
MAGELLAN
MIDSTREAM PARTNERS, L.P.
Central District
Spill Response Plan Pipelines
Developed by:


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Central District
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Developed by:
TRP
TECHNICAL RESPONSE PLANNING
CORPORATION
9720 Cypresswood Drive #340 · Houston, Texas 77070 USA · Tel: 281-955-9600 · Fax: 281-955-0369 · info@trpcorp.com · www.trpcorp.com

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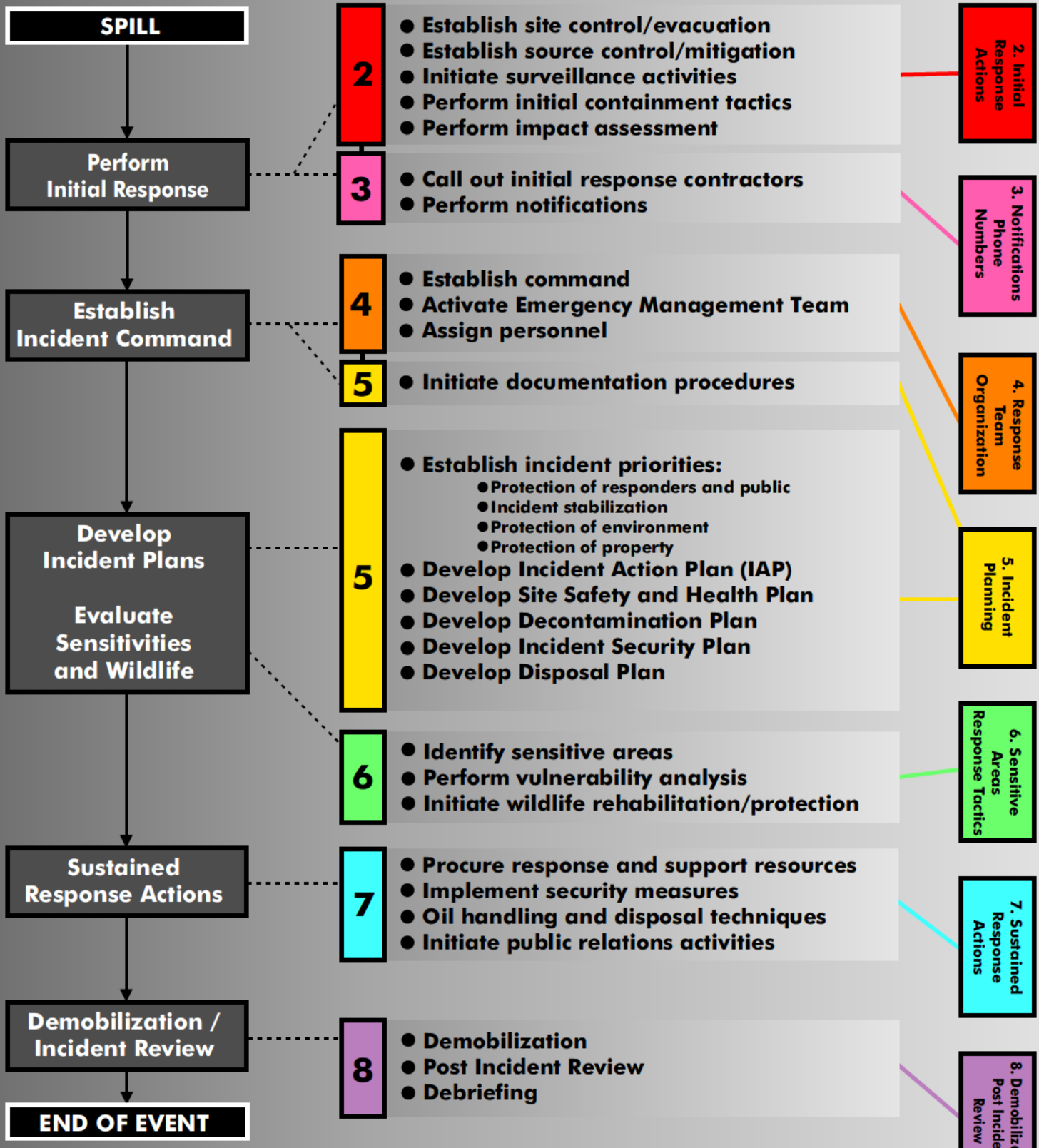
Response Procedures Flow Chart



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SECTION 1
INTRODUCTION

Last revised: May 20, 2013

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FIGURE 1-1 - RECORD OF CHANGES

Changes to this Plan will be documented on this page. Plan review and modifications will be initiated and coordinated by the Environmental, Health, Safety, and Security Department (EHS&S) in conjunction with the Area Supervisor/Manager of Operations.

DATE OF CHANGE	DESCRIPTION OF CHANGE	PAGE NUMBER
11/30/2006	2006 Edition Published	
10/10/2009	October, 2009 version submitted to PHMSA	
3/15/2010	2010 Edition Published	
9/24/2010	Added new line sections and new sensitivity maps to reflect newly acquired pipelines	
3/1/2011	Published 2011 Updates of Sections 1,3,6,B and C	
7/30/2013	2013 Edition Released. Includes moving seveal Kansas City lines and the Kansas City terminal to the renamed Central District along with the entire TCS line. Several OSROs added since the last edition. Section 2 - Emergency response actions has been extensively modified, including sections on Air monitoring, first aid, fire fighting, H2S, HVL, Earthquake. In Section 4, ICS titles were amended to be NIMS compliant. Section 4 was amended to include a large response organization chart. Section 5 was amended to include the planning cycle and planning "P". Special access locations were added to Section 6 and in 2013, Tactical sites were added.	

FIGURE 1-2 - DISTRIBUTION LIST

Paper copies of this plan are issued to each operations supervisor and are also located at each manned facility. Compact Disk copies of this plan are located at unmanned facilities. Online versions of the plan is available to all employees with computer access.

PLAN HOLDER	ADDRESS	NUMBER OF COPIES		INITIAL DISTRIBUTION DATE
		PAPER	ELECTRONIC	

Manager of Operations Control	One Williams Center, MD 30 Tulsa, OK 74172	0	1	April, 2010
Manager of Operations Central District	P.O. Box 22186 One Williams Center Tulsa, OK 74172	1	0	April, 2010
Response Plans Officer, Pipeline and Hazardous Material Safety	U.S. Department of Transportation 1200 New Jersey Ave SE., Room E22-210 Washington, DC 20590	0	2	April, 2010
Supervisor, Carthage Area	One Williams Center P.O. Box 3102 Tulsa, OK 74172	1	0	April, 2010
Supervisor, Asset Integrity	401 E. Donovan Rd. Kansas City, KS 66115	1	0	April, 2010
Supervisor, Tulsa Area	2120 S 33rd West Ave Tulsa, OK 74107	1	0	April, 2010
Supervisor	2725 Central Airport Rd. North Little Rock , AR 72117	1	0	April, 2010
Supervisor, North Oklahoma Area	2919 S Linwood Cushing, OK 74023	1	0	April, 2010
Supervisor, Asset Integrity	2120 S. 33rd West Avenue Tulsa, OK 74107	1	0	April, 2010
Operations Supervisor West Tulsa Terminal	2120 S 33rd West Avenue Tulsa , Ok 74107	1	0	April, 2010
Ops & Maint Coordinator NE - Asset Integrity	251 N. Sunnylane Rd. Oklahoma City, OK 73117	1	0	April, 2010
Cushing Supervisors	2919 South Linwood Avenue Cushing, OK 74023	2	2	April, 2011
Supervisor - West Tulsa	2120 S. 33rd West Avenue Tulsa, OK 74107	1	1	April, 2011
Supervisor, Kansas City Area	401 E. Donovan Rd. Kansas City, KS 66115	0	0	
Operations Supervisor, Kansas City Terminal	401 E. Donovan Rd. Kansas City, Kansas 66115	0	0	
Supervisor, Columbia Area	5531 Hwy 63 South Columbia, MO 65201	0	0	
Operations	2725 Central Airport	1	0	April, 2010

Supervisor	Road North Little Rock, Arkansas 72117			
Environmental Specialist	13424 W. 98th Street Shawnee Mission, KS 66215	0	0	
Central District Environmental Specialist	One Williams Center, MD 29 Tulsa, OK 74172	1	0	April, 2010
Emergency Response Coordinator	One Williams Center, MD 29 Tulsa, OK 74172	1	0	April, 2010

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		PAPER	ELECTRONIC	
Ops & Maint Coordinator - Asset Integrity	3990 South Union Ponca City, OK 74601	1	0	April, 2010
Ops & Maint Coordinator NE - Asset Integrity	1309 Sunset Road El Dorado, KS 67042	1	0	April, 2010
Fort Smith Terminal	8101 Highway 71 South Fort Smith, AR 72903	1	0	April, 2010
Columbia Terminal	5531 Highway 63 South Columbia, MO 65201	0	0	
Springfield Terminal	3132 State Highway MM Brookline, MO 65619	1	0	April, 2010
Olathe Terminal	13745 W. 135th Street Olathe, KS 66062	0	0	
Kansas City Terminal	401 E. Donovan Road Kansas City, KS 66115	0	0	
Cushing Terminal	2919 South Linwood Avenue Cushing, Oklahoma 74023	1	1	September, 2010
Carthage Terminal	18195 County Road 138 Jasper, MO 64755	1	0	April, 2010
West Tulsa	2120 South 33rd West	1	0	April, 2010

Terminal	Avenue Tulsa, OK 74101			
Humboldt Station	450-2400 Street Humboldt, KS 66748	1	0	April, 2010
Independence Station	836 South Rosser Road Independence, KS 67301	1	0	April, 2010
Reno Avenue Terminal	251 North Sunnylane Road Oklahoma City, OK 73117	1	0	April, 2010
Allen Station	107 South Camper Road, Box 318 Allen, OK 74825	1	0	April, 2010
Barnsdall Station	2128 County Road 401 Barnsdall, OK 74002	1	0	April, 2010
Drumright Station	55200 Highway 16 Drumright, OK 74030	1	0	April, 2010
Ponca City Station	3990 South Union Ponca City, OK 74601	1	0	April, 2010
Heyworth Terminal	16490 E. 100 North Road Heyworth, IL 61745	0	0	
Palmyra Terminal	6789 County Road 312 Palmyra, MO 63461	0	0	
Bearden Station	c/o 251 N. Sunnylane Road Oklahoma City, OK 73117	0	1	April, 2010

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		PAPER	ELECTRONIC	
Enid Terminal	1401 North 30th Street Enid, OK 73701	1	0	April, 2010
St. Charles Terminal	4751 Veterans Memorial Parkway St. Peters, Missouri 63376-1654	0	0	
Riverside Terminal c/o Area	401 E. Donovan Road Kansas City, Kansas	0	0	

Supervisor	66115			
Glenpool West	13300 South Highway 75 Tulsa, OK 74101	1	0	April, 2010
Wynnewood Station	Hwy 77 Wynnewood, OK 74098	1	0	April, 2010
Paola Station	24303 W. 343rd Street Paola, KS 66701	0	1	April, 2010
Sheldon Station	c/o 18195 CR 138 Jasper, MO 64755	0	1	April, 2010
Girard Station	c/o 450-2400 Street Humboldt, KS 66748	0	1	April, 2010
Coffeyville Station	316 East 1st Street Coffeyville, KS 67331	0	1	April, 2010
Heavener Station	c/o 8101 Hwy 71 South Ft. Smith, Oklahoma 72903	0	1	April, 2010
Pickett Station	c/o 107 S. Camper Allen, OK 74825	0	1	April, 2010
Duncan Station	c/o 251 North Sunnylane Oklahoma City, OK 73117	0	1	April, 2010
Tussy Station	c/o P.O. Box 126 Wynnewood, OK 73098	0	1	April, 2010
Cushing Station	2919 South Linwood Cushing, OK 74023	0	1	April, 2010
Fairfax Station	c/o 2919 South Linwood Avenue Shidler, OK 74023	0	1	April, 2010
Luther Station	251 North Sunnylane Oklahoma City, OK 73117	0	1	April, 2010
Glenpool East Station	2120 South 33rd West Avenue Tulsa, OK 74101	0	1	April, 2010
Hardy Station	c/o 2919 South Linwood Cushing, OK 74023	0	1	September 2010
Wilmington Station c/o Area Supervisor	RR 1 HWY 63 South Columbia, MO 65205	0	0	
Mt. Vernon Station	18195 County Road 138 Jasper, MO 64755	1	0	April, 2010

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PLAN HOLDER	ADDRESS	NUMBER OF COPIES		INITIAL DISTRIBUTION DATE
		PAPER	ELECTRONIC	
Ridgeway Station	RFD 3; Box 101 Ridgeway, MO 64481	0	0	
Heritage Environmental Services (1)	15330 Canal Bank Road Lemont , IL 60439	0	1	April, 2010
Acme Products Company	2666 N. Darlington Tulsa, OK 74115	0	1	April, 2010
A-Clean	2700 S 25th W. Ave Tulsa, OK 73463	0	1	April, 2010
Heritage Environmental Services (2)	251 N. Old St. Louis Road Wood River, IL 62095	0	1	April, 2010
Heritage Environmental Services (3)	8525 Northeast 38th St. Kansas City, MO 64161	0	1	April, 2010
TAS Environmental	3929 California Pkway E. Fort Worth, TX 76119	0	1	April, 2010
Haz-Mat Response, Inc.	1203 C South Park Olathe , KS 66061	0	1	April, 2010
Heritage Environmental Services (2)	1188 Pershall Rd Bellefontaine, MO 63137	0	0	
Technical Response Planning Corporation	Access to Planning System Online Houston, TX	0	0	Online Access

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY

Owner/Operator:	Magellan Pipeline Company, L.P. P. O. Box 22186 Tulsa, OK 74121-2186
Zone Name:	Central District
Zone Mailing Address:	One Williams Center Tulsa, OK 74172
Zone Telephone/Fax:	(918) 574-7000 / (918) 574-7541

Qualified Individuals:		Home
	Jeffrey Myers Mgr Operations I 913/310-7730 (Office) (b) (6) 816/807-2477 (Mobile)	
	Kevan Heil Supv Area 913/647-8407 (Office) (b) (6) 816/769-1133 (Mobile)	
	Timothy Powers Supv Area 573/443-1619 (Office) (b) (6) 573/881-1922 (Mobile)	
	Greg Tarr Supv Asset Integrity II 913/647-8422 (Office) (b) (6) 816/223-6196 (Mobile)	
	Steven Hill Technician Sr 309/473-3031 (Office) (b) (6) 217/454-4267 (Mobile)	
	Jason Masters Supv Operations II Incident Commander 501/945-2991 (Office) (b) (6) 281/727-8691 (Mobile)	

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY

Qualified Individuals:		Home
	Buddy Cronk Supv Area Incident Commander 918/574-7602 (Office) (b) (6) 501/258-6927 (Mobile)	
	Raleigh Myers Supv Operations II Spill Management Team 918/223-1101 (Office) (Home) 918/285-6962 (Mobile)	

	James Slatten Operator USW 660/872-6417 (Office) (b) (6) 816/390-4742 (Mobile) (816) 387-0360 (Pager)	
	Ray Haworth Supv Area 918/223-1124 (Office) (b) (6) 918/625-5216 (Mobile)	
	Douglas Hammer Supv Area 405/670-2817 (Office) (b) (6) 405/620-0939 (Mobile)	
	Gregory Stratman Supv Operations II 918/233-1103 (Office) (b) (6) 918/629-1618 (Mobile)	
	Dennis Whitfield Supv Area 918/574-7483 (Office) (b) (6) 918/633-0200 (Mobile)	

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY

Qualified Individuals:		**Home**
	Mike Orr Supv Asset Integrity II 918/574-7583 (Office) (b) (6) 918/645-6456 (Mobile)	

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY, CONTINUED

Line Sections / Products Handled:(Refer to Product Characteristic and Hazards, FIGURE D.9-1)

LINE NUMBER	SECTION	LENGTH (miles)	PRODUCTS
6000	PONCA CITY - BARNSDALL #1-8"	54	Nitrogen
6005	PONCA CITY - BARNSDALL #5-12"	54	Refined petroleum products
6008	PONCA CITY - BARNSDALL #5-12" SPARE		Refined petroleum products
6010	HUMBOLDT - KANSAS CITY #1-8" - MULTI-STATUS LINE @ DISTRICT BREAK		Inactive or sold
6015	BARNSDALL - KANSAS CITY #2-8"		Multi-status/ Sold or not in use
6020	Barnsdall - Kansas City #3-8"		MP 0-32 Nitrogen, remainder Refined petroleum products
6025	Barnsdall - Kansas City #4-12"		Refined petroleum products
6030	Barnsdall - Kansas City #5-12"		Refined petroleum products
6033	BARNSDALL 4" NG PIPELINE		Natural Gas
6035	VERDIGRIS - BARNSDALL JCT. #2-8" - INACTIVE		Nitrogen
6037	TULSA - BARNSDALL #2-8"	1	Refined petroleum products
6040	NEW PERRYMAN - PUBLIC SERVICE CO. #1-10"		Refined petroleum products
6045	TULSA - BARNSDALL #4-12"	34	Refined petroleum products
6050	TULSA - BARNSDALL #1-12"	34	Refined petroleum products
6055	INDEPENDENCE - HUMBOLDT #10-10"	47	Refined petroleum products
6060	BARNSDALL - EL DORADO #7-16" Barnsdall - MP 65	94	Refined petroleum products
6065	VERDIGRIS - VERDIGRIS JCT. #1-8" -		Nitrogen
6070	TULSA - PUBLIC SERVICE #4-8" & 10"	17	Refined petroleum products
6075	PONCA CITY - ARKANSAS CITY #1-4" -		Nitrogen
6080	El Dorado - Humboldt #1-8" Humboldt - MP 50		Refined petroleum products
6085	ARKANSAS CITY - PONCA CITY #1-8" -		Nitrogen
6090	Argentine - KC #4-8"	13	Refined Petroleum Products
6095	DRUMRIGHT - TULSA #1-8"	35	Refined petroleum products
6100	CUSHING - TULSA #2-8"	44	Refined petroleum

			products
6102	Cushing - El Dorado 20" (OSAGE) Cushing - MP 75	75	CRUDE
6103	CUSHING - BOYER 8" (CIMARRON) Cushing - El Dorado	75	Crude Oil
6105	OKMULGEE - TULSA #1-6" - MP 22-TULSA NO. 1-6"		Refined petroleum products
6105	OKMULGEE - TULSA #1-6" - OKMULGEE TO MP 22 NO. 1-6" - INACTIVE		Nitrogen
6108	CIMARRON STA. TIE-IN		Refined petroleum products
6115	ENID - PONCA CITY #1-6"	46	Refined petroleum products
6120	COFFEYVILLE - INDEPENDENCE #1-8"	15	Refined petroleum products
6131	Kansas City Term - Phillips 12"	1	Refined Petroleum Products
6140	Kansas City - Fairfax Bridge Jct 6"	3	Refined Petroleum Products
6260	COFFEYVILLE - CANEY JCT. #2-8"		Refined petroleum products
6350	Olathe - Columbia #7-8"		Refined Petroleum Products
6350	Olathe - Columbia #7-8" MP 6-25 INACTIVE		Nitrogen
6351	Olathe - Columbia #7-8" Extension		Refined Petroleum Products

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY, CONTINUED

Line Sections / Products Handled:(Refer to Product Characteristic and Hazards, FIGURE D.9-1)

LINE NUMBER	SECTION	LENGTH (miles)	PRODUCTS
6355	Columbia - Palmyra #1-6"		Refined Petroleum Products
6360	Columbia - St Charles #2-8"		Refined Petroleum Products
6365	HUMBOLDT - SPRINGFIELD #6-8"	121	Refined petroleum products/ Propane
6368	CARTHAGE JCT. - CARTHAGE 8"	17	Refined petroleum products
6370	Kansas City Barge Dock 8"		Refined Petroleum Products

6408	LEANNA ROAD 4" NG PIPELINE		Nitrogen
6420	CUSHING - OK/KS ST. LINE 3-12" - TULSA JCT (MP 104) - OK/KS ST. LINE NO. 3-12"		Refined petroleum products
6420	CUSHING - OK/KS ST. LINE 3-12" - CUSHING - TULSA JCT (MP 104) NO. 3-12" - INACTIVE		Nitrogen
6424	CUSHING - OK/KS ST. LINE 3-12" SPARE - Inactive		Nitrogen
6425	OK/KS ST. LINE - KS/MO ST. LINE 3-12"	38	Refined petroleum products
6427	OK/KS ST. LINE - KS/MO ST. LINE #3-12" SPARE		Refined petroleum products
6430	KS/MO ST. LINE - MO/IL ST. LINE 3-12" - KS/MO ST. LINE - GV @ MP 307.54 NO. 3-12"		Refined petroleum products
6430	KS/MO St Line - MO/IL St Line #3-12" MP 307 to Columbia Jct.		Refined Petroleum Products
6430	KS/MO St Line - MO/IL St Line #3-12" INACTIVE		Nitrogen
6433	TCS 12" Miss. River Spare INACTIVE		Nitrogen
6435	Mo/IL St Line - Wilmington #3-12" State line -Menard INACTIVE		Nitrogen
6435	Mo/Il St. Line -Wilmington #3-12" Menard - Wilmington		Refined Petroleum Products
6440	BASIN TIE-IN - CHAMPLIN #1-8"	3	Refined petroleum products
6445	OKC - CUSHING JCT. #2-8"	55	Refined petroleum products
6447	CUSHING JCT. - CUSHING STA. #2-8"	2	Refined petroleum products
6450	TULSA - TULSA JCT. #4-12"	5	Refined petroleum products
6460	Sheldon - Mo/IL St Line #2-12" Sheldon - Columbia		Refined Petroleum Products
6460	Sheldon - Mo/IL St Line #2-12" Columbia - Mo/Il St Line INACTIVE		Nitrogen
6465	Mo-Il St Line - Heyworth #2-12" INACTIVE		Nitrogen
6467	Heyworth-Wilmington #2-12" INACTIVE		Nitrogen
6470	MOWEAQUA JCT. - MOWEAQUA 6" - Not in Use		Not in use
6474	BURNS 4" CROSSOVER CONN.		Refined petroleum products
6475	AUGUSTA - FAIRFAX WEST 6" - AUGUSTA - MP 9 - INACTIVE		Nitrogen
6475	AUGUSTA - FAIRFAX WEST 6" - MP 9 - MP 12	3	Refined petroleum products

6475	AUGUSTA - FAIRFAX WEST 6" - MP 12-FAIRFAX WEST - INACTIVE		Nitrogen
6476	BURNS 6" PIPELINE CONN.		Refined petroleum products
6477	BURNS - ENBRIDGE 8"		Refined petroleum products
6478	AUGUSTA - EL DORADO - 6TH ST. JCT. - AUGUSTA - EL DORADO		Refined petroleum products
6479	6TH ST. JCT. - EL DORADO - KANSAS CITY TIE-IN		Refined petroleum products
6490	18th Street - Riverside 8"	2.4	Refined Petroleum Products
6495	Fairfax West - KCI Airport 6"	17	Refined Petroleum Products
6495	Fairfax West - KCI Airport 6"	17	Refined Petroleum Products

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY, CONTINUED

Line Sections / Products Handled:(Refer to Product Characteristic and Hazards, FIGURE D.9-1)			
LINE NUMBER	SECTION	LENGTH (miles)	PRODUCTS
6496	Fairfax - KC - Des Moines Tie-In		Refined Petroleum Products
6497	Fairfax - KC - Des Moines Tie-In		Refined Petroleum Products
6500	ENID - OKLAHOMA CITY #1-6"	81	Refined petroleum products
6501	ENID TANK LINE 8" "S"	2	Refined petroleum products
6502	ENID TANK LINE 8" "N"	2	Refined petroleum products
6503	OKC SOONER RD. - TEXACO (SHELL) 8"	1	Refined petroleum products
6504	ENID TANK LINE 8" "A"	2	Refined petroleum products
6525	18th St. - Fairfax West #2-8"		Refined Petroleum Products
6550	CANEY JCT. - BROOME TANK FARM #6-8"		Refined petroleum products
6560	COFFEYVILLE - CANEY JCT. #2-10"	16	Refined petroleum products
6580	BROOME - E. COFFEYVILLE #3-16"		Refined petroleum products

6585	Argentine - Sante Fe #3-8"	1	Refined Petroleum Products
6595	ALLEN - OK/AR ST. LINE #2-12"	118	Refined petroleum products
6600	OK/AR ST. LINE - FT. SMITH #2-12"	2	Refined petroleum products
6603	HEAVENER JCT. - HEAVENER 8"	28	Refined petroleum products
6605	ALLEN - DRUMRIGHT #3-8"	84	Refined petroleum products
6610	TOTAL JCT. - WYNNEWOOD JCT. #2-10"	1	Refined petroleum products
6615	DUNCAN - ALLEN #1-10"	96	Refined petroleum products
6620	WYNNEWOOD - OKC (RENO) #3-12"	67	Refined petroleum products
6625	TOTAL JCT. - WYNNEWOOD #3-12"	1	Refined petroleum products
6635	TULSA - GLENPOOL 8"	12	Refined petroleum products
6640	GLENPOOL - CIMARRON 8" (CRUDE)	1	Refined petroleum products
6655	TULSA STA. - SUN REF. 6" TANK CONN.		Refined petroleum products
6660	TULSA STA. - SUN REF. 12" TANK CONN.		Refined petroleum products
6665	TULSA STA. - SUN REF. 12" & 16" TANK CONN.	1	Refined petroleum products
6670	TULSA STA. - SINCLAIR REF. 12" & 16" TANK CONN.	3	Refined petroleum products
6675	TULSA STA. - SINCLAIR REF. 12" TANK CONN.	2	Refined petroleum products
6680	PONCA CITY STA. - CONOCO REF. 8" TANK CONN. (ORIG OXY)	2	Refined petroleum products
6685	PONCA CITY STA. - CONOCO REF. 12" TANK CONN. (ORIG OXY)	2	Refined petroleum products
6690	PONCA CITY STA. - CONOCO REF. 8" TANK CONN. (ORIG CONTINENTAL)	1	Refined petroleum products
6695	PONCA CITY STA. - CONOCO REF. 12" TANK CONN. (ORG CONTINENTAL)	2	Refined petroleum products
6700	DRUMRIGHT - WES 8" GASOLINE TANK CONN.		Refined petroleum products
6705	DRUMRIGHT - WES 8" DISTILLATE TANK CONN.		Refined petroleum products
6710	CUSHING STA. - KERR MCGEE REF. 8" GASOLINE TANK CONN.		Refined petroleum products
6715	CUSHING STA. - KERR MCGEE REF. 8" DISTILLATE TANK CONN.		Refined petroleum products

6730	COFFEYVILLE - COOP REF. 6" TANK CONN. Inactive		Nitrogen
6755	Kansas City Phillips 12" Gasoline Tank Connection	1	Refined Petroleum Products

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY, CONTINUED

Line Sections / Products Handled:(Refer to Product Characteristic and Hazards, FIGURE D.9-1)

LINE NUMBER	SECTION	LENGTH (miles)	PRODUCTS
6760	Kansas City Phillips 12" Distillate Tank Connection	1	Refined Petroleum Products
6825	St Charles Jct to St Charles Terminal	1	Refined Petroleum Products
6901	GLENPOOL - CUSHING 8" (CRUDE)	43	Refined petroleum products
6920	HENRIETTA - DUNCAN 12" - GV @ MP 17+51 - DUNCAN 12"		Refined petroleum products
7100	Healdton-Drumright 10"/12"	136	Inactive
7105	healdton-Hennepin JCT 8"	24	Inactive
7110	Fox JCT - County Line JCT 8"	10	Inactive
7115	South Bank JCT- North Bank JCT #4-8"	1.3	Inactive
7120	South Bank JCT - North Bank JCT #5-8"	1.3	Inactive
7125	North Bank JCT - Tribbey #1-6"	13	Inactive
7130	Tribbey-Midway JCT #1-6"	49	Inactive
7135	Tribbey - Drumright #2-8"	68	Inactive
7150	Eola Street - Hennepin 6"	2.8	Inactive
7155	Goodman JCT - Budo 6"	2.1	Inactive
7160	Sholem - Alechem 6"	2.8	Inactive
7200	Drumright - Cushing Central #2-16"	11	Crude
7205	Cushing Central - Enbridge North 12"/14"	.5	Crude
7210	Cushing Central - Seaway Connection 24"	.49	Crude
7215	Cushing Central Transfer 12"	.9	Crude
7220	Cushing Central - Teppco West 14"	.25	Crude
7225	Teppco East - Shinn (A) 12"	1.85	Crude
7230	Teppco East - Shinn (B) 12"	1.84	Crude
7235	White JCT - Pence (A) 12"	.75	Crude
7240	Payne JCT - Pence (B) 12"	.66	Crude
7245	Payne JCT - Pence (C) 12"	.66	Crude
7250	Cherokee Delivery 6"	1.8	Inactive
7255	Payne - Pence #1-8"	.5	Inactive
7260	Payne - Pence #2-8"	.75	Inactive

7265	Johnson JCT - Teppco East 12"	.45	Inactive
7270	Johnson JCT - Teppco East (B)	.38	Inactive
7275	Manuel Line 12"	10.45	Inactive
7280	CCPS Connection 20"	.56	Inactive

FIGURE 1-3 - CENTRAL DISTRICT INFORMATION SUMMARY, CONTINUED

Description of Zone:	The pipeline carries refined oil (including Diesel, Gasoline, Jet fuel, Natural gasoline, Naptha, Crude Oil, Propane, Natural Gas, Butane,) in the areas shown in **FIGURE 1-4** and **FIGURE 1-5**
Response Zone Consists of the Following Counties:	**Arkansas:** Sebastian **Illinois: Cass, Dewitt, Grundy, Kankakee, Livingston, Logan, McLean, Menard, Morgan, Pike and Will** **Kansas:** **Allen, Anderson, Barton, Bourbon, Butler, Cherokee, Crawford, Labette, Lane, Linn, Logan, Miami, Montgomery, Neosho, Scott, Wallace, Wilson, and Woodson** **Missouri:** **Audrain, Barton, Benton, Boone, Callaway, Cedar, Cooper, Greene, Henry, Jasper, Lawrence, Marion, Moniteau, Monroe, Morgan, Pettis, Ralls, St Charles, St Clair, and Vernon** **Oklahoma:** **Carter, Cleveland, Craig, Creek, Garfield, Garvin, Haskell, Hughes, Jefferson, Kay, LeFlore, Lincoln, Logan, McClain, Murray, Noble, Nowata, Okfuskee, Oklahoma, Okmulgee, Osage, Pawnee, Payne, Pittsburg, Pontotoc, Rogers, Stephens, Tulsa, and Washington**
Alignment Maps (Piping, Plan Profiles):	Maintained at: One Williams Center, OTC 9, Tulsa OK
Worst Case Discharge:	(b) (7)(F) [redacted]
Spill Detection and Mitigation Procedures:	Refer to **SECTION 2** and **APPENDIX D**.
Statement of Significant and Substantial Harm:	The response zones in this system all contain pipelines greater than 6 5/8 inches and are longer than ten miles. At least one section of pipeline in each response zone crosses a major waterway or comes within five miles of a public drinking water intake. Therefore, in accordance with 49 CFR 194.103(c), each entire response zone described in this Plan will be treated as if expected to cause significant and substantial harm.
Date Prepared:	June 2013

The information contained in this Plan is intended to be used as guidelines for the spill responder. Actual circumstances will vary and will dictate the procedures to be followed, some of which may not be included in this manual.

NOTE: For further information on the Qualified Individuals' training and qualifications, refer to **SECTION 4.5** and **APPENDIX A.2** in this Plan.

FIGURE 1-4 - SYSTEM OVERVIEW MAP

(Click here for Pipeline System Overview)

FIGURE 1-5 - CENTRAL DISTRICT MAP

(Click here for Zone Map)

1.1 PURPOSE / SCOPE OF PLAN

The purpose of this Spill Response Plan (Plan) is to provide guidelines to quickly, safely, and effectively respond to a spill from Magellan's pipelines. The pipeline is owned and operated by Magellan Pipeline Company, LP, herein referred to as ?Company.?

This Plan is intended to satisfy the requirements of the Oil Pollution Act of 1990 (OPA 90), and has been prepared in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and applicable Area Contingency Plans (ACP), EPA Region V Regional Contingency Plan, EPA Region VII Regional Contingency Plan and EPA Region VIII Regional Contingency Plan . Specifically, this Plan is intended to satisfy:

- Pipeline and Hazardous Materials Safety Administration (PHMSA), U.S. Department of Transportation requirements for an OPA 90 plan (49 CFR 194)
- Pipeline and Hazardous Materials Safety Administration (PHMSA), U.S. Department of Transportation requirements for Transportation of Natural Gas and other Gas by Pipeline (49 CFR 192.615)
- Occupational Safety and Health Administration (OSHA) requirements for emergency response plans (EAP and ERP) (29 CFR 1910)

1.2 PLAN REVIEW AND UPDATE PROCEDURE

In accordance with 49 CFR Part 194.121, this Plan will be reviewed annually and modified to address new or different operating conditions or information included in the Plan. Upon review of the response plan for each five-year period, revisions will be submitted to PHMSA provided the changes to the current plan are needed, or a letter stating that the plan is still current. Company internal policy states that the Plan will be reviewed at least annually and modified as appropriate. In the event the Company experiences a Worst Case Discharge, the effectiveness of the plan will be evaluated and updated as necessary. If a new or different operating condition or information would substantially effect the implementation of the Plan, the Company will modify the Plan to address such a change and, within 30 days of making such a change, submit the change to PHMSA. Examples of changes in operating conditions that would cause a significant change to the Plan include:

CONDITIONS REQUIRING REVISIONS AND SUBMISSIONS
Relocation or replacement of the transportation system in a way that substantially effects the information included in the Plan, such as a change to the Worst Case Discharge volume.
A change in the type of oil handled, stored, or transferred that materially alters the required response resources.
A change in key personnel (Qualified Individuals).
A change in the name of the Oil Spill Removal Organization (OSRO).
Any other changes that materially affect the implementation of the Plan.
A change in the NCP or ACP that has significant impact on the equipment appropriate for response activities.

All requests for changes must be made through the Plan Coordinator and will be submitted to PHMSA by the Environmental, Health, Safety and Training Department (EHS&T).

1.3 CERTIFICATION OF ADEQUATE RESOURCES

CERTIFICATION
Pursuant to the Clean Water Act Section 311(j)(5)(F)

Magellan Pipeline Company, LP

The Magellan Pipeline Company, LP, hereby certify to the Pipeline and Hazardous Materials Safety Administration of the Department of Transportation that they have obtained, through contract or other approved means, the necessary private personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge or a substantial threat of such a discharge.

Jeff Myers
Manager, Central District

1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

Click here to view the file

1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

Click here to view PHMSA Submittal letter October, 2009

1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

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1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

Click here to view July 2010 WCD Review

1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

Click here to view PHMSA update submittal letter, April 2011

1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

Click here to view July 2013 5 year resubmittal letter

SECTION 2 Last revised: January 2005

INITIAL RESPONSE ACTIONS

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INITIAL RESPONSE ACTIONS, CONTINUED

FIGURE 2-1 - INITIAL RESPONSE ACTION CHECKLIST
To be used in conjunction with Section 2.2 through 2.7

SPECIFIC RESPONSE ACTIONS	COMMENT
First Person On-Scene	
Assume the role of Incident Commander until relieved.	
Take appropriate personal protective measures.	
Notify Emergency Responders (911).	
Alert personnel in the area of any potential threat and/ or initiate evacuation procedures.	
Eliminate possible sources of ignition in the vicinity of any spilled product.	
Notify the Magellan Spill Reporting Number.	
Notify Qualified Individual and, if necessary, the Operations Control Center.	
Qualified Individual	
The Qualified Individual will assume or assign the role of Incident Commander.	
Restrict access to the incident scene and surrounding area as the situation demands. Take any other steps necessary to minimize any threat to health and safety.	
Initiate the appropriate Initial Response Actions (**SECTION 2**).	
Ensure medical assistance has been requested for any injury.	
Ensure the Magellan Spill Reporting Number has been called to make appropriate regulatory notifications.	
Verify the type of product and quantity released, request/obtain Material Safety Data Sheets as necessary.	
Identify/ isolate the source and minimize the loss of product.	
Coordinate further initial response actions with local supervision and Incident Commander.	
Environmental Specialist	
Notify appropriate regulatory agencies per the state reporting matrix and update any significant changes (**FIGURE 3.1-3**). • Send out initial release report to Company personnel. • Work assigned role in Spill Management Team, as needed. • Contact environmental contractors, as needed.	
Incident Commander/Qualified Individual	
Activate the Spill Management Team (SMT), as the situation demands (**SECTION 4**).	
Activate additional response contractors and local response resources, as the situation demands (**SECTION 3**).	
Evaluate the Severity, Potential Impact, Safety Concerns, and Response Requirements based on the initial information provided by the First Person On-Scene.	
Classify the incident (**SECTION 3.1**).	
Confirm safety aspects at site, including need for personal protective	

equipment, sources of ignition, and potential need for evacuation.	
If necessary to ensure the safety of employees, reduce the potential for accidental ignition, or to mitigate further damage, take action to safely halt vehicular and/or railroad traffic in the affected area. Coordinate all requests for halting railroad traffic through the local police or fire authorities. All required vehicular and/or railroad traffic control activities will be conducted with the approval of the local police and/or fire authorities.	
Notify Manager of Operations or Director, as appropriate. Provide incident briefing and coordinate activation of Corporate Spill Management Team (SMT), as the situation demands.	
Coordinate/complete additional Internal and External Notifications (**SECTION 3**).	
Proceed to incident site and direct response and clean-up operations.	
Designated SMT personnel will immediately respond to an incident at the Facility as the situation demands.	
Perform response/cleanup operations as directed or coordinated by the Incident Commander.	
Assist as directed at the incident scene.	

FIGURE 2-1 - INITIAL RESPONSE ACTION CHECKLIST, CONTINUED
To be used in conjunction with Section 2.2 through 2.7

SPECIFIC RESPONSE ACTIONS	COMMENT
Response Techniques	
Conduct regular briefings and updates of objectives and status during the early stages of a response.	
Use Internet-based mapping software to obtain images of local topography.	
Use aerial assets early in the response to assess extent of release.	
Track released and recovered product separately from drained product.	
Obtain an air horn.	
Ensure conference calls are formally managed.	
Address landowner concerns early in a response – enlist corporate personnel to assist.	

2.1 SPILL RESPONSE

FIGURE 2.1-1 - SPILL RESPONSE ACTION CHECKLIST

RESPONSE ACTION	PERSON TAKING ACTION (INITIALS)	DATE/TIME ACTION TAKEN
First Person to Discover Spill		

Take appropriate action to protect life and ensure safety of personnel. Contact the appropriate local emergency responders or request the office to do so.		
Obtain the information necessary to complete the Release/Spill Report Form (**FIGURE 3.1-2**) and phone this information to the Magellan Spill Reporting number to make appropriate regulatory notifications.		
Notify the Qualified Individual, and if necessary, the Operations Control Center.		
Immediately shutdown pipeline (if applicable). Remotely controlled motor operated valves will be closed by the Operations Center as soon as a leak is detected.		
Secure the scene: 1. Isolate the spill scene to assure the safety of people and the environment. Establish a SECURITY PERIMETER with barriers, roadblocks and fencing if possible. Keep non-essential personnel and onlookers outside the SECURITY PERIMETER. As soon as possible, assign security personnel to monitor roadblocks and other barriers, keep records of arriving responders, and to deny entry to unauthorized personnel. 2. Establish an EXCLUSION ZONE encompassing all free liquids, hazardous vapors, or any potential hazards such as fire or explosion. As soon as possible define the Hotline with a physical barrier (such as warning tape), and if possible upgrade the hotline to safety fencing as soon as materials are available. 3. All responders inside the SECURITY PERIMETER should wear high-visibility reflective vests for identification purposes. 4. Personnel should not be permitted to enter the EXCLUSION ZONE unless they are wearing appropriate PPE, and have been directed by the Incident Commander to cross the Hotline.		
Qualified Individual		
Assume role of Incident Commander until relieved.		
Conduct preliminary assessment of health and safety hazards.		
Evacuate non-essential personnel, notify emergency response agencies to provide security, and evacuate surrounding area (if necessary).		
Notify Local Emergency Responders, if necessary.		
Call out spill response contractors (**FIGURE 3.1-3**).		
If safe to do so, direct facility responders to shut down potential ignition sources in the vicinity of the spill, including motors, electrical pumps, electrical power, etc. Keep drivers away from truck rack if spill occurs there.		
If safe to do so, direct facility responders to shut down and control the source of the spill. Be aware of potential hazards associated with product and ensure that lower explosive limits (LELs) are within safe levels before sending personnel into the		

spill area.		

FIGURE 2.1-1 - SPILL RESPONSE ACTION CHECKLIST, CONTINUED

RESPONSE ACTION	PERSON TAKING ACTION (INITIALS)	DATE/TIME ACTION TAKEN
Qualified Individual, Continued		
For gasoline releases from a tank inside a diked area, it may be practical to transfer product out of a tank rather than letting the contents of the tank drain out inside the dike. In some circumstances tank motors and valves inside a dike may be used If gravity feed is not an option. Conduct a hazard risk analysis before attempting operations. Consider: • Motor operated valves are explosion proof • Tank pumps are not explosion proof but are generally sparkless • Air monitoring should be used to determine whether offensive actions can be conducted such as the use of non-explosion proof equipment. • Foam may be used to reduce vapors • Applied foam should be monitored and reapplied if the foam blanket is disturbed or if indicated by air monitoring • Tank starters should not be used if they are in a hazardous atmosphere • Submerged motors should not be used • Contacting a Magellan electrical SME in Engineering and Construction		
If safe to do so, direct facility responders to stabilize and contain the situation. This may include berming or deployment of containment and/or sorbent boom.		
For low flash oil (<100^{o}F); consider applying foam over the oil, using water spray to reduce vapors, grounding all equipment handling the oil, and using non-sparking tools.		
If there is a potential to impact shorelines, consider lining		

shoreline with sorbent or diversion boom to reduce impact.		
Environmental Specialist		
Notify appropriate regulatory agencies per the state reporting matrix and update any significant changes (**FIGURE 3.1-3**).		
Send out initial release report to Company personnel.		
Work assigned role in spill management team, as needed.		
Contact environmental contractors, as needed.		
Incident Commander/Qualified Individual		
Activate all or a portion of Spill Management Team (SMT) (as necessary). Environmental Specialist will maintain contact with notified regulatory agencies.		
Ensure the SMT has mobilized spill response contractors (if necessary). It is much better to demobilize equipment and personnel, if not needed, than to delay contacting them if they are needed.		

FIGURE 2.1-1 - SPILL RESPONSE ACTION CHECKLIST, CONTINUED

RESPONSE ACTION	PERSON TAKING ACTION (INITIALS)	DATE/TIME ACTION TAKEN
Incident Commander/Qualified Individual, Continued		
Most emergencies can be categorized using tiers to define the extent of the emergency as well as the potential resources to respond to the emergency. Tier 1. A localized event that does not impact flowing waters and does not result in evacuations or closure of major roadways or railways. Tier 2. An event that impacts flowing waters, may result in minor evacuations, may cause minor injuries, may shut down a minor waterway or may temporarily shut down a major roadway. Tier 3. An event that has the potential to cause major economic or reputational damage to the Company including events which may involve major injuries or fatalities, cause mass evacuations, impact miles of waterways or close major navigable waters to marine traffic. See **SECTION 4.1** For SMT response		
Document all response actions taken, including notifications, agency/media meetings, equipment and personnel mobilization and deployment, and area impacted. (Refer to **SECTION 5** for		

documentation.)		
Initiate spill tracking and surveillance operations. Determine extent of pollution via surveillance aircraft or vehicle. Estimate volume of spill utilizing information in **SECTIONS 2.2** and **2.3**. Send photographer / videographer if safe.		
SECONDARY RESPONSE ACTIONS (Refer to SMT job descriptions in **SECTION 4.6**)		
FACILITY SPECIFIC RESPONSE CONSIDERATIONS (Refer to **SECTION 6** for maps and sensitivity information.)		
Cold Weather Response		
PPE is essential; use a layered approach • Base Layer - lightweight, snug fitting, and has the ability to wick perspiration away from the body (silk, polypropylene, etc.) • Mid Layer - insulating and wicking material (fleece, wool, microfiber, etc.) • Waterproof Outer Layer - wind proof, water repellant material, breathable (nylon, gore-tex, down, etc.) • Footwear - thin socks (nylon, silk, wool), heavier socks (wool), overboots (rubber, waterproof & insulated) • Hand and Head Protection - layer with liners and waterproof shells as appropriate, 40-80% of heat loss is through the head (gore-tex, fleece, wool, down, etc.) Remember the COLD method; Clean (keep insulating layers clean), Overheating (adjust layers of clothing as needed), Loose Layers (wear several layers that don't impede circulation), Dry (stay dry, avoid cotton)		
Watch for signs of hypothermia (shivering, apathy, slurred speech, confusion, poor coordination and unconsciousness). Call for medical assistance if symptoms are present.		
If spill involves a water body, assess water body conditions including: • Location of release and product • Current and direction of movement (spill movement will be slower under ice)		

FIGURE 2.1-1 - SPILL RESPONSE ACTION CHECKLIST, CONTINUED

RESPONSE ACTION	PERSON TAKING ACTION (INITIALS)	DATE/TIME ACTION TAKEN
Cold Weather Response, Continued		

Conducting oil recovery operations on iced bodies of water can be dangerous. Only personnel or OSROs trained in cold weather response tactics should undertake this type of effort.		
Rules and Tactics for Ice recovery operations by trained and qualified personnel: • Always use a buddy system and wear harnesses when working on ice • Do not stand over slotted ice • Determine thickness of ice (A powered auger can be used to determine ice conditions). Note: River Ice will be less stable than Lake Ice. • Slotting involves cutting and removing ice blocks at a 30 degree angle to the current. The end of the slot should be wide enough to house an oil skimmer • Slots should be cut with a slight "J" curve to provide current slow toward the shoreline recovery area • Effective barriers can be installed by augering holes next to each other and installing plywood sheets to divert product to a sump area		
Snow can absorb released product. Depending on the moisture content of the snow, it can act as a wick, pulling product away from the release site. Impacted snow can be addressed by techniques including: • Temporary storage in a side dump to reduce or eliminate any leakage from melting snow or product • Stockpiling under a rack so melt water and product drain to a sump • Using a "thawzall" heating system to melt snow stockpiled under a rack or in a side dump.		
Well-compacted snow lined with plastic can be used as a berming material		
Employ standard spill response procedures, including: • Establish incident command • Making proper notifications • Identify and Isolate the source • Monitor weather conditions • Use appropriate PPE • Monitor vapors • Establish site control		

2.1.1 Spill Detection and Mitigation Procedures

See **APPENDIX C.1** for spill detection protocols.

Each spill mitigation situation is unique and must be treated according to the circumstance present. In every situation, however, personnel safety must be assessed as the first priority. The potential for ignition and/or toxic exposure must be promptly evaluated. Spill mitigation procedures are listed in FIGURE 2.1-1. Discharge volume calculations are provided in **APPENDIX C.**

FIGURE 2.1-2 - SPILL MITIGATION PROCEDURES

TYPE	MITIGATION PROCEDURE
Failure of Transfer Equipment	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Terminate transfer operations and close block valves. 3. Drain product into containment areas if possible. 4. Eliminate sources of vapor cloud ignition by shutting down all engines and motors.
Tank Overfill/Failure	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Shut down or divert source of incoming flow to tank. 3. Transfer fluid to another tank with adequate storage capacity (if possible). 4. Shut down source of vapor cloud ignition by shutting down all engines and motors. 5. Ensure that dike discharge valves are closed. 6. Monitor diked containment area for leaks and potential capacity limitations. 7. Begin transferring spilled product to another tank as soon as possible.
Piping Rupture/Leak (under pressure and no pressure)	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Shut down pumps. Close the closest block valves on each side of the rupture. 3. Drain the line back into contained areas (if possible). Alert nearby personnel of potential safety hazards. 4. Shut down source of vapor cloud ignition by shutting down all engines and motors. 5. If piping is leaking and under pressure, then relieve pressure by draining into a containment area or back to a tank (if possible). Then repair line according to established procedures.
Fire/Explosion	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at risk of injury. 2. Notify local fire and police departments. 3. Attempt to extinguish fire if it is in incipient (early) stage and **if it can be done safely**. 4. Shut down transfer or pumping operation. Attempt to divert or stop flow of product to the hazardous area (if it can be done safely). 5. Eliminate sources of vapor cloud ignition shutting down all engines and motors. 6. Control fire before taking steps to contain spill.

	See also fire/explosion response steps in **SECTION 2.2**.
Manifold Failure	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Terminate transfer operations immediately. 3. Isolate the damaged area by closing block valves on both sides of the leak/rupture. 4. Shut down source of vapor cloud ignition by shutting down all engines and motors. 5. Drain fluids back into containment areas (if possible).

2.1.2 Spill Surveillance Guidelines

- Surveillance of an oil spill should begin as soon as possible following discovery to enable response personnel to assess spill size, movement, and potential impact locations
- Dispatch observers to crossings downstream or down gradient to determine the spills maximum reach
- Clouds, shadows, sediment, floating organic matter, submerged sand banks or wind-induced patterns on the water may resemble an oil slick if viewed from a distance
- Use surface vessels to confirm the presence of any suspected oil slicks (if safe to do so); consider directing the vessels and photographing the vessels from the air, the latter to show their position and size relative to the slick
- It is difficult to adequately observe oil on the water surface from a boat, dock, or shoreline
- Spill surveillance is best accomplished through the use of helicopters or small planes; helicopters are preferred due to their superior visibility and maneuverability
- If fixed-wing planes are to be used, high-wing types provide better visibility than low-wing types
- All observations should be documented in writing and with photographs and/or videotapes
- Describe the approximate dimensions of the oil slick based on available reference points (i.e. vessel, shoreline features, facilities); use the aircraft or vessel to traverse the length and width of the slick while timing each pass; calculate the approximate size and area of the slick by multiplying speed and time
- Record aerial observations on detailed maps, such as topographic maps
- In the event of reduced visibility, such as dense fog or cloud cover, boats may have to be used to patrol the area and document the location and movements of the spill; however, this method may not be safe if the spill involves a highly flammable product
- Surveillance is also required during spill response operations to gauge the effectiveness

of response operations; to assist in locating skimmers; and assess the spill's size, movement, and impact

- An Spill Surveillance Checklist is provided in **FIGURE 2.1-3**

FIGURE 2.1-3 - SPILL SURVEILLANCE CHECKLIST

Record your observations of spilled oil either in a notebook or directly on a chart of the area under observation. This checklist is an aid for organizing your observations.

General Information	
Date:	Tidal or river stage (flood, ebb, slack, low water):
Time:	On-scene weather (wind, sea state, visibility):
Incident name:	Platform (helicopter, fixed-wing aircraft, boat):
Observer?s name:	Flight path/trackline:
Observer's affiliation:	Altitude where observation taken:
Location of source (if known):	Areas not observed (i.e. foggy locations, restricted air spaces, shallow water areas):
Oil Observations	
Slick location(s):	Color and appearance (i.e. rainbow, dull or silver sheen, black or brown in color or mousse):
Slick dimensions:	Percent coverage:
Orientation of slick(s):	Is oil recoverable (Y/N)?:
Distribution of oil (i.e. windrows, streamers, pancakes or patches):	
Considerations	
• During surveillance flights, travel beyond known impacted areas to check for additional oil spill sites • Include the name and phone number of the person making the observations • Clearly describe the locations where oil is observed and the areas where no oil has been seen	
Other Observations	
Response Operations	
Equipment deployment (general locations where equipment is working and whether they are working in the heaviest concentration of oil):	
Boom deployment (general locations of boom, whether the boom contains oil, and whether the oil entrains under the boom):	

Environmental Observations
Locations of convergence lines, terrain, and sediment plumes:
Locations of debris and other features that could be mistaken for oil:
Wildlife present in area (locations and approximate numbers):

2.1.3 Spill Volume Estimating

Early in a spill response, estimation of spill volume is required in order to:

- Report to agencies
- Determine liquid recovery requirements
- Determine personnel and equipment requirements
- Estimate disposal and interim storage requirements

Some rapid methods to estimate spill size are:

- Transfer operations: Multiply the pumping rate by the elapsed time that the leak was in progress, plus the drainage volume of the line between the two closest valves or isolation points (volume loss = pump rate [bbls/min] x elapsed time [min] + line contents [bbl])
- Tank overfills: Elapsed time multiplied by the pumping rate
- Visual assessment of the surface area and thickness (**FIGURE 2.1-4**); the method may yield unreliable results because:
    - Interpretation of sheen color varies with different observers
    - Appearance of a slick varies depending upon amount of available sunlight, sea-state, and viewing angle
    - Different products may behave differently, depending upon their properties

FIGURE 2.1-4 - SPILL ESTIMATION FACTORS

OIL THICKNESS ESTIMATIONS				
Standard Form	**Approx. Film Thickness**		**Approx. Quantity of Oil in Film**	
	inches	**mm**		
Barely Visible	0.0000015	0.00004	25 gals/mile^2	44 liters/km^2

Silvery	0.000003	0.00008	50 gals/mile^2	88 liters/km^2
Slightly colored	0.000006	0.00015	100 gals/mile^2	179 liters/km^2
Brightly colored	0.000012	0.0003	200 gals/mile^2	351 liters/km^2
Dull	0.00004	0.001	666 gals/mile^2	1,167 liters/km^2
Dark	0.00008	0.002	1,332 gals/mile^2	2,237 liters/km^2
Thickness of light oils: 0.0010 inches to 0.00010 inches				
Thickness of heavy oils: 0.10 inches to 0.010 inches				

2.1.4 Estimating Spill Trajectories

In some cases, oil spill trajectories should be estimated in order to predict direction and speed of the slick movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas, and also provide an estimate of the most effective location in which to mobilize spill response resources for protection, containment, and recovery.

Oil spill trajectories can be estimated using vector addition or with computer programs. Hand calculations typically utilize the following assumptions:

- Oil moves at approximately the same direction and speed as the water currents, unless the winds are strong
- Wind speed can be multiplied by 0.034 to determine the effect of winds on speed and direction of spill movement
- The combined effects of winds and currents can be added to estimate spill movement speed and direction

More sophisticated predictions can be obtained from computer programs. Oil spill trajectory services can be obtained from:

- National Oceanic and Atmospheric Administration (NOAA) through the Federal On-Scene Commander (FOSC)
- Private consulting firms

2.1.5 Initial Containment Actions

Initial containment actions will focus on utilizing containment on site in the most effective manner to:

- Prevent the oil from impacting water, thereby reduce the surface area and the shoreline to be cleaned
- Concentrate the oil (when safe to do so), making physical recovery more efficient
- Limit the environmental impact to the immediate spill area

Selection of the appropriate location and method will depend upon:

- Length of time spill occurs before being noticed
- Amount of spill
- Area of coverage
- Environmental factors such as wind speed and direction
- Oil's characteristics

2.1.6 Safety Considerations

- Containment actions should not be conducted during inclement weather or unsafe conditions such as high winds, fast currents, or unstable terrain
- Eliminate all ignition sources
- Avoid contact with the spilled product
- Use respiratory protection (if applicable)
- Ensure that the area remains secure to air traffic

2.2 FIRE AND/OR EXPLOSION

Your first consideration is always the safety of people in the immediate area, including your own.

The first responder's initial objective is site management.

FIRE AND/OR EXPLOSION CHECKLIST	
TASK	**INITIALS**
At a manned facility	
Evaluate the situation; approach cautiously from upwind; do not rush in	
Warnings, Notifications, and Evacuation: • Alert co-workers or others on-site; use alarm systems • Account for all personnel • Notify local police and fire departments (911), provide detailed information regarding material, product and equipment involved, wind direction • Notify the Qualified Individual and Operations Control	

• Notify the utility companies if on-site utilities, such as gas and electric, may be affected by the fire	
Site Control: • Account for all personnel; use an entry/exit log that includes names, company and time • Prepare evacuation routes and monitor incident for changes requiring evacuation • Keep outside personnel from entering the facility; enlist aid from law enforcement • Establish safety zones • Meet fire personnel at gate; have copy of emergency plans and data on affected tank(s) • Establish a safe media assembly area	
Fire Fighting: • Trained company personnel, firefighters, or fire and hazard control techs may attempt to extinguish the fire if it is in the incipient (early) stage and IF IT CAN BE DONE SAFELY; personnel should be prepared to evacuate if fire is beyond their capabilities to fight • If fire is too large for a Hazmat Tech to fight, the person sounding the alarm or making the phone call to 911 should stand by at a safe distance to direct the fire department and to keep personnel from entering the danger area	
Valves and Controls: • Use emergency stop procedures, if needed • If the fire/explosion is a result of a pipe rupture, isolate product release by closing valves outside of the affected area • If it can be done safely, monitor temperatures of nearby tanks and communicate this information to fire crews and Operations control	
Establish Command: • Establish Incident Command • Establish a Command Post and lines of communication; use radios and cell phones • Provide fire department with contact numbers or facility radio • Appoint a recorder	

Additional Resources:
 	
• Call in additional resources if on scene personnel and equipment are inadequate to handle the emergency
• For tank fires or other large petroleum fires immediately contact
  • Air Monitoring contractors identified in **SECTION 3**
  • Specialty Fire-fighting services identified in **SECTION 3**
  • Oil Spill Removal Organizations (OSROs)	

Conduct a post-emergency evaluation and report	

2.2 FIRE AND/OR EXPLOSION, CONTINUED

Your first consideration is always the safety of people in the immediate area, including your own.

The first responder's initial objective is site management.

FIRE AND/OR EXPLOSION CHECKLIST, CONTINUED	
TASK	**INITIALS**
At an unmanned facility or on the pipeline right of way	
Handle the call	
Warnings and Notifications: • Notify local police and fire departments (911) • Notify the Qualified Individual and Operations Control • Notify the utility companies if on-site utilities, such as gas and electric, may be affected by the fire • Notify railroads or local emergency officials to halt traffic If roads or railroads are in the affected area	
Go to the incident scene to evaluate the situation; approach cautiously from upwind; do not rush in	
Site Control: • Account for all personnel • Prepare evacuation routes and monitor incident for changes requiring evacuation • Keep outside personnel from entering area – enlist aid from law enforcement • Establish safety zones • Meet fire personnel at scene; have copy of emergency plans and data on affected lines	
Valves and Controls: • If the fire/explosion is a result of a pipe rupture, isolate product release by closing valves outside the affected area • Stay in contact with Operations Control to update on valve closings	
Establish Command: • Establish Incident Command • Establish a Command Post and lines of communication -use radios and cell phones • Provide fire department with contact numbers • Appoint a recorder	
Additional Resources:	

• Call in additional resources if on-scene personnel and equipment are inadequate to handle the emergency
• For tank fires or other large petroleum fires immediately contact
  • Air Monitoring contractors identified in **SECTION 3**
  • Specialty Fire-fighting services identified in **SECTION 3**
  • Oil Spill Removal Organizations (OSROs)	

Conduct a post-emergency evaluation and report	

2.3 EVACUATION

EVACUATION CHECKLIST	
TASK	**INITIALS**
Request assistance from off-site agencies; convey Command Post's location	
Assemble personnel at predetermined safe location: upwind/up gradient of release (regrouping area)	
Account for Company and contractor personnel	
Assess casualties (number/type/location)	
Determine probable location of missing personnel	
Secure site, establish re-entry point and check-in/check-out procedures	
Develop list of known hazards (confined spaces, electrical hazards, physical hazards, vapors, oxygen deficiency, fire/explosion, etc.)	
Monitor situation (weather, vapors, product migration) for significant changes	
Assist in developing a Rescue Plan if necessary	

2.4 MEDICAL

MEDICAL CHECKLIST	
TASK	**INITIALS**
Summon Emergency Medical Services (EMS) to the scene	
Do not move the patient unless a situation (such as a fire) threatens their life	
If trained, provide first aid until the EMS arrives at the scene	
As the situation warrants, try to stop the bleeding and keep the patient breathing until the EMS arrives at the scene	
The rescuer's role includes: • Removing the patient from any situation threatening their life or the lives of rescuers • Correcting life-threatening problems and immobilizing injured parts	

before transporting the patient • Transporting the patient in a way that minimizes further damage to injured parts • Administering essential life support while the patient is being transported • Observing and protecting the patient until medical staff can take over • Administering care as indicated or instructed	

2.5 TORNADO

TORNADO CHECKLIST	
TASK	**INITIALS**
Use television or radio to monitor news weather reports	
When a tornado warning is issued, sound the local alarm	

Tornado Watch:
• Tornado watch means conditions are favorable for tornadoes
• Monitor television, radio or weather alert radio reports for approaching storms
• Be prepared to take action if the watch is upgraded to a warning
• Pre-Identify facility shelter locations
  • Sturdy building
  • Bottom floor
  • Innermost room with the maximum number of walls between occupants and outside
  • Minimum number of windows
• Watch for danger signs
  • Dark, often greenish clouds
  • Large hail
  • Wall cloud or funnel cloud	

Tornado Warning: • Tornado warning means a tornado has been sighted. A warning may come from emergency officials but may also come from facility personnel who site a funnel formation and hear a roar similar to a jet engine • **People in its path should take shelter immediately** • Sound the local alarm • Have location personnel report to a designated shelter area • Consider shutting down operations if it can be done safely • Account for all personnel • Take shelter; under furniture using arms to protect head and neck	

After High Winds or Tornadoes: • Account for all personnel; check for injuries and contact emergency medical assistance, if needed • Evaluate the facility • Use caution when entering damaged buildings • Check for down power lines • Update Operations Control and the Qualified Individual/Supervisor	
Perform other Initial Response Actions functions as indicated in **FIGURE 2-1**	
Conduct post-emergency evaluation and report	

2.6 FLOOD

FLOOD CHECKLIST	
TASK	**INITIALS**
Perform continuous monitoring of the situation by listening to radio and/or television reports. Consider utilizing your local LEPC contacts	
Flood watch means flooding is possible	
Flood warning means flooding is occurring or is imminent	
Update the Qualified Individual/Supervisor, Management, Commercial and Operations Control when flooding is imminent	
Consider preparing a site specific shutdown procedure prior to the actual flooding event and share this information with location personnel. Use a site specific shutdown procedure when flooding is imminent	
Pre-establish an evacuation plan and action levels for executing shutdown and evacuation (**SECTION 2.3**)	
Take preliminary actions to secure the facility before flooding and mandatory evacuation	
Forecast staffing requirements and plan accordingly	
Consider obtaining the following services early in the process to ensure availability: • Sandbags • Portable pumps and hoses • Power generators	
Remove product from underground storage tanks (i.e., sumps and separators, if applicable) and replace with water to prevent them from floating out of the ground	
Keep at least a normal bottom in all above ground tankage, more if possible	
If time allows, consider removing pumps and motors that may be affected by a flood Plug all rack drains and facility drains connected to the sump	
Anchor, move or otherwise protect all bulk additive tanks, fuel barrels, empty	

drums, and propane tanks (if applicable)	
Monitor locations of 30 day retention samples and gasoline cans	
Remove all vehicles from potential flood area	
Maintain contact with OSROs before and during flooding conditions	
Continually update Qualified Individual/Supervisor, Management, Commercial and Operations Control on facility status	
Back up computer files	
Remove or move to higher elevation assets such as files, computers, and spare parts	
Communicate potential for shutting off high voltage power and natural gas lines to energy providers	
Close all valves on product and additive storage tanks	
Before evacuation, know where all the employees or contractors will be residing and obtain phone numbers so they can be contacted if additional emergencies occur	
Conduct a post-emergency evacuation and report	
Maintain hazards awareness: • Structural damage • Downed power lines • Leaking natural gas, water, and sewer lines • Poisonous snakes and other wildlife sheltering in structures, vehicles, and furniture • Avoid direct contact with flood water, mud, and animal carcasses	

2.7 ICE/SNOW STORM

ICE/SNOW STORM CHECKLIST	
TASK	**INITIALS**
Monitor news and weather reports on television or the radio	
Alert co-workers or others on-site that severe weather is approaching	
Be aware of the dangers posed by ice and snow falling from equipment	
Be aware of product release danger posed by ice falling on exposed piping	
Monitor ice and snow accumulation on tanks	
Obtain snow or ice removal equipment	
Obtain generators, if necessary to re-power facilities	
Use cold weather response techniques when responding to product spills as released product may flow under ice or snow	
Establish and maintain communication with personnel in remote areas	
Ensure that vehicles have a full tank of gas and are functioning (heater,	

windshield wipers, etc.)	
Consider limiting vehicle traffic	
Obtain fresh water supplies	
Notify the supervisor/Qualified individual and Operations Control if the facility loses power or is otherwise unable to operate	

(b) (7)(F)

[redacted]

2.9 HYDROGEN SULFIDE (H_2S) RELEASE

One of the most toxic substances in crude oil transportation is hydrogen sulfide gas.

All crude oils contain some concentration of hydrogen sulfide (H_2S). Basically, crude oils are classified as either a sweet crude or sour crude, depending on the percent (by weight) concentration of sulfur contained within that specific type of crude.

Sweet crude containing sulfur in solution may not present an H_2S hazard, but H_2S analysis must be conducted to be sure.

- Sweet Crude - 0 to 0.50% sulfur (by weight)
- Sour Crude - over 0.50% sulfur (by weight)

Hydrogen sulfide is an extremely dangerous gas that may cause fatalities. It is colorless, may have a distinct rotten egg odor, is heavier than air, is soluble in fresh and salt water, and is highly flammable.

The key to handling sour crude safely is being knowledgeable of:

- established safety procedures to be followed,
- the hazards of H_2S and where they can be encountered in the work place, and
- the proper use and maintenance of H_2S monitoring and personal protective equipment.

H_2S can be in either a gas (air) or liquid (oil) state. H_2S levels can be higher in the air than in the oil from which it came.

2.9.1 General Requirements

- Employees will be aware of Hydrogen Sulfide and/or potential Hydrogen Sulfide work areas.
- Employees will monitor known and/or potential H_2S work areas with the appropriate atmospheric monitoring equipment and observe all warnings signs and wind indicators.
- All atmospheric monitoring equipment will be calibrated on a monthly basis and any problems with the equipment reported to the immediate Supervisor for repair/replacement.
- Employees will don a SCBA when H_2S levels are above 20 ppm.
- All company employees will implement the Buddy System when H_2S levels reach >100 ppm or when appropriate.

Potential effects of H_2S are listed in **FIGURE 2.9-1**. The levels at which these effects occur are guidelines and may be experienced at lower levels during certain health conditions (i.e. such as when you have a cold, allergies, or are taking medication).

Questions regarding H_2S exposure shall be communicated to the Safety Representative and/or the HSE Manager's representative the operations Supervisor in charge.

FIGURE 2.9-1 - HYDROGEN SULFIDE EFFECTS

LEVEL	EFFECTS
1 ppm	Rotten egg odor detectable.
10 ppm	OSHA, PEL Limit (8-hour) May experience eye and/or throat irritation.
15 ppm	OSHA, STEL Limit (15-minute) May experience eye and/or throat irritation.
100 ppm	Sense of smell loss in seconds; increased eye/throat irritation.
300 ppm	OSHA, IDLH Limit (Immediately Dangerous) Sense of smell loss; severe eye/throat irritation; headache, dizziness or nausea may occur.
>500 ppm	Rapid unconsciousness and respiratory paralysis; death can occur within minutes unless rescued promptly and given CPR.

FIGURE 2.9-2 - HYDROGEN SULFIDE INITIAL RESPONSE ACTION CHECKLIST

ACTION
1. Keep people away. Avoid contact with gas.
2. Wear a full faced self-contained breathing apparatus (SCBA) or goggles and a half faced SCBA.
3. Shut off ignition sources and call the fire department.
4. Evacuate area in case of large discharges.
5. Stay upwind.
6. Notify local health and pollution control agencies.
7. Protect water intakes.
If there is fire:
Flashback along vapor trail may occur and may explode if ignited in an enclosed area.
1. Wear a full faced self-contained breathing apparatus (SCBA) or goggles and a half faced SCBA.

2. Stop flow if possible.
3. Cool exposed containers and personnel effecting shutoff with water.
If there is exposure:
1. Call for medical aid. Vapor is poisonous if inhaled. It is also irritating to eyes.
2. If breathing has stopped, give artificial respiration.
3. If breathing is difficult, give oxygen.
4. If in EYES, hold eyelids open and flush with plenty of water.
If there is water pollution:
1. Protect water intakes.
2. Notify local health and wildlife officials. H_2S is harmful to aquatic life in very low concentrations.
3. Notify operators of nearby water intakes.

Source: Chemical Hazards Response Information System (CHRIS) Hazardous Chemical Data Manual, U.S. Department of Transportation, United States Coast Guard, 1998

2.9.2 Personal Respiratory Protection

Company Safety Standard “Respiratory Protection” in the HES Field Safety Manual defines selection, wearing, maintenance and inspection of respirators. Self Contained Breathing Apparatus (SCBA) is the only approved respiratory protective equipment that can be used when working in a H_2S contaminated environment.

2.10 FLAMMABLE VAPOR CLOUD/HIGHLY VOLATILE LIQUID (HVL) RELEASE

FIGURE 2.10-1 - FLAMMABLE VAPOR CLOUD/HIGHLY VOLATILE LIQUID (HVL) RELEASE RESPONSE ACTION CHECKLIST

SPECIFIC RESPONSE ACTIONS	COMMENTS
Alert all personnel as soon as possible after discovering that an HVL leak has occurred, or that a flammable or otherwise hazardous vapor cloud is present.	
Assess wind direction and vapor cloud movement. **STAY UP WIND, UP HILL, AND UP STREAM OF THE VAPOR CLOUD AND THE SOURCE.** Be aware of possible weather changes that could affect cloud movement.	
Eliminate possible sources of ignition in the vicinity of the incident.	
Isolate the Hazard Area and deny entry - direct all persons to move in a crosswind direction away from the release to the distance specified below; then, consider protective actions (such as evacuation) within the specified distance downwind of the spill. Refer to the Emergency Response Guidebook for additional information regarding public safety.	

	ERG	First Isolate The	Then Protect

Material	Guide #	Hazard Area	Downwind	
Ammonia	125	330 feet (100 m) radius	1.0 Mile (1.6 km)	
Propane, Butane and other NGL	115	330 feet (100 m) radius	0.5 Mile (800 m)	
Source: ERG 2004, pg 178 &198				
Positive pressure self-contained breathing apparatus (SCBA) is required if emergency response team members are entering the Hazard Area.				
Rescue should be performed from an uphill and upwind location if possible.				
Request medical assistance if an injury has occurred.				
Restrict access to the incident scene and surrounding area as the situation demands. Take any other steps necessary to minimize any threat to health and safety. The location of the restricted area should be communicated to all impacted personnel operating on the site.				
Verify the type of product and quantity released, and request/obtain Material Safety Data Sheets as necessary.				
Identify/ isolate the source and minimize the loss of product.				
Restrict access to the emergency site to authorized essential personnel				
Determine the concentrations of toxic or flammable gases present using both fixed monitors (if available) and portable intrinsically safe instruments.				
Assure that site emergency workers are using the proper protective equipment and clothing equal to the hazards present. **Do not place workers in an unsafe emergency repair situation.**				
Coordinate your emergency plans with all support personnel. Make sure that they are aware of the special hazards involved with a toxic/flammable vapor cloud, and that they understand where the Hot zone (exclusion zone), Warm zone (contamination reduction zone), and Cold Zones (support zone) are located.				

FIGURE 2.10-1 - FLAMMABLE VAPOR CLOUD/HIGHLY VOLATILE LIQUID (HVL)
RELEASE RESPONSE ACTION CHECKLIST, CONTINUED

SPECIFIC RESPONSE ACTIONS	COMMENTS
Determine whether the incident should be handled offensively, defensively, or by non-intervention. Remember that offensive tactics increase the risks to emergency responders.	
If volatile liquid leaks originate from an outdoor continuous source such as a piping system, storage vessel, or tank truck , initiate offensive tactics which will reduce or stop the leakage if it can be accomplished without undue risk. Options which should be considered include: 1. Isolating the leak by closing in valves above and below the leak.	

2. Reducing line pressures by partially closing valves or shutting down pumps. 3. Plug or patch leaks using appropriate leak control devices. 4. Transfer the product from the leaking container to a compatible non-leaking container.	

2.11 EARTHQUAKE CHECKLIST

SPECIFIC RESPONSE ACTIONS	COMMENTS
Operations Control will follow their own procedures.	
Inside a building:	
Do not attempt to leave the building. You are much safer inside the building until the shaking stops.	
Move away from windows, tall fire cabinets, and other things that could fall on or crush you.	
Do not try to stand in the doorway. Doors are heavy and can cause damage when they swing during an earthquake.	
Drop to the floor, find cover and hold on. Shelter yourself by getting under a table or desk.	
Protect yourself by putting your head as close to your lap as possible, or kneel down and protect your head.	
Remain calm. Major earthquakes generally last less than 60 seconds.	
Outside a building:	
Seek protection away from buildings. Falling glass, power lines, trees and debris can be very hazardous.	
Drop to the ground and stay there until the shaking stops	
After an Earthquake:	
Wait in your safe place until the shaking stops, then check for injuries and account for all employees	
Move carefully and watch out for hazards and debris	
Be prepared for aftershocks.	
Exit and stay out of damaged buildings. Damaged buildings may be destroyed during an aftershock.	
Be aware of the potential for fires. Broken fuel lines, gas lines and damaged electrical lines can create fire hazards. Damaged hot water heaters can be the source of potential fires.	
Once it is safe to do so, contact Supervisory personnel and the Operations Control Center to advise them of your location and report the earthquake.	
Conduct a thorough facility assessment. Take appropriate actions if necessary as outlined in Spill Response (**SECTION 2.1**), Fire (**SECTION 2.2**) Medical (**SECTION 2.4**) and Evacuation (**SECTION 2.3**).	

2.12 AIR MONITORING CHECKLIST

Air Monitoring Checklist - Facility and Right of Way	
TASK	**INITIALS**
Use of Monitor • Follow manufacturer?s procedure and SIP for testing and operating an electric air monitor. • Sustained readings are those readings sustained for over 1 minute of continuous instrument operation.	
Facility Air Monitoring	

Initial Monitoring of Release Site
• WARNING: Do not enter hot zone without proper PPE. Use the air monitor and this checklist to establish the hot (hazardous) and cold (safe) zones.
• Do not enter IDLH atmospheres
• Head towards the release site from upwind. Identify alternate routes of escape and any potential ignition sources such as motor vehicles.
• Continually monitor as nearing release site.
• Establish working parameters. Action levels for specific substances are:
  • Benzene - 1 ppm
  • H2S - 10 ppm
  • NH3 - 25 ppm
  • VOC - 25 ppm
  • LEL - 10%
• Once the zones are properly identified,
  • Evacuate personnel within hot zone that are without proper PPE.
  • Keep unauthorized personnel away from the area.
  • Clearly mark hot zone boundaries with physical barrier ? e.g. barrier tape, snow fence, signs, ropes, etc.
  • Recheck zones within the first hour to determine if levels require redefining zones and need for air monitoring program.
• If vapors are above action levels or threaten to be above action levels (wind is pushing vapors) in occupied areas such as offices, buildings, truck rack or outside the facility perimeter.
  • Evacuate affected areas or use proper PPE as appropriate.
  • Establish facility perimeter monitoring to ensure vapors are not migrating outside the facility.
• If readings continue for greater than 1 hour
  • Establish an air monitoring program in accordance with this checklist and review with Safety Specialist.
  • Work with Emergency Agencies to establish action levels for readings outside the facility perimeter.	

Facility Perimeter Monitoring • If sustained readings are obtained at the perimeter fenceline.	

Conduct air monitoring downwind until sustained non-detect readings are obtained • Document the value and location of sustained non-detect readings. • If readings are detected at nearby roadways • LEL - 10% or greater • H2S - 5 ppm • NH3 - 12 ppm • Request Fire Department response and discuss readings with Emergency Responders who will decide if they need to close roads. • NOTE: Different monitoring parameters are appropriate at roadways given the momentary presence of passing vehicles.	

2.12 AIR MONITORING CHECKLIST, CONTINUED

Air Monitoring Checklist - Facility and Right of Way	
TASK	**INITIALS**
Facility Air Monitoring, Continued	
• If readings are detected in nearby communities (residential, commercial, or retail) • LEL - 10% • Benzene - 1 ppm • H2S - 1 ppm • NH3 - 2 ppm • Request Fire Department response and discuss readings with Emergency Responders. • If readings are anticipated to continue for greater than 1 hour • Contact local air monitoring contractor or spill contractor with air monitoring capabilities. • Establish an air monitoring program in accordance with this checklist and review with Safety Specialist • Work with Emergency Agencies to establish action levels for readings • If readings are anticipated to continue greater than 1 day • Contact local and national air monitoring contractor ? (Note: national air monitoring contractor has a 6 hour response time). • Use local air monitoring contractor until national air monitoring contractor arrives. • Establish an air monitoring program in accordance with this checklist. • Provide data to Emergency Agencies to establish action levels for readings. • Continue air monitoring program until no sustained readings are detected outside the perimeter.	
Pipeline Corridor & Right-of-Way Air Monitoring	
Initial Monitoring of Release Site	

• WARNING: Do not enter hot zone without proper PPE. Use the air monitor and this checklist to establish the hot (hazardous) and cold (safe) zones.
• Do not enter IDLH atmospheres
• Head towards the release site from upwind. Identify alternate routes of escape and any potential ignition sources such as motor vehicles.
• Continually monitor as nearing release site from upwind
• Establish zones and working parameters. Action levels for specific substances are:
  • Benzene - 1ppm
  • H2S - 10ppm
  • NH3 - 25ppm
  • VOC - 25ppm
  • LEL - 10%
• Once the zones are properly identified, evacuate persons within hot zone that are without proper PPE.
• If sustained readings are obtained at the edge of right?of-way
  • Conduct air monitoring downwind until sustained non-detect readings are obtained.
• If readings are detected at nearby roadways
  • LEL - 10% or greater
  • H2S - 5ppm
  • NH3 - 12 ppm
  • Request Fire Department response and discuss readings with Emergency Responders who will decide if they need to close roads.
  • NOTE: Different monitoring parameters are appropriate at roadways given the momentary presence of passing vehicles.
• If readings are detected in nearby communities
  • LEL - 10%
  • Benzene - 1ppm
  • H2S - 1ppm
  • NH3 - 2ppm
  • Request Fire Department/Health Department response and discuss readings with Emergency responders who will decide on best response technique.	

2.12 AIR MONITORING CHECKLIST, CONTINUED

Air Monitoring Checklist - Facility and Right of Way	
TASK	**INITIALS**
Pipeline Corridor & Right-of-Way Air Monitoring, Continued	
• Recheck zones within the first hour to determine if levels require redefining zones and need for air monitoring program. • If readings are anticipated to continue for greater than 1 hour. • Contact local air monitoring contractor or spill contractor with air monitoring capabilities.	

Establish an air monitoring program and review with Safety Specialist. • Work with Emergency Agencies to establish action levels for readings. • If readings are anticipated to continue greater than 1 day • Contact local and national air monitoring contractor ? (Note: national air monitoring contractor has a 6 hour response time). • Use local air monitoring contractor until national air monitoring contractor arrives. • Establish an air monitoring program. • Provide data to Emergency Agencies to establish action levels for readings. • Continue air monitoring program until no sustained readings are detected outside the right of way.	
Tank Fires	
Tank Fires • Immediately establish air monitoring program. • Immediately contact local and national air monitoring contractors. • Establish community and worker safety air monitoring programs.	
Air Monitoring and National Contractors	
Air Monitoring Program • Use local personnel unless additional resources are required. • Use tested monitors. • Test storm sewers and sanitary sewers (either within the facility or along the right-of-way) that may be affected, upwind, downwind, uphill and downhill of release site. • Use marking paint on sewer covers, track manhole covers and readings on map. • Identify ignition sources and monitor. • Have contractor assume monitoring function upon arrival. • Documentation provided to Safety Officer or Incident Commander: • Name of personnel conducting monitoring, • Description or name of air monitoring instrument, • Location of all readings, • Time stamp of all readings, and • All readings shown or indicated (regardless of value) on air monitor. • Incident Commander shall provide air monitoring data to Emergency Agencies in order to establish action levels for readings.	
National Contractor Capabilities • Community air monitoring • Worker safety air monitoring • 6-hour response time • Initial team of 6-7 responders • Remote weather station • Wireless air monitoring • GPS linked air readings	

• Real time plume modeling	

SECTION 3 Last revised: February 28, 2013

NOTIFICATIONS / TELEPHONE NUMBERS

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3.1 EMERGENCY INFORMATION AND NOTIFICATION PROCEDURES

The notification sequence for a spill is as follows:

- Facility personnel will identify and control the source of a spill if safe to do so and then will make the following notifications as appropriate. The order of notifications can be dependent on the event:
    - QI
    - Operations Control Center
    - 911
    - Magellan Spill Reporting
- The Qualified Individual will assume or assign the role of Incident Commander, and will conduct notifications of response contractors, spill management team members and other company personnel. The priority of actions and response procedures will depend upon actual circumstances and will be determined by the Incident Commander.
- During an Operations Control Center Initiated Event, the Controller will assume the role of Incident Commander until the time the responsibility is transferred to Field Operations.

This section also contains the following:

- FIGURE 3.1-2 provides a Release/Spill Report Form. This form is utilized for initial and follow-up notifications. Follow-up notifications are the responsibility of the Liaison Officer.
- FIGURE 3.1-3 provides a notification summary and documentation form to assist in documenting notifications.

FIGURE 3.1-1 - EMERGENCY NOTIFICATION FLOWCHART

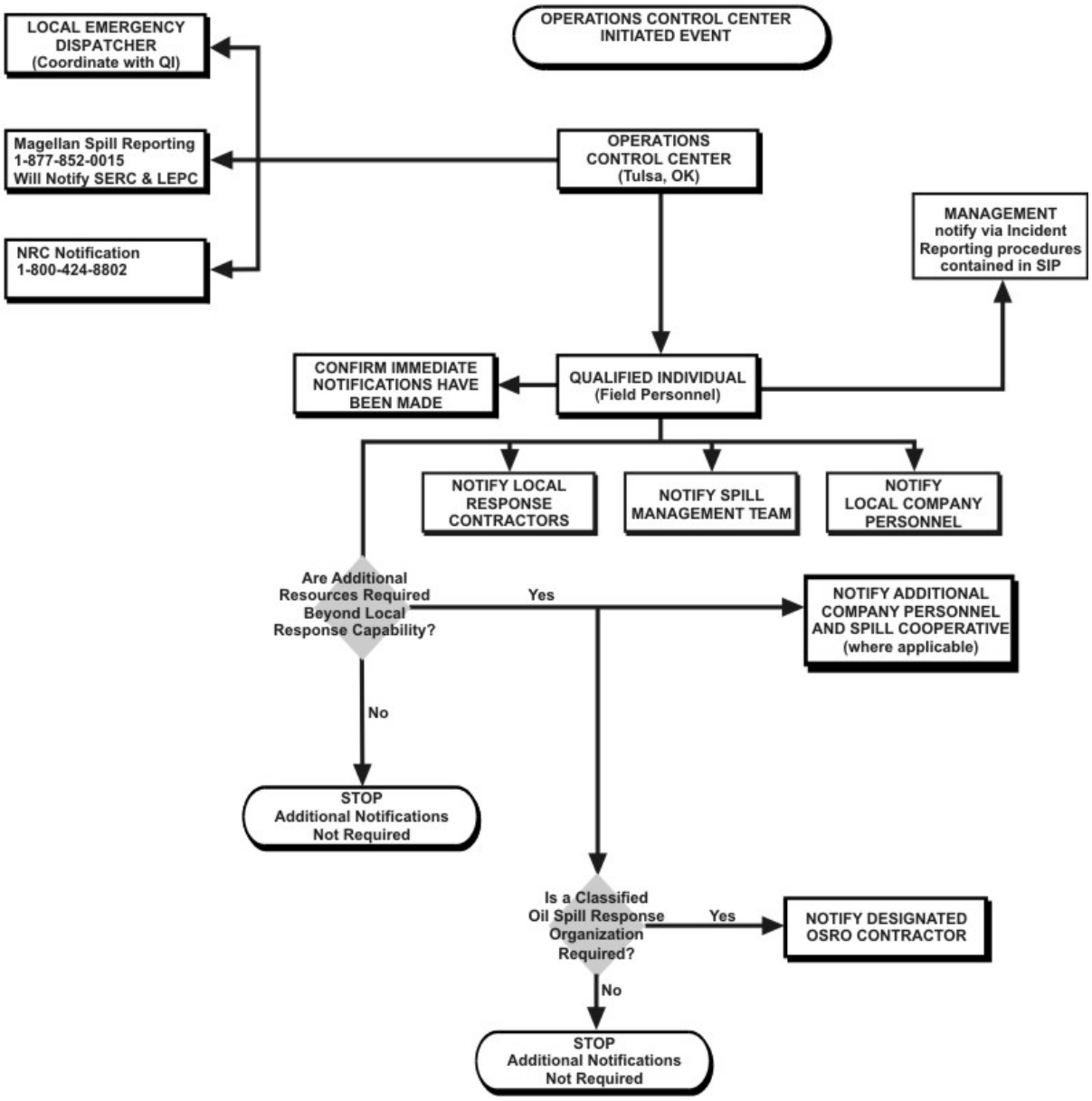

FIGURE 3.1-1 - EMERGENCY NOTIFICATION FLOWCHART, CONTINUED

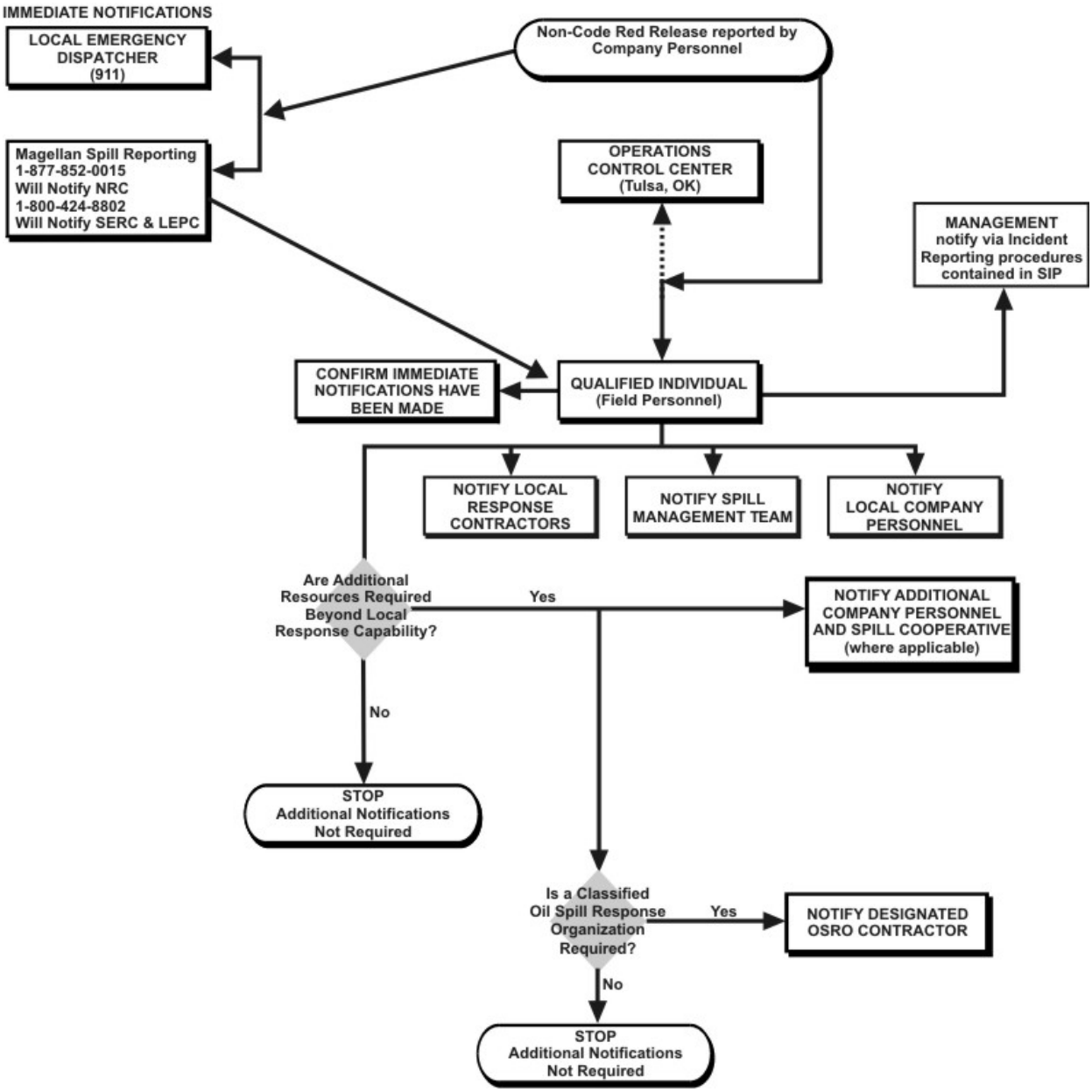

FIGURE 3.1-2 - RELEASE / SPILL REPORT FORM

Call Magellan Spill Reporting at 1-877-852-0015 to report all releases (suspected or confirmed)			
Is this a drill:		Type of Drill:	
Reporter's Name:		Report Time:	
Reporter's Company:		Job Title:	
Company address:			
Phone Number:			
Date Release Occurred:			
Month		Day	
Year		State	

Material:		**Estimated Released**	0 (gallons)
CHRIS Code		**Estimated Discharge to Water**	0 (gallons)
		Estimated Free Liquids Recovered	0 (gallons)
*Released to:		**Estimated Amount Recovered Soil**	0 (gallons)
		Estimated Total Amount Recovered	0 (gallons)
Define Other:		**Estimated Amount Not Recovered**	0 (gallons)

Note: *For a release to be contained inside of a "dike" it must be a permanent dike designed specifically to contain releases.

Was maintenance being performed at the time of the incident? Intentional Blowdown?

Release Reportable? Waterway Affected? Waterway Name:

AGENCY NOTIFICATIONS

It is not necessary to wait for all information before calling NRC. National Response Center? 1-800-424-8802 or direct telephone: 202?267?2675.

Report	Date	Number	Time	Name	Title	City	State
NRC ☐							
SERC ☐							
	Was a written report requested?			Time Frame	Days		
TNRCC ☐							
	If a written report is requested, do not provide it. Contact Environmental Specialist.						
LEPC ☐							
Other ☐							

Facility Name Release Occurred: Facility Type:

Facility Capacity: Tank Capacity:

Did release occur on loading rack or non-breakout tank/piping? If yes, Ignore Pipeline Information

AND/OR

Pipeline Name Release Occurred:

Pipeline Interstate Asset?

Incident Description: (Include details of container type, and facility and container volumes in gallons, and the distance and direction from the nearest city in miles and degrees)

Response Actions:

Impact: (Include description of the medium affected and any relevant additional information; and in addition, provide the details of any evacuations, including the number of persons evacuated)

FIGURE 3.1-2 - RELEASE / SPILL REPORT FORM - CONTINUED

Call Magellan Spill Reporting at 1-877-852-0015 to report all releases (suspected or confirmed)

Release Discovered by: Discover Time:

Release Verified: Verification Time: Release Stop Time:

BU: District: Area:

Area Supervisor: Asset Integrity Contact: (COM/Maint Supervisor)

Address of Release: City:

Distrance from Nearest City: County: Zip Code:

Caller's E-mail Address: Provide spelling of e-mail address.

Suspected Responsible Party (if other than Magellan) Address

Pipeline Address:

Section Township Range Milepost Tract #

Latitude Longitude

Engineering Stationing Number:

Origin of Release:

Cause (pre-investigation) Check all that apply:

- ☐ Third Party Damage
- ☐ Internal Corrosion
- ☐ External Corrosion
- ☐ Natural Forces
- ☐ Human Error - Contractor
- ☐ Human Error - Company Personnel
- ☐ Human Error - Driver
- ☐ Pipe or Weld Failure - Other
- ☐ Equipment Failure
- ☐ Unknown
- ☐ Other

than Corrosion

Temp | Relative Humidity | Precipitation:

Cloud Cover | Wind Speed | Wind Direction:

Injury | Fire | Fatality | Explosion | Unconsciousness

Injury Requiring Hospitalization? | Significant News Coverage:

Incident Classification: | Loss/Damage Estimate:

Loss and damage estimate should include all costs associated with clean-up (maintenance, cleanup, product loss).

Environmental Contact for release:

Safety Contact for this release:

Form completed by: | Completion Date:

Latest revision date for form 04/03/11

Replaces previous revision date 06/16/08

Magellan Midstream Partners, L.P.
One Williams Center, P.O. Box 3102
Tulsa, OK 74172

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS

*24 Hour Number

AFFILIATION	PHONE NUMBER	**TIME CONTACTED**
A. COMPANY PERSONNEL		
Jeffrey Myers Mgr Operations I	913/310-7730 (Office) (b) (6) 816/807-2477 (Mobile)	
Kevan Heil Supv Area	913/647-8407 (Office) (b) (6) 816/769-1133 (Mobile)	
Timothy Powers Supv Area	573/443-1619 (Office) (b) (6)	

	573/881-1922 (Mobile)	
Greg Tarr Supv Asset Integrity II	913/647-8422 (Office) (b) (6) 816/223-6196 (Mobile)	
James Cole Coord Ops & Maintenance	405/850-1945 (Office) (b) (6) 405/850-1945 (Mobile)	
Dennis Crawford Safety Specialist	918/574-7419 (Office) (b) (6) 918/237-9981 (Mobile)	
Steven Hill Technician Sr	309/473-3031 (Office) (b) (6) 217/454-4267 (Mobile)	
Jason Masters Supv Operations II	501/945-2991 (Office) (b) (6) 281/727-8691 (Mobile)	
Greg Peck Safety Specialist	918/574-7719 (Office) 913/972-1123 (Mobile)	
Rick Bondy ER Preparedness Prog Coordinator	918/574-7363 (Office) (b) (6) 918/629-8207 (Mobile)	
Buddy Cronk Supv Area	918/574-7602 (Office) (b) (6) 501/258-6927 (Mobile)	
Monty Hull Coord Ops & Maintenance	580/761-3910 (Office) (b) (6) 580/761-3910 (Mobile)	
Raleigh Myers Supv Operations II	918/223-1101 (Office) 918/285-6962 (Mobile)	

Refer to **APPENDIX A, FIGURE A.2-3** for personnel training records

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
A. COMPANY PERSONNEL		
James Slatten Operator USW	660/872-6417 (Office) (b) (6) 816/390-4742 (Mobile) (816) 387-0360 (Pager)	
Ray Haworth Supv Area	918/223-1124 (Office) (b) (6) 918/625-5216 (Mobile)	
Michael Hurney Mgr Safety & Compliance	918/574-7476 (Office) (b) (6) 918/625-7619 (Mobile)	
Douglas Hammer Supv Area	405/670-2817 (Office) (b) (6) 405/620-0939 (Mobile)	
Gregory Stratman Supv Operations II	918/233-1103 (Office) (b) (6) 918/629-1618 (Mobile)	
Dennis Whitfield Supv Area	918/574-7483 (Office) (b) (6) 918/633-0200 (Mobile)	
Mike Orr Supv Asset Integrity II	918/574-7583 (Office) (b) (6) 918/645-6456 (Mobile)	
Bruce Heine Dir Government & Media Affairs	918/574-7010 (Office) (b) (6)	

	918/645-8989 (Mobile)	
Mark Webster Environmental Specialist Sr	918/574-7728 (Office) 918/629-6004 (Mobile)	

Refer to **APPENDIX A, FIGURE A.2-3** for personnel training records

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Initial		
3E (MSDS only)	1-800-451-8346	
Magellan Spill Reporting	(877) 852-0015*	
National Response Center (NRC)	(800) 424-8802* (202) 267-2675*	
none		
County		
Corps of Engineers Keystone Lake Office	918-865-2621	
Recommended		
State Agencies - Arkansas		
Arkansas Department of Emergency Management (SERC)	(501) 730-9751 (800) 322-4012	
Arkansas Department of Environmental Quality	(501) 682-0744	
County Agencies - Arkansas		
Sebastian County		
Ft. Smith EMS (Ambulance)	(479) 783-4151*	
Sparks Regional Medical Center	(479) 441-4000*	
St. Edwards Mercy Medical Center	(479) 484-6000*	
Ft. Smith Fire Department (Non-emergency dispatch)	(479) 785-4221*	

Sebastian Co. LEPC	(479) 783-3932	
Fort Smith Police Department	(479) 785-4221*	
Sebastian Co. Sheriff Department	(479) 783-1051	
State Agencies - Illinois		
Illinois Department of Natural Resources	217-782-7756	
Illinois Emergency Management Agency (SERC)	(217) 782-7860* (800) 782-7860* (In-state)	
Illinois Environmental Protection Agency	(217) 782-7860 217-782-3397	
Illinois State Fire Marshall	(312) 814-2693	
Illinois State Police	(847) 786-6677*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Illinois		
Cass County		
Cass County LEPC	217-452-3057	
Cass Co. Sheriff Department	(217) 452-7718*	
Virginia Police Department	(217) 452-3500*	
DeWitt County		
De Witt Co. Emergency Management	(217) 935-9596 217-935-7791	
DeWitt Co. Sheriff Department	(217) 935-3196* 217-935-6718	
Illinois State Police District #6	(815) 844-1500	

Grundy County		
S. Wilmington Fire Department	(815) 237-2244	
Grundy County Emergency Services (LEPC)	(815) 941-3200 815-942-0336	
Grundy Co. Sheriff Department	(815) 942-0336*	
Illinois State Police District #5	(815) 726-6377 x210	
Kankakee County		
Essex Fire Department	815-365-4588	
Reddick Fire Department	815-365-2284	
Kankakee LEPC Kankakee Emergency Management Service - Covers the Kankakee Co. Sheriff Dept.	815-802-7172 815-802-7176	
Illinois State Police	815-698-2415	
Livingston County		
Dwight Fire Department	(815) 584-2373	
Emington/Campus Fire Department	(815) 934-5521	
Fairbury Fire Department	(815) 692-2743	
Odell Fire Department	(815) 998-2410	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Illinois		
Livingston County		
Pontiac Fire Department	(815) 842-3225	

Saunemin Fire Department	(815) 832-4321	
Livingston Co. LEPC	(815) 844-7741	
Illinois State Police District #6	(815) 844-1500	
Livingston Co. Sheriff Department	(815) 844-7171* (815) 844-2774	
Logan County		
Beason Fire Department	(217) 447-3341	
Lincoln-Logan Emergency Service (acts as LEPC)	217-732-4159	
Logan Co. Sheriff Department	(217) 732-4159 (217) 732-2156 Administrative	
McLean County		
John Warner Hospital	(217) 935-9571*	
OSF St. Joseph Medical Center	(309) 662-3311*	
McLean County LEPC	(309) 888-5020 309-888-5030	
Heyworth Police Department	(309) 473-2481* 309-473-2811	
Illinois State Police District #6	(815) 844-1500	
McLean Co. Dispatch/ METCOM	(309) 888-5030*	
Menard County		
Springfield Area Ambulance	(217) 535-0100	
Springfield Memorial Medical Center	(217) 788-3000*	
St. John's Hospital	(217) 544-6464*	
Athens Fire Department	(217) 636-8221	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Illinois		
Menard County		
Petersburg Fire Department	(217) 968-5389	
Menard Co. LEPC	(217) 632-7700	
Illinois State Police District #9	(217) 786-7107	
Menard Co. Sheriff Department	(217) 632-2273*	
Morgan County		
Bromenn Hospital	(309) 454-1400*	
Morgan Co. LEPC	(217) 479-4616	
Meredosia Police Department	(217) 245-6103*	
Morgan Co. Sheriff Department	(217) 245-6103*	
Pike County		
Pike County LEPC	217-762-9482	
Barry Police Department	(217) 285-4471*	
Griggsville Police Department	(217) 285-4471*	
Pike Co. Sheriff Department	(217) 285-4471*	
Will County		
Custar Park Fire Department	(815) 693-5645	
Wilmington Fire Department	(815) 476-6675	
Wil County LEPC	(815) 740-8351	
Illinois State Police District #5	(815)726-6377 x222	
Will Co. Sheriff Department	(815) 727-8895* 815-774-6292	

Wilmington Police Department	(815) 476-2811*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
State Agencies - Kansas		
Kansas Corporation Commission	785-271-3100/3165 (not 24-hour) 785-633-6228 785-633-6227 785-633-6226	
Kansas Department of Health and Environment	(785) 296-1679* 316-337-6020	
Kansas Division of Emergency Management (SERC)	(785) 274-1911 (785) 296-3176* (Pager of Staff on Duty)	
Kansas State Fire Marshall	(785) 296-3401	
County Agencies - Kansas		
Allen County		
Allen Co. LEPC	(620) 365-1400	
Allen Co. Sheriff Department	(620) 365-1400	
Moran Police Department	(620) 237-4724* 620-365-1437*	
Anderson County		
Garnett Fire Department	(785) 448-6823	
Anderson Co. LEPC	(785) 448-6797	
Anderson Co. Sheriff Department	(785) 448-5428	
Garnett Police Department	(785) 448-6823	

Bourbon County		
Fort Scott Fire Dept.	(620) 223-2140	
Bourbon Co. LEPC	(620) 223-0550	
Bourbon Co. Sheriff Dept.	(620) 223-1440	
Cherokee County		
Cherokee Co. Sheriff Department	(620) 429-3992*	
Crawford County		
Crawford Co. LEPC	(620) 724-8274*	
Crawford Co. Sheriff Department	(620) 724-8274*	
Pittsburg Police Department	(620) 235-0400*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Kansas		
Labette County		
Labette Co. LEPC	(620) 795-2565*	
Chetopa Police Department	(620) 236-7311*	
Labette Co. Sheriff Department	(620) 795-2565*	
Linn County		
Linn Co. LEPC	(913) 352-8125	
Linn Co. Sheriff Department	(913) 795-2665*	
Miami County		
Paola Hospital / Miami County Hospital	(913) 294-2327	
Paola Fire Marshall	(913) 259-3600	

Miami Co. Sheriff Department	(913) 294-3232*	
Paola Police Department	(913) 259-3640	
Montgomery County		
Montgomery Co. LEPC	(620) 330-1260	
Cherryvale Police Department	(620) 336-2400*	
Coffeyville Police Department	(620) 252-6160*	
Montgomery Co. Sheriff Department	(620) 330-1000	
Neosho County		
Chanute Police Department	(620) 431-5768*	
Neosho Co. Sheriff Department	(620) 244-3888*	
Wilson County		
Wilson Co. LEPC	(620) 378-4455	
Neodesha Police Department	(620) 325-3031* 620-378-2369	
Wilson Co. Sheriff Department	(620) 378-3622*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Kansas		
Woodson County		
Woodson Co. LEPC	(620) 625-8655	
Woodson Co. Sheriff Department	(620) 625-2147*	
State Agencies - Missouri		
Boone County		
Missouri Highway Patrol Troop F	573-751-1000	

Missouri Highway Patrol Troop F	(573) 751-1000	
Cooper County		
Missouri State Highway Patrol (Troop H)	660-387-2345	
Moniteau County		
Missouri State Highway Patrol Troop F	(573) 751-1000	
Morgan County		
Missouri State Highway Patrol Troop F	(573) 751-1000	
Missouri Department of Conservation	(573) 751-4115	
Missouri Department of Natural Resources	(573) 634-2436*	
Missouri Emergency Response Commission (SERC)	(800) 780-1014* (573) 526-9240	
Missouri State Fire Marshall	(573) 751-2930 (800) 877-5688	
County Agencies - Missouri		
Audrain County		
Little Dixie Fire Department	573-581-6325	
Area 911 Center	573-473-5800	
Audrain Co. LEPC	573-473-5892	
Audrain Co. Sheriff Department	(573) 473-5800*	
Mexico Public Safety	573-581-2100	
Barton County		
Barton Co. LEPC	(417) 682-2201	
Barton Co. Sheriff Department	(417) 682-5515*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Missouri		
Benton County		
Lincoln Volunteer Fire Department	660-547-3711	
Benton Co. LEPC	(660) 438-8412	
Missouri Highway Patrol Troop A	816-622-0800	
Benton Co. Sheriff Department	(660) 438-5252* 660-438-6135	
Boone County		
Boone Hospital	(573) 815-3501 (573) 815-8000	
Boone County Fire Marshall	(573) 447-5000	
Boone County Fire Station #1	573-447-5000	
Boone County Fire Station #14	573-447-5000	
Boone County Fire Station #3	573-447-5000	
Boone County Fire Stations: 1, 3, 7, 8, 12, and 15.	573-447-5000	
City of Columbia Fire Stations 7 and 8	573-874-7391	
Columbia Fire Marshall	(573) 874-7391 City Fire	
Boone Co. LEPC	(573) 447-5000	
Boone Co. Sheriff Department	(573) 442-6131* 573-875-1111	
Columbia Police Department	(573) 442-6131 Emergency (573) 874-7652	
Missouri Highway Patrol Troop F	573-751-1000	
Callaway County		

North Callaway Fire Protection District	(573) 642-9339 24-hr emergency Callaway Co.Sheriff 573-268-8477	
Callaway Co. LEPC	(573) 592-2486	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Missouri		
Callaway County		
Callaway Co. Sheriff Department	(573) 642-7291*	
Missouri State Highway Patrol (Troop F)	(573) 751-1000	
Cedar County		
Cedar Co. LEPC	(417) 276-6700x223	
Cedar Co. Sheriff Department	(417) 276-5133*	
El Dorado Springs Police Department	(417) 876-2313*	
Cooper County		
Bunceton VFD	660-427-5672	
Cooper County LEPC	660-882-2614	
Cooper County Sheriff Dept.	660-882-2771	
Cooper Police Department	(660) 882-2727	
Missouri Highway Patrol Troop F	573-751-1000	
Greene County		
Cox Medical Center	(417) 269-3000*	
Mercy Hospital	(417) 885-2000*	

Brookline Fire Department	(417) 868-4040* 417-862-7919	
Greene Co. LEPC	(417) 869-6040	
Greene Co. Sheriff Department	(417) 868-4040*	
Springfield Police Department	(417) 864-1810* (417) 864-1780	
Henry County		
Henry Co. LEPC	(660) 885-4920	
Henry Co. Sheriff Department	(660) 885-7021*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Missouri		
Jasper County		
McCune-Brooks Hospital	(417) 358-8121	
Jasper Volunteer Fire Department	(417) 359-9100*	
Jasper Co. LEPC	(417) 623-5858	
Jasper Co. Sheriff Department	(417) 359-9100*	
Jasper Police Department	(417) 359-9100	
Lawrence County		
Lawrence Co. LEPC	(417) 235-3335	
Lawrence Co. Sheriff Department	(417) 466-2131*	
Marion County		
Blessing Hospital	(217) 223-1200	

Hannibal Regional Hospital	(573) 248-1300	
Hannibal Fire Department	(573) 769-3669 573-221-0657	
Hannibal Rural Fire Department	(573) 221-0657	
Palmyra Fire Dept.	(573) 769-3411	
Marion Co. 911	(573) 221-1121	
Marion Co. LEPC	(573) 231-2650 573-221-5346	
Hannibal Police Department	(573) 221-0987* 573-221-0989	
Marion Co. Sheriff Department	(573) 769-2077*	
Missouri State Highway patrol	573-769-4219	
Moniteau County		
Fortuna Fire Protection District	(660) 458-6675	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Missouri		
Moniteau County		
Jamestown Volunteer Fire Department #1	(573) 690-7109	
Tipton Fire Department	660-433-2323 660-433-2394	
Moniteau Co.	(573) 796-4108	
Missouri Highway Patrol Troop F	573-751-1000	
Moniteau Co. Sheriff Department	(573) 796-2525*	

	573-796-8416	
Tipton Police Department	(660) 433-2620*	
Monroe County		
Paris Fire Department	660-327-4491	
Monroe Co. LEPC	(660) 327-5175* (660) 327-5106 660-327-5187	
Monroe County 911	660-327-5175 660-327-5187	
Monroe Co. Sheriff Department	(660) 327-5175*	
Morgan County		
Fortuna Fire Protection District	(660) 458-6675	
Morgan Co. LEPC	(573) 378-2453 573-378-5481	
Morgan Co. Sheriff Department	(573) 378-5481*	
Women & Children's Hospital	(573) 875-9000	
Pettis County		
Lake Creek Fire Department	(660) 668-4547 24-hr emergency # Pettis Co. Sheriff	
Pettis Co. LEPC	(660) 827-4800*	
Missouri State Highway Patrol (Troop A)	(816) 622-0800	
Pettis Co. Sheriff Department	660-827-0052	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED

Recommended, Continued

County Agencies - Missouri		
Ralls County		
Center City and Rural Fire Department	(573) 985-1911	
New London Fire Department	(573) 985-1911	
Perry Fire Department	(573) 985-1911	
Ralls Co. 911 Coordinator	(573) 985-3009	
Ralls Co. LEPC Co-Chairman	(573) 565-3537 573-769-5545	
Ralls Co. Sheriff Department	(573) 985-5611*	
St. Clair County		
St. Clair Co. Sheriff Department	(417) 646-2565 (417) 646-2522*	
Vernon County		
Vernon Co. LEPC	(417) 448-2500	
Vernon Co. Sheriff Department	(417) 667-6042* 417-283-4400	
Federal Agencies		
American Red Cross - Disaster Operations Center (Optional notification for assistance with relocation, disaster relief, etc)	(202) 303-5555*	
Corps of Engineers Copan Lake Office	918-532-4334	
Corps of Engineers Eufala	918-484-5135	
Corps of Engineers Kaw lake Office	580-762-5611	
Corps of Engineers Kerr Lake Office	918-775-4475	
Corps of Engineers Kerr Lock & Dam	918-775-2091	
Corps of Engineers Oologah Lake Office	918-443-2447 918-443-2250	
Corps of Engineers Truman Lake	660-438-7317	

Environmental Protection Agency, Region VI 24-hr Hotline	(866) 372-7745*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
U.S. Environmental Protection Agency, Region V	(312) 353-2318*	
U.S. Environmental Protection Agency, Region VII	(913) 281-0991* (Spill Line)	
US Army Corps of Engineers James Trimble Lock (west of Ft. Smith)	479-452-0488	
US Army Corps of Engineers Tulsa District Oil spill notification on Corps project Jim Harris	918-669-7410 918-688-3135 (cell)	
State Agencies - Oklahoma		
Oklahoma Corporation Commission	(405) 521-2211 (800) 522-0206*	
Oklahoma DEQ (SERC)	(800) 522-0206*	
Oklahoma Environmental Remediation Specialist (Tulsa, OK)	(918) 832-8888*	
Oklahoma State Fire Marshall	(800) 522-8666 (405) 522-5005*	
Oklahoma Water Resources Board	(405) 530-8800	
County Agencies - Oklahoma		
Carter County		
Carter Co. LEPC	(580) 221-5506	
Carter Co. Sheriff Department	(580) 223-6014*	
Cleveland County		
Cleveland Co. LEPC	(405) 366-0249	
Cleveland Co. Sheriff Department	(405) 321-8600*	

Noble Police Department	(405) 872-9231*	
Craig County		
Craig Co. Sheriff Department	(918) 256-6466	
Creek County		
Creek Co. LEPC	(918) 367-9489	
Bristow Police Department	(918) 367-2251*	
Creek Co. Sheriff Department	(918) 224-4964*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Oklahoma		
Creek County		
Drumright Police Department	(918) 352-2151*	
Garfield County		
Integris Bass Baptist Health Center	(580) 233-2300	
Life Emergency Medical Service	(580) 242-1234*	
Major County Emergency Medical Services/Fire/EMS Police Fairview Dispatch	(580) 227-2222*	
St. Mary's Regional Medical Center	(580) 233-6100*	
Enid Fire Department	(580) 234-0446*	
Garfield Co. LEPC	(580) 234-0446*	
Enid Police & Fire Department	(580) 242-7000*	
Garfield Co. Sheriff Department	(580) 237-0244	

Garvin County		
Garvin Co. Sheriff Department	(405) 238-7591	
Wynnewood Police Department	(405) 665-4360*	
Haskell County		
Haskell Co. LEPC	918- 967-4352	
Haskell Co. Sheriff Department	(918) 967-2400 (918) 967-3333*	
Hughes County		
Holdenville Police Department	(405) 379-6627*	
Jefferson County		
Waurika Fire Department	(580) 228-2323	
Jefferson Co. LEPC	(580) 228-2375	
Jefferson Co. Sheriff Department	(580) 228-2375	
Waurika Police Department	(580) 228-2324	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Oklahoma		
Kay County		
Kay Co. LEPC	(580) 362-2517	
Kay Co. Sheriff Department	(580) 362-2517*	
Newkirk Police Department	(580) 362-2414*	
Ponca City Police Department	(580) 767-0370*	
LeFlore County		
LeFlore Co. LEPC	(918) 647-2317*	

Heavener Police Department	(918) 653-2950*	
LeFlore Co. Sheriff Department	(918) 647-2317*	
Panama Police Department	(918) 963-4600*	
Poteau Police Department	(918) 647-8620*	
Lincoln County		
Lincoln Co. Sheriff Department	(405) 258-1101 (405) 258-1191*	
Logan County		
Logan Co. LEPC	(405)282-0494	
Logan Co. Sheriff Department	(405) 282-4100*	
McClain County		
McClain Co. LEPC	(405) 770-0005	
McClain Co. Sheriff Department	(405) 527-2141*	
Murray County		
Murray Co. LEPC	(580) 622-5114	
Murray Co. Sheriff Department	(580) 622-5114*	
Noble County		
Noble Co. LEPC	(580) 336-1717	
Noble Co. Sheriff Department	(580) 336-3517*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Oklahoma		
Nowata County		

Nowata Co. Sheriff Department	(918) 273-2287 (918) 273-3131*	
Okfuskee County		
Okfuskee Co. LEPC	(918) 623-1234*	
Okfuskee Co. Sheriff Department	(918) 623-1122*	
Oklahoma County		
OU Medical Center	(405) 271-4700	
Regional Medical Center	(405) 610-4411	
St. Anthony Hospital	(405) 272-6137	
Del City Fire Marshall Jim Hock	(405) 677-3344 405-671-2892	
Midwest City/Fire/EMS/Police	(405) 739-1389*	
Oklahoma City Fire Marshall	(405) 235-1313*	
Oklahoma City Emergency Management	(405) 605-8202	
Del City Police Department	(405) 677-3344	
Jones Police Department	(405) 399-2255	
Luther Police Department	(405) 277-3500	
Midwest City Police Department	(405) 739-1389	
Oklahoma City Police Department	(405) 231-2121* (405) 297-1000*	
Oklahoma Co. Sheriff Department	(405) 869-2501	
Okmulgee County		
Okmulgee Co. LEPC	(918) 756-4311	
Jones Police Department	(405) 399-2255	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Oklahoma		
Okmulgee County		
Luther Police Department	(405) 277-3500	
Osage County		
Osage Co. LEPC/ Emergency Management	(918) 287-2285	
Osage Co. Sheriff Department	918-287-3131 (918) 287-3535*	
Pawnee County		
Pawnee Co. Sheriff Department	(918) 762-6415* (918) 762-2565	
Payne County		
Payne Co. LEPC	(405) 372-4522*	
Cushing Police Department	(918) 225-1212*	
Pittsburgh County		
Pittsburgh Co. Sheriff Department	(918) 423-5858*	
Quinton Police Department	(918) 469-3777*	
Pontotoc County		
Pontotoc Co. LEPC	(580) 436-8055	
Pottawatomie County		
Pottawatomie County Sheriff	(405) 273-1727	
Rogers County		
Rogers Co. LEPC	(918) 341-2060	
Stephens County		
Stephens Co. LEPC	(580) 255-3411	
Tulsa County		
EMSA	(918) 596-3000*	

Hillcrest Hospital	(918) 579-1000*	
OSU Medical center	918-599-1000	
St. Francis Hospital	(918) 494-2200*	
St. Francis Hospital at Broken Arrow	(918) 455-3535 918-307-6000	
St. John's Hospital	(918) 744-2345*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
County Agencies - Oklahoma		
Tulsa County		
Berryhill Fire Department	(918) 446-1211	
Bixby Fire Department	(918) 366-0458	
Broken Arrow Fire Department	(918) 259-8360	
Glenpool Fire Department	(918) 322-2172	
Jenks Fire Department	(918) 299-4488	
Liberty Mounds Fire Department	(918) 366-7900	
Owasso Fire Department	(918) 272-5253	
Sand Springs Fire Department	(918) 245-8777	
Tulsa Fire Marshall	(918) 596-9977* 918-596-9422	
Bixby LEPC	(918) 366-8294	
Broken Arrow LEPC	(918) 259-8400	

Owasso LEPC	(918) 272-3828	
Sand Springs LEPC	(918) 246-2610	
Tulsa Co. LEPC	(918) 596-9899 (918) 620-0625	
Tulsa Police Department/Sheriff Department	(918) 596-9222* (918) 596-9328	
Washington County		
Washington Co. LEPC	(918) 331-2710	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number test

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
Service Providers		
Bodine Environmental Decatur, Illinois	(800) 637-2379 (24-hr)	
Enercon 5100 E. Skelly Drive, Suite 450 Tulsa, OK 74135	918-740-7782	
First Safety- Provider of Safety Personnel 1010 Center Street, Deer Park, TX	281-930-7686 Shanna 832-275-1000 Roy 832-527-9300	
Graber Excavating Newton, KS	(316) 799-2243 316-283-4488	
Ham and Philips *****NO CONTRACT*****	580-242-1440 800-333-7991 405-880-1416	
Merle Kohlmeyer Jasper, MO	(417) 438-3635	
Mid America Pipeline	(918) 341-8008	
Satellite Shelters - Mobile Office Space	816-918-8485*	

www.satelliteco.com	816-453-1101 KC 817-571-2166 DAL 281-456-0457	
Sunbelt Springfield, MO	(800) 333-5052*	
Tradebe - formerly Pollution Control Industries East Chicago, IN	(219) 397-3951*	
Vince Myers Welding Cushing, OK	(918) 225-7773 918-346-8498	
Warren Cat Rentals - Light Plants, Generators, Compressors	866-292-7736	
Williams Fire & Hazard Control (Tank Firefighting & Equipment)	281-999-0276 409-727-2347*	
Williams Scottsman Office Trailers Nationwide Locations	800-782-1500 (Not 24hr)	
USCG Classified OSRO's		
A-Clean Environment Wilson, OK	(580) 668-2347* or (800) 259-8347*	
A-Clean Environmental Tulsa, OK	800-259-8347	
A-Clean Environmental2700 S. 25 W. AveTulsa, OK 74107 ,	582-9595	
Acme Products Co. Tulsa, OK	(918) 836-7184*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number test

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
USCG Classified OSRO's		
Environmental Restoration, LLC St. Louis, MO	(888) 814-7477 or (636) 227-7477	
Future Environmental (OSRO #350) Cushing, Oklahoma	866-579-6900	
Haz-Mat Response, Inc Wichita, Kansas	800-229-5252	

Haz-Mat Response, Inc. Great Bend, KS	(800) 229-5252*	
Haz-Mat Response, Inc. Olathe, KS	(800) 229-5252*	
Heritage Environmental Services Lemont, IL	(800) 487-7455*	
Heritage Environmental Services St. Louis, MO	(800) 487-7455* / 618-216-8600/ 800-377-2440	
SWS (OSRO 247) Fort Worth, TX	(800) 336-0909*	
TAS Environmental Fort Worth, TX	(888) 654-0111*	
TAS Environmental Alexander, Arkansas	888-654-0111	
United States Environmental Services, LLC North Little Rock, AR	(501) 945-0092 or (888) 279-9930	
Veolia Special Services, Inc. Germantown, WI	(800) 688-4005*	
Air monitoring		
Center for Toxicology & Environmental Health	1-866-869-2834* (501) 801-8500	
Aviation Companies		
Aircraft Data, Inc. (Barney Rahal) El Dorado, KS	No listing	
Eagle Sky Patrol John Kruse	(605) 584-1188 (Office) (605) 920-1176 (Mobile) (605) 394-7871 (Pager) 605-578-1175 (Office as of 9/09)	
Midwest Corporate Aviation Wichita, KS	(316) 636-9738 316-636-9700	
Rice County Aviation Lyons, KS	(620) 257-5002	
Environmental Sampling		
Test America Environmental Testing	918-671-2922* (cell)	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number test

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
Excavation Contractors		
Geeding Construction Jim Geeding, Owner (Troy, MO)	(636) 528-5863 (office) (636) 528-6046 (Jim 24-hr) (636) 262-4296 (Dale 24-hr)	
H.D. Griffin Construction (Carrolton, MO)	(660) 542-1516 (office) (816) 810-8044 (cell)	
Natural Gas Systems, Inc. (Columbia, MO)	(573) 815-9185	
ICS		
EMSI - Emergency Management Services Int. Incident Management Team Coaching	540-423-9004 251-654-1959	
ES&H, Houma Louisiana Incident Management Team staffing	877-437-2634* 888-422-3622*	
O'Brien's Response Mangement Incident Management Team Staffing	985-781-0804	
The Response Group IAP Software, Badging	281-880-5000 800-651-3942*	
Non OSRO spill contractor		
Eagle Services Channahon, IL ***NO Contract***	219-763-1111	
Eagle Services Peoria IL ***NO CONTRACT***	219-763-1111	
Environmental Management Guthrie, OK ***NO CONTRACT***	405-282-8510	
L&W Environmental Services Cushing, OK ***NO CONTRACT***	918-225-2120	
Lake Ozark Environmental	573-216-8141	

Lake Ozarks, Missouri **No Contract**		
Mid-America Environmental Carthage, MO	417-358-8332	
Sunbelt Environmental Springfield, IL ***NO CONTRACT***	417-831-5052	
Surveillance		
Hawkeye Helicopters	(785) 242-2557 785-229-7707	
Transport Companies		
Baker Tanks (Frac Tanks) Oklahoma City, OK	(405) 912-4800	
Baker Tanks (Frac Tanks) Tulsa, OK	(405) 912-4800	
Dick's Oilfield Service (Water Trucks) Great Bend, KS	(620) 793-8561	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number test

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
Transport Companies		
Independent Trucking Drumright, OK	800-352-2539	
Kelly Maclaskey Oilfield Service, Inc. El Dorado, KS	(316) 321-9011	
Leon's Tank Service	(785) 483-4069	
MFA Oil Columbia, MO	573-769-4225	
Midland Transport (Jefferson City, MO)	(573) 635-2008 (800) 366-1131	
Tank Trucks Inc. Sapulpa, OK	918-224-7515	
UT/OTK Tulsa	800-666-8265	
Vacuum Truck Services		
4/S Tank Service Ellinwood, KS	(620) 564-3569	

Albert Hogoboom Trucking Service El Dorado	(316) 321-1397	
Brakeen Line Cleaning, Inc. Claflin, KS	(620) 587-3351	
Consolidated Oil Well Service Ottawa, KS	(785) 242-4044	
Consolidated Bartelesville, OK	(918) 338-0808*	
D&P Fairfax, OK	(918) 642-3258	
Ellinwood Tank Service Ellinwood, KS	(620) 564-3251 620-793-0246 620-793-0246	
Gee Oil Service St. John, KS	(620) 549-3210	
Hertel Tank Service, Inc. Hays, KS	(785) 628-2445	
Independent Cushing	(918) 352-2539 800-358-2539	
Keisel Co. (St. Louis, MO)	(314) 351-5500 (Office) (314) 421-0328*	

FIGURE 3.1-3 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED

*24 Hour Number test

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
Vacuum Truck Services		
Keller Tank Service Zurich, KS	(785) 737-2805 785-737-8900	
Leon's Tank Service Russell, KS	(785) 483-4069	
Nicholas Water Service Zenda, KS	(620) 243-7511 620-930-7511	
Odesco Ind. Services, Inc. (S. Roxana, IL)	(618) 254-4874* (Office)	
Tank Trucks, Inc.	918-224-7515	

Tank Trucks Keifer, OK	(918) 224-7515	
Tank Trucks Sapulpa, OK	(918) 321-3795	
Urban Tank Service Claflin, KS	(620) 792-4463	
Waste Management		
Lee County Landfill Dixon, IL	(815) 288-4607	
Springfield Landfill	417-742-3536	
Wildlife Rehabilitation		
Tri-State Bird Rescue and Research Inc.	(302) 737-7241 (302) 737-9562 (Fax) (800) 710-0695* (Pager) (800) 710-0696* (Pager)	
Water Intakes		
KC Metro KCPL	816-918-7276 816-215-9719 816-739-7557 816-223-7507	

SECTION 5 Last revised: January 2005

INCIDENT PLANNING

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SECTION 5

INCIDENT PLANNING, CONTINUED

5.1 DOCUMENTATION PROCEDURES

Documentation of a spill response provides a historical record, keeps management informed, serves as a legal instrument, and is a means to account for the clean-up costs.

Documentation should begin immediately upon spill notification and continue until termination of all operations. Documentation should include the following:

- Spill origin and characteristics
- Sampling surveys
- Photographic surveys
- Climatological data
- Labor and equipment accounting
- Copies of all logs, contracts, contacts, and plans prepared for incident

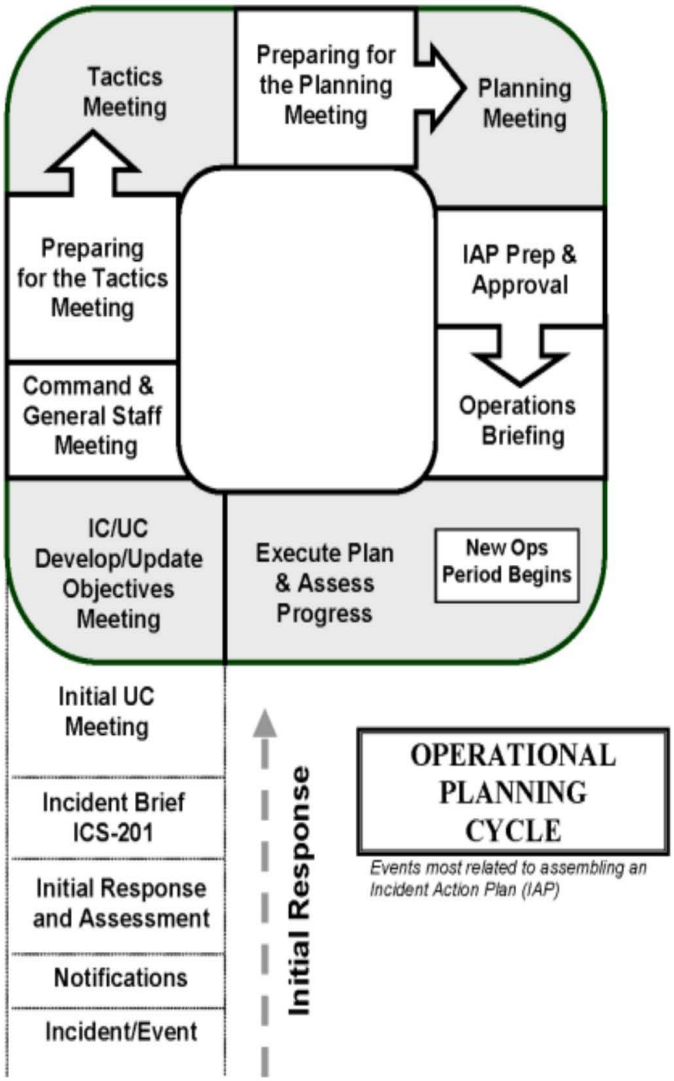
5.1.1 Incident Action Plan Process and Meetings

The period of INITIAL RESPONSE AND ASSESSMENT occurs in all incidents. Short-term responses (small in scope and/or duration, e.g., few resources working one operational period) often can be coordinated using only ICS 201 Briefings.

Longer-term, more complex responses, will likely require a dedicated Planning Section Chief (PSC) who must arrange for transition into the OPERATIONAL PERIOD PLANNING CYCLE. Certain meetings, briefings, and information-gathering during the Cycle lead to the Incident Action Plan (IAP) that guides operations of the next operational period. Only the meetings and events directly relevant to assembling the IAP are described. The IC/UC specifies the operational periods (e.g., 12-hour shifts, sunrise to sunset, 24-hour shifts, etc.).

The SPECIAL PURPOSE meetings are most applicable to larger incidents requiring an OPERATIONAL PERIOD PLANNING CYCLE, but may have utility during INITIAL RESPONSE AND ASSESSMENT. The UNIFIED COMMAND MEETING and other special purpose meetings are briefly noted.

FIGURE 5.1-1 - OPERATIONAL PERIOD PLANNING CYCLE



5.1.1.1 Incident Occurs / Notifications

When an incident occurs, notifications will be made to the appropriate Federal, State, and Local agencies and the initial assessment and response actions will begin.

5.1.1.2 Initial Response and Assessment

INCIDENT BRIEFING (ICS 201)

During the transfer of command process, an ICS 201 formatted briefing provides the incoming IC/UC with basic information regarding the incident situation and the resources allotted to the incident. Most importantly, it is the de facto Incident Action Plan (IAP) for the initial response and remains in force and continues to develop until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to Command and General Staff, as well as needed assessment briefings for the staff.

When: New IC/UC; staff briefing, as required
Briefer: Current IC/UC

Attendees: Prospective IC/UC; Command, and General Staff, as required
Agenda: Using ICS 201 as an outline, included:

1. Situation (note territory, exposures, safety concerns, etc; use map/charts).
2. Objectives and priorities.
3. Strategies and tactics.
4. Current organization.
5. Resource assignments.
6. Resources enroute and/or ordered.
7. Facilities established.

OPERATIONAL PERIOD PLANNING CYCLE
(Events most related to assembling IAP)

5.1.1.3 Unified Command Objectives Meeting

The IC/UC will review/identify and prioritize objectives for the next operational period for the ICS 202 form. Objectives from the previous operational period are reviewed and any new objectives are identified.

When: Prior to Tactics Meeting
Facilitator: UC Member
Attendees: UC Members; Command and General Staff, as appropriate
Agenda:

1. Review/identify objectives for the next operational period (clearly stated and attainable with the resources available, yet flexible enough to allow Operations Section Chief to choose tactics).
2. Review any open agenda items from initial/previous meetings.

5.1.1.4 Tactics Meeting

This 30-45 minute meeting creates the blueprint for tactical deployment during the next operational period. In preparation for the Tactics Meeting, the Planning Section Chief and Operations Section Chief review the current IAP and situation status information, as provided through the Situation Unit, to assess work progress against IAP objectives. The Operations Section Chief/Planning Section Chief will jointly develop primary and alternate strategies to meet objectives for consideration at the next Planning Meeting.

When: Prior to Planning Meeting
Facilitator: Planning Section Chief
Attendees: Planning Section Chief, Operations Section Chief, Logistics Section Chief, Resources Unit Leader, Situation Unit Leader, and Environmental Unit Leader
Agenda:

1. Review the objectives for the next operational period.
2. Develop strategies (primary and alternatives).
3. Prepare a draft of ICS 215 to identify resources that should be ordered through Logistics.

5.1.1.5 Planning Meeting

This meeting defines incident objectives, strategies, and tactics and identifies resource needs for the next operational period. Depending on incident complexity, this meeting should last no longer than 45 minutes. This meeting fine-tunes objectives and priorities, identifies and solves problems, and defines work assignments and responsibilities on a completed ICS Form 215 (Operations Planning Worksheet). Meeting preparations include conducting a Tactics Meeting. Displays in the meeting room should include Objectives (ICS 202) for the next operational period, large sketch maps or charts clearly dated and timed, poster-size Operational Planning Worksheet (ICS 215), current resource inventory prepared by Resources Unit, and current situation status displays prepared by Situation Unit. After the meeting, the ICS 215 is used by the Logistics Section Chief to prepare the off-incident tactical and logistical resource orders, and used by Planning Section Chief to develop IAP assignment lists.

When: After the Tactics Meeting
Facilitator: Planning Section Chief
Attendees: Determined by IC/UC, generally IC/UC, Command Staff, General Staff, Air Operations Section Chief, Resources Unit Leader, Situation Unit Leader, Environmental Unit Leader, and Technical Specialists, as required
Agenda:

5.1.1.5 Planning Meeting, Continued

1. State incident objectives and policy issues. IC/UC
2. Briefing of situation, critical and sensitive areas, weather/sea forecast, resource status/availability. Planning Section Chief w/Situation Unit Leader, Resources Unit Leader
3. State primary and alternative strategies to meet objectives. Operations Section Chief w/Planning Section Chief, Logistics Section Chief
4. Designate Branch, Division, Group boundaries and functions, as appropriate; use maps and ICS 215. Operations Section Chief
5. Specify tactics for each Division, note limitations. Operations Section Chief, Situation Unit Leader assist
6. Specify resources needed by Divisions/Groups. Operations Section Chief, w/Planning Section Chief, Logistics Section Chief
7. Specify operations facilities and reporting locations (plot on map). Operations Section Chief, Logistics Section Chief assist
8. Develop resources, support, and overhead order(s). Planning Section Chief, Logistics Section Chief
9. Consider support issues and agree on plans: communications, traffic, safety, medical, etc. Logistics Section Chief, Planning Section Chief assist
10. Assisting or cooperating agency and stakeholder group considerations regarding Incident Action Plan. Liaison Officer
11. Safety considerations regarding Incident Action Plan. Safety Officer
12. News media/public considerations regarding Incident Action Plan. Information Officer
13. Finalize, approve Incident Action Plan for next operational period. IC/UC

5.1.1.6 Incident Action Plan (IAP) Preparation and Approval

Immediately following the Planning Meeting, the attendees prepare their assignments for the IAP to meet the Planning Section Chief deadline for assembling the IAP components. The deadline will be early enough to permit timely IC/UC approval, and duplication of sufficient copies for the Operations Briefing and for overheads.

When: Immediately following Planning Meeting, Planning Section Chief assigns deadline
Facilitator: Planning Section Chief

Common Components:		Responsible to Prepare
1.	Incident Objectives (ICS 202)	[Resources Unit Leader]
2.	Organization List (ICS 203)	[Resources Unit Leader]
3.	Assignment List (ICS 204)	[Resources Unit Leader/Planning Section Chief]
4.	Communications Plan (ICS 205)	[Communications Unit Leader]
5.	Medical Plan (ICS 205)	[Medical Unit Leader]
6.	Incident Map	[Situation Unit Leader]

Optional Components (use as pertinent):

Optional Components (use as pertinent):		Responsible to Prepare
1.	Air Operations Summary (ICS 220)	[Air Operations Branch Director]
2.	Traffic Plan	[Ground Support Unit Leader]
3.	Demobilization Plan	[Demobilization Unit Leader]

5.1.1.7 Operations Briefing

This less-than-30-minute meeting conveys the IAP for the oncoming shift to the response organization. After this meeting, off-going field supervisors should be interviewed by their reliefs and by Operations Section Chief in order to further confirm or adjust the course of the new shift's IAP. Shifts in tactics may be made by the operations section supervisors. Similarly, a supervisor may reallocate resources within a division or group to adapt to changing conditions.

When: About an hour prior to each shift
Facilitator: Planning Section Chief
Attendees: IC/UC, Command Staff, General Staff, Branch Directors, Division/Group Supervisors, Task Force/Strike Team Leaders (if possible), Unit Leaders, others as appropriate.

Agenda:		Responsible to Present
1.	Review of IC/UC Objectives, changes to IAP.	[Planning Section Chief]
2.	Current response actions and last shift's accomplishments.	[Operations Section Chief]
3.	Weather and sea conditions forecast.	[Situation Unit Leader]
4.	Division/Group and air operations assignment.	[Operations Section Chief]
5.	Trajectory analysis.	[Situation Unit Leader]

6.	Transport, communications, supply updates.	[Logistics Section Chief]
7.	Safety message.	[Safety Officer]
8.	Financial report.	[Finance/Administration Section Chief]
9.	News Media report.	[Information Officer]
10.	Assisting/cooperating organization/agency reports of concern.	[Liaison Officer]
11.	Incident Action Plan endorsement and motivational remarks.	[IC/UC]

5.1.1.8 Assess Progress

The Operations and Planning Sections will review the incident response progress and make recommendations to the IC/UC in preparation for reviewing/identifying objectives for the next operational period. This feedback/information is gathered from various sources, including Field Observers, responder debriefs, stakeholders, etc.

SPECIAL PURPOSE MEETINGS

5.1.1.9 Initial Unified Command Meeting

Provides UC officials with an opportunity to discuss and concur on important issues prior to joint incident action planning. The meeting should be brief, and important points documented. Prior to the meeting, parties should review and prepare to address the agenda items. Planning Meeting participants will use the results of this meeting to guide the response efforts.

5.1.1.9 Initial Unified Command Meeting, Continued

When: When UC is formed, prior to the first operational period Planning Meeting
Facilitator: UC member
Attendees: Only ICs who will comprise UC
Agenda:

1. Identify jurisdictional priorities and objectives.
2. Present jurisdictional limitations, concerns, restrictions.
3. Develop collective set of incident objectives.
4. Establish and agree on acceptable priorities.
5. Adopt an overall strategy to accomplish objectives.
6. Agree on basic organizational structure and size.
7. Designate the best-qualified and acceptable Operations Section Chief.
8. Agree on General Staff personnel designations and planning, logistical, and finance agreements and procedures.
9. Agree on resource ordering procedures.
10. Agree on cost-sharing procedures.
11. Agree on informational matters.
12. Designate a Unified Command spokesperson.

5.1.1.10 Command Staff Meeting

Coordinate Command Staff functions, responsibilities and objectives. It is scheduled as

necessary by the IC/UC. Command Staff (IC/UC, Safety Officer, Liaison Officer, Information Officer) attend.

5.1.1.11 Command and General Staff Breakfast/Supper

An opportunity for the Command (IC/UC, Safety Officer, Liaison Officer, Information Officer) and General Staff (Operations Section Chief, Planning Section Chief, Logistics Section Chief, Finance/Administration Section Chief) to gather under informal and relaxing conditions to share and update each other on developing issues.

5.1.1.12 Business Management Meeting

This under-30-minute meeting is for participants to develop and update the operating plan for finance and logistics support. The agenda could include: finance requirements and criteria imposed by contributing organizations, business operating plan for resource procurement and incident funding, cost analysis and financial summary data. Attendees include: Finance/Administration Section Chief, Cost Unit Leader, Logistics Section Chief, Supply Unit Leader, Demobilization Unit Leader. It is generally conducted before the PLANNING MEETING.

5.1.1.13 Agency Representative Meeting

To update agency representatives and ensure that they can support IAP. Conducted by Liaison Officer, attended by Agency Representatives. Most appropriately held after the PLANNING MEETING in order to announce plans for next operational period, yet allow for changes should the plan's expectations be unattainable by an agency.

5.1.1.14 News Briefing

To brief the news media and public on the most current and accurate incident facts. Set up by the Information Officer, moderated by an appropriate representative, and featuring selected spokespersons. Spokespersons should be prepared by the Information Officer to address anticipated issues. The briefing should be well planned, organized, and scheduled to meet the media's needs.

5.2 ICS FORMS

- INCIDENT BRIEFING FORM - ICS 201 (Initial Report Only)

  For use by the Command Staff to gather information on the Emergency Management Team?s (EMT) efforts to implement applicable response plans. It is prepared by the initial Incident Commander (IC) for providing documentation of the initial response.

- INCIDENT ACTION PLAN

  For use by the Planning Section to plan each day?s response actions. This plan consists of the portions identified on the IAP cover page and must be approved by the Incident Commander, Federal On-Scene Coordinator (FOSC), and State On-Scene Coordinator (SOSC).

  In addition, these Incident Command System (ICS) forms may be found on the U. S. Coast Guard web page: http://www.uscg.mil/pacarea/pm/icsforms/ics.htm

- **INCIDENT ACTION PLAN (IAP) COVER SHEET**

  For use in presenting initial information, signature approval, and table of contents of forms contained in the IAP.

- INCIDENT OBJECTIVES - ICS 202

  Describes the basic incident strategy, control objectives, and provides weather, tide and current information, and safety considerations for use during the next operational period.

- **ORGANIZATION ASSIGNMENT LIST - ICS 203**

  Provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit.

- ASSIGNMENT LIST - ICS 204

  Submits assignments at the level of Division and Groups.

- COMMUNICATIONS PLAN - 205

  Is used to provide, in location, information on all radio frequency assignments down to Division/Group level for each operation period.

- MEDICAL PLAN - ICS 206

  Provides information in incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

- **INCIDENT STATUS SUMMARY - ICS 209**

  Used to inform personnel about the status of response efforts. It is not included in the IAP.

5.2.1 Incident Briefing ICS 201-CG

1. Incident Name	2. Prepared By: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG
3. Map/Sketch (Include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)		

4. Current Situation
INCIDENT BRIEFING ICS 201-CGOS (pg 1 of 4) (Rev 08/04)

5.2.1 Incident Briefing ICS 201-CG, Continued

1. Incident Name	2. Prepared By: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG
5. Initial Response Objectives, Current Actions, Planned Actions, Potential		

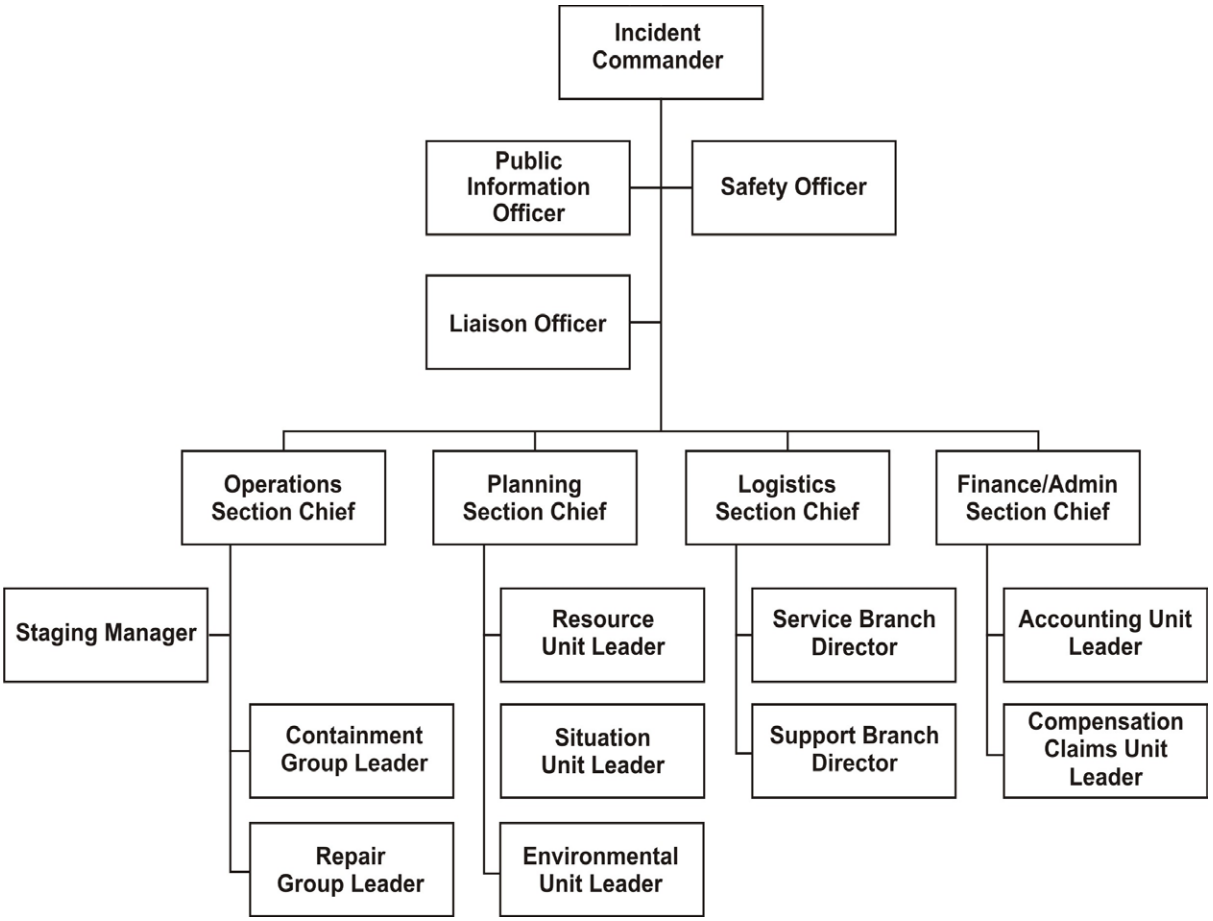
INCIDENT BRIEFING	ICS 201-CG (pg 2 of 4) (Rev 08/04)

5.2.1 Incident Briefing ICS 201-CG, Continued

1. Incident Name	2. Prepared By: (name)	INCIDENT BRIEFING

	Date: Time:	ICS 201-CG

6. Current Organization (fill in additional appropriate organization)



INCIDENT BRIEFING ICS 201-CG (pg 3 of 4) (Rev 08/04)

5.2.1 Incident Briefing ICS 201-CG, Continued

1. Incident Name	2. Prepared By: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary

Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

5.2.2 Incident Action Plan (IAP) Cover Sheet

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time)		IAP COVER SHEET
	From:	To:	

3. Approved by:

FOSC

SOSC

IC

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

- ☐ ICS 202-OS (Incident Objectives)
- ☐ ICS 203-OS (Organization Assignment List)
- ☐ ICS 204-OS (Assignment List)
- ☐ ICS 205-OS (Communications Plan)
- ☐ ICS 206-OS (Medical Plan)
- ☐ ICS 209-OS (Incident Status Summary)
- ☐
- ☐
- ☐
- ☐

4. Prepared By: (Planning Section Chief)	**Date/Time:**

IAP COVER SHEET March, 2000

5.2.3 Incident Objectives ICS 202-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT OBJECTIVES ICS 202-OS
3. Overall Incident Objective(s)		
4. Objectives for Specified Operational Period		
5. Safety Message for Specified Operational Period Approved Site Safety Plan Located at:		
6. Weather: See Attached Weather Sheet		
7. Tides/Currents: See Attached Tide/Current Data		
8. Time of Sunrise:	**Time of Sunset:**	
9. Attachments (check if attached) ☐ Organization List (ICS 203-OS) ☐ Assignment List (ICS 204-OS) ☐ Communications Plan (ICS 205-OS) ☐ Medical Plan (ICS 206-OS) ☐ Weather		
10. Prepared By: (Planning Section Chief)	**Date/Time:**	
INCIDENT OBJECTIVES	March, 2000	ICS 202-OS

5.2.4 Organization Assignment List ICS 203-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	ORGANIZATION ASSIGNMENT LIST ICS 203-OS

3. Incident Commander and Staff

	Primary	Deputy
Federal:		
State:		
IC:		

Safety Officer :

Information Officer:

Liaison Officer:

4. Agency Representatives

Agency	Name

5. Planning Section

Chief

Deputy

Resources Unit

Situation Unit

Environmental Unit

Documentation Unit

Demobilization Unit

Technical Specialists

6. Logistics Section

Chief

Deputy

Time Unit

Procurement Unit

Compensation Unit

Cost Unit

a. Support Branch

Director

Supply Unit

Facilities Unit

Transportation Unit

7. Operations Section

Chief

Deputy

a. Branch I - Division/Groups

Branch Director

Deputy

Division / Group

Division / Group

Division / Group

Division / Group

Division / Group

b. Branch II - Division/Groups

Branch Director

Deputy

Division / Group

Division / Group

Division / Group

Division / Group

Division / Group

c. Branch III - Division/Groups

Branch Director

Deputy

Division / Group

Division / Group

Division / Group

Division / Group

Division / Group

d. Air Operations Branch

Air Operations Br. Dir.

Air Tactical Supervisor

Air Support Supervisor

Helicopter Coordinator

Fixed-wing Coordinator

8. Finance Section

Chief

Deputy

		Time Unit	
Vessel Support Unit		Procurement Unit	
Ground Support Unit		Compensation Unit	
b. Service Branch		Cost Unit	
Director			
Communications Unit			
Medical Unit			
Food Unit			

9. Prepared by: (Resources Unit)	Date/Time	
ORGANIZATION ASSIGNMENT LIST	March, 2000	ICS 203-OS

5.2.5 Assignment List ICS 204-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ICS 204-OS
3. Branch	4. Division/Group	

5. Operations Personnel	**Name**	**Affiliation**	**Contact # (s)**
Operations Section Chief:			
Branch Director:			
Division/Croup Supervisor:			

6. Resources Assigned This Period	?X? indicates 204a attachment with special instructions			
Strike Team/Task Force/ Resource Identifier	**Leader**	**Contact Info. #**	**# of Persons**	**Notes/Remarks**

7. Assignments

8. Special Instruction for Division/Group

9. Communications (radio and/or phone contact numbers needed for this assignment)			
Name/Function	**Radio: Freq./System/ Channel**	**Phone**	**Pager**
Emergency Communications			
Medical	Evacuation	Other	
10. Prepared By (Resources Unit Leader)	Date/Time	**11. Approved By** (Planning Section Chief)	Date/Time
ASSIGNMENT LIST	June, 2000		ICS 204-OS

5.2.6 Communications Plan ICS 205-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	COMMUNICATIONS PLAN ICS 205-OS

3. Basic Radio Channel Use

SYSTEM/CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared By (Communications Unit)	Date/Time

COMMUNICATIONS PLAN	March, 2000	ICS 205-OS

5.2.7 Medical Plan ICS 206-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	MEDICAL PLAN ICS 206-OS

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On Site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On Board (Y/N)

5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared By (Medical Unit Leader)	Date/Time	8. Reviewed By (Safety Officer)	Date/Time

MEDICAL PLAN March, 2000 ICS 206-OS

5.2.8 Incident Status Summary ICS 209-OS

1. Incident Name	2. Period Covered By Report From: To:	Time of Report	INCIDENT STATUS SUMMARY ICS 209-OS

3. Spill Status (Estimated, in Barrels)	[OPS/EUL/SSC]
Source Status:	Remaining Potential (bbl):
	Rate of Spillage (bbl/hr):
Secured ☐	Unsecured ☐

	Since Last Report	Total
Volume Spilled		
Mass Balance/Oil Budget		
Recovered Oil		
Evaporation		
Natural Dispersion		
Chemical Dispersion		
Burned		
Floating, Contained		
Floating, Uncontained		
Onshore		
Total Spilled Oil Accounted For:		

4. Waste Management (Estimated)	**[OPS/Disposal]**

7. Safety Status	[Safety Officer]
Since Last Report	Total
Responder Injury	
Public Injury	

8. Equipment Resources			[RUL]	
Description	Ordered	Available / Staged	Assigned	Out of Service
Spill Resp. Vsls				
Fishing Vessels				
Tugs				
Barges				
Other Vessels				
Skimmers				
Boom (ft.)				
Sbnt/Snr Bm. (ft.)				
Vacuum Trucks				

	Recovered	Stored	Disposed
Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

5. Shoreline Impacts (Estimated, in miles)		[PSC/EUL/SSC]	
Degree of Oiling	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

6. Wildlife Impacts					[OPS/Wildlife Br.]	
Numbers in ( ) indicate subtotal that are threatened / endangered species.					Died in Facility	
	Captured	Cleaned	Released	DOA	Euth.	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

Helicopters				
Fixed Wing				

9. Personnel Resources		[RUL]	
Description	People in Cmd. Post	People in the Field	Total People On Scene
Federal			
State			
Local			
RP			
Contract Personnel			
Volunteers			
Total Response Personnel From All Organizations:			

10. Special Notes

11. Prepared By (Situation Unit Leader)	Date/Time

INCIDENT STATUS SUMMARY March, 2000 ICS 209-OS

5.3 SITE SAFETY AND HEALTH PLAN

FIGURE 5.3-1 - SITE SAFETY PLAN COVER SHEET

1. Incident Name	2. Operational Period to be covered by SSHP (Date/Time)		SSHP COVER SHEET
	From:	To:	

3. Approved by:
FOSC
SOSC
IC

SITE SAFETY AND HEALTH PLAN

The Preliminary Safety Plan:

The Preliminary Safety Plan (PSP) is based on Form ICS 215A-OS, the Incident Action Plan Safety Analysis. The Company On-Scene Incident Commander or the senior Company responder present at the spill site must ensure that:

- A PSP is completed prior to commencing any work at the spill site.
- The PSP is updated as conditions change, or at least hourly.
- The PSP message is communicated to all responders as conditions change, or at least hourly.

Updating the PSP consists of verifying the site hazards, risks, and risk mitigation. If a complete revision of the PSP is made on a new form, the old form should be retained and the box labeled SUPERSEDED BY REVISED PSP should be checked.

All active or superseded revisions of the PSP, Safety Message Briefings, the Site Safety Plan, and the Medical Plan shall all be maintained together beneath the Site Safety Plan Cover Sheet.

Risk Analysis:

- **Hazard** is an observed danger to life safety. Typical hazards have been identified on the form - add others as appropriate.
- **Risk** is the probability that a hazard will impact responders or the public. Risk is evaluated as None, Med, or High.

Mitigation is a measure to counteract the hazard, such as PPE or evacuation. Consider the suggested measures or take others, as appropriate.

The items checked below are included in this Site Safety Plan:

☐ Preliminary Safety Plan

☐ First Version Date / Time _____
☐ First Revision Date / Time _____
☐ Second Revision Date / Time _____
☐ _____Date / Time _____
☐ _____Date / Time _____

☐ Site Safety Plan Date / Time _____

☐ ICS 206-OS (Medical Plan) Date / Time _____

4. Submitted By:

SSHP COVER SHEET March, 2000

FIGURE 5.3-2 - PRELIMINARY SAFETY PLAN

Click here to view

FIGURE 5.3-2 - PRELIMINARY SAFETY PLAN, CONTINUED

Click here to view

FIGURE 5.3-2 - PRELIMINARY SAFETY PLAN, CONTINUED

Click here to view

FIGURE 5.3-2 - PRELIMINARY SAFETY PLAN, CONTINUED

Click here to view

FIGURE 5.3-3 - SAFETY MEETING LOG

MEETING DATE/TIME:	
NAME	**CELL PHONE NUMBER**
Required Action	**Complete Action By: Name/Date & Time**

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN

PLAN REVIEW:		
Incident Safety Officer:		
APPROVALS:		
Incident Commander:		
Operations Officer:		
Haz Mat Division Officer:		
PLAN PREPARED:	DATE:	TIME:
Incident Location:		
Incident Number:		
HAZARDOUS SITUATION:	(Known or suspected, contaminated media, type storage container, type occupancy, obvious leaks, spills or breaches, physical damage)	
RESPONDING AGENCIES:		
Agency:	Name:	
1.		
2.		
3.		

4.	
5.	
6.	
7.	
8.	
9.	
10.	

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

GENERAL SAFETY RULES AND EQUIPMENT:

1. There will be no eating, drinking, or smoking in the exclusion zone or the contamination reduction zone.
2. All personnel must pass through the contamination reduction zone to enter or exit the exclusion zone (hot zone).
3. As a minimum, Decontamination Team members must be in one (1) level of protection lower than that of the entry teams.
4. All decontamination equipment and systems must be in place before an entry can be made.
5. Entry team will consist of a minimum of two members with the same number of personnel assigned to a backup team. All entry personnel will adhere to the buddy system.
6. At the end of the incident, or directly after a possible exposure, each entry team member will take a full body shower and launder any personal clothing used at the scene.
7. All breathing air shall be certified as Grade D or better.
8. Where practical, all tools shall be of the nonsparking type.
9. Fire equipment shall be on hand when the situation warrants such support. At a minimum, fire extinguishers shall be available on scene.
10. Since incident evacuation may be necessary if an explosion, fire, or other event occurs; an individual shall be assigned to sound, alert, and notify the responsible command personnel and public officials (if required). The evacuation signal shall be four short

blasts on an air horn every 30 seconds until all personnel are known to be evacuated.

11. An adequately stocked Emergency Medical Services (EMS) Unit shall be on site at all times.

12. The location and telephone number of the nearest medical facility shall be posted and known to all personnel.

GENERAL SAFETY BRIEFING:

Before any incident actions are taken, a briefing from the Command Staff will be accomplished with all personnel present. Personnel will sign a log sheet, attesting to being present at the briefing. Topics discussed should include known and suspected hazards along with the operation's goals and objectives.

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

EMERGENCY ACTION CONDITIONS:

Code Green All conditions are normal and incident work may continue.

Code Red All or specific work activities must cease at once due to one of the following:

- Indications of emissions from the incident such as CGI readings of 25% or greater, less than 19.5% oxygen, or one Mr/Hr of ionizing radiation are present
- Current or projected meteorological data indicates that a probable impact on working conditions could occur
- If background readings obtained during cessation of activities worsen, reassessment of the findings should be confirmed; actions to lower levels of contaminant or contingencies for further incident monitoring must take place
- If this condition exists, incident personnel will immediately notify command staff

Officials making evacuation/public health decisions will address the need for a public health advisory to potentially effected areas. This is because incident control methods may or may not reduce the source of contamination or threat to the general public.

If needed, a temporary sheltering or evacuation plan should be considered until levels of contamination are reduced or contained to levels deemed safe by all responsible authorities. Confirmation of these levels will be done by generally approved monitoring methods agreed to by the authorities in charge.

Sheltering/Evacuation Plan:

Ordered By:

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

LIST OF ACCESS AUTHORIZED PERSONNEL (Outside Agencies):
SPECIALIZED TASK ASSIGNMENTS:
LEVELS OF PROTECTION SELECTED:

Initial Site Survey:	A	B	C	D
Entry Team:	A	B	C	D
Backup Team:	A	B	C	D
Decon Team:	A	B	C	D

SKETCH OR ATTACH PLOT PLAN HERE:

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

RESPONSE SAFETY CHECK-OFF SHEET

TYPE OF RESPONSE:	
Highway	Industrial
Railway	Marine
Residential	Other
Specify:	
TYPE OF SAFETY PLAN:	
Federal	State
Local	Other
Specify:	
SUSPECTED CHEMICALS INVOLVED:	
1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
INITIAL LEVEL OF PROTECTION: (If level D you must justify)	
A B C D	
INITIAL MEDICAL SCREENING COMPLETE: ☐ Yes ☐ No	
If no, justify:	
In the event of fire or explosion:	
In the event of potential or actual ionizing radiation exposure:	

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

In the event of spread of contamination beyond the boundaries of the incident:
EMERGENCY SERVICES:
Emergency medical facility:
Ambulance service:
Poison Control Center:
Chemical manufacturer?s representative:
EMERGENCY PROCEDURES (in the event of personnel exposure):
EMERGENCY PROCEDURES (in the event of personnel injury):
HAZARD ASSESSMENT:
Attach Hazardous Materials Safety Data Sheets (MSDS), or other reference materials, for chemicals involved to this document.
MONITORING PROCEDURES:
Monitoring the incident to identify concentration of contaminants in all media. List the instruments to be used and what areas to be monitored.
Hot Zone (Excursion Zone)

Warm Zone (Contamination Reduction Zone)
Cold Zone (Support Zone)

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

MEDICAL MONITORING: (What procedures to be used to monitor personnel for evidence of personal exposure.)
PERSONNEL POTENTIALLY EXPOSED TO HAZARDOUS MATERIALS: (Emergency response workers who exhibit signs or symptoms of a hazardous substance exposure during an emergency incident shall be offered medical consultation.)

NAME	POSITION	DATE/TIME

DECONTAMINATION PROCEDURES: (Contaminated personnel, surfaces, materials, instruments, other equipment.)
DECONTAMINATION SOLUTIONS USED:

DISPOSAL PROCEDURES:
Authorized By:

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

POST RESPONSE:			
Level of protection used:			
A	B	C	D
Justify			
EQUIPMENT DECONTAMINATION:			
	Clothing	SCBA/Resp.	Monitoring
Disposed:			
Cleaned:			
No Action:			
Specify:			
TOTAL APPROXIMATE TIME IN HOT ZONE:		Days	Hours
DATE PREPARED:		PREPARED BY:	
Reviewed By:			
Assistance in preparing this safety plan can be obtained from Haz Mat personnel.			

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

HEALTH AND SAFETY/RESPONSE PLAN

APPLIES TO SITE:

DATE:

PRODUCTS: (ATTACH MSDS)

SITE CHARACTERIZATION

☐ Marine vessel ☐ Pipeline ☐ Storage facility
☐ Truck/Rail car ☐ Other

Water ☐ Shoreline ☐ Wetlands ☐ Other
☐ Rocky ☐ Sandy ☐ Muddy ☐ Other
☐ River ☐ Creek ☐ Canal ☐ Bay ☐ Ocean

Land ☐ Mountains ☐ Hills ☐ Brushland ☐ Forest ☐ Grassland
☐ Other

Use ☐ Public ☐ Government ☐ Residential ☐ Commercial
☐ Recreational ☐ Industrial ☐ Farmland ☐ Other

Weather ☐ Temp _____?F ☐ Wind/Dir. _____ mph ☐ Rain
☐ Snow ☐ Ice ☐ Other

Pathways for Dispersion ☐ Air ☐ Water ☐ Land ☐ Other

Site Hazards

☐ Chemical Hazards
☐ Slips, trips, falls
☐ Heat stress
☐ Cold stress
☐ Weather
☐ Drowning
☐ Heavy equipment
☐ Drum handling
☐ Wildlife/plants
☐ Hand/power tools
☐ Lifting
☐ Boats
☐ Helicopters
☐ Noise
☐ Pumps, hoses
☐ Steam, hot water
☐ Fire/Explosion
☐ Poor visibility
☐ Motor vehicles
☐ Confined spaces (see attachment/appendix)
☐ Ionizing radiation
☐ Other

Air Monitoring			
% LEL	% O_2	PPM Benzene	PPM H_2S

☐ Other (specify)

☐ See attachment - Monitoring Results/Methods

CONTROL MEASURES:

Engineering Controls

☐ Source of release secured ☐ Valve(s) closed ☐ Facility shut down
☐ Site secured
☐ Other

Personal Protective Equipment (PPE) HAZWOPER Coordination with OSRO

☐ PVC suits ☐ PE/TYVEK suits ☐ Respirator
☐ Site secured ☐ PVC gloves ☐ Other
☐ Other ☐ Hard hats ☐ Eye protection

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

HEALTH AND SAFETY/RESPONSE PLAN

CONTROL MEASURES (cont'd):

Decontamination

☐ Stations established (see site map)

Sanitation

☐ Facilities provided per OSHA 1910.120(n)

Illumination

☐ Facilities provided per OSHA 1910.120(m)

Medical Surveillance

☐ Facilities provided per OSHA 1910.120(f)

WORK PLAN: (buddy system must be used.)

☐ Booming ☐ Skimmers ☐ Vac. trucks ☐ Pumping ☐ Excavation

☐ Heavy equipment ☐ Sorbent pads ☐ Patching ☐ Hot work ☐ Shoring

☐ Appropriate permits issued

☐ Other (describe):

TRAINING(HAZWOPER training program):

☐ Verified site workers trained per OSHA 1910.120

ORGANIZATION (See Incident Command System chart.):

EMERGENCY PLAN (See site map and Daily Medical Plan - ICS 206.):

SITE SECURITY:

☐ Pre-entry briefing

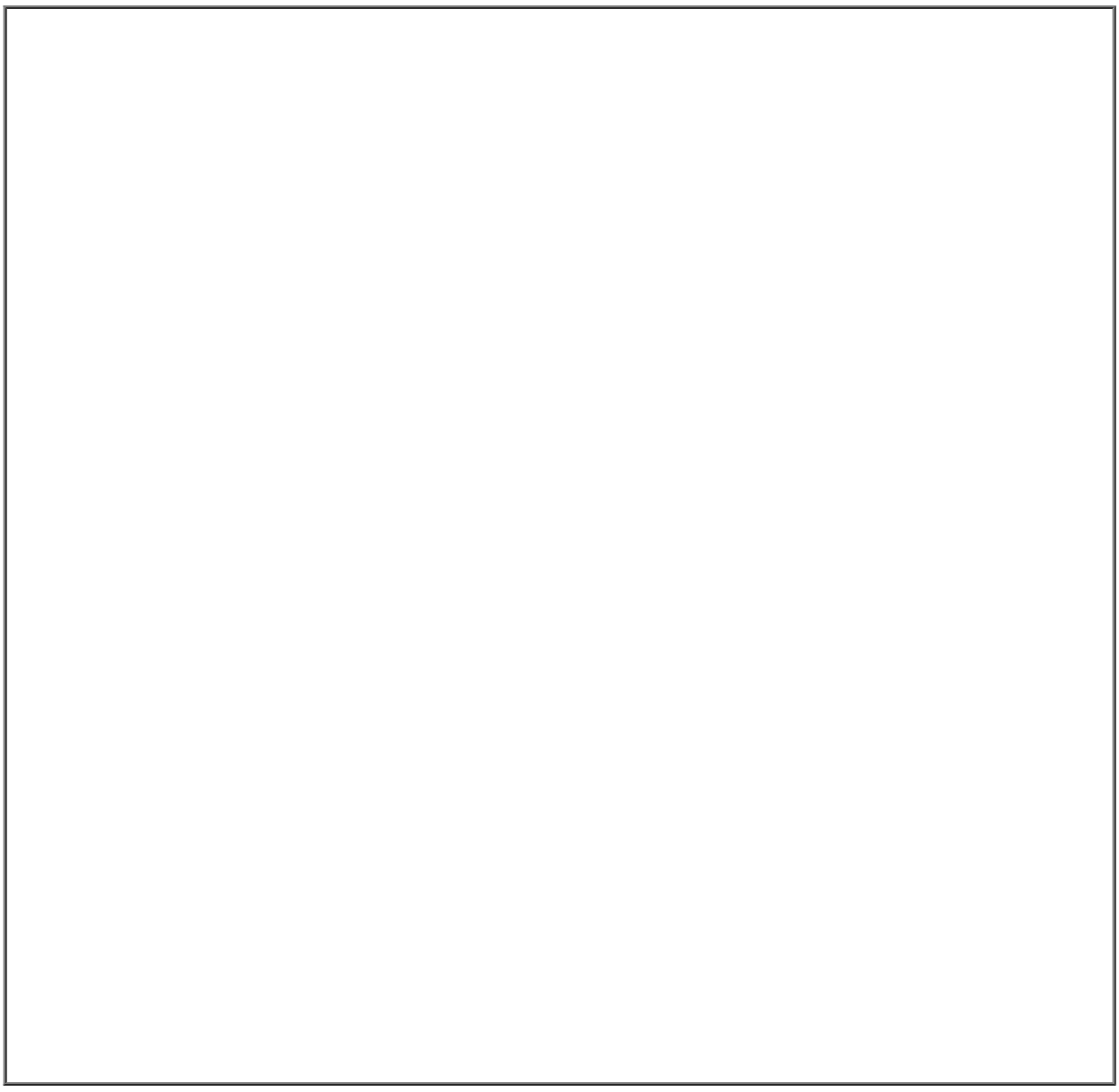
☐ Security level Low Medium High

☐ Other topics

DATE/TIME/PLAN COMPLETED: By:

FIGURE 5.3-4 - SITE SAFETY AND HEALTH PLAN, CONTINUED

SITE DIAGRAM



GENERAL DIAGRAM INSTRUCTIONS

1. Site Diagram should include the following (label the items drawn with corresponding letter):

   A. Sketch with major feature locations (buildings, drainage paths, roads, etc.)
   B. Hazardous substance location
   C. Work zones (exclusion, contamination reduction, support)
   D. Command center and decontamination
   F. Routes of entry
   G. Wind direction
   H. Emergency evacuation routes
   I. Assembly points
   J. First aid locations
   K. Communication system

area

E. Access and access restrictions

5.4 DECONTAMINATION PLAN

Incident Name:	Location:
Effective Date of Plan:	Effective Time Period of Plan:
Spill Location:	Plan Prepared By:

- Work Zones:

  - Support (cold) zone
  - Contamination reduction (warm) zone
  - Exclusion (hot) zone

  These zones are identified by signs, barrier tape or other means. Decontamination is performed in the contamination reduction zone. When responders exit the exclusion zone they must be decontaminated.

  Crews are available to assist in decontamination procedures as needed. The crews must wear appropriate personal protective equipment (PPE), and are responsible for packaging and labeling of contaminated PPE.

- Decontamination Stations:

  Decontamination is performed within the contamination reduction zone, which is appropriately lined to prevent the spread of contaminants. Dikes are installed under the lining to contain runoff.

5.4 DECONTAMINATION PLAN, CONTINUED

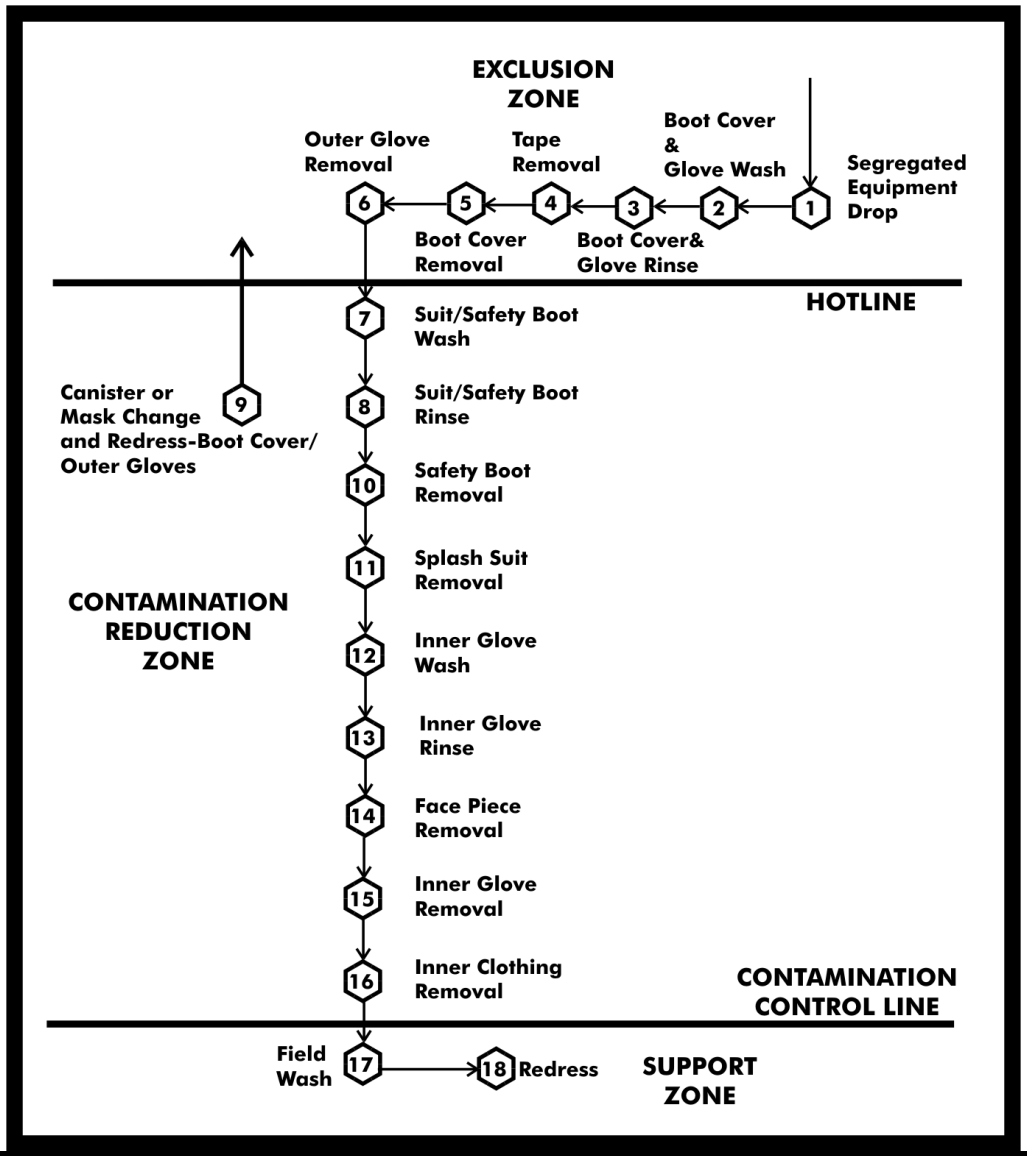
Procedures for these stations are as follows:

MAXIMUM MEASURES FOR DECONTAMINATION		
STATION 1	Segregated equipment drop	Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths or in different containers with plastic liners. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, a cool down station may be set up within this area.
STATION 2	Boot cover and glove wash	Scrub outer boot cover and gloves with decontamination solution or detergent and water.
STATION 3	Boot cover and glove	Rinse off decontamination solution from Station 2

	rinse	using copious amounts of water.
STATION 4	Tape removal	Remove tape around boots and gloves and deposit in container with plastic liner.
STATION 5	Boot cover removal	Remove boot covers and deposit in containers with plastic liner.
STATION 6	Outer glove removal	Remove outer gloves and deposit in container with plastic liner.
STATION 7	Suit and boot wash	Wash splash suit, gloves, and safety boots. Scrub with long-handled scrub brush and decontamination solution.
STATION 8	Suit and boot and glove rinse	Rinse off decontamination solution using water. Repeat as many times as necessary.
STATION 9	Canister or mask change	If worker leaves exclusion zone to change canister or this is the last step in the decontamination procedure; worker?s canister is exchanged, new outer gloves and boot covers are donned, joints are taped, and the worker returns to duty.
STATION 10	Safety boot removal	Remove safety boots and deposit in container with plastic liner.
STATION 11	Splash suit removal	With assistance of helper, remove splash suit. Deposit in container with plastic liner.
STATION 12	Inner glove wash	Wash inner gloves with decontamination solution.
STATION 13	Inner glove rinse	Rinse inner gloves with water.
STATION 14	Face piece removal	Remove face piece. Deposit in container with plastic liner. Avoid touching face with fingers.
STATION 15	Inner glove removal	Remove inner gloves and deposit in lined container.
STATION 16	Inner clothing removal	Remove clothing soaked with perspiration and place in lined container. Do not wear inner clothing off-site since there is a possibility that small amounts of contamination might have been transferred in removing the protective suit.
STATION 17	Field wash	Shower if highly toxic, skin-corrosive or skin-absorbable materials are known or suspected to be present. Wash hands and face if shower is not available.
STATION 18	Re-dress	Put on clean clothes.

5.4 DECONTAMINATION PLAN, CONTINUED

DECONTAMINATION PROCEDURES, MAXIMUM DECONTAMINATION LAYOUT



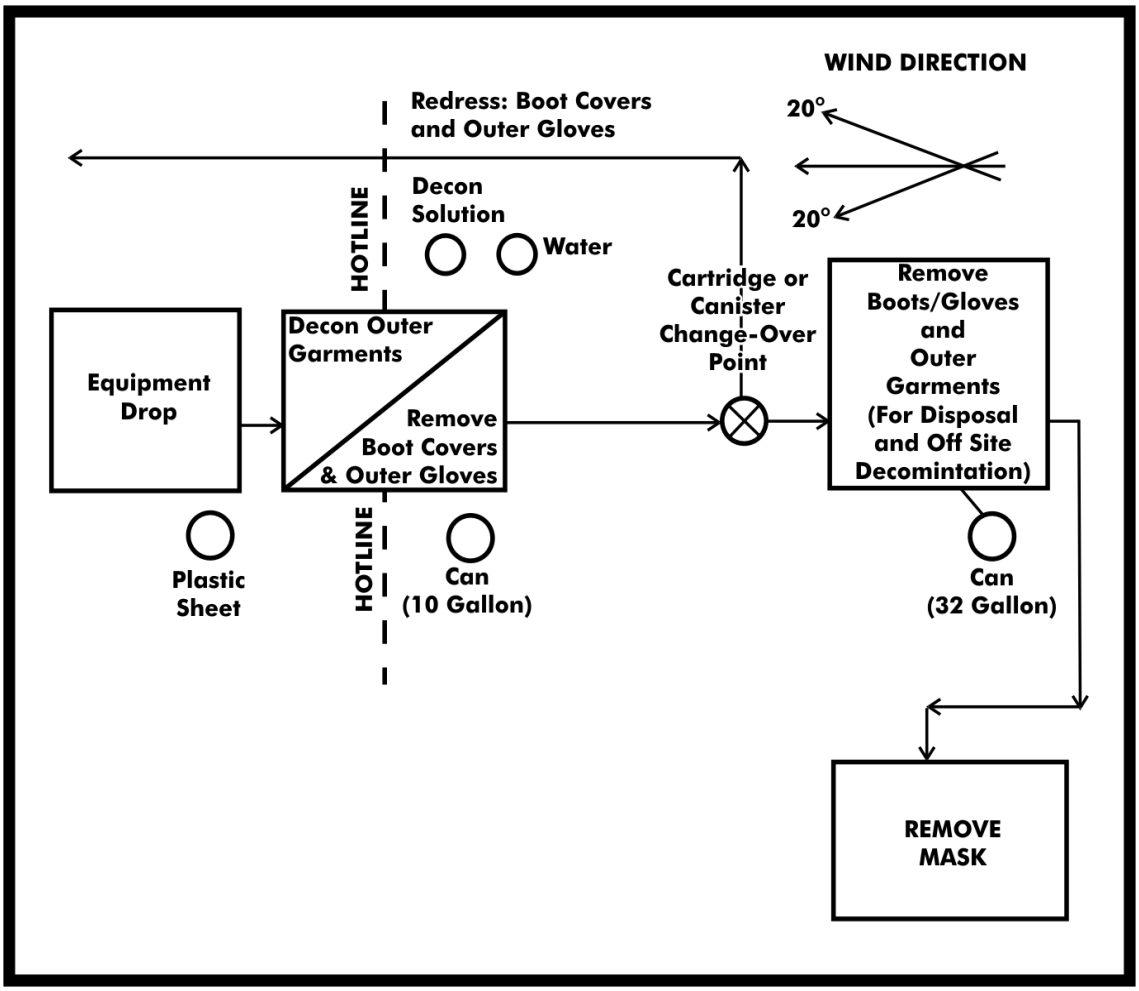
5.4 DECONTAMINATION PLAN, CONTINUED

MINIMUM MEASURES FOR DECONTAMINATION		
STATION 1	Equipment drop	Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, a cool down station may be set up within this area.
STATION 2	Outer garment, boots and gloves wash, and rinse	Scrub outer boots, outer gloves, and splash suit with decontamination solution or detergent and water. Rinse off using copious amounts of water.
STATION 3	Outer boot and glove removal	Remove outer boots and gloves. Deposit in container with plastic liner.
STATION 4	Canister or mask change	If worker leaves exclusion zone to change canister (or mask) or this is the last step in the

		decontamination procedures; worker's canister is exchanged, new outer gloves and boot covers are donned, joints are taped, the worker returns to duty.
STATION 5	Boot, gloves, and outer garment removal	Boots, chemical-resistant splash suit, inner gloves removed and deposited in separate containers lined with plastic.
STATION 6	Face piece removal	Face piece is removed. Avoid touching face with fingers. Face piece deposited on plastic sheet.
STATION 7	Field wash	Hands and face are thoroughly washed. Shower as soon as possible.

5.4 DECONTAMINATION PLAN, CONTINUED

DECONTAMINATION PROCEDURES, MINIMUM DECONTAMINATION LAYOUT



5.5 DISPOSAL PLAN

Date:	Location:
Source of release:	
Amount of release:	
Incident name:	
State On-Scene Coordinator:	
Federal On-Scene Coordinator:	
Time required for temporary storage:	
Proposed storage method:	

Disposal priorities:

Sample date:	Sample ID:
Analysis required (type):	
Laboratory performing analysis:	

Disposal options:

	Available	Likely	Possible	Unlikely
Landfill:				
In situ/ bio-remediation:				
In situ burn:				
Pit burning:				
Hydrocyclone:				
Off site incineration:				
Reclaim:				
Recycle:				

Resources required for disposal options:

General information:

Generator name:	US EPA ID#:
Waste properties:	Waste name:
US EPA waste code:	State waste code:
EPA hazardous waste:	
Waste storage and transportation:	
Proposed storage method:	
Proposed transportation method:	

5.5 DISPOSAL PLAN, CONTINUED

Permits required for storage:
Permits required for transportation:
Estimated storage capacity:
Number and type of storage required:
Local storage available for temporary storage of recovered oil:

PPE required for waste handling:	
Waste coordinator:	Date:

Resources required for disposal options:

Incident name:	
Sample number:	Date sent:
Source of sample:	
Date sample data received:	
Waste hazardous:	Non-hazardous:
Permits/variances requested:	
Approval received on waste profile:	
Date disposal can begin:	
Disposal facilities:	
Profile number:	
Storage contractors:	
Waste transporters:	

PPE designated and agrees with Site Safety and Health Plan:

5.5 DISPOSAL PLAN, CONTINUED

Additional information:
Waste coordinator:

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

5.7 DEMOBILIZATION PLAN

Incident name:	**Location:**
Effective date of plan:	**Effective time period of plan:**
Spill location:	**Plan prepared by:**

Demobilization procedures:

- Operations Section will determine which resources are ready for release from a specific collection site
- The Planning Section will provide guidance on release priorities and demobilization recommendations
- Information maintained by the Planning Section will be utilized to assist in the prioritization
- Each incident will require a Decontamination Area
- Decontaminated equipment will be returned to appropriate staging area for release or re-deployment
- Transports for equipment will be required if remote from staging area
- The Planning Section will document all demobilization and decontamination activities
- Equipment designated for re-assignment will be mobilized to the appropriate staging area
- The Supervisor will ensure a log is maintained documenting that proper decontamination procedures are performed for each piece of equipment
- The Operations Section will ensure that redeployed personnel receive proper rest prior to returning to duty
- The Planning Section Chief will monitor personnel redeployment activities to ensure number of hours worked is within acceptable guidelines
- The Operations Section Chief must approve the Demobilization Plan before decontamination, release, or redeployment of any resources

SECTION 6 Last revised: March 17, 2011

SENSITIVE AREAS / RESPONSE TACTICS

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6.1 AREA DESCRIPTION

Description of shoreline types and specific shoreline protection and clean-up techniques are presented in **FIGURE 6.2-1 and FIGURE 6.3-2.** The strategies and response examples are guidelines and must be evaluated during the response to ensure that the selected response methods are appropriate for the situation.

Sensitivity maps are provided in **SECTION 6.7**.

6.2 SPILL CONTAINMENT / RECOVERY

Containment and recovery refer to techniques that can be employed to contain and recover terrestrial and aquatic petroleum spills.

Terrestrial spills typically result from pipeline or tank leaks. The Company is equipped with secondary containment systems for areas with non-pressurized breakout tanks. Spills occurring within the secondary containment area or along the pipeline areas should be contained at or near their source to minimize the size of the cleanup area and quantity of soil affected.

Containment is most effective when conducted near the source of the spill, where the oil has not spread over a large area and the contained oil is of sufficient thickness to allow effective recovery and/or cleanup. The feasibility of effectively implementing containment and recovery techniques is generally dependent upon the size of the spill, available logistical resources, implementation time, and environmental conditions or nature of the terrain in the spill area.

For terrestrial spills, trenches and earthen berms or other dams are most often used to contain oil migration on the ground surface. Recovery of free oil is best achieved by using pumps, vacuum sources, and/or sorbents.

Spills that reach water spread faster than those on land. They also have greater potential to contaminate water supplies, to affect wildlife and populated areas, and to impact manmade structures and human activities. Responses on water should therefore emphasize stopping the spill, containing the oil near its source, and protecting sensitive areas before they are impacted.

Sorbents are used to remove minor on-water spills. For larger spills, booming is used to protect sensitive areas and to position oil so it can be removed with skimmers or vacuum trucks.

Due to entrainment, booming is not effective when the water moves faster than one knot or waves exceed 1.5 feet in height. Angling a boom will minimize entrainment. Using multiple, parallel booms will also improve recovery in adverse conditions. A summary of booming techniques is provided below.

Containment/Diversion Berming

- Berms are constructed ahead of advancing surface spills to contain spill or divert spill to a containment area
- May cause disturbance of soils and some increased soil penetration

Blocking/Flow-Through Dams	• Construct dam in drainage course/stream bed to block and contain flow of spill. Cover with plastic sheeting. If water is flowing install inclined pipes during dam construction to pass water underneath dam • May increase soil penetration
Culvert Blocking	• Block culvert with plywood, sandbags, sediments, etc. to prevent oil from entering culvert
Interception Trench	• Excavate ahead of advancing surface spill to contain spill and prevent further advancement; cover bottom and gradients with plastic • May cause disturbance of soils and increased soil penetration
Containment booming	• Boom is deployed around free oil • Boom may be anchored or left to move with the oil
Diversion booming	• Boom is deployed at an angle to the approaching oil • Oil is diverted to a less sensitive area • Diverted oil may cause heavy oil contamination to the shoreline downwind and down current • Anchor points may cause minor disturbance to the environment
Exclusion booming	• Boom is placed around a sensitive area or across an inlet, a river mouth, a creek mouth, or a small bay • Approaching oil is contained or deflected (diverted) by the boom • Anchor points may cause minor disturbance to the environment

Sorbent booming

- Used only on quiet water with minor oil contamination
- Boom is anchored along a shoreline or used in a manner described above
- May use boom made of sorbent material or may pack sorbent material between multiple booms placed parallel to each other

Other cleanup methods include: natural recovery, manual removal/scraping, low-pressure flushing, warm water washing, and burning. Berms and dams are also used in shallow waterways to protect areas.

Cleanup methods are provided in the appropriate Area Contingency Plan (ACP), NOAA's "Shoreline Assessment Manual," and NOAA's "Options for Minimizing Environmental Impacts of Freshwater Spill Response." (See http://response.restoration.noaa.gov for the latter two.)

FIGURE 6.2-1 - RESPONSE TACTICS FOR VARIOUS SHORELINES

TYPES	DESCRIPTION	PREDICTED OIL IMPACT	RECOMMENDED CLEANUP ACTIVITY

Developed/ Unforested land	• This class includes towns, cities, farms, pastures, fields, reclaimed wetlands, and other altered areas
	• Organisms and algae may be common in riprap structures and on pilings
		• Oil would percolate easily between the gravel and boulders of riprap structures
		• Oil would coat the intertidal areas of solid structures
		• Biota would be damaged or killed under heavy accumulations
			• May require high pressure spraying:
			  • To remove oil
			  • To prepare substrate for recolonization of barnacle and oyster communities
			  • For aesthetic reasons

Freshwater Flat	• Mud or organic deposits located along the shore or in shallow portions of nontidal freshwater lakes and ponds • They are exposed to low wave and current energy • They are often	• Oil is expected to be deposited along the shoreline • Penetration of spilled oil into the water-saturated sediments of the flat will not occur • When	• These areas require high priority for protection against oil contamination • Cleanup of freshwater flats is nearly impossible because of soft substrate • Cleanup is usually not even considered because of the likelihood of mixing oil deeper into the sediments during the cleanup effort • Passive efforts, such as

	areas of heavy bird use	sediments are contaminated, oil may persist for years	sorbent boom can be used to retain oil as it is naturally removed

Fresh Marsh	• Found along freshwater ponds and lakes
	• These marshes have various types of vegetative cover, including floating aquatic mats, vascular submerged vegetation, needle and broad-leaved deciduous scrubs and shrubs, and broad-leaved evergreen scrubs and shrubs
	• Birds and mammals extensively use fresh marshes for feeding and breeding purposes
		• Small amounts of oil will contaminate the outer marsh fringe only; natural removal by wave action can occur within months
		• Large spills will cover more area and may persist for decades
		• Oil, particularly the heavy fuel oils, tends to adhere readily to marsh grasses
			• Marshes require the highest priority for shoreline protection
			• Natural recovery is recommended when:
			  • A small extent of marsh is affected
			  • A small amount of oil impacts the marsh fringe
			• The preferred cleanup method is a combination of low-pressure flushing, sorption, and vacuum pumping performed from boats
			• Any cleanup activities should be supervised closely to avoid excessive disturbances of the marsh surface or roots
			• Oil wrack and other debris may be removed by hand

Swamp	• Swamps are freshwater wetlands having varying water depths with vegetation types ranging from shrubs and scrubs to poorly drained forested wetlands. Major vegetative types include: scrubs, shrubs, evergreen trees, and hardwood forested woodlands • Birds and mammals use swamps during	• Even small amounts of spilled oil can spread through the swamp • Large spills will cover more area and may persist for decades since water-flushing rates are low • Oil, particularly the heavy fuel oils, will adhere to swamp vegetation • Unlike mangroves, the roots of swamp	• No cleanup recommended under light conditions • Under moderate to heavy accumulations, to prevent chronic oil pollution of surrounding areas placement of sorbent along fringe swamp forest (to absorb oil as it is slowly released) may be effective under close scientific supervision • Proper strategic boom placement may be highly effective in trapping large quantities of oil, thus reducing oil impact to interior swamp forests • Oil trapped by boom can be reclaimed through the use of skimmers and

	feeding and breeding activities	forest trees are not exposed; thus, little damage to trees is expected. Any underbrush vegetation, however, would be severely impacted	vacuums

FIGURE 6.2-1 - RESPONSE TACTICS FOR VARIOUS SHORELINES, CONTINUED

TYPES	DESCRIPTION	PREDICTED OIL IMPACT	RECOMMENDED CLEANUP ACTIVITY
Open water	• Have ocean like waves and currents • Weather changes effect on-water conditions • River mouths present problems • Thermal stratification occurs	• Most organisms are mobile enough to move out of the spill area • Aquatic birds are vulnerable to oiling • Human usage (such as transportation, water intakes, and recreational activities) may be restricted	• Booming, skimming, vacuuming, and natural recovery are the preferred cleanup methods • Sorbents, containment booming, skimming, and vacuum recovery should not be used for gasoline spills unless all available options have been considered and it has been determined that the benefits of containment outweigh the risks; and additionally, until the appropriate safety precautions have been taken (e.g. elimination of ignition sources, control of flammable vapors, and grounding and bonding of recovery equipment) • Cleanup options include physical herding, sorbents, and debris/vegetation removal
Large rivers	• May have varying salinities, meandering channels, and high flow rates • May include	• Fish and migratory birds are of great concern • Under flood conditions, may impact highly	• Booming, skimming, and vacuuming are the preferred cleanup methods • Sorbents, containment booming, skimming, and vacuum recovery should not be used for gasoline spills unless all available options have been

	manmade structures (such as dams and locks) • Water levels vary seasonally • Floods generate high suspended sediment and debris loads	sensitive areas in floodplains • Human usage may be high • When sediments are contaminated, oil may persist for years	considered and it has been determined that the benefits of containment outweigh the risks; and additionally, until the appropriate safety precautions have been taken (e.g. elimination of ignition sources, control of flammable vapors, and grounding and bonding of recovery equipment) • Cleanup options include natural recovery, physical herding, sorbents, and debris/vegetation removal
Small lakes and ponds	• Water surface can be choppy • Water levels can fluctuate widely • May completely freeze in winter • Bottom sediments near the shore can be soft and muddy • Surrounding area may include wet meadows and marshes	• Wildlife and socioeconomic areas likely to be impacted • Wind will control the oil's distribution	• Booming, skimming, vacuuming, and sorbents are the preferred cleanup methods • Sorbents, containment booming, skimming, and vacuum recovery should not be used for gasoline spills unless all available options have been considered and it has been determined that the benefits of containment outweigh the risks; and additionally, until the appropriate safety precautions have been taken (e.g. elimination of ignition sources, control of flammable vapors, and grounding and bonding of recovery equipment) • Cleanup options include physical herding, sorbents, and debris/vegetation removal
Small rivers and streams	• Wide range of water bodies - fast flowing streams to slow moving bayous with low muddy banks and fringed with vegetation • May include waterfalls, rapids, log jams, mid-channel bars,	• Usually contaminate both banks and the water column, exposing a large number of biota to being oiled • Water intakes for drinking water, irrigation, and industrial use likely to be impacted	• Booming, skimming, vacuuming, sorbents, barriers, and berms are the preferred cleanup methods • Sorbents, containment booming, skimming, and vacuum recovery should not be used for gasoline spills unless all available options have been considered and it has been determined that the benefits of containment outweigh the risks; and additionally, until the appropriate safety precautions have been taken (e.g. elimination of ignition sources,

	and islands • Weathering rates may be slower because spreading and evaporation are restricted		control of flammable vapors, and grounding and bonding of recovery equipment) • Cleanup options include physical herding, natural recovery, debris removal, vegetation removal, and in-situ burn

FIGURE 6.2-2 - RESPONSE TO OIL SPILLS IN URBAN ENVIRONMENTS

APPLICABILITY	DESCRIPTION	RECOMMENDED EQUIPMENT	POTENTIAL ISSUES
Storm Sewers: Spilled product may be able to infiltrate a storm sewer, either directly, via a grate, or indirectly through cracks or gaps in underground pipes.	• Flushing ? Use of high pressure water to move suspended product to a collection area. • Jet-Flushing ? Specialized sewer cleaning equipment to remove suspended product as well as silt and debris.	• Vac Truck • Frac Tank • Jet Flushing Truck • Pumps	• Simple flushing may not be able to remove product that has infiltrated silt or "hung up" in corrugated sides of storm piping. Jet flushing may be required. • Jet flushing may result in accumulation of solid wastes to be managed. Sewer inspection may require confined space entry. • Product may follow the outside of sewer lines. • Sewer system may have to be rerouted during response to eliminate recontamination. • Storm sewers may be part of a combined sewer system (See Sanitary Sewer System). • As part of initial assessment, dye marking may be required along with

			marking manhole covers to identify locations • Collect upstream and downstream water quality samples.
Stormwater Retention Ponds	• Aeration/Sparging ? Use of compressors to inject air into the water to volatize hydrocarbons. • Booming - Using sorbent and/or containment booms to contain and recover petroleum products. • Skimming ? Skimmers may be used depending on concentration of flowing product. • Shoreline Cleanup ? See Shoreline tactics. • Underflow Dams	• Vac Truck • Frac Tank • Compressors • Containment Boom • Sorbent Boom	• Storm water ponds are designed for the temporary storage of storm water. Water conditions may result in the pond overflowing to a storm sewer, to another pond, or to a river. Conditions must be monitored to ensure boom placement matches changing water height.
Sanitary Sewers: Spilled product may be able to infiltrate a sanitary sewer indirectly through cracks or gaps in underground pipes.	• Flushing ? Use of high pressure water to move suspended product to a collection area. • Jet-Flushing ? Specialized sewer cleaning equipment to remove suspended product as well as solids. • Biological/Cleaning Agents ? Specialized cleaning agents used with flushing to remove petroleum products. Helpful bacteria may remain to assist in cleaning any residual petroleum products.	• Vac Truck • Frac Tank • Jet Flushing Truck • Pumps • Cleaning Agent	• Simple flushing may not be able to remove product that has infiltrated solids or "hung up" in high or low spot in piping. Jet flushing may be required. Jet flushing will result in accumulation of solid wastes to be managed. • Sewer system may have to be rerouted upstream of impacted area during response to eliminate recontamination. • Product may follow the outside of sewer lines.

			• Any flushing and recovery will result in accumulation of biological wastes which must be stored and handled separately from other recovered petroleum or contact water. • Municipalities may not allow cleaning agents to be released to their water treatment plants, requiring recovery downstream of the injection point. • As part of the initial assessment, dye marking, manhole marking and air monitoring may be required. • Check residential and business properties for vapors that may have migrated through dry traps. • Permits may be required to discharge treated water.

6.3 SENSITIVE AREA PROTECTION

Protection refers to the implementation of techniques or methods to prevent oil from making contact with a shoreline or aquatic area that is determined to be sensitive for environmental, economic, cultural, or human use reasons. Implementation of sensitive area protection techniques must consider a number of factors such as sensitive features, priorities for areas to be protected, and potential degree of impact. In the event a product spill reaches a major area waterway, it may be necessary to protect downstream sensitive areas if it appears that local containment and recovery efforts will not be sufficient to control the entire spill. Major waterways and specific sensitive areas located downstream of the pipeline are provided in SECTION 6.7.

FIGURE 6.3-1 - SENSITIVE AREA PROTECTION IMPLEMENT SEQUENCE

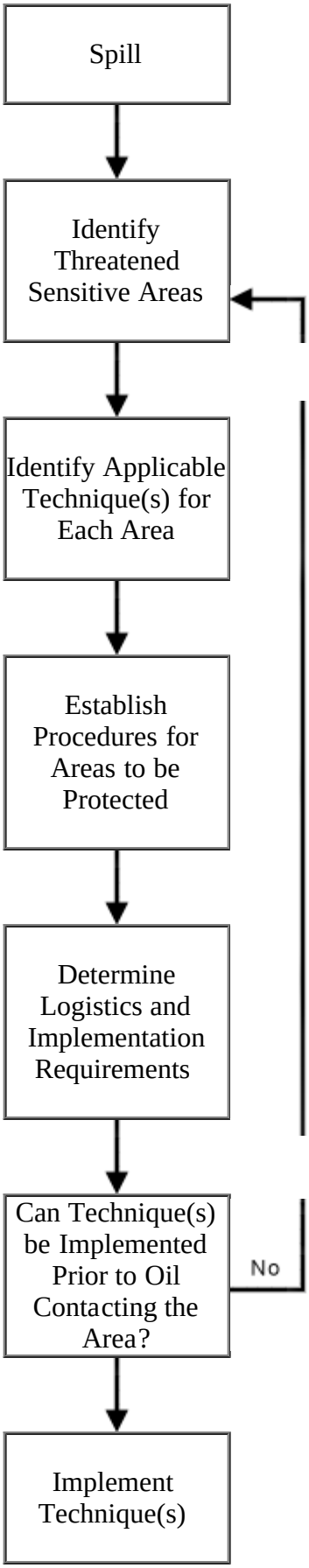

FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES

TECHNIQUE	DESCRIPTION	RECOMMENDED EQUIPMENT	APPLICABILITY	POTENTIAL ENVIRONMENTAL EFFECTS
Removal				
1. Manual Removal	Hand tool (scrapers, wire brushes, shovels, cutting tools, wheel barrows, etc.) are used to scrape oil off surfaces or recover oiled sediments, vegetation, or debris where oil conditions are light or sporadic and/or access is limited.	Equipment misc. hand tools Personnel 10-20 workers	• Can be used on all habitat types • Light to moderate oiling conditions for stranded oil or heavy oils that have formed semi-solid to solid masses • In areas where roosting or birthing animals cannot or should not be disturbed	• Sediment disturbance and erosion potential
2. Mechanical Removal	Mechanical earthmoving equipment is used to remove oiled sediments and debris from heavily impacted areas with suitable access.	Equipment motor grader, backhoe, dump truck elevating scrapers Personnel 2-4 workers plus equipment operators	• On land, wherever surface sediments are accessible to heavy equipment • Large amounts of oiled materials	• Removes upper 2 to 12 inches of sediments
3. Sorbent Use	Sorbents are applied manually to oil accumulations, coatings, sheens, etc. to remove and recover the	Equipment misc. hand tools misc. sorbents Personnel 2-10 workers	• Can be used on all habitat types • Free-floating oil close to shore or stranded on	• Sediment disturbance and erosion potential • Trampling of vegetation and organisms

	oil.		shore, secondary treatment method after gross oil removal • Sensitive areas where access is restricted	• Foot traffic can work oil deeper into soft sediments
4. Vacuum / Pumps / Skimmers	Pumps, vacuum trucks, skimmers are used to remove oil accumulations from land or relatively thick floating layers from the water.	Equipment 1-2 50- to 100-bbl vacuum trucks w/hoses 1-2 nozzle screens or skimmer heads Personnel 2-6 workers plus truck operators	• Can be used on all habitat types • Stranded oil on the substrate • Shoreline access points	• Typically does not remove all oil • Can remove some surface organisms, sediments, and vegetation
Washing				
5. Flooding	High volumes of water at low pressure are used to flood the oiled area to float oil off and out of sediments and back into the water or to a containment area where it can be recovered.? Frequently used with flushing.	Equipment 1-5 100- to 200-gpm pumping systems 1 100-ft perforated header hose per system 1-2 200-ft containment booms per system 1 oil recovery device per system Personnel 6-8 workers per system	• All shoreline types except steep intertidal areas • Heavily oiled areas where the oil is still fluid and adheres loosely to the substrate • Where oil has penetrated into gravel sediments • Used with other washing techniques	• Can impact clean downgradient areas • Can displace some surface organisms if present • Sediments transported into water can affect water quality

FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES, CONTINUED

				POTENTIAL

TECHNIQUE	DESCRIPTION	RECOMMENDED EQUIPMENT	APPLICABILITY	ENVIRONMENTAL EFFECTS
Washing, Continued				
6. Flushing	Water streams at low to moderate pressure, and possibly elevated temperatures, are used to remove oil from surface or near-surface sediments through agitation and direct contact.? Oil is flushed back into the water or a collection point for subsequent recovery.? May also be used to flush out oil trapped by shoreline or aquatic vegetation.	Equipment 1-5 50- to 100-gpm/ 100-psi pumping systems with manifold 1-4 100-ft hoses and nozzles per system 1-2 200-ft containment booms per system 1 oil recovery device per system Personnel 8-10 workers per system	• Substrates, riprap, and solid man-made structures • Oil stranded onshore • Floating oil on shallow intertidal areas	• Can impact clean downgradient areas • Will displace many surface organisms if present • Sediments transported into water can affect water quality • Hot water can be lethal to many organisms • Can increase oil penetration depth
7. Spot (High Pressure Washing)	High pressure water streams are used to remove oil coatings from hard surfaces in small areas where flushing is ineffective.? Oil is directed back into water or collection point for subsequent recovery.	Equipment 1-5 1,200- to 4,000-psi units with hose and spray wand 1-2 100-ft containment booms per unit 1 oil recovery device per unit Personnel 2-4 workers per unit	• Bedrock, man-made structures, and gravel substrates • When low-pressure flushing is not effective • Directed water jet can remove oil from hard to reach sites	• Will remove most organisms if present • Can damage surface being cleaned • Can affect clean downgradient or nearby areas
In Situ				
8. Passive Collection	Sorbent/snare booms or other sorbent materials are anchored at the waterline adjacent to heavily oiled areas to contain and recover oil	Equipment 1,000-2,000 ft sorbent/snare boom 200-400 stakes or anchor systems Personnel 4-10 workers	• All shoreline types • Calm wave action • Slow removal process	• Significant amounts of oil can remain on the shoreline for extended periods of time

	as it leaches from the sediments.			
9. Sediment Tilling	Mechanical equipment or hand tools are used to till lightly to moderately oiled surface sediments to maximize natural degradation processes.	Equipment 1 tractor fitted with tines, dicer, ripper blades, etc. or 1-4 rototillers or 1 set of hand tools Personnel 2-10 workers	• Any sedimentary substrate that can support heavy equipment • Sand and gravel beaches with subsurface oil • Where sediment is stained or lightly oiled • Were oil is stranded above normal high waterline	• Significant amounts of oil can remain on the shoreline for extended periods of time • Disturbs surface sediments and organisms

FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES, CONTINUED

TECHNIQUE	DESCRIPTION	RECOMMENDED EQUIPMENT	APPLICABILITY	POTENTIAL ENVIRONMENTAL EFFECTS
In Situ, Continued				
10. In Situ Bioremediation	Fertilizer is applied to lightly to moderately oiled areas to enhance microbial growth and subsequent biodegradation of oil.	Equipment 1-2 fertilizer applicators 1 tilling device if required Personnel 2-4 workers	• Any shoreline habitat type where nutrients are deficient Moderate to heavily oiled substrates After other techniques have been used to remove free product on lightly oiled shorelines	• Significant amounts of oil can remain on the shoreline for extended periods of time • Can disturb surface sediments and organisms

			Where other techniques are destructive or ineffective	
11. Log/Debris?? Burning	Oiled logs, driftwood, vegetation, and debris are burned to minimize material handling and disposal requirements.? Material should be stacked in tall piles and fans used to ensure a hot, clean burn.	Equipment 1 set of fire control equipment 2-4 fans 1 supply of combustion promoter Personnel 2-4 workers	• On most habitats except dry muddy substrates where heat may impact the biological productivity of the habitat • Where heavily oiled items are difficult or impossible to move • Many potential applications on ice	• Heat may impact local near-surface organisms • Substantial smoke may be generated • Heat may impact adjacent vegetation
12. Natural Recovery	No action is taken and oil is allowed to degrade naturally.	None required	• All habitat types • When natural removal rates are fast • Degree of oiling is light • Access is severely restricted or dangerous to cleanup crews • When cleanup actions will do more harm than natural removal	• Oil may persist for significant periods of time • Remobilized oil or sheens may impact other areas • Higher probability of impacting wildlife
13. Dispersants (Under no circumstances will any	Dispersants are used to reduce the oil/water interfacial	Dispersants Boat or aircraft	• Water bodies with sufficient depth and	• Use in shallow water could affect benthic resources

facility personnel who might be involved in an oil spill response, disperse detergents or other surfactants. These products are prohibited from being used on an oil spill in water; such usage requires written approval of the Regional Response Team, consisting of federal and state agency representatives that coordinate oil spill response efforts)	tension thereby decreasing the energy needed for the slick to break into small particles and mix into the water column. ? Specially formulated products containing surface-active agents are sprayed from aircraft or boats onto the slick.		volume for mixing and dilution • When the impact of the floating oil has been determined to be greater than the impact of dispersed oil on the water-column community	• May adversely impact organisms in the upper 30 feet of the water column • Some water-surface and shoreline impacts could occur
1 - Per 1000 feet of shoreline or oiled area				

Cleanup methods are provided in the appropriate Area Contingency Plan (ACP), NOAA's "Shoreline Assessment Manual," and NOAA's "Options for Minimizing Environmental Impacts of Freshwater Spill Response." (See http://response.restoration.noaa.gov for the latter two.)

6.4 WILDLIFE PROTECTION AND REHABILITATION

- The Company will support wildlife protection and rehabilitation efforts during the response, but will not typically directly manage these efforts
- Company personnel will not attempt to rescue or clean affected wildlife, because such actions may cause harm to the individuals or may place the animals at further risk
- Federal and state agencies responsible for wildlife capture and rehabilitation will typically coordinate capturing and rehabilitating oiled wildlife; a list of these agencies are included in **FIGURE 3.1-3**
- Wildlife rehabilitation specialists may be utilized to assist in capturing and rehabilitating oiled animals as well as deterring unaffected animals away from the spill site.

- U.S Fish & Wildlife is to be notified and consulted in establishing incident-specific priorities for the protection of the resources provided.

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
(No common name)	*Geocarpon minimum*	Sandstone glades and saline prairies	T	Missouri
(No common name)	*Geocarpon minimum*	Grazing land	T	Arkansas
Amphipod, Illinois cave	*Gammarus acherondytes*	Riffle areas of cave streams that have a gravel substrate	E	Illinois
Aster, decurrent false	*Boltonia decurrens*	Moist, sandy soil and regular disturbance	T	Illinois
Aster, decurrent false	*Boltonia decurrens*	Moist, sandy soil and regular disturbance	T	Missouri
Bat, gray	*Myotis grisescens*	Caves and mines; rivers adjacent to forests	E	Arkansas
Bat, gray	*Myotis grisescens*	Caves and mines; rivers adjacent to forests	E	Kansas
Bat, gray	*Myotis grisescens*	Caves and mines; rivers adjacent to forests	E	Missouri
Bat, gray	*Myotis grisescens*	Caves and mines; rivers adjacent to forests	E	Illinois
Bat, gray	*Myotis grisescens*	Caves and mines; rivers adjacent to forests	E	Oklahoma
Bat, Indiana	*Myotis sodalis*	Caves, mines, upland forests	E	Oklahoma
		Caves, mines,		

Bat, Indiana	*Myotis sodalis*	upland forests	E	Illinois
Bat, Indiana	*Myotis sodalis*	Caves, mines, upland forests	E	Missouri
Bat, Indiana	*Myotis sodalis*	Caves, mines, upland forests	E	Arkansas
Bat, Ozark big-eared	*Corynorhinus (=Plecotus) townsendii ingens*	Caves, mines, upland forests	E	Arkansas

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Bat, Ozark big-eared	*Corynorhinus (=Plecotus) townsendii ingens*	Caves, mines, upland forests	E	Missouri
Bat, Ozark big-eared	*Corynorhinus (=Plecotus) townsendii ingens*	Caves, mines, upland forests	E	Oklahoma
Beardtongue, Penland	*Penstemon penlandii*	Alkaline clays containing selenium, which is toxic to most plants	E	Colorado
Beetle, American burying	*Nicrophorus americanus*	Cropland/hedgerow	E	Arkansas
Beetle, American burying	*Nicriphorus americanus*	Forest/pasture ecotone and open pastures in a ridge and valley area	E	Oklahoma
Beetle, American burying	*Nicrophorus americanus*	Cropland/hedgerow	E	Missouri
Beetle, American burying	*Nicrophorus americanus*	Cropland/hedgerow	E	Kansas
Bladderpod, Dudley Bluffs	*Lesquerella congesta*	Barren white outcrops exposed along drainages	T	Colorado
Bladderpod, Missouri	*Lesquerella filiformis*	Limestone glades and rocky open areas	T	Missouri
		Limestone glades		

Bladderpod, Missouri	*Lesquerella filiformis*	and rocky open areas	T	Arkansas
Blossom, turgid (pearlymussel) Entire Range	*Epioblasma turgidula*	Sand and gravel substrates of shallow, fast-flowing streams	E	Arkansas
Bush-clover, prairie	*Lespedeza leptostachya*	Gravelly soil in dry to mesic praries	T	Illinois
Butterfly plant, Colorado	*Gaura neomexicana var. coloradensis*	Moist areas of floodplains	T	Colorado
Butterfly, Karner blue	*Lycaeides melissa samuelis*	Pine barrens and oak savannas on sandy soils	E	Illinois
Butterfly, Uncompahgre fritillary	*Boloria acrocnema*	Moist alpine slopes with extensive snow willow	E	Colorado

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Cactus, Colorado hookless	*Sclerocactus glaucus*	Alluvial benches along the Green, Colorado and Gunnison Rivers	T	Colorado
Cactus, Knowlton	*Pediocactus knowltonii*	Gravelly, dark, sandy loams on slopes or hills	E	Colorado
Cactus, Mesa Verde	*Sclerocactus mesae-verdae*	Gravelly, dark, sandy loams on slopes or hills	T	Colorado
Cavefish, Ozark	*Amblyopsis rosae*	Dark cave waters	T	Arkansas
Cavefish, Ozark	*Amblyopsis rosae*	Dark cave waters	T	Missouri
Cavefish, Ozark	*Amblyopsis rosae*	Dark cave waters	T	Oklahoma
Cavesnail, Tumbling Creek	*Antrobia culveri*	Underside of rocks in areas of Tumbling Creek that have little or no silt; caves	E	Missouri
Chub, bonytail entire	*Gila elegans*	Main stream of mid-sized to large rivers	E	Colorado

Chub, humpback entire	*Gila cypha*	Large rivers	E	Colorado
Clover, running buffalo	*Trifolium stoloniferum*	Open woodlands, savannas, grasslands, stream-banks, floodplains, and shoals	E	Arkansas
Clover, running buffalo	*Trifolium stoloniferum*	Open woodlands, savannas, grasslands, stream-banks, floodplains, and shoals	E	Missouri
Clubshell Entire Range; Except where listed as Experimental Populations	*Pleurobema clava*	Medium to large rivers in gravel or mixed gravel and sand	E	Illinois
Crane, whooping except where EXPN	*Grus americana*	Cropland/hedgerow, grassland/herbaceous	E	Oklahoma
Crane, whooping except where EXPN	*Grus americana*	Freshwater marshes and wet prairies	E	Kansas
Crane, whooping except where EXPN	*Grus americana*	Cropland/hedgerow, grassland/herbaceous	E	Colorado

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Crayfish, cave	*Cambarus aculabrum*	Cave streams	E	Arkansas
Crayfish, cave	*Cambarus zophonastes*	Cave streams	E	Arkansas
Curlew, Eskimo	*Numenius borealis*	Cropland/hedgerow, grassland/herbaceous, tundra	E	Kansas
Curlew, Eskimo	*Numenius borealis*	Cropland/hedgerow, grassland/herbaceous, tundra	E	Oklahoma
Daisy, lakeside	*Hymenoxys herbacea*	Full sun in dry calcareous sites	T	Illinois
		Clear, upland small		

Darter, leopard	*Percina pantherina*	to medium rivers	T	Oklahoma
Darter, leopard	*Percina pantherina*	Clear, upland small to medium rivers	T	Arkansas
Darter, Niangua	*Etheostoma nianguae*	Clear creeks and small to medium rivers	T	Missouri
Dragonfly, Hine's emerald	*Somatochlora hineana*	Calcareous spring-fed marshes and sedge meadows overlaying dolomite bedrock	E	Illinois
Dragonfly, Hine's emerald	*Somatochlora hineana*	Calcareous spring-fed marshes and sedge meadows overlaying dolomite bedrock	E	Missouri
Eagle, bald Sonoran Desert DPS	*Haliaeetus leucocephalus*	Coastlines, rivers, lakes, wet prairies, and coastal pine lands	T	Oklahoma
Fanshell	*Cyprogenia stegaria*	Medium to large streams	E	Illinois
Fatmucket, Arkansas	*Lampsilis powelli*	Deep pools and backwater areas that possess sand	T	Arkansas
Ferret, black-footed entire population, except where EXPN	*Mustela nigripes*	Grasslands, steppe, and shrub steppe	E	Colorado
Ferret, black-footed entire population, except where EXPN	*Mustela nigripes*	Grasslands, steppe, and shrub steppe	E	Kansas

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Flycatcher, southwestern willow	*Empidonax traillii extimus*	Streamside thickets, brushy fields, and willows	E	Colorado
		Rocky or		

Harperella	*Ptilimnium nodosum*	gravelly shoals of clear, swift-flowing streams	E	Arkansas
Higgins eye (pearlymussel)	*Lampsilis higginsii*	Substrates of mud with a mixture of gravel and stones	E	Missouri
Higgins eye (pearlymussel)	*Lampsilis higginsii*	Substrates of mud with a mixture of gravel and stones	E	Illinois
Ladies'-tresses, Ute	*Spiranthes diluvialis*	Moist to very wet meadows along streams	T	Colorado
Lynx, Canada (Contiguous U.S. DPS)	*Lynx canadensis*	Mature forests with dense undergrowth	T	Colorado
Madtom, Neosho	*Noturus placidus*	Large, medium-gradient streams	T	Missouri
Madtom, Neosho	*Noturus placidus*	Large, medium-gradient streams	T	Oklahoma
Madtom, Neosho	*Noturus placidus*	Large, medium-gradient streams	T	Kansas
Mapleleaf, winged Entire	*Quadrula fragosa*	Big River, high gradient, medium river, moderate gradient, riffle	E	Arkansas
Mapleleaf, winged Entire; except where listed as experimental populations	*Quadrula fragosa*	Big River, high gradient, medium river, moderate gradient, riffle	E	Oklahoma
Milk-vetch, Mancos	*Astragalus humillimus*	Sandstone ledges or mesa tops	E	Colorado
Milk-vetch, Osterhout	*Astragalus osterhoutii*	Highly seleniferous soils	E	Colorado
Milkweed, Mead's	*Asclepias meadii*	Dry or mesic prairies and igneous glades with rocky outcrops	T	Illinois
Milkweed, Mead's	*Asclepias meadii*	Dry or mesic prairies and igneous glades with rocky outcrops	T	Missouri

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Milkweed, Mead's	*Asclepias meadii*	Dry or mesic prairies and igneous glades with rocky outcrops	T	Kansas
Mouse, Preble's meadow jumping U.S.A., north-central CO	*Zapus hudsonius preblei*	Heavily vegetated, shrub-dominated streamside and upland along foothills	T	Colorado
Mucket, pink (pearlymussel)	*Lampsilis abrupta*	Sand and gravel substrates	E	Arkansas
Mucket, pink (pearlymussel)	*Lampsilis abrupta*	Sand and gravel substrates	E	Missouri
Mucket, pink (pearlymussel)	*Lampsilis abrupta*	Sand and gravel substrates	E	Illinois
Mussel, scaleshell	*Leptodea leptodon*	Creeks and large rivers	E	Oklahoma
Mussel, scaleshell	*Leptodea leptodon*	Creeks and large rivers	E	Missouri
Mussel, scaleshell	*Leptodea leptodon*	Creeks and large rivers	E	Arkansas
Mustard, Penland alpine fen	*Eutrema penlandii*	Alpine tundra, moss-covered peat fens	T	Colorado
Orchid, eastern prairie fringed	*Platanthera leucophaea*	Mesic to wet praries	T	Arkansas
Orchid, eastern prairie fringed	*Platanthera leucophaea*	Mesic to wet praries	T	Illinois
Orchid, eastern prairie fringed	*Platanthera leucophaea*	Mesic to wet praries	T	Oklahoma
Orchid, western prairie fringed	*Platanthera praeclara*	Wet praries and sedge meadows	T	Oklahoma
Orchid, western prairie fringed	*Platanthera praeclara*	Mesic to wet praries	T	Kansas
Orchid, western prairie fringed	*Platanthera praeclara*	Wet praries and sedge meadows	T	Missouri

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Owl, Mexican spotted	*Strix occidentalis lucida*	Forest, woodlands	T	Colorado
Panther, Florida	*Puma (=Felis) concolor coryi*	South of Lake Okeechobee in the Big Cypress/Everglades region of Florida	E	Arkansas
Pearlshell, Louisiana	*Margaritifera hembeli*	Small sandy creeks with stable sand and gravel substrates	T	Arkansas
Pearlymussel, Curtis	*Epioblasma florentina curtisii*	Riffles or runs, in transistion areas between headwater and lowland streams	E	Arkansas
Pearlymussel, Curtis	*Epioblasma florentina curtisii*	Riffles or runs, in transistion areas between headwater and lowland streams	E	Missouri
Phacelia, North Park	*Phacelia formosula*	Barