 11 located immediately adjacent to Hammond Ditch. The potential pathways for spills from these or other tanks are noted on the attached drawing. Worksheets to plan volume of response resources for either case are included in Attachment 7. The worst case response requires the ability to remove 6,000 barrels/day of oil. One vacuum truck can easily remove 40 barrels/hour (including travel time to discharge the load). About 7 vacuum trucks would be required to meet the minimum removal rate of 6,000 barrels/day ($7 \times 40 \times 24 = 6,720$). This is less than 6% of the vacuum trucks available for response.

1.6 DISCHARGE DETECTION SYSTEMS

1.6.1 Discharge Detection by Personnel

BRC is operated 24 hours per day, 365 days per year. Personnel are assigned to all areas of the facility with specific inspection requirements for those areas. A Qualified Individual is onsite at all times prepared to respond to the requirements of Section 1.3.1, Emergency Notification, of this plan. See the SPCC plan in Attachment 4 for additional details concerning discharge detection by personnel and Safety Order S-1 for additional details about response.

1.6.2 Automated Discharge Detection

BRC is a complex petroleum processing facility with many operating controls and alarms typical of such an operation. Processing units experiencing an upset condition will sound alarms for personnel in the control room. If the possibility of a release has occurred or for other purposes, outside operators will be immediately sent to the cause of the alarm.

1.7 PLAN IMPLEMENTATION

Implementation of the facility's emergency response plan is detailed in Safety Order S-1 supplemented by this plan for oil spills.

1.7.1 Response Resources for Small, Medium and Worst Case Spills

All spills at BRC are considered serious. All resources identified in this plan (Section 1.3.2 Response Equipment List, and Section 1.3.4 Personnel) are available for mobilization to respond and will be requested immediately if the on-scene Qualified Individual (fire chief) determines the need. The outside contractor will be mobilized if the spill reaches a

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

waterway or if needed onsite. This plan and Safety Order S-1 are the primary plans for spill response. Additional response training is part of the BRC training program; additional contracted help is available and noted in this plan; access to additional response equipment/experts is available and noted in this plan; and the ability to implement any response plan is documented with the training giving all BRC employees.

1.7.2 Disposal Plans

Product will be recovered through the refinery's API separator. Water will be treated in the refinery's wastewater treatment system in accordance with the RCRA Part B and the NM OCD (Zero) Discharge Plan. Capacities are far in excess of any anticipated requirement (see Attachment 3 Tanks, Chemicals, and Section 1.4.1.2 Surface Impoundments). Non-hazardous soils will be taken to local landfarms as appropriate. Contaminated equipment and materials, including drums, tank parts, valves, and shovels; personnel protective equipment; decontamination solutions; adsorbents; and spent chemicals will be cleaned and/or disposed in accordance with appropriate regulations. These materials can be stored at BRC until proper disposal/cleaning techniques are determined.

1.7.3 Containment and Drainage Planning

Facility drainage and drainage control is detailed in the SPCC plan (Attachment 4) and the Stormwater Runoff plan (Attachment 5). Oil storage areas do not drain. There are no drainage troughs. All oily water drains in the process units and peripheral storm water drains all connect to the refinery's wastewater system that does not discharge. Spills in transfer areas are collected in sumps and returned by pumps to the refinery. Transfer areas also contain secondary containment and do not have the possibility of causing a spill that will reach a waterway because of volumes and location. Booms are available through our designated contractor for any potential volume.

1.8 SELF-INSPECTION, DRILLS/EXERCISES, & RESPONSE TRAINING

Training is very extensive at BRC. Logs for facility response training and for drills/exercises, personnel response training, and spill prevention meetings are maintained at BRC in the office of the Safety Manager.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

1.8.1 Facility Self-Inspection

Inspection procedures and records are a very integral part of refinery operations. These procedures are too extensive to be included in this document. The records for response equipment inspections are maintained in the office of the Safety Manager. Tank inspection records are maintained at the facility (see the SPCC plan for types of records maintained). Secondary containment is inspected in conjunction with tank inspections and the daily rounds of operations personnel.

1.8.2 Facility Drills/Exercises

Logs and records of drills/exercises to meet the requirements of the regulations requiring this plan are kept at the facility as an annex to this plan.

1.8.3 Response Training

Logs and records of response training given to meet the requirements of the regulations requiring this plan are kept at the facility as an annex to this plan.

1.9 DIAGRAMS

A diagram to meet the requirements of this section is included in the envelope at the end of this plan.

1.10 SECURITY

BRC is a continuous 24-hour operation. Certain operational personnel are assigned to each area of the facility. Their duties include continuous supervision of the refinery grounds to preclude the possibility of unknowing or unauthorized entry. All operations personnel carry two-way radios. The front office and warehouse are equipped with a security system to detect unauthorized entry. Operational areas of the facility are lighted.

Entry and work permitting procedures control the entry of maintenance or contract personnel and equipment to the refinery. Entry by personal vehicles is strictly prohibited. All personnel, including office staff not normally assigned to in-plant functions, will report to the refinery control room before accessing any refinery operation areas. A telephone is located at the front gate for off-hours contact with the control room.

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OIL SPILL RESPONSE PLAN

The entire active portion of the refinery is fenced with six foot chain-link equipped with three strands of barbed wire on the top. All facility access points are controlled with gates. Gates located in remote portions of the plant are always locked. Gates near the front office are unlocked during normal business hours to allow needed access by maintenance and operations personnel during day-time operations. Front office personnel monitor access to the facility through these gates. The City of Bloomfield Police Department provides perimeter drive-by patrols of the plant property.

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

2.0 RESPONSE PLAN COVER SHEET

2.1 General Information

Owner and Operator of Facility: Bloomfield Refining Company

Principal Corporate Executive: Ronald W. Williams, President

Facility Name: Bloomfield Refining Company

Facility Address: P. O. Box 159
Bloomfield, NM 87413

Facility Location: #50 County Road 4990
Bloomfield, NM 87413

Facility Phone Number: (505) 632-8013

Latitude and Longitude: Latitude: 36°41'50"
Longitude: 107°58'20"

Dun & Bradstreet Number: 13-010-6651

Standard Industrial Classification: 2911

Largest Oil Storage Tank Capacity: 4,620,000 gallons

Maximum Oil Storage Capacity: 32,487,000 gallons

Number of Oil Storage Tanks: 32

Worst Case Discharge Amount: 4,620,000 gallons

Facility Distance to Navigable Waters: 0 - 1/4 mile

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

2.2 Applicability of Substantial Harm Criteria

Does the facility transfer oil over-water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

NO

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

NO

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

YES

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?

YES

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

NO

BLOOMFIELD REFINING COMPANY

OIL SPILL RESPONSE PLAN

2.3 Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature: David Roderick

Name: David Roderick

Title: Vice-President, Refining

Date: 12/16/94

FORM APPROVED
OAR NO. 1000
APPROVAL EXPIRES [DATE]

RESPONSE PLAN COVER SHEET

OWNER / OPERATOR OF FACILITY		FACILITY NAME	
LAST NAME - First 15 letters		First 20 letters	
REFINING	CO.	BLOOMFIELD	REFINING
A	A	A	A
B	B	B	B
C	C	C	C
D	D	D	D
E	E	E	E
F	F	F	F
G	G	G	G
H	H	H	H
I	I	I	I
J	J	J	J
K	K	K	K
L	L	L	L
M	M	M	M
N	N	N	N
O	O	O	O
P	P	P	P
Q	Q	Q	Q
R	R	R	R
S	S	S	S
T	T	T	T
U	U	U	U
V	V	V	V
W	W	W	W
X	X	X	X
Y	Y	Y	Y
Z	Z	Z	Z

IMPORTANT

This form is intended to be computer readable. To complete this form, entirely fill in the desired circle with black or blue ink. Please do not fold, staple, or mutilate this form. Return this form in a 9" x 12" envelope. Please print requested information in BOXES for each individual question.

CORRECT MARK

INCORRECT MARKS

EXAMPLE:

NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FEPA																				
A																				
B																				
C																				
D																				
E																				
F																				
G																				
H																				
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V																				
W																				
X																				
Y																				
Z																				

GENERAL INFORMATION

Public reporting burden for the collection of this information is estimated to vary from one hour to 270 hours per response in the first year with an average of 5 hours per response. The estimate includes time for reviewing existing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate of this information, including suggestions for reducing the burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

NUMBER OF TANKS	1	2	3	4	5	6	7	8	9
32									
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									

MAXIMUM STORAGE CAPACITY (GALLONS)	1	2	3	4	5	6	7	8	9
3248700									
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									

LARGEST TANK CAPACITY (GALLONS)	1	2	3	4	5	6	7	8	9
462000									
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									

INSTRUCTIONS

This form is designed to accompany a submitted Response Plan.

Explanations and detailed instructions can be found in Appendix G.

Facility information contained here will be returned with the Response Plan.

(CONTINUED)

• REMEMBER

USE BLACK OR BLUE INK
DO NOT FOLD, STAPLE, OR MUTILATE THIS FORM

FACILITY ADDRESS (Street address, route or box)		CITY (first 15 letters)		STATE		U.S. ZIP CODE		FACILITY PHONE NUMBER		WORST CASE DISCHARGE AMOUNT (GALLONS)		STANDARD INDUSTRIAL CLASSIFICATION (SIC)		DUTY BRAD STREET NUMBER	
Indicate a space in the address by filling in the blank circle at the top of the column. P 0 BOX 159		BLOOMFIELD		NM		87413		505632-8013		462000		2911		136106651	
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z		A B C D E F G H I J K L M N O P Q R S T U V W X Y Z		A B C D E F G H I J K L M N O P Q R S T U V W X Y Z		0 1 2 3 4 5 6 7 8 9		0 1 2 3 4 5 6 7 8 9		0 1 2 3 4 5 6 7 8 9		0 1 2 3 4 5 6 7 8 9		0 1 2 3 4 5 6 7 8 9	

EMERGENCY PLAN

GENERAL

Explosions, fires, releases, or serious accidents may occur despite the finest possible safety precautions. In these times of emergency, it is essential for the protection of personnel, property, and the environment that preplanned, well rehearsed action be taken. It is the purpose of this emergency plan to outline the action to be taken, and to assign the responsibility for these actions.

This plan is intended to cover foreseeable types of emergencies. Examples are:

1. Fire and/or explosions.
2. Release of Flammable Vapor or Gas.
3. Release of Toxic Vapor or Gas.
4. Release of Crude Oil, Intermediates, or Products
5. Bomb Threats.

All Bloomfield Refinery personnel are part of the emergency organization and are expected to carry out their assigned duties of firefighting operations involving incipient stage fires as well as more advanced fires and emergencies to the ability of received training. Each employee will participate in combined academic and practical training to better equip them with the knowledge and skill required for performance of their duties.

All members of the emergency organization should remain currently informed as to their roles in handling these emergency situations.

Each employee will receive training in the following aspects of industrial firefighting and emergency control:

- a. Hose handling and appliances
- b. Inspection, maintenance and use of portable fire extinguishers
- c. Agents and modes of extinguishment
- d. Tank fire fighting (pressure and atmospheric)
- e. Operation of mobile fire equipment
- f. Operation of fire pumps
- g. Use of protective clothing
- h. Use and inspection of breathing apparatus
- i. Control of hazardous materials
- j. Control of hazardous wastes
- k. Control of leaks (with or without fire)
- l. Control of spills (with or without fire)

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I. RESPONSIBILITIES**SHIFT SUPERVISOR**

The Operation's Shift Supervisor has special knowledge of operating equipment and process flows and is generally most available at any time day or night. For this reason it will be the Shift Supervisor's responsibility to assume command of emergency control efforts and act as Fire Chief until arrival of a member of the Safety Department. The Shift Supervisor will then assist the control effort as a member of the command team.

SAFETY MANAGER

Direct field command at emergency scene and assure all functions pertaining to the emergency operation are being carried out in an efficient manner. Later references in this order may signify this position by the title of "Fire Chief".

SAFETY SUPERVISOR

Assist the direction of field command by establishing an Emergency Command Post to coordinate activities and establish lines of communication. In the absence of the Safety Manager the Safety Supervisor will assume duties required as Fire Chief.

OPERATIONS SUPERVISOR

Coordinate activities between emergency command post at emergency scene and process equipment control in control room. The Operations' Supervisor is also responsible for maintaining an updated list of employees and their phone numbers in a readily accessible location in the control room.

CHIEF OPERATOR

Maintain control of process unit(s) left operating and act as dispatch operator until an Emergency Control Center can be established. It is also the Chief Operators responsibility to know the call-out system and how to activate it on moments notice.

OPERATORS

Perform necessary shut down of involved equipment as required by the situation and assist emergency control efforts as fire crew member.

PUMPER

Assist as fire crew member until relieved by the Fire Chief to take command of gate guard duties as outlined in the section of this order titled "Plant Security".

MAINTENANCE SUPERVISORS/PLANNER

Proceed to emergency scene and assume responsibility of fire crew leaders under direction of acting Fire Chief. The Maintenance Supervisors and Maintenance employees will insure all necessary fire equipment is taken to the scene.

MAINTENANCE EMPLOYEES

Proceed to emergency scene and assume fire crew duties under direction of assigned fire crew leaders.

TECHNICAL SERVICES MANAGER / PROCESS and ENVIRONMENTAL ENGINEERS

Act as information chief between emergency scene and Emergency Control Center. Provide technical and process information to command team.

OFFICE STAFF

Assume duties of coordinating first aid and medical treatment. Coordinate ambulance/rescue personnel. Reports to Emergency Control Center for obtaining needed supplies and equipment.

PLANT MANAGER

Coordinate all activities by establishing and Emergency Control Center in the main office building aided by the Administrative Manager, Maintenance Manager, and Operation Manager.

EMERGENCY CONTROL CENTER

Make available outside services, equipment, and supplies as needed. Coordinate support services and provide communication to necessary corporate offices and news media.

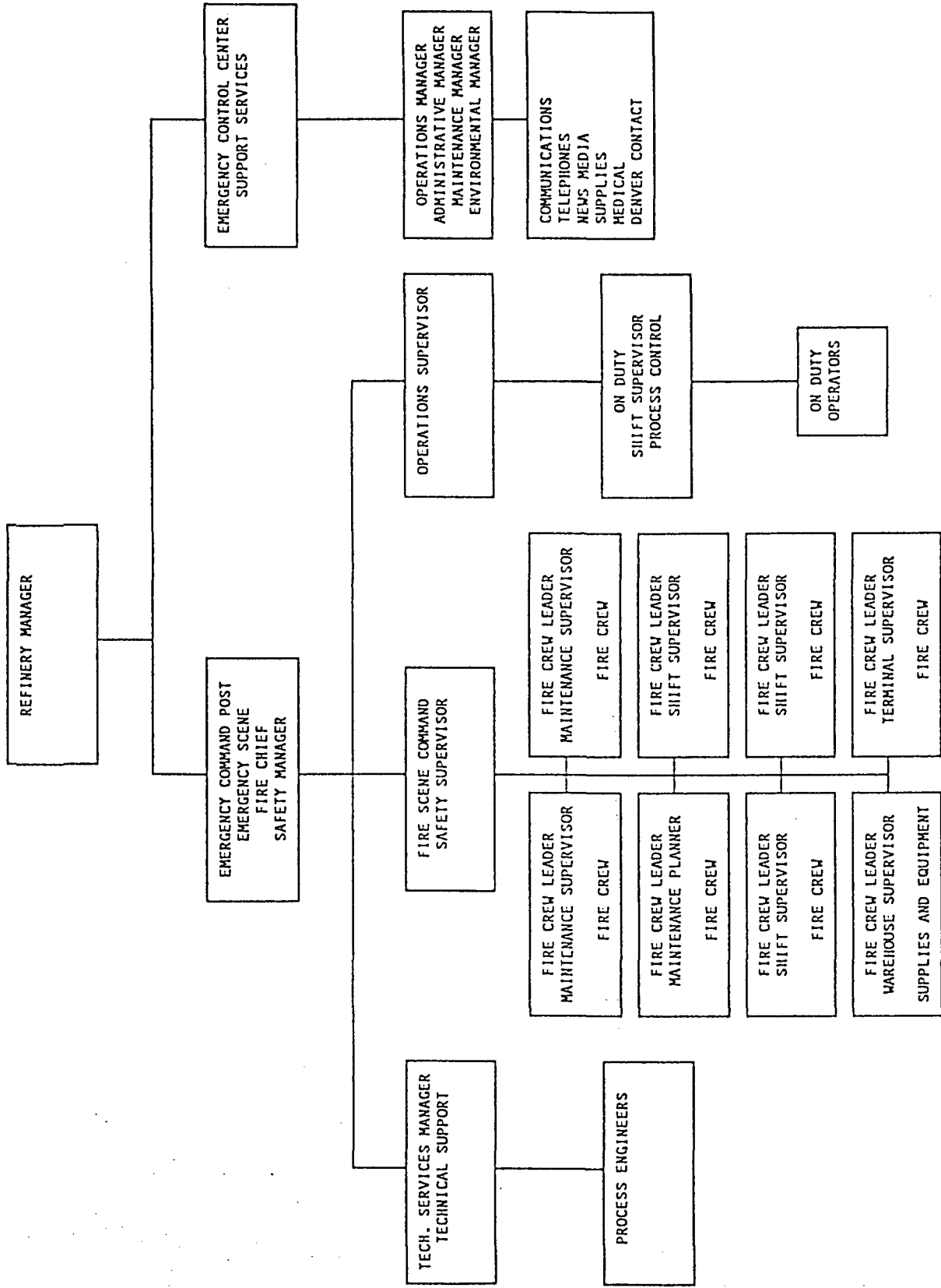
WAREHOUSE SUPERVISOR & EMPLOYEES

Responsible for delivery of fire fighting foam and/or supplies to the emergency scene as required by Command Post.

LAB EMPLOYEES

Proceed to emergency scene and report to command post for assignment of fire crew duties.

EMERGENCY ORGANIZATIONAL CHART



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graph TD
    VP["VICE PRESIDENT - REFINING  
David Roderick"]
    VP --- ES["EXECUTIVE SECRETARY  
June Marie"]
    VP --- OM["OPERATIONS MANAGER  
Chad King"]
    VP --- TS["TECH. SERVICES MANAGER  
Matt Davis"]
    VP --- EM["ENVIRONMENTAL MANAGER  
Chris Hawley"]
    VP --- MM["MAINTENANCE MANAGER  
Tom Harris"]
    VP --- AM["ADMINISTRATIVE MANAGER  
Gail Williams"]
    VP --- CR["CLERK/TYPIST-RECEPTIONIST  
Avis Hovland"]

    OM --- PE["PROCESS ENGINEER  
Craig Meldrum"]
    OM --- OS["OPERATIONS SUPERVISOR  
Ron Buczninski"]
    OM --- TSUP["TERMINAL SUPERVISOR  
Ron Weaver"]
    OM --- PO["PIPELINE OPERATORS  
Kevin Daniels  
Bill Kollasch"]
    OM --- B["BLENDING SUPERVISOR  
Ed Owen"]
    OM --- T["TRAINING SUPERVISOR  
Vic Harrison"]

    TS --- SEP["SENIOR PROCESS ENG.  
Chris Zimmerman"]
    TS --- ET["ENGINEERING TECHNICIAN  
Dale Brown"]
    TS --- CC["CHIEF CHEMIST & LAB SUPVR.  
Hal Hamlow"]
    TS --- AC["ASSISTANT CHEMIST  
John Hunter"]
    TS --- LT["LAB TECHNICIAN  
Neil Andis"]
    TS --- LTA["LAB TESTER 'A'  
Cheryl Martin"]
    TS --- LTB["LAB TESTER 'B'  
Darlene Rogers"]

    EM --- P["PUMP SHOP & LAHOR  
CRAFTSMAN 'A'  
Frank Hetman (E)  
Malt Rutter (P)  
Mike Faverno (P)  
Barney Lucero (P)  
Candy Smith (E)  
CRAFTSMAN 'B'  
Bill Schantz (I)  
Larry Gammon (I&E)  
APPRENTICE 'B'  
Frank Sullivan (P)  
MAINTENANCE HELPER"]

    MM --- CM["CHIEF DRAFTSMAN  
Ron McWilliams"]
    MM --- MS["MAINTENANCE SUPERVISOR  
Don Wmsatt"]
    MM --- MSUP["MAINTENANCE SUPERVISOR  
Hines Perry"]
    MM --- MP["MAINTENANCE PLANNER  
Cecil Cunningham"]
    MM --- MC["MAINTENANCE CLERK  
Diane Wallers"]
    MM --- GMA["GENERAL MAINT. & LAHOR  
CRAFTSMAN 'A'  
Jack Scribner  
Herbert Willie  
Tom Boswell  
Bill Cochran  
Dave Swarts  
CRAFTSMAN 'B'  
Terry Elured  
toboly Vigil  
Arnold Fulton  
APPRENTICE 'B'  
Bill Perry  
MAINTENANCE HELPER  
Joe Williamson"]

    AM --- SM["SAFETY MANAGER  
Jim Stifler"]
    AM --- SSM["SAFETY SUPERVISOR  
Randy Schmalz"]
    AM --- WSM["WAREHOUSE SUPERVISOR  
Vicki Caslor"]
    AM --- WCL["WAREHOUSE CLERK 'A'  
Steve Garcia"]
    AM --- WCB["WAREHOUSE CLERK 'B'  
Larry Todacheene"]
    AM --- PM["PURCHASING MANAGER  
Mike Bell"]
    AM --- B["BUYER  
Janel Mackey"]
    AM --- AS["ACCOUNTING SUPERVISOR  
Shirley Bergquist"]
    AM --- AN["ACCOUNTING ANALYST  
Nancy Evans"]
    AM --- SAC["SENIOR ACCOUNTING CLERK  
Connie Garcia"]
    AM --- PCL["PAYROLL ACCOUNTING CLERK  
Debbie Yancey"]
    AM --- ACL["ACCOUNTING CLERK  
Rebecca Runyon"]
  
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II. FIRE AND/OR EXPLOSION**A. REPORTING THE FIRE**

Upon discovering a fire, unless it is obvious that it is so small that it can be easily extinguished, proceed immediately to one of the alert sounding stations either south of the control room or in the roadway between the Poly unit and Treator then signal the alarm. The alarm signals will identify the general location of the emergency by use of fire zones. (See Chart).

If the nearest alert station is not readily accessible, the alert should be communicated to the control room by radio or telephone, they will in turn sound the alert over the alarm system. When contact is made to the control room, give your name, the location of the fire, and the fire zone. Be calm; be sure that the person answering has received the proper information before discontinuing the conversation.

B. FIRE ZONES

To make it possible to quickly designate the general area of a fire or emergency, the Bloomfield Complex has been divided into three fire zones. The fire alarms should be sounded in a manner to identify the general location of the emergency. The alarm should sound a long blast (3-5 seconds), followed by short blast(s) (1-2 seconds) which indicate the fire zone, and then repeated after a short time lapse. The following table lists the fire zones, location, and corresponding alarm.

Zone No.	Locations	Alarm Signal
Zone 1	Process Unit	1 long-1 short
Zone 2	Tank Farm	1 long-2 short
Zone 3	Term./Trans.	1 long-3 short
For Toxic Leaks, Releases, or Gas Leaks Without Fire		2 longs & above coding
<i>FACILITY EVACUATION.....10-15 short blasts in succession</i>		

C. IMMEDIATE CORRECTIVE ACTION

Most fires are relatively small when first ignited, but can spread very rapidly. Many serious fires and explosions have been prevented by taking immediate action to extinguish the fire or prevent the escape of flammable liquid, vapor, or gas, yet not endangering personal

safety. While the fire is being reported, operations and maintenance personnel at the scene should immediately proceed to block off the feed to the fire and put to use available emergency equipment as needed. Do not wait for the fire crews to arrive; in most instances, the fire can be extinguished or contained before fire crews arrive.

D. DIRECTION OF FIRE FIGHTING EFFORTS

The ultimate responsibility as Fire Chief rests with the Safety Manager. However, until he arrives, direction of the fire fighting effort must be assumed by others at the scene of the emergency. When the alarm is sounded the first Operating Shift Supervisor at the scene should assume responsibility for directing the fire fighting effort and isolating process equipment. Command should be transferred to a member of the safety department upon arrival and briefing, releasing the Shift Supervisor for fire crew leader duties.

E. FIRE WATER SUPPLY

Water for fire fighting purposes is provided by automatic start stand-by pumps, and a system of underground piping. If long duration fire fighting is probable all possible water resources from in-plant storage and city water supplies shall be made available and periodic checks of the fire pumps should be made. The fire chief shall determine when the above items become necessary and designate an available operator to assume the duties.

F. EMERGENCY CALL OUT PROCEDURE

An emergency occurring after standard daylight working hours can pose serious manpower problems. To minimize these problems the following call out procedure should be followed.

Alert lists are provided to notify appropriate refinery personnel of an emergency in an orderly manner. Each list has a specific purpose and designates who makes the call, who is called, and at what times these lists are used.

ALERT LIST # 1

The following people should be contacted by the Shift Supervisor in the event of a bomb threat, suspected radiation accident or a fire or emergency that has been controlled by personnel on duty:

1. Safety Manager or Safety Supervisor
2. Operation Manager or Operations Supervisor

ALERT LIST # 2

This call out list is designed to notify personnel of a major emergency situation that requires additional manpower. The Chief Operator, upon request of the Fire Chief, will call Contact of New Mexico at 325-1873 who will in turn make the actual contact with our employees.

When Contact of New Mexico receives a call from the Chief Operator they have no way of knowing who is on shift or off. Because of this families of employees who are on shift may receive an emergency assistance call. Employees should tell their families beforehand that this may occur but it is not necessarily reason for concern.

G. EMERGENCY COMMAND POST

During a major emergency, it will be necessary to establish communication between members of management at the scene and the Emergency Control Center outside the immediate area of the fire.

This Emergency Command Post will be a base for the direction of all fire fighting activities as well as a communication post to all involved. All information from this post will be transmitted by way of radio or communicated directly by a member of the Technical Support Group to the Emergency Control Center.

Outside aid organizations should report to this command post after arrival and clearance at the front gate.

All off duty employees should contact this post upon arrival for fire crew assignments.

H. EMERGENCY CONTROL CENTER

During a major emergency, it will be necessary to establish an Emergency Control Center where senior management have means of communication with the Emergency Command Post, with personnel outside the plant, with necessary corporate offices, and with press and news media personnel.

The maintenance office area has been designated as the Emergency Control Center. In anticipation of its use, a radio receiver-transmitter will remain in this center at times of emergency.

When a situation arises that requires establishing an Emergency Control Center, the Administration Manager or another member of this team will be responsible for contacting clerical, purchasing, and warehousing personnel to aid in the emergency effort through actions within their departmental control.

I. REQUESTS FOR OUTSIDE ASSISTANCE

In the event that outside assistance is needed, we can request this aid from the local fire departments-primarily the Bloomfield Department. It shall be the responsibility of the Chief Operator to request this aid, by telephone, upon the direction of the Fire Chief.

Mutual aid personnel and equipment from all outside responding agencies will assemble outside the main refinery gate in the roadway

southwest of the gate. The person in charge of each group should report to the main gate and stand by. Personnel and equipment will be admitted to the refinery only after specific authorization and instruction is given by the Emergency Command Post. Each responding Fire Chief or Officer is responsible for the safety of their specific personnel. Each responding fire chief will work with, and under the direction of, the Bloomfield Refinery Fire Chief at the scene.

J. CLEAN UP

As soon as the emergency is under control and in a safe condition all fire equipment will then be cleaned and returned to its designated locations for future use. When all equipment is returned to operable condition, fire crew members will return to their regular jobs, or may return home when released by the Fire Chief.

K. PUBLIC RELATIONS

A spectacular fire is a very newsworthy event, and we can expect visitations by members of the news media. It is quite important that factual information be made available as soon as possible. Only the Refinery Manager or designee will release information to the news media, and these releases should be limited to actual confirmed facts - no speculations should be made.

This general policy is based on recognition that the press and general public has a legitimate interest in any disaster that strikes a company facility. It is to the company's benefit to cooperate with news media when emergencies occur. This is the company's best guarantee that the resulting news reports are factual and accurately present the company's position.

A press waiting center will be set up in the office conference room until such time as the Emergency Control Center is prepared to make a statement. A person designated by the Emergency Control Center team will remain with press personnel and assure them they will be furnished information and updates as soon as possible. Under no circumstances will news media personnel be allowed at the fire scene without explicit consent from the Fire Chief, and never unaccompanied.

L. PLANT SECURITY

During a major emergency, the main entrance gate becomes an important center of activity. Entry of personnel and vehicles into the plant must be curtailed or stopped completely. Congestion of vehicles must be prevented to make it possible to bring in emergency equipment without delay.

The activities at the main gate will be supervised by the Pumper as soon as he is relieved of his fire crew duties by the Fire Chief. These activities should include closing the east entrance gates in the boneyard and at the roadway by the burnerfuel rack then taking station at the front gate to restrict or eliminate all unnecessary traffic.

If additional security is needed along the frontage road, contact will be made to the county sheriff's office at 334-6107 or 911. The gate guard will request this assistance through the Chief Operator or through the Emergency Control Center if one has been established.

M. INJURIES AND FIRST AID

Injuries will be handled in accordance with Safety Order S-13. If a major explosion or fire results in multiple serious injuries, the Office Staff is to coordinate first aid and medical treatment of these injured individuals. The Shift Supervisor or Fire Chief should consider the injuries when requesting outside assistance. If ambulances and/or medical assistance is needed, it can be obtained from the Bloomfield Fire Department and the San Juan Emergency Center by dialing 911.

If needed a medical staging area will be set up in the fire station to the south of the Crude Unit and manned by office or other available personal trained in rendering first aid and medical care.

After medical treatment for the injured individuals has been administered, the first aid coordination group should make a record of those treated, and the status of each. This information should be relayed to the Emergency Control Center to make contact with the injured parties families. A member of the Emergency Control Center will make this contact in person or by phone depending on the seriousness of the injuries.

N. EMERGENCY SHUT DOWN PROCEDURE

A quick efficient shutdown of equipment is a necessity in emergency action situations. Each situation will be different but the main objective is to eliminate flow to the involved area. This may involve simply closing a suction valve to a pump for seal fires or may require complete unit shutdown for more involved emergencies. Each operator should know the safe emergency shutdown procedure for his unit.

Emergency shut down procedures are found in the unit operating manuals.

O. FACILITY EVACUATION

Should it become evident that the emergency has become uncontrollable or circumstances arise that endanger personnel attempting to rectify an emergency situation the Fire Chief will request a "Facility Evacuation" Signal be sounded on the fire alarm. He will also broadcast an ordered evacuation on each of the channels of the radio system and notify any outside assistance personnel of the need to evacuate. This order should not be questioned but efforts taken immediately to secure fire fighting equipment to a safe manner and leave the emergency scene.

III. RELEASE OF FLAMMABLE VAPOR OR GAS

In general, releases of flammable vapors or gas are handled in much the same way as fires. The reporting of these emergencies, sounding of the alarm, and reporting of fire crews should be identical to the procedure outlined in the other sections of this emergency plan.

All sources of ignition near the release should be extinguished immediately. Large quantities of water should be directed upon the area of discharge to disperse the flammable material and isolate it from sources of ignition. Every effort should be made to quickly isolate and depressure the leaking equipment.

The formation of a flammable vapor cloud can be extremely hazardous. Every effort should be made to prevent personnel from entering the cloud whether on or off Refinery property, because they can be engulfed in flame if ignition occurs.

IV. RELEASE OF TOXIC VAPOR OR GAS

In the event of a major release of a toxic vapor or gas, it may be desirable to absorb or disperse the toxic material with large volumes of water. In this event, the regular alarm should be sounded, as outlined in other sections of this plan, and fire crews will respond.

When responding to a release of, or fire involving, toxic material, all personnel should respond to the upwind side of the emergency. All personnel should be prepared to use the protective equipment required for such a case as directed by the supervisor in charge. It should be remembered that water solutions of some chemical vapors are extremely corrosive (chlorine, HCl). For this reason, if water sprays are directed on the leak, the resulting corrosion could intensify the leak. However, a curtain of water spray may be played on the vapor cloud downwind of the leak, until such time as the equipment can be isolated and the leak stopped.

Every effort should be made to prevent personnel both on and off the property from entering a toxic vapor cloud. Sullivan Road may have to be closed for protection of the public.

V. RELEASE OF CRUDE OIL, INTERMEDIATES, OR PRODUCTS

It is possible, especially in the tank farm area, that a fire or explosion could also result in a release, or cause the potential for a release, of crude oil, intermediates, or products. It is also possible that a release of crude oil, intermediates, or products could lead to a fire and/or explosion. If the release is contained on site, but considered significant, the Emergency Plan should be initiated.

Bloomfield Refinery is located adjacent to the Hammond Irrigation Ditch and the San Juan River. The river is an environmentally sensitive area for several reasons. Any release or potential release to the ditch or river of crude oil, intermediates, or products must be considered serious and the Emergency Plan initiated.

VI. REGULATORY NOTIFICATION/REPORTING REQUIREMENTS

Almost any emergency will require some sort of notification to Federal and/or State governmental agencies. In most cases an initial verbal notification needs to be made as soon as possible (as soon as the responsible person can free himself from the demands of the emergency but no later than 24 hours). Reporting requirements vary according to the specific regulations affected and are often difficult to determine during an emergency, but "failure to report" penalties can be substantial, so when in doubt -- MAKE A REPORT.

A. RESPONSIBILITY

The Environmental Engineer will be responsible for making the required notifications. In the event that he is not promptly available at the Emergency Control Center, the person in charge of the Emergency Control Center will be responsible for making the notifications as required.

B. NOTIFICATION REQUIREMENTS**1. Air Emissions (General)**

An emergency resulting in an abnormal air emission will require notification to the New Mexico Air Quality Bureau within 24 hours. Call (505) 827-0065 and state that an AQCR report needs to be made.

827-0060

2. Toxic Chemical Releases

Reporting under this category is somewhat complex and involves a determination of the specific chemical involved, whether it exceeds the reportable quantity, and whether it enters the environment. The reportable chemicals DO NOT INCLUDE petroleum, crude oil or any intermediate fraction, natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of these).

Chemicals at Bloomfield Refining Company that ARE reportable include:

Name	Reportable Quantity (lbs)
-----	-----
Chlorine	10
MMT	1
Sulfuric Acid	1000
Tetraethyl Lead	10

In the event of a spill of one of these chemicals that exceeds the reportable quantity (when not sure, assume that it does) report immediately to:

National Response Center	(800) 424-8802
State Emergency Coordinators	
State Police (24 hour)	(505) 827-9126
Max Johnson	(505) 827-9223

Local Emergency Committee

Local Fire Departments

911

~~Neil Tribbett~~ (LEPC--at PNM San Juan Generating Station

or at home)

John Dulan (Meridian) 326-9700

3. Crude Oil, Intermediates, or Products Release to San Juan River

In the event an emergency results in an oil discharge to the San Juan River or to Hammond Ditch (an oil discharge means one which creates a sheen or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines) an immediate notification is required to:

National Response Center

(800) 424-8802

NM Environmental Department

(505) 827-0187

4. Other Releases

Releases of crude, intermediates, products, salt water, wastewater, acids, caustics, solvents, or other chemicals in excess of 25 barrels onsite or offsite in a manner not approved by the New Mexico Oil Conservation Division will require immediate notification to:

District NM OCD Supervisor

(505) 334-6178

If the release is to the Hammond Ditch, notification should also be made to the Hammond Ditch operator:

Hammond Conservancy District

(505) 632-3043

C. POSSIBLE REQUIRED INFORMATION

Although response agencies such as the local fire departments and police will likely already be involved in the emergency, it remains important that notification be on record at the proper agency offices as soon as possible. The notifier should be prepared to provide as much information as is available. Be as factual as possible and clearly state what information is available. Some of the information you may need to provide is:

- 1) Description of the incident
- 2) Date, hour, and duration of occurrence
- 3) Name of any chemicals or substances involved
- 4) Estimate of quantities involved
- 5) If a release, into what medium (air, water or soil)
- 6) Status of local emergency response
- 7) Evacuation requirements
- 8) Name and telephone number of the person to be contacted for further information.

VII. INCIDENTS INVOLVING RADIATION SOURCES

Radiation is a form of energy and as such can be put to use for a variety of purposes. As with other forms of energy it can be dangerous when uncontrolled. To control radiation intelligently it is necessary to understand its seriousness and proceed with respect.

The radioactive elements in use at the refinery (i.e. precipitator hopper level indicators and "Princeton Gamma-Tech Chemical Analyzer in the lab) are sealed sources with controlled directional energy output which present no personnel physical danger under normal operating conditions. However, as with any other hazardous material, when one of these sources enters an uncontrolled state through physical damage to the sealed housing, proper precautions and definite action steps must be taken to rectify the situation.

No employee is to attempt operation or repairs on any equipment containing a radioactive source without specific authorization, instruction and training in the operation and handling of the equipment.

The following procedure is to be used in the case of suspected damage or leakage of a radiation device. (Cause for concern could be physical evidence of damage, fire involving the area of the source housing or general surveys conducted using the portable radiation detection meter).

1. Clear the area of all personnel as quickly as possible, to distance of 15 feet from the source.
2. Contact the Shift Supervisor and the Safety Department.
3. Establish a 2 mRem/hr boundary line using radiation detection instruments.
4. Avoid confusion and assist in maintaining control of established boundaries.
5. Make a report or log listing:
 - a. Time of suspected incident.
 - b. Names of personnel in the area and their exact location at time of incident.
 - c. Incidental meter readings and their location taken while establishing boundaries.
 - d. Cause of disturbance of radioactive material (if known).
6. Contact Kay-Ray if additional assistance or information is needed.

NOTE* - All reports to governmental and other agencies will be made by the Safety Department.

VIII. BOMB THREATS

It is the purpose of this section to establish a policy and procedure that will provide for personal safety of employees, protection of company property and products, and assure continuance of safe operations in the event that a threat of destruction is directed against a Bloomfield Refinery facility.

Action to be taken in response to these threats is the responsibility of the Operations Manager or Safety Manager. The Operations Manager also has the responsibility of:

- a. Communications with senior management.
- b. Requesting law enforcement assistance.
- c. Notifying other industry of a possible threat to their location.

Information concerning a threat of destruction should not be released to non-Bloomfield Refining persons or news media by anyone except the Operations Manager or Plant Manager.

A. PROCEDURES

Threats would probably be received by the receptionist in the office during office hours or a Shift Supervisor or operator in the control room after hours. However, a threat could be directed to any person working at the plant. Any person receiving a bomb threat should respond as follows:

1. Remain calm. DO NOT PANIC!!!
2. STALL. Keep the party talking and get as much information as possible.
3. Listen closely to the individual and for any background noises. If possible, have another person listen to the conversation from another phone.
4. Have available, and fill out the accompanying phone call form with as much detail as possible. (Attachment II)
5. Immediately, upon completion of the telephone call, relay the information to the Operation Manager and Safety Department.

When a call is received, the Safety Department or available supervision will set up emergency headquarters to coordinate and direct the search, and/or address the following:

1. Evaluate the threat for validity
2. Request visitors, contractors, non-essential employees to leave the facility since only authorized personnel will be allowed to remain in or be admitted to the refinery.

3. Designate someone to watch for suspicious persons or cars outside the plant and record any descriptions or license numbers.
4. If more help is needed, the Operation Manager is the only person authorized to call off duty employees to assist.
5. Turn off two-way radios and leave them in the control room or offices. DO NOT use them while the refinery is under alert.
6. Decide if a search for possible bomb location should be instituted. If so, each operator should perform a search of his unit paying special attention to column skirts, debris and cluttered areas, and areas around major pieces of equipment. Only a general visual inspection will be conducted by in-house personnel. Contact will be made with the State Police for assistance and more extensive search efforts, if warranted.
7. If a time of explosion was indicated by the caller, any search will continue to within ten minutes of the set time. At that time all personnel will be evacuated, except those required in the control room. The units will not be shut down or left unattended. If a specific time was not given, contact the Operations Manager for direction.
8. If a bomb or anything out of the ordinary is discovered:
 - a. Notify the emergency headquarters.
 - b. Do not touch, attempt to remove, or disarm.
 - c. "Bomb Removal" personnel (from the State Police Office) will be brought to the site.

IX. RADIO SYSTEM

Two-way radios provide a valuable means of communication in an emergency situation. With the aid of a two channel system we are able to use the number two channel only for direction of fire fighting efforts. When an alarm is sounded, channel two will be cleared except for emergency purposes. Channel one will be used for the activities involved in isolating the involved equipment by the operating department. All other use of the radios will be discontinued until such a time as the situation is in hand and the recall is given.

X. CONTRACTORS AND VISITORS

When an emergency alarm is sounded, all contractors and visitors are to be directed to leave the process area and assemble at the main shop area. Contract Supervisors are to account for each of their employees and report any missing to the Emergency Command Post. Contractors and visitors are not to return into the plant without authorization from the Emergency Command Post.

XI. PIPELINE EMERGENCIES

Pipeline emergencies are to be handled in the same manner as any other fire or hydrocarbon release encountered at the refinery. Of prime concern to Bloomfield Refining Company is protection of exposures from a fire until such time as the feed can be isolated from the involved line(s) and final extinguishment is made. The responsibility for isolating the feed will be with the pipeline company whose facilities are involved.

More detailed information is given in the following summaries stating responsibilities, block valve location, emergency phone numbers, product identification and any special procedures.

SAN JUAN PIPELINE

Product Involved:	Crude Oil
Origin:	Bisti Station near El Paso Chaco Plant
Arrives Refinery:	Through the southwest gates by tank # 23 (CBI-2) Bloomfield Refining receiving surfaces at LACT unit
On Site Destination:	Tank # 31 (GATX-1). North 8" valve on west side of tank, or tank # 28 (CBI-3) 8" valve on north side of tank.
Securing Responsibility:	On Site-Pumper Off Site- BRC Terminals/ Pipeline Department.
Block Valve Location:	6" plug valve immediately preceding the west meter (or) block valve located where line surfaces in right-of-way.
Telephone Numbers:	mobile 325-1873 Bill Kollasch #2614 334-8140 (home) Kevin Daniels #2615 632-9886 (home) Ron Weaver 632-5971

BLOOMFIELD REFINING CO.

SAFETY ORDER S-1

EL PASO - ANGEL PEAK FIELD LINES

Product Involved:

20" on west in right-of-way; High Pressure Natural Gas.

8" center of right-of-way; Liquid Gas Product. (Drip)

34" east in right-of-way; High Pressure Natural Gas.

Origin:

Right-of-way travels northeast to southwest between tank farm and process units.

On Site Destination:

None.

Securing Responsibilities:

El Paso Natural Gas Company.

Emergency Telephone Numbers:

El Paso Natural Gas Dispatching: 325-1162.

SOUTHERN UNION

Product Involved:

Natural Gas.

Origin:

Gas Company of New Mexico mainline.

Arrives:

Southwest property corner by Warehouse

On Site Destination:

Fuel Gas Drum.

Securing Responsibility:

On Site-Pumper
Off Site-Gas Company of New Mexico.

Block Valve Location:

2" quarter turn plug valve at southwest property corner (or)
2" gate valves at control valve run behind shop.

Emergency Phone Numbers:

Gas Company of New Mexico-325-2889.

XII. EVACUATION OF BUILDINGS

If the decision is made or an emergency requires evacuation of a building structure, each individual should follow the closest path of travel to an exit. Time should not be spent in trying to take any articles with you. Of prime importance is the safety of personnel, and article rescue should be left to trained personnel. Every individual should become familiar with both primary and secondary exits in the buildings they use.

XIII. COMMUNICATION CONTINGENCY

Should an emergency arise that would damage or render inoperative the public telephone system at a location, alternative methods of communication should be used. This communication can be accomplished by the use of the Terminals phones if the Refinery was affected or the use of the Refinery phones if Terminals phones are affected. The operating crews in each area are responsible for aiding in this manner should the need arise.

In the event of a power failure associated with an emergency situation the switchboard will not work. Outgoing calls can still be made from any phone in the refinery, but the phone lights will not work and incoming calls will ring only at specially designated phones as indicated on the BRC phone extension list.

EMERGENCY PHONE NUMBERS

Bloomfield Fire Department. 911
 Bloomfield Police Department. 911
 San Juan County Sheriff 911
 State Police. 911
 Ambulance 911
 County Fire Departments 911
 Poison Control. 1-800-432-6866
 Bomb Personnel (State Police Office). 325-7547
 ETHYL CORP. (T.E.L. Emergencies). 504-344-7147
 CHEMTREC (Chemical Emergencies) 1-800-424-9300
 City of Farmington (Electric Utility) 327-7701
 Kay-Ray (Radiation accident at Precititator). . 708-803-5100
 E.I.D. Radiation Protection Bureau 505-827-2948
 Mobile Inspection (Radiography Assistance). . . 327-9473
 Contact of New Mexico (Call out Assistance) . . 325-1873
 HED Environmental Improvement Division. . . . 505-827-9329
 (See page 12 for special reporting)

OUTSIDE EQUIPMENT RESOURCES**Water Tankers & Vacuum Trucks**

Chief Transport. 325-2396
 C & J Trucking 325-7770
 Dawn 327-6314
 Sunco Trucking 327-0416 or 326-2266
 Shiprock Transport 327-5096
 Triple S Trucking Co. 334-6193

Earth Moving Equipment

Adobe Construction (Ernie Motto) . 632-1846 or 334-6696
 W & C Construction 632-3663
 Atchison Construction. 327-6276
 Four Way Inc. 327-0401

Welding & Cutting

Keith Rockwell 632-0251
 Henry Vigil. 632-3045

Wrecker or Rig Up Trucks

Robinson Towing. 325-3521
 Mr. G's 325-0669
 Drake Well Service 327-7301
 ODECO Inc. 632-3392

Aerial Ladder or Basket

City of Farmington Utility 911 or 327-7701
 Farmington Fire. 325-3501
 Bloomfield Fire. 632-8011
 Aztec Fire 334-6101

Foam Supplies

Pennzoil Roosevelt Refinery. 801-722-5128
 Thunderbird Sales. 505-881-6222
 Boots & Coots. 713-999-0276

Oil Spill Cleanup

Environtech Inc. 632-0615
 Tierra Environmental Company 325-0924

COMPANY RESOURCES

1. Two - 2000 gpm automatic start diesel fire engines
One - 1000 gpm manual start diesel fire engine
One - 750 gpm manual start electric fire engine
One - 750 gpm manual start gas fire engine
2. 11,000 feet of 6", 8", 10", and 12" fire line
3. 16 - fixed fire monitors
4. 4 - portable fire monitors
5. 38 - fire hydrants
6. 98 - hand portable fire extinguishers
7. 14 - 150# wheeled extinguishers
8. 1 - twin agent fire truck
9. Water deluge system in T.E.L. building
10. Automatic foam deluge system - Loading Rack
11. 2 - foam cannons w/110 gallon foam - Unloading Rack
12. Automatic Halon extinguishers in Lab
13. 1000 gallons AFFF/ATC foam concentrate
14. Foam systems on Tanks No. 11, 12, and 13
15. 23 sets of fire fighting bunker equipment
16. One fire entry suit
17. 10 - self-contained breathing appartus
18. 2 - air line breathing appartus
19. 2 - first aid kits (large standard)
20. 2 - first aid kits (trauma)
21. 2 - medical oxygen units
22. One chlorine cylinder patch kit
23. 3 - stretchers and rescue baskets
24. 400 feet of rescue rope & equipment
25. 7 - safety showers: Lab, (2) Treater and spent caustic, #1 cooling tower, one portable, and one kerosene shower
26. 7 - fire hose boxes with 400 feet hose, 3 nozzles, and 1 gated wye

COMPANY RESOURCES

27. 600 ft. of 2-1/2" fire hose
800 ft. of 1" fire hose
8 nozzles
Miscellaneous other fire appliances
28. Assorted respiratory equipment for specific use
29. 600 lbs. stock Purple-K extinguisher chemical
30. 8 - acid resistant slicker suits
31. 120 feet of oil skimmer boom
32. 3 - rolls of oil sorbent blanket (3/8"X36"X150' each)

COMPANY ROLLING STOCK

1. 8 - pickup trucks
2. Utility trailer
3. Massey Ferguson 383 tractor
4. Chevy C30 fire truck, 258 BTP
5. Foam Proportioning trailer, Spec BPT2000FR, FR 43387
6. John Deere 480C forklift
7. GMC C65 fuel truck, 260 BTP
8. Chevy C30 truck, 895 CHG
9. Linkbelt 17-ton crane
10. Allis Chalmers tractor, Model 5020
11. GMC C35 truck, 261 BTP
12. International vacuum truck
13. GMC 2-ton winch truck, 259 BTP
14. John Deere 410B backhoe
15. Drott carrydeck crane
16. Chevy 1-ton 4x4 dually, 663 ATG

ATTACHMENT II

THREATENING PHONE CALL FORM

Time call received _____ Time caller hung up _____

Exact words of person placing call: _____

Questions to ask:

1. When is bomb going to explode? _____

2. Where is bomb right now? _____

3. What kind of bomb is it? _____

4. What does it look like? _____

5. Why did you place the bomb? _____

Person (receiving) (monitoring) call _____

Department _____ Telephone _____

Home Address _____

Home Telephone No. _____ Date _____

DESCRIPTION OF CALLER'S VOICE

Male _____ Female _____ Tone of Voice _____

Young _____ Middle Aged _____ Old _____

Accent _____ Background Noise _____

Voice Familiar? _____ If so, who did it sound like? _____

Remarks: _____

Immediately notify following persons when call is complete:
Operations Manager and Safety Department.



Bloomfield Refining
Company

A Gary Energy Corporation Subsidiary

July 7, 1993

U. S. EPA, Region VI
Contingency Planning Section
P. O. Box 303
Dallas, Texas 75201-9998

RE: Docket Number: FRP-06-NM-00015
Oil Spill Response Plan
Response Certification

To Whom It May Concern:

Bloomfield Refining Company (BRC) hereby certifies that personnel and equipment necessary to respond to the maximum extent practicable, to a worst case discharge or to a substantial threat of a discharge as defined in BRC's Oil Response Plan (Plan) are ensured. These resources include those specified in the Plan and those available to Tierra Environmental Corporation, a full-service environmental firm with emergency response capabilities under contract with BRC.

The technical contact at our facility is Chris Hawley, who can be reached at (505) 632-8013. Tierra Environmental Corporation can be contacted through Phil Nobis at (505) 325-0924.

Sincerely,

David Roderick
Vice President, Refining

DR/jm

cc: Chris Hawley
Joe Warr
John Goodrich
Phil Nobis, Tierra



TIERRA ENVIRONMENTAL CORPORATION

CORPORATE OFFICE
6846 S. Canton, Suite 100
Tulsa, OK 74136
918-496-3200

REGIONAL OFFICE
909 W. Apache
Farmington, NM 87401
505-325-0924

EMERGENCY RESPONSE RESOURCE INVENTORY

I. Emergency Notification List

Tierra Environmental Corporation 8 am to 5 pm (505) 325-0924
After hours:

Phil Nobis
Home (505) 632-1404
Mobile (505) 320-1016

Richard P. Cheney
Home (505) 632-1363
Mobile (505) 320-0315

Ron Castleberry
Home (505) 326-4859
Mobile (505) 320-1501

Landfarm Facility (24) hrs (505) 320-1363

II. Project Management & Planning Key Personnel

Tierra Environmental Corporation

Richard P. Cheney, PE/PS

Relevant area of Expertise: Spill containment, water and waste water management. Mr. Cheney is registered in most western states.

Robert Echols, PE

Relevant area of Expertise: Spill containment and stream flows. Mr. Echols is also registered in most western states.

Gary Graham, PE

Relevant area of expertise: Structural design and engineering. Mr. Graham is also registered in most western states.

James Gurney, B.S. Geologist

Relevant area of expertise: Groundwater and geology
Mr. Gurney is considered an expert in the Rocky Mountain Region

Ron Castleberry, B.S. Environmental Science

Relevant area of expertise: Environmental Impact and Regulations Specialist, On-site project management. Hazardous Materials Certified. Project Safety Officer.

Mr. Castleberry is a former regulator with The New Mexico Environment Department and New Mexico Oil Conservation Division as well as the New Mexico Game and Fish Department.

Dr. Dan Hoover, Ph.D.

Relevant area of expertise: Agronomy and chemistry , soils and water remediation specialist.

Phil Nobis, B.S. Emergency Response Coordinator

Relevant area of expertise: Emergency Response Planning, Deployment and resource management. Mr. Nobis is a former City Manager and Public Safety Official with over twenty-five years of experience managing emergency response resources.

III. Support Resources

Tierra Environmental Corporation

Area of expertise: Soils remediation

Permitted Landfarm Facilities

Bergstein Inc.

Area of expertise: Special Equipment

Containment Booms

Super Vacuum Trucks

Hot Oil Trucks

Barges

EPA approved Roll Off Containers

Hazardous Material Trucking

Bergstein Inc. has an emergency deployment capability. They were used by Exxon on the Valdez Tanker Spill. All personnel are Hazardous Materials Certified.

Chief Transport /SSS Trucking

Area of expertise: Liquid Product Transport

Vacuum trucks

transport tankers

truck mounted high pressure steam cleaner

On-Site Technologies

Area of expertise: Spill containment material, laboratory services

EPA Protocol analytical laboratory

Spagsorp Absorbent Material supplier

Site Reclamation Services

Area of expertise: Dirtwork, medium equipment, labor, personnel are Hazardous Materials Certified.

JCB 214S Backhoe/Loader

JCB 217S Backhoe/Loader

John Deer Motor Grader

8 yd. Push Dozer w/riper

1-ton truck wt. equipment trailer

Heavy Transport Truck and Trailer

Service Trucks and Crew Transport

Doug Foutz Construction

Area of Expertise: Dirtwork, heavy equipment and trucking. Personnel are Hazardous Materials Certified.

- 5 12 yard body dump trucks
- 3 22 yard trailer end dumps
- 2 22 yard trailer belly dumps
- 1 480 loader with box blade
- 1 580D Backhoe (Rubber tire)
- 1 580 K 4x4 Extend a hoe Backhoe (rubber tire)
- 4 Rubber tire loaders 1-75c, 1-125, 1-980 & 1-275
- 1 John Deer 860 Scraper
- 1 680 Trackhoe
- 1 Komatsu Dozer
- 1 75 ton crane

Rock crusher with full line of dirt-rock products

Four States Communications

Area of Expertise: Mobile communications

Will provide common mobile communications equipment for incidents.

BLOOMFIELD REFINING COMPANY

SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

1.0 GENERAL INFORMATION

- 1.1 Name of facility: **Bloomfield Refining Company**
- 1.2 Type of facility: **Onshore Facility - Petroleum Refinery**
- 1.3 Location of facility: **#50 County Road 4990**
Bloomfield, New Mexico 87413

Near latitude: **36°41'50"**
longitude: **107°58'20"**

1.4 Name and address of owner or operator:

Name : **Bloomfield Refining Company**
Address: **P.O. Box 159**
Bloomfield, New Mexico 87413

1.5 Designated person accountable for oil spill prevention at the facility:

Name and title: **Chad King, Operations Manager**

1.6 Reportable oil spill event during last five years: **None**

MANAGEMENT APPROVAL

This SPCC Plan will be implemented as herein described.

Signature: *David Roderick*

Name: **David Roderick**

Title: **Refinery Manager**

CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR, Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices.

Chad R. King

Printed Name of Registered Professional Engineer

(Seal)

Chad King
Signature of Registered Professional Engineer

Date *2/16/93* Registration No. *7316* State *N.M.*

SPCC PLAN, BLOOMFIELD REFINING COMPANY
PART 1 GENERAL INFORMATION
Page 2 of 3

1.7 Potential Spills - Prediction & Control

NO.	SOURCE	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (BBLs)	RATE (BBLs /HR)	DIR. OF FLOW	SECONDARY CONTAINMENT
PRODUCT TANKS						
3	JP-4	RUPTURE	10,000	SEE 1	SEE	EARTHEN DIKES
4	JP-4	"	10,000	"	DWGS	"
5	HI-REFORMATE	"	10,000	"	"	"
8	CRUDE SLOP	"	500	"	"	CONCRETE ENCLOSURE
9	CRUDE SLOP	"	500	"	"	"
11	REFORMATE	"	55,000	"	"	EARTHEN DIKES
12	POLY/CAT MIX	"	55,000	"	"	"
13	NOLEAD SALES	"	30,000	"	"	"
14	NOLEAD SALES	"	30,000	"	"	"
17	REDUCED CRUDE	"	40,000	"	"	"
18	#1 DIESEL	"	55,000	"	"	"
19	#2 DIESEL	"	36,000	"	"	"
20	FCC SLOP	"	5,000	"	"	"
21	FCC SLOP	"	3,000	"	"	"
22	GASOLINE SLOP	"	1,500	"	"	"
23	BASE GASOLINE	"	40,000	"	"	"
24	REFORMER FEED	"	10,000	"	"	"
25	REFORMER FEED	"	10,000	"	"	"
26	JET A SALES	"	4,000	"	"	"
27	HVY BURNER FUEL	"	10,000	"	"	"
28	CRUDE	"	80,000	"	"	"
29	REGULAR LEADED	"	17,000	"	"	"
30	REGULAR LEADED	"	17,000	"	"	"
31	CRUDE	"	110,000	"	"	"
32	PREMIUM GASOLINE	"	20,000	"	"	"
44	ETHANOL	"	2,000	"	"	"
PRESSURE TANKS						
B-01	LPG SLOP	"	286	"	"	"
B-02	LPG SLOP	"	430	"	"	"
B-12	LT NATURAL	"	692	"	"	"
B-13	BUTANE	"	500	"	"	"
B-14	BUTANE	"	500	"	"	"
B-15	PROPANE	"	714	"	"	"
B-16	PROPANE	"	714	"	"	"
B-17	POLY FEED	"	714	"	"	"
B-18	POLY FEED	"	714	"	"	"
B-19	POLY FEED	"	714	"	"	"
B-20	BUTANE	"	714	"	"	"
B-21	BUTANE	"	714	"	"	"
B-22	SATURATE LPG	"	714	"	"	"
B-23	SATURATE LPG	"	714	"	"	"
PROCESSES						
	FCC UNIT	"		"	"	PROCESS AREAS ARE
	CRUDE UNIT	"		"	"	EQUIPPED WITH
	REFORMER UNIT	"		"	"	CONCRETE PADS &
	CAT/POLY UNIT	"		"	"	CURBS THROUGHOUT.
	LOADING AREA	OVERFLOW	250	"	"	CNCRT PADS & CURBS.

Note 1: Rate extremely variable, depending upon nature and extent of failure. Tank 11 is used to calculate worst case scenario (see Response Plan section).

- 1.8 Containment or diversionary structures or equipment to prevent oil from reaching navigable waters are practicable.

Yes, secondary containment is provided for all oil release sources. In addition, an arroyo that is located to the north, central part of the refinery (see drawings) that normally would drain to the San Juan River, is equipped with dikes that would act as tertiary containment.

1.9 Inspections and Records

- A. The required inspections follow written procedures. Yes
B. The written procedures and a record of inspections, signed by the appropriate supervisor or inspector, are attached. Some

Discussion: The refinery is manned on a 24-hour basis. Each area of the facility has assigned personnel responsible for continuous monitoring of the facility systems. Process equipment is monitored in accordance with appropriate API Standards. Tanks are inspected in accordance with API Standard 653, Tank Inspection, Repair, Alteration, and Reconstruction.

1.10 Personnel Training and Spill Prevention Procedures

- A. Personnel are properly instructed in the following:
(1) operations and maintenance of equipment to prevent oil discharges, and Yes
(2) applicable pollution control laws, rules, and regulations. Yes
Describe procedures employed for instruction: Operations personnel complete an operator certification program that includes pollution prevention techniques. New personnel are given on-the-job training by experienced personnel and supervisors of all aspects of the job. Hazardous materials training is provided to all employees. Emergency response training is provided at least annually. Fire training, which includes techniques applicable to overall ability to prevent oil releases, is provided annually.
B. Scheduled prevention briefings for the operating personnel are conducted frequently enough to assure adequate understanding of the SPCC Plan. Yes
Describe briefing program: New employees are given extensive initial training. Monthly safety training, to include spill prevention, is conducted by plant supervision. Spill incident reports are prepared for all spills that occur within the refinery. Supervision discusses the incident with the responsible party and determines a course of action to avoid future occurrences. Small incidences are considered serious.

A. Facility Drainage

1. Drainage from diked storage areas is controlled as follows (include operating description of valves, pumps, ejectors, etc.): Diked areas are not directly drained. Any spills within diked storage areas will be removed by the use of portable pumps (a large diesel operated pump is maintained by the refinery) or mobile vacuum units. The refinery owns one vacuum truck and others can be quickly obtained from local contractors.
2. Drainage from undiked areas is controlled as follows (include description of ponds, lagoons, or catchment basins and methods of retaining and returning oil to facility): Drainage in the process areas is controlled by oily/water sewers routed to the API separator which removes oil. The refinery does not operate a separate storm water system. The water effluent from the separator (and oil carryover in the event of an overloading incident) goes to a series of three lined ponds and then selectively to four possible evaporation ponds. Any oil carried over would be skimmed utilizing booms and vacuum trucks and returned to the API separator for oil recovery.
3. The procedure for supervising the drainage of rain water from secondary containment into a storm drain or an open watercourse is as follows (include description of (a) inspection for pollutants, and (b) method of valving security). The refinery is located in a relatively arid region with average rainfall of about 9 inches. Rainwater is not normally removed from secondary containment. Secondary containment is not equipped with direct draining equipment. If removal of rain water is required, it would be removed utilizing pumps or vacuum trucks. Any removed rain water will be emptied into the refinery waste water system, routed first through the API separator. The refinery is a zero discharge facility. No stormwater is directly discharged to any storm drains or open watercourses. Waste water is currently disposed by evaporation.

B. Bulk Storage Tanks

1. Describe tank design, materials of construction, fail-safe engineering features, and if needed, corrosion protection: Tanks are all of circular steel construction. Tanks 20, 21, 24, and 25 are bolted construction. The rest are welded construction. Tanks 11, 12, 13, 14, 32, and 44 are built on a concrete tank ring and sand cushion; tanks 8 and 9 are built on concrete pads with concrete retaining walls; and all others are constructed on sand pads only. All tanks are painted for external corrosion control. The tank floors and under ground piping are protected with an active electrical cathodic protection system.
2. Describe secondary containment design, construction materials, and volume: Secondary containment consists of earthen dikes (minimum). Volume is adequate for most tanks, but will be evaluated during 1993 inspection.
3. Describe tank inspection methods, procedures, and record keeping: Tanks throughout the refinery are manually gaged each day. The gauger is on the alert for any leaks or tank disorders. Daily inventory logs are checked and balanced to determine disorders or losses. Tanks are scheduled for periodic cleaning, depending on age, during which complete internal inspections are done. Repairs are made before putting the tank back in service. Tanks are inspected in accordance with API Standard 653. Records include detailed individual tank files, computerized inspection histories, and API 653 inspection results.
4. Internal heating coil leakage is controlled by one or more of the following control factors:
 - (a) Monitoring the steam return or exhaust lines for oil. Yes
Describe monitoring procedure: Daily product sampling and continuous lookout for oil in the steam return lines.
 - (b) Passing the steam return or exhaust lines through a settling tank, skimmer, or other separation system. Yes
 - (c) Installing external heating systems. N/A
5. Disposal facilities for plant effluent discharged into navigable waters are observed frequently for indication of possible upsets which may cause an oil spill event. N/A

C. Facility Transfer Operations, Pumping, and In-plant Process

1. Corrosion protection for buried pipelines:
 - (a) Pipelines are wrapped and coated to reduce corrosion. Yes
 - (b) Cathodic protection is provided for pipelines if determined necessary by electrolytic testing Yes
 - (c) When a pipeline section is exposed, it is examined and corrective action taken as necessary: Yes
2. Pipeline terminal connections are capped or blank-flanged and marked if the pipeline is not in service or on standby service for extended. Yes
Describe criteria for determining when to cap or blank-flange: Buried lines containing oil or oil products have been eliminated except where absolutely necessary such as road or dike crossings. All abandoned lines are plugged or capped.
3. Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction. Yes
Describe pipe support design: Supports are steel and concrete structures of various shapes. Shoes are provided on process piping. Fireproofing has been applied to some critical, vertical steel members.
4. Describe procedures for regularly examining all above-ground valves and pipelines (including flange joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces): Daily visual inspections are done by plant personnel.
5. Describe procedures for warning vehicles entering the facility to avoid damaging above-ground piping: A rigid permitting procedure is followed to authorize vehicles in the refinery. Where possible, roads cross over pipes. Overhead piperacks in traffic areas are very high to allow clearance for all types of vehicles. Contractors are given careful safety instructions before they are allowed in the refinery.

D. Facility Tank Car & Tank Truck Loading/Unloading Rack
Tank car and tank truck loading/unloading occurs at the facility. (If YES, complete 1 through 5 below.) Yes

1. Loading/unloading procedures meet the minimum requirements and regulations of the Department of Transportation. Yes

2. The unloading area has a quick drainage system. Yes

3. The containment system will hold the maximum capacity of any single compartment of a tank truck loaded/unloaded in the plant. Yes

Describe containment system design, construction materials, and volume: The truck product loading area controls spills with a concrete slab and curbing. The slab is designed to drain spills to a sump which is then pumped to Tank 22 from which the material is blended back into leaded gasoline or other appropriate product. The truck crude unloading area controls spills with a concrete slab and curbing. The slab is designed to drain spills to a sump which can then be pumped to the crude treating tanks or the API separator. Both areas have secondary containment (earthen dikes) in the event of sump overfilling. Overflow, automatic shutoffs are required on trucks.

4. An interlocked warning light, a physical barrier system, or, warning signs are provided in loading/unloading areas to prevent vehicular departure before disconnect of transfer lines. Yes

Describe methods, procedures, and/or equipment used to prevent premature vehicular departure: Warning and instruction signs are provided in the area. New drivers are trained in the proper operation of the loading/unloading equipment. Company personnel (other than truck drivers) are present in the area to provide assistance when needed.

5. Drains and outlets on tank trucks and tank cars are checked for leakage before loading/unloading or departure. Yes

The facility does not have any rail operations.

F. Security

1. Plants handling, processing, or storing oil are fenced. Yes
2. Entrance gates are locked and/or guarded when the plant is unattended or not in production. Yes
3. Any valves which permit direct outward flow of a tank's contents are locked closed when in non-operating or standby status. No
4. Starter controls on all oil pumps in non-operating or standby status are:
 - (a) locked in the off position; No
 - (b) located at site accessible only to authorized personnel. Yes
5. Discussion of items 1 through 4 as appropriate: The refinery is operated on a 24-hour basis with all valves operated by trained, authorized personnel. The valves associated with the piping between process areas and tankage are part of a closed piping system. Water draw-off piping is routed to tank sumps. The valves for water draw-offs are operated only by authorized personnel and are attended constantly when in operation. These valves are also located inside the tank secondary containment. If piping is disconnected for maintenance reasons, blind flanges are bolted to the valves.
6. Discussion of the lighting around the facility: The refinery is equipped with extensive lighting, adequate for a 24 hour per day operation. The tankfarm is not lighted in many areas but emergency mobil lighting is available.

BLOOMFIELD REFINING COMPANY

SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

1.0 GENERAL INFORMATION

- 1.1 Name of facility: Bloomfield Refining Company
- 1.2 Type of facility: Onshore Facility - Petroleum Refinery
- 1.3 Location of facility: #50 County Road 4990
Bloomfield, New Mexico 87413

Near latitude: 36°41'50"
longitude: 107°58'20"

1.4 Name and address of owner or operator:

Name : Bloomfield Refining Company
Address: P.O. Box 159
Bloomfield, New Mexico 87413

1.5 Designated person accountable for oil spill prevention at the facility:

Name and title: Chad King, Operations Manager

1.6 Reportable oil spill event during last five years: None

MANAGEMENT APPROVAL

This SPCC Plan will be implemented as herein described.

Signature: David Roderick

Name: David Roderick

Title: Refinery Manager

CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR, Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices.

Chad R. King

Printed Name of Registered Professional Engineer

(Seal)

Chad King

Signature of Registered Professional Engineer

Date 2/16/93 Registration No. 7316 State N.M.

SPCC PLAN, BLOOMFIELD REFINING COMPANY
 PART 1 GENERAL INFORMATION
 Page 2 of 3

1.7 Potential Spills - Prediction & Control

NO.	SOURCE	MAJOR TYPE OF FAILURE	TOTAL QUANTITY (BBLs)	RATE (BBLs /HR)	DIR. OF FLOW	SECONDARY CONTAINMENT
PRODUCT TANKS						
3	JP-4	RUPTURE	10,000	SEE 1	SEE	EARTHEN DIKES
4	JP-4	"	10,000	"	DWGS	"
5	HI-REFORMATE	"	10,000	"	"	"
8	CRUDE SLOP	"	500	"	"	CONCRETE ENCLOSURE
9	CRUDE SLOP	"	500	"	"	"
11	REFORMATE	"	55,000	"	"	EARTHEN DIKES
12	POLY/CAT MIX	"	55,000	"	"	"
13	NOLEAD SALES	"	30,000	"	"	"
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25	REFORMER FEED	"	10,000	"	"	"
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27	HVY BURNER FUEL	"	10,000	"	"	"
28	CRUDE	"	80,000	"	"	"
29	REGULAR LEADED	"	17,000	"	"	"
30	REGULAR LEADED	"	17,000	"	"	"
31	CRUDE	"	110,000	"	"	"
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B-16	PROPANE	"	714	"	"	"
B-17	POLY FEED	"	714	"	"	"
B-18	POLY FEED	"	714	"	"	"
B-19	POLY FEED	"	714	"	"	"
B-20	BUTANE	"	714	"	"	"
B-21	BUTANE	"	714	"	"	"
B-22	SATURATE LPG	"	714	"	"	"
B-23	SATURATE LPG	"	714	"	"	"
PROCESSES						
	FCC UNIT	"		"	"	PROCESS AREAS ARE
	CRUDE UNIT	"		"	"	EQUIPPED WITH
	REFORMER UNIT	"		"	"	CONCRETE PADS &
	CAT/POLY UNIT	"		"	"	CURBS THROUGHOUT.
	LOADING AREA	OVERFLOW	250	"	"	CNCRT PADS & CURBS.

Note 1: Rate extremely variable, depending upon nature and extent of failure. Tank 11 is used to calculate worst case scenario (see Response Plan section).

- 1.8 Containment or diversionary structures or equipment to prevent oil from reaching navigable waters are practicable.

Yes, secondary containment is provided for all oil release sources. In addition, an arroyo that is located to the north, central part of the refinery (see drawings) that normally would drain to the San Juan River, is equipped with dikes that would act as tertiary containment.

1.9 Inspections and Records

- A. The required inspections follow written procedures. Yes
B. The written procedures and a record of inspections, signed by the appropriate supervisor or inspector, are attached. Some

Discussion: The refinery is manned on a 24-hour basis. Each area of the facility has assigned personnel responsible for continuous monitoring of the facility systems. Process equipment is monitored in accordance with appropriate API Standards. Tanks are inspected in accordance with API Standard 653, Tank Inspection, Repair, Alteration, and Reconstruction.

1.10 Personnel Training and Spill Prevention Procedures

- A. Personnel are properly instructed in the following:
(1) operations and maintenance of equipment to prevent oil discharges, and Yes
(2) applicable pollution control laws, rules, and regulations. Yes

Describe procedures employed for instruction: Operations personnel complete an operator certification program that includes pollution prevention techniques. New personnel are given on-the-job training by experienced personnel and supervisors of all aspects of the job. Hazardous materials training is provided to all employees. Emergency response training is provided at least annually. Fire training, which includes techniques applicable to overall ability to prevent oil releases, is provided annually.

- B. Scheduled prevention briefings for the operating personnel are conducted frequently enough to assure adequate understanding of the SPCC Plan. Yes

Describe briefing program: New employees are given extensive initial training. Monthly safety training, to include spill prevention, is conducted by plant supervision. Spill incident reports are prepared for all spills that occur within the refinery. Supervision discusses the incident with the responsible party and determines a course of action to avoid future occurrences. Small incidences are considered serious.

A. Facility Drainage

1. Drainage from diked storage areas is controlled as follows (include operating description of valves, pumps, ejectors, etc.): Diked areas are not directly drained. Any spills within diked storage areas will be removed by the use of portable pumps (a large diesel operated pump is maintained by the refinery) or mobile vacuum units. The refinery owns one vacuum truck and others can be quickly obtained from local contractors.
2. Drainage from undiked areas is controlled as follows (include description of ponds, lagoons, or catchment basins and methods of retaining and returning oil to facility): Drainage in the process areas is controlled by oily/water sewers routed to the API separator which removes oil. The refinery does not operate a separate storm water system. The water effluent from the separator (and oil carryover in the event of an overloading incident) goes to a series of three lined ponds and then selectively to four possible evaporation ponds. Any oil carried over would be skimmed utilizing booms and vacuum trucks and returned to the API separator for oil recovery.
3. The procedure for supervising the drainage of rain water from secondary containment into a storm drain or an open watercourse is as follows (include description of (a) inspection for pollutants, and (b) method of valving security). The refinery is located in a relatively arid region with average rainfall of about 9 inches. Rainwater is not normally removed from secondary containment. Secondary containment is not equipped with direct draining equipment. If removal of rain water is required, it would be removed utilizing pumps or vacuum trucks. Any removed rain water will be emptied into the refinery waste water system, routed first through the API separator. The refinery is a zero discharge facility. No stormwater is directly discharged to any storm drains or open watercourses. Waste water is currently disposed by evaporation.

B. Bulk Storage Tanks

1. Describe tank design, materials of construction, fail-safe engineering features, and if needed, corrosion protection: Tanks are all of circular steel construction. Tanks 20, 21, 24, and 25 are bolted construction. The rest are welded construction. Tanks 11, 12, 13, 14, 32, and 44 are built on a concrete tank ring and sand cushion; tanks 8 and 9 are built on concrete pads with concrete retaining walls; and all others are constructed on sand pads only. All tanks are painted for external corrosion control. The tank floors and under ground piping are protected with an active electrical cathodic protection system.
2. Describe secondary containment design, construction materials, and volume: Secondary containment consists of earthen dikes (minimum). Volume is adequate for most tanks, but will be evaluated during 1993 inspection.
3. Describe tank inspection methods, procedures, and record keeping: Tanks throughout the refinery are manually gaged each day. The gauger is on the alert for any leaks or tank disorders. Daily inventory logs are checked and balanced to determine disorders or losses. Tanks are scheduled for periodic cleaning, depending on age, during which complete internal inspections are done. Repairs are made before putting the tank back in service. Tanks are inspected in accordance with API Standard 653. Records include detailed individual tank files, computerized inspection histories, and API 653 inspection results.
4. Internal heating coil leakage is controlled by one or more of the following control factors:
 - (a) Monitoring the steam return or exhaust lines for oil. Yes
Describe monitoring procedure: Daily product sampling and continuous lookout for oil in the steam return lines.
 - (b) Passing the steam return or exhaust lines through a settling tank, skimmer, or other separation system. Yes
 - (c) Installing external heating systems. N/A
5. Disposal facilities for plant effluent discharged into navigable waters are observed frequently for indication of possible upsets which may cause an oil spill event. N/A

C. Facility Transfer Operations, Pumping, and In-plant Process

1. Corrosion protection for buried pipelines:
 - (a) Pipelines are wrapped and coated to reduce corrosion. Yes
 - (b) Cathodic protection is provided for pipelines if determined necessary by electrolytic testing Yes
 - (c) When a pipeline section is exposed, it is examined and corrective action taken as necessary: Yes
2. Pipeline terminal connections are capped or blank-flanged and marked if the pipeline is not in service or on standby service for extended. Yes
Describe criteria for determining when to cap or blank-flange: Buried lines containing oil or oil products have been eliminated except where absolutely necessary such as road or dike crossings. All abandoned lines are plugged or capped.
3. Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction. Yes
Describe pipe support design: Supports are steel and concrete structures of various shapes. Shoes are provided on process piping. Fireproofing has been applied to some critical, vertical steel members.
4. Describe procedures for regularly examining all above-ground valves and pipelines (including flange joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces): Daily visual inspections are done by plant personnel.
5. Describe procedures for warning vehicles entering the facility to avoid damaging above-ground piping: A rigid permitting procedure is followed to authorize vehicles in the refinery. Where possible, roads cross over pipes. Overhead piperacks in traffic areas are very high to allow clearance for all types of vehicles. Contractors are given careful safety instructions before they are allowed in the refinery.

SPCC PLAN, BLOOMFIELD REFINING COMPANY
PART 2, ALTERNATE A, DESIGN AND OPERATING INFORMATION
Page 4 of 5

D. Facility Tank Car & Tank Truck Loading/Unloading Rack
Tank car and tank truck loading/unloading occurs at the facility. (If YES, complete 1 through 5 below.) Yes

1. Loading/unloading procedures meet the minimum requirements and regulations of the Department of Transportation. Yes

2. The unloading area has a quick drainage system. Yes

3. The containment system will hold the maximum capacity of any single compartment of a tank truck loaded/unloaded in the plant. Yes

Describe containment system design, construction materials, and volume: The truck product loading area controls spills with a concrete slab and curbing. The slab is designed to drain spills to a sump which is then pumped to Tank 22 from which the material is blended back into leaded gasoline or other appropriate product. The truck crude unloading area controls spills with a concrete slab and curbing. The slab is designed to drain spills to a sump which can then be pumped to the crude treating tanks or the API separator. Both areas have secondary containment (earthen dikes) in the event of sump overfilling. Overflow, automatic shutoffs are required on trucks.

4. An interlocked warning light, a physical barrier system, or, warning signs are provided in loading/unloading areas to prevent vehicular departure before disconnect of transfer lines. Yes

Describe methods, procedures, and/or equipment used to prevent premature vehicular departure: Warning and instruction signs are provided in the area. New drivers are trained in the proper operation of the loading/unloading equipment. Company personnel (other than truck drivers) are present in the area to provide assistance when needed.

5. Drains and outlets on tank trucks and tank cars are checked for leakage before loading/unloading or departure. Yes

The facility does not have any rail operations.

F. Security

1. Plants handling, processing, or storing oil are fenced. Yes
2. Entrance gates are locked and/or guarded when the plant is unattended or not in production. Yes
3. Any valves which permit direct outward flow of a tank's contents are locked closed when in non-operating or standby status. No
4. Starter controls on all oil pumps in non-operating or standby status are:
 - (a) locked in the off position; No
 - (b) located at site accessible only to authorized personnel. Yes
5. Discussion of items 1 through 4 as appropriate: The refinery is operated on a 24-hour basis with all valves operated by trained, authorized personnel. The valves associated with the piping between process areas and tankage are part of a closed piping system. Water draw-off piping is routed to tank sumps. The valves for water draw-offs are operated only by authorized personnel and are attended constantly when in operation. These valves are also located inside the tank secondary containment. If piping is disconnected for maintenance reasons, blind flanges are bolted to the valves.
6. Discussion of the lighting around the facility: The refinery is equipped with extensive lighting, adequate for a 24 hour per day operation. The tankfarm is not lighted in many areas but emergency mobil lighting is available.

BLOOMFIELD REFINING COMPANY
STORM WATER POLLUTION PREVENTION PLAN

TABLE OF CONTENTS

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U.S. Environment. Protection Agency
National Pollutant Discharge Elimination System (NPDES)
S T O R M W A T E R G E N E R A L P E R M I T C O V E R A G E N O T I C E

December 31, 1992

Dear Operator:

Your Notice of Intent (NOI) for the facility noted below has been processed by the U.S. Environmental Protection Agency. This facility is authorized to discharge storm water associated with industrial or construction activity under the terms and conditions imposed by EPA's NPDES storm water general permit issued for use in the state of New Mexico. Your facility's NPDES storm water permit number is NMR00A013.

EPA's storm water general permit requires certain storm water pollution prevention and control measures, possible monitoring and reporting, and annual inspections. Among the conditions and requirements of this permit, you must prepare and implement a pollution prevention plan (PPP) that is tailored to your industrial or construction site. Enclosed is a summary guidance document designed to assist you in the development and implementation of your PPP. The summary is organized according to the phases of the pollution prevention planning process. A set of worksheets and an example of a pollution prevention plan are provided for your assistance. As a facility authorized to discharge under this storm water general permit, all terms and conditions must be complied with to maintain coverage and avoid possible penalties.

FACILITY:

Bloomfield Refining Company
No 50 County Rd 4990
Bloomfield, NM 87413-
364150, 1075820

OPERATOR:

Bloomfield Refining Company
Po Box 159
Bloomfield, NM 87413-

If you have general questions concerning the storm water program, or need to obtain a copy of the permit, please call the Storm Water Hotline at (703) 821-4823.

BLOOMFIELD REFINING COMPANY

STORM WATER POLLUTION PREVENTION PLAN

1.0 General Information

1.1 Name of facility: **Bloomfield Refining Company**

1.2 Type of facility: **Onshore Facility - Petroleum Refinery**

1.3 Location of facility: **#50 County Road 4990
Bloomfield, New Mexico 87413**

**Near latitude: 36°41'50"
longitude: 107°58'20"**

1.4 Name and address of owner and operator:

**Name : Bloomfield Refining Company
Address: P.O. Box 159
Bloomfield, New Mexico 87413**

1.5 Operating schedule: **24 hours per day, 365 days per year**

1.6 Number of employees: **130**

1.7 Average waste water discharge: **Zero (0)**

1.8 Emergency contact: **Jim Stiffler
Safety Manager**

**Randy Schmaltz
Safety Supervisor**

1.9 Emergency phone: **(505) 632-8013**

1.10 NPDES storm water permit number: **NMR00A013**

MANAGEMENT APPROVAL

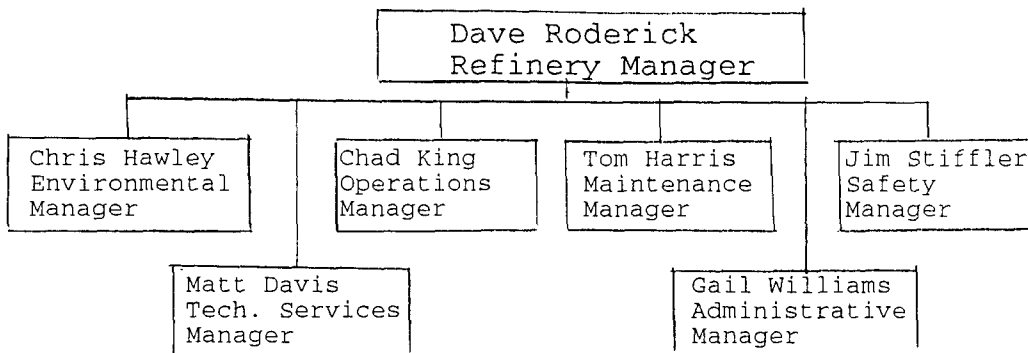
This storm water pollution prevention plan will be implemented as herein described.

Signature: 

Name: **David Roderick**

Title: **Refinery Manager**

POLLUTION PREVENTION TEAM
ORGANIZATIONAL CHART



Pollution Prevention Team Responsibilities

- Dave Roderick: As refinery manager, has signatory authority; establishes pollution prevention policy; and approves budgets. Leader of the pollution prevention team.
- Chris Hawley: Environmental manager; has record keeping responsibility; maintains agency correspondence; audits the activities of others on the team.
- Chad King: Operations Manager; responsible for good housekeeping in the operational areas; responsible for spill prevention and control; responsible for identifying potential releases that may contribute to storm water pollution.
- Tom Harris: Maintenance Manager; responsible for providing manpower for cleanup and prevention activities; oversees preventative maintenance.
- Jim Stiffler: Safety Manager; responsible for overall training activities; emergency coordinator.
- Matt Davis: Technical Services Manager; responsible for new projects requiring engineering; responsible for laboratory operations; responsible for troubleshooting potential release sources that could contribute to storm water pollution; responsible for improving the overall operation of the refinery.
- Gail Williams: Administrative Manager; responsible for good housekeeping in the office and parking areas.

2.0 Other Environmental Management Plans

2.1 Ground Water Discharge Plan (GW-1)

Bloomfield Refining Company (BRC) has an approved plan administered by the New Mexico Oil Conservation Division (OCD) to control discharges, inadvertent as well as intentional, that have the potential to move directly or indirectly into the ground water. Under the plan, BRC has implemented procedures to guard against leaks or spills, to contain and to remove any spilled or leaked substances, or to mitigate the damage caused by the discharge such that ground water is protected, or movement into surface waters is prevented.

The plan, which was last renewed on June 7, 1989 for a five year period, is a strong pollution prevention plan. A storm water pollution prevention plan will overlap substantially with the ground water discharge plan.

2.2 Spill Prevention Control and Countermeasure Plan

BRC has a comprehensive program to minimize the possibility of a spill occurring with the potential to reach the San Juan River. A rigorous tank and piping inspection and repair program has been implemented to meet the requirements of the SPCC plan and other environmental and health protection plans. Facility drainage, which relates to a significant degree with storm water run-off, is addressed in the plan. An Emergency Response Plan is included with the SPCC plan.

2.3 RCRA Interim Status (Part B Pending)

BRC operates a portion of its waste water treatment system in accordance with strict RCRA regulations. These requirements essentially eliminate the possibility of hazardous waste or hazardous waste constituents contributing to the pollution of storm water run-off.

2.4 Zero Discharge Policy

BRC has no direct discharges of waste water to any receiving streams and minimal, if any, indirect discharges. Waste water is currently disposed by evaporation. BRC does not discharge to any POTWs.

3.0 Storm Water Run-off Pollution Assessment

3.1 Site Map

A site map has been developed and is included behind the drawings section of this report.

3.2 Materials Inventory

A materials inventory is included behind the materials section of this report.

3.2.1 Materials Exposed to Storm Water

Materials with the potential to be exposed to storm water at the site include products, intermediates, and some processing chemicals. This would primarily be rainwater falling upon contained and minor spills and/or leaked materials.

3.2.2 Spill (Storm Water Pollution) Control Measures

Drummed Chemicals

Drummed chemicals in the warehouse area are stored in a specially designed storage shed equipped with a cover to keep storm water off and concrete paving with curbs and containment to control any leaks.

Products and Intermediates

All products and intermediates produced at BRC are stored in tanks that are protected from contributing to storm water pollution by the use of dikes (see the SPCC plan included herewith).

Product Sales and Trucked Crude Receiving

The product sales and crude receiving terminals are equipped with curbed, concrete paving and collection sumps to collect any spills that may occur. Sumps are equipped with secondary berms to contain any spill that may exceed sump capacity.

Processing Areas

All refinery processing areas are equipped with curbed, concrete paving to direct any storm water that lands in the process areas to the refinery waste water system.

Areas Peripheral to Process Areas

Storm water drains are located adjacent to the process areas to direct any storm water that falls in these high activity areas to the refinery waste water system.

On-site Disposal Areas

Non-hazardous FCC fines are disposed on-site in a landfill. Runoff from storm water is controlled by dikes and landfill location on property with no run-off.

Hazardous Waste Storage

Hazardous waste awaiting off-site disposal is stored inside a building that is equipped with a concrete floor and sump.

Wastewater Treatment

The refinery operates a wastewater treatment system that combines storm water and process waste water. All process sewers and storm water sewers are routed to an oil/water separator. Oil is recovered to two crude tanks that are protected with a concrete pad and retaining wall. Water is treated in a series of three small, lined aeration ponds and then sent to downstream ponds for evaporation. Waste water is kept from entering storm water run-off by freeboard control and dikes. No waste water or captured storm water is discharged from the refinery.

Boiler and Cooling Tower Treatment Chemicals

Chemicals used for treatment of water and used in bulk are purchased in returnable, stainless steel totes that have very little potential for leakage. Secondly, these chemicals are enclosed in sheds or buildings on concrete pads at their place of use.

Other Chemicals in Process Areas

1,1,1-Trichloroethane and methanol, stored in drums in the reformer area, are located on a non-draining curbed concrete pad.

JP-4 additives are kept on a concrete pad between tanks 3 and 4 as well as being inside the tank dikes.

Spent caustic is stored in a tank that is located on a concrete pad with a concrete retaining wall. Transfer pumps are located inside the concrete retaining wall.

Diesel day tanks are stored on a curbed, concrete pad with a drain to the refinery waste water system.

Product additives at the terminals are located on concrete pads inside a bermed area that has no run-off potential.

3.3 Past Spills and Leaks

BRC has had no reportable quantity discharges as relates to CERCLA or the Clean Water Act. Spills, contained on site but reportable to the New Mexico Oil Conservation Division, for the last three years are listed as follows:

February 4, 1993 Spilled approximately 45 barrels of reformat inside the tank dike at tank 5.

March 18, 1991 Spilled approximately 180 barrels of Jet A (kerosene) inside the tank dike at tank 26.

3.4 Non-Storm Water Discharges

BRC does not have the potential for non-storm water discharges except for a release as a result of a dike failure or other such catastrophic failure (see SPCC plan included herewith). The arid climate in the area and the sandy soils make it nearly impossible for any small waste water streams, if there were any, to reach the river without storm water transport.

3.5 Existing Monitoring Data

BRC is located in a relatively arid area with average annual rainfall of about 9" per year. Storm water samples are difficult to obtain. BRC also only has one area with any significant potential for storm water runoff. This area is located on the south side of the facility adjacent to Sullivan Road (see Site Map). The area includes parking, access to the burner fuel sales rack, and maintenance activities. Runoff from the area will enter the ditch along Sullivan Road, run west in the ditch, and eventually drain to the San Juan River somewhere west of the refinery property. In general, the runoff from this area is sheet flow.

On August 14, 1992 a composite sample was obtained from runoff from this area during a 24 hour storm event that totaled 0.73 inches. The composite was obtained from several small drainage points that developed along the property. The results were as follows:

Lab pH (s.u.).....	7.36
Total Suspended Solids, mg/L.....	592
Total Phosphorus, mg/L.....	0.60
Sulfide as H ₂ S, mg/L.....	5.71
Nitrate, mg/L.....	0.24
Nitrite, mg/L.....	<0.02
Total Kjeldahl Nitrogen, mg/L.....	1.06
Ammonia, mg/L.....	0.16
Phenols, mg/L.....	0.97

Oil and Grease (IR), mg/L.....	6.0
Biological Oxygen Demand, mg/L.....	8.6
Chemical Oxygen Demand, mg/L.....	200
Total Chromium (Cr), mg/L.....	0.03
Total Hexavalent Chromium (Cr7), mg/L..	0.02

3.5 Section 313 chemicals

BRC utilizes drainage control to prevent storm water run-off from coming into contact with significant sources of Section 313 priority pollutants.

3.6 Site Evaluation Summary

BRC has the potential to cause contamination of storm water but very little potential to cause any significant contamination of storm water runoff. The majority of storm water that falls on the site is collected into the zero discharge waste water treatment system or contained on site. No areas are identified with a high potential to contaminate storm water that may leave the site in runoff.

In general, the storm water run-off pollution assessment has revealed that Bloomfield Refining Company already has implemented a comprehensive storm water pollution prevention policy. The results of this policy are detailed in the following section 4.0.

4.0 Best Management Practices (Selection and Implementation)

4.1 Good Housekeeping

4.1.1 Requirement

BRC shall implement good housekeeping practices for the facility.

4.1.2 Status of Implementation

Material storage practices have been improved with:

- a. Complete cleanup of north and south boneyards including removal of all insulation. This was completed in July, 1987. Boneyards have been kept clean since then.
- b. All old and unused chemicals in drums were identified and properly disposed in October 1990 in conjunction with the refinery's conversion to a bulk chemical system. The bulk chemical system conversion was completed in December, 1990. The bulk chemical system, in which various treatment chemicals would be purchased in returnable stainless steel totes, substantially reduced the number of empty drums generated. A comprehensive drum tracking system, in which drums are tracked from receipt to disposal, has been in use since 1984. A drum storage shed was constructed in April 1988 for the warehouse yard that totally protects the drums and any potential leaks or spilled materials from storm water runoff contact. Material storage in the process areas has also been upgraded with concrete pads and curbs to control leaks and spills.
- c. A chemical labeling system is in effect according to OSHA requirements. An up-to-date material inventory is routine in refinery operations. A complete year-end inventory is included herewith.
- d. Operations are divided into areas with assigned housekeeping responsibilities.
- e. The operation and maintenance of industrial machinery and processes is constantly being improved through the efforts of assigned personnel.
- f. Well-organized work areas are maintained.
- g. Employees are trained in good housekeeping practices. A waste minimization policy was implemented in February, 1988.

4.1.3 Future Implementation

BRC shall continue with current practices and improve on them.

4.2 Preventive Maintenance and Visual Inspections

4.2.1 Requirement

BRC shall implement a preventive maintenance program.

4.2.2 Status of Implementation

The preventative maintenance program at the refinery is very extensive. Best management practices implemented include:

- a. The refinery tankage was equipped with a cathodic protection system in October, 1988.
- b. A systematic inspection/repair program for facility tank storage was implemented in December, 1987.
- c. The entire refinery is inspected in accordance with normal refinery practices that are more than adequate to meet the requirements of storm water pollution prevention.

4.2.3 Future Implementation

The programs in place at BRC meet the requirements of BMP for preventative maintenance and visual inspections.

4.3 Spill Prevention and Response

BRC has implemented BMP for spill prevention and responses. A copy of the SPCC plan is included herewith.

4.4 Sediment and Erosion Control

BRC has implemented BMP for sediment and erosion control. This includes paving, diking, and drainage direction control or elimination.

4.5 Management of Runoff

BRC controls storm water by preventing runoff from areas with the potential to cause significant pollution of storm water. These controls are marked on the attached drawings. Some minor grading, and/or diking improvements in a couple of areas of the refinery will eliminate all storm water runoff.

5.0 Stormwater Pollution Prevention Deadlines

5.1 Drainage to North

During the initial inspection of the facility, it was determined that some stormwater runoff could exit the facility to the north along the EPNG pipeline right-of-way and drain into two small ponds used to contain this runoff. Dikes were installed to keep this runoff out of these ponds. The runoff is evaporated in the diked area. This project was completed in August, 1993.

5.2 Elimination of Unlined Evaporation Ponds & Spray Irrigation

The facility is eliminating all unlined evaporation ponds and the use of spray irrigation for the disposal of refinery wastewater. This will eliminate the possibility of any refinery wastewater entering stormwater runoff from the eliminated facilities. A Class 1 underground injection well will replace these facilities by June 7, 1994.

5.3 Drainage to South

An area located on the south side of the facility adjacent to Sullivan Road (see Site Map) has potential to contribute to stormwater runoff. This area will be leveled and diked by December 31, 1995.

SAN JUAN PIPE LINE
SPILL RESPONSE GUIDE

INFORMATION SUMMARY

Name of Pipeline Operator: Bloomfield Refining Company
P. O. Box 159
Bloomfield, NM 87413

Comments: Bloomfield Refining Company operates the pipeline as an associated activity to the refining operations. Although specific individuals are assigned to the pipeline operation, Bloomfield Refining Company will commit resources as necessary to assist in a pipeline emergency response. The response plan written specific to the refining operations (included elsewhere in this submittal) should be considered applicable to the pipeline response where appropriate.

Name of Response Zone: San Juan Pipeline, San Juan County,
New Mexico

Name, Address, and Telephone Numbers of Qualified Individual:

Ron Weaver
P. O. Box 159
Bloomfield, New Mexico 87413

Business: (505) 632-8013 (24-hr)
(505) 632-3377

Home: (505) 632-5971

Description of Response Zone: San Juan County, New Mexico
6 5/8" M/L.

INFORMATION SUMMARY
LINE SEGMENT IDENTIFICATION

Name of Response Zone: San Juan County, New Mexico

Name of Pipeline or Pipeline System: San Juan Pipe Line

Line Section (include m.p. or gathering district)	Counties & States	Does line section pose significant & substantial harm? If yes, note code(s) below.
San Juan County, New Mexico	From San Juan County Township 26N Sec.17 to township 29N Sec.27 SJPL 6 5/8" M/L	Yes (3)

Codes:

- (1)--spill greater than 1,000 bbls within past five years.
- (2)--has experienced two or more DOT reportable releases within previous five years.
- (3)--contains pre-1970 ERW pipe and operates above 50% SMYS
- (4)--located within a five mile radius of public drinking water and can potentially be able to reach.
- (5)--located within a one-mile radius of potentially affected environmentally sensitive areas, and could reasonably be expected to reach these areas.

WORST CASE DISCHARGE

Name of Response Zone: San Juan County, New Mexico

Volume of Worst Case Discharge (bbls): 671.32

Location of Worst Case Discharge: Sec.20 TWP.28N Rg.11W

Type of Oil: Sweet Crude Oil

Method Used To Determine Worst Case Discharge:

Method: Line Volume

RESPONSE RESOURCES
TRAINED COMPANY PERSONNEL

As of January 1, 1993, the San Juan Pipe Line - New Mexico Area Response Zone has a total of:

3 Personnel

In Addition, this response zone can access additional trained company personnel, as needed, from Bloomfield Refining personnel.

BLOOMFIELD REFINING COMPANY
EQUIPMENT LIST

1. 18 TON CHERRY-PICKER
2. JOHN DEERE 410 BACKHOE
3. 80 BBL. VACUUM TRUCK
4. 7 1/2 TON CARRY DECK CRANE
5. 2 TON WINCH TRUCK
6. PORTABLE GASOLINE AIR COMPRESSOR
7. 3M OIL ABSORBENT BLANKETS
8. MISCELLANEOUS HAND TOOLS

OIL RESPONSE ORGANIZATIONS

Name of Response Zone: San Juan Pipe Line, San Juan County, New Mexico

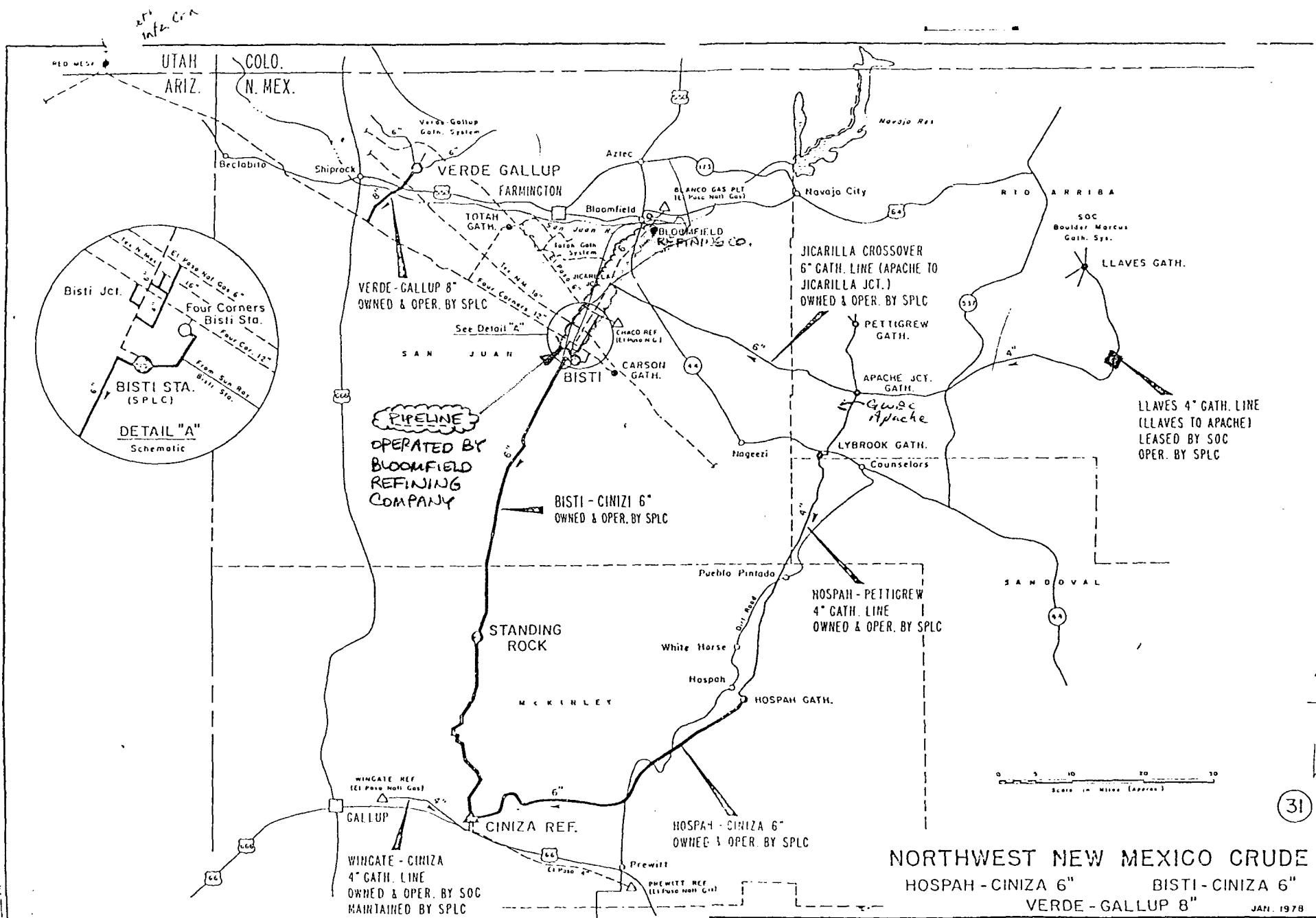
PIPELINE CONTRACTORS	PHONE NUMBER
Flint Engineering & Construction Co. Farmington, New Mexico	505-325-5081
Four Way Company, Inc. Farmington, New Mexico	505-327-0401
W & C Contracting, Inc. Farmington, New Mexico	505-325-3712
Ray L. Atchison Construction Co., Inc. Aztec, New Mexico	505-327-6276
Ralph W. Miller, Inc. Farmington, New Mexico	505-325-3609
Mo-Te, Inc. Farmington, New Mexico	505-325-1666
Trio Construction Company Farmington, New Mexico	505-325-8801
Foutz & Bursum Construction Company Inc. Farmington, New Mexico	505-325-2413

OIL RESPONSE ORGANIZATIONS

VACUUM TRUCKS

Chief Transport Company	Office	505-325-2396
Farmington, New Mexico	Shop	505-325-1845
Triple S Trucking Company		
Aztec, New Mexico		505-334-6193

NOTE: The Vacuum Trucks Range from 80 BBL. to 120 BBL. Tanks.



San Juan Pipeline Emergency Notification Requirements

Almost any emergency resulting in the release or potential release of oil into the environment will require some sort of notification to Federal and/or State governmental agencies. In most cases an initial verbal notification needs to be made as soon as possible (as soon as the responsible person can free himself from the demands of the emergency but no later than 24 hours).

Be prepared to report your name, address, telephone number; identity, location, and nature of spill; identity of pipeline; nature of injuries or property damage; other relevant circumstances; and correction actions taken.

There is never a penalty for unnecessarily reporting a spill.

Did spill enter or threaten to enter waterway (San Juan River, Hammond Ditch)? If yes, immediately call

National Response Center
(800) 424-8802

and

New Mexico Oil Conservation Division, Aztec.....(505) 334-6178
New Mexico Oil Conservation Division, Santa Fe.....(505) 827-5885
New Mexico Surface Water Bureau.....(505) 827-2793

If spill did not enter or threaten to enter a waterway, report the spill to the New Mexico Oil Conservation Division and other State offices as appropriate.

Did spill enter or threaten ground water? If yes, immediately call above State offices and

New Mexico Ground Water Bureau.....(505) 827-2900

Since crude is potentially a hazardous waste, also call

New Mexico Hazardous Waste Bureau.....(505) 827-4358

If spill is to Hammond Ditch, notification should also be made to the Hammond Ditch operator

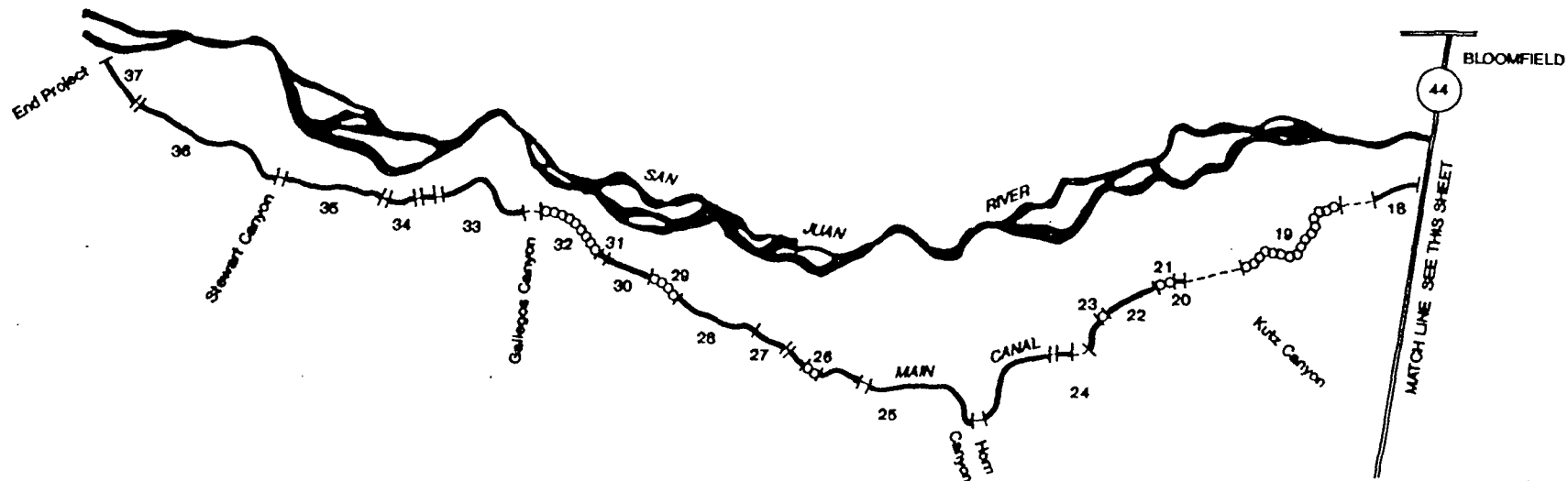
Hammond Conservancy District.....(505) 632-3043

If spill is on Navajo Nation land, also notify

Navajo Nation Fire & Rescue Services.....(602) 871-6111

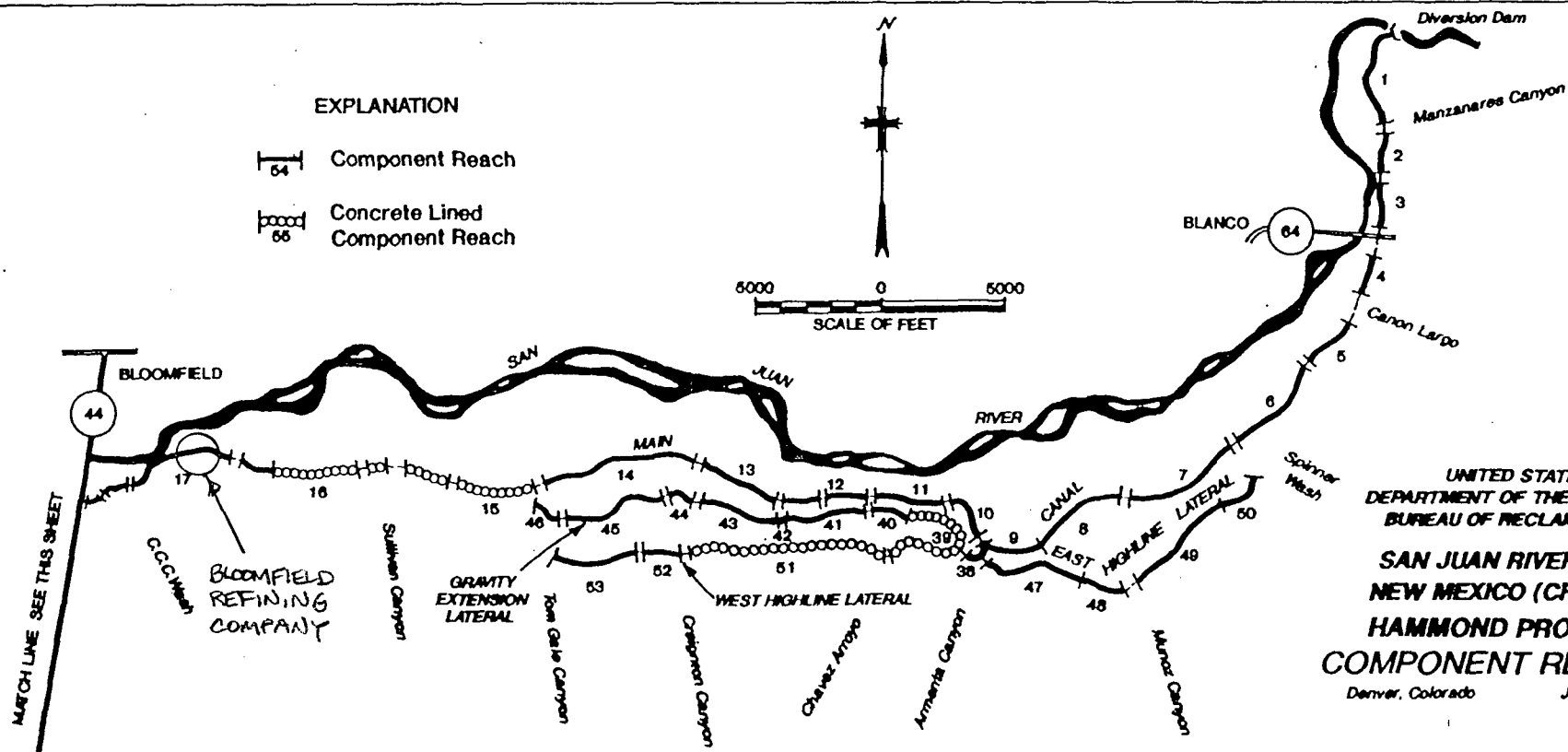
If spill is on public land, also notify

United States Bureau of Land Management.....(505) 327-5344



EXPLANATION

- Component Reach
- Concrete Lined Component Reach



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

**SAN JUAN RIVER UNIT,
NEW MEXICO (CRWQP)**

**HAMMOND PROJECT
COMPONENT REACHES**

Denver, Colorado January 1982

ATTACHMENT E-1 --
WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES
FOR WORST CASE DISCHARGE

CRUDE OIL; GROUP 2

Part I Background Information API° = 43 TO 45, SPECIFIC GRAVITY = 0.81 TO 0.86

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) 110,000
(A)

Step (B) Oil Group¹ (Table 3 and section 1.2 of this appendix) 2

Step (C) Operating Area (choose one) ☐ Nearshore/Inland Great Lakes ☒ or Rivers and Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to
Natural Dissipation

40

(D1)

Percent Recovered
Floating Oil

15

(D2)

Percent
Oil Onshore

45

(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2)} \times \text{Step (A)}}{100}$ 16,500
(E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3)} \times \text{Step (A)}}{100}$. . . 49,500
(E2)

Step (F) Emulsification Factor
(Table 3 of this appendix) 1.8
(F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor
(Table 4 of this appendix)

Tier 1

0.30

(G1)

Tier 2

0.40

(G2)

Tier 3

0.60

(G3)

¹ A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

NOTE: GROUPS HEAVIER THAN CRUDE OIL (BURNER FUEL & REDUCED CRUDE) ARE LESS THAN 10% BY VOLUME OF TOTAL OIL STORAGE CAPACITY. ALL OTHER PRODUCTS ARE IN GROUP 1.

ATTACHMENT E-1 (CONTINUED) --
WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES
FOR WORST CASE DISCHARGE

CRUDE OIL; Group 2

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
8,910	11,880	17,820
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels)

89,100

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
1,500	3,000	6,000
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
7,410	8,880	11,820
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

ATTACHMENT E-1 --
WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES
FOR WORST CASE DISCHARGE

GROUP 1 INTERMEDIATE

Part I Background Information LARGEST TANK = 55,000 BARRELS

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) 55,000 *
(A)

Step (B) Oil Group¹ (Table 3 and section 1.2 of this appendix) 1

Step (C) Operating Area (choose one) ☐ Nearshore/Inland Great Lakes ☒ or Rivers and Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to
Natural Dissipation

80

(D1)

Percent Recovered
Floating Oil

10

(D2)

Percent
Oil Onshore

10

(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2)} \times \text{Step (A)}}{100}$ 5,500
(E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3)} \times \text{Step (A)}}{100}$. . 5,500
(E2)

Step (F) Emulsification Factor
(Table 3 of this appendix) 1.0
(F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor
(Table 4 of this appendix)

Tier 1

0.30

(G1)

Tier 2

0.40

(G2)

Tier 3

0.60

(G3)

¹ A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

* BASED ON THE OBVIOUS, THIS TANK CAPACITY SHOULD
BE USED TO CALCULATE THE WORST CASE DISCHARGE

ATTACHMENT E-1 (CONTINUED) --
WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES
FOR WORST CASE DISCHARGE

Group 1

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
1,650	2,200	3,300
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels)

5,500
Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
1,500	3,000	6,000
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
150	0	0
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

HAMMOND DITCH VELOCITY

MEASURED AT 0.76 TO 1.53 FT/SEC.

DEPTH: 2.5' TO 4'

UPSTREAM DIVERSION: SULLIVAN SPILLWAY

: 4 MILES UPSTREAM FROM BPC

TOTAL LENGTH: 27 MILES

DOWNSTREAM LENGTH: 12 MILES

CAPACITY OF DITCH: 90 CFS AT HEADWORKS

5 CFS AT TERMINUS

USE: 1.53 FT/SEC FOR WORST CASE

SERVICE ROAD FOR ACCESS

TIME FOR OIL TO REACH SPILLBACK

$$\frac{12 \text{ MILES} \times 5280 \text{ FT/MILE}}{1.53 \text{ FT/SEC}} = 41,412 \text{ SEC.} = \boxed{11.5 \text{ HOURS}}$$

CALCULATION OF SAN JUAN RIVER VELOCITY

$$V = 1.5/n \times r^{2/3} \times S^{1/2}$$

$$n = 0.05$$

mid-channel depth during high flow = 3 ft.

$$r = 3 \times 0.667 = 2$$

Elevations: Navajo 5653

Bloomfield 5415

Farmington 5230

Distance: Navajo to Farmington = 30 miles

$$S = \frac{(5653 - 5230)'}{30 \text{ mi.}} \times \frac{1 \text{ mi}}{5280'} = 0.00267$$

$$V = \frac{1.5}{0.05} \times 2^{2/3} \times 0.00267^{1/2}$$

$$V = 30 \times 1.5874 \times 0.0517 = 2.46 \text{ FT/SEC}$$

USE 2.5 FT/SEC. FOR WORST CASE

NOTE: SJ RIVER MEASURED AT BRC, LOW FLOWS 0.64 TO 2.65 FT/SEC

RIVER WIDTH AT BRC $\approx$ 150 FT.

DISTANCE TO FARMINGTON = 13 MILES

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CALCULATION OF PLANNING DISTANCE

SAN JUAN RIVER

$$d = V \times t \times C$$

$$V = 2.5 \text{ FT/SEC}$$

$$t = 27 \text{ HOURS FROM TABLE 3}$$

$$C = 0.68 \text{ SEC.mile/hr.ft}$$

$$d = 45.9 \text{ MILES}$$

HAMMOND DITCH

$$d = V \times t \times C$$

$$V = 1.53 \text{ FT/SEC}$$

$$t = 27 \text{ HOURS}$$

$$C = 0.68 \text{ SEC.mile/hr.ft.}$$

$$d = 28 \text{ MILES}$$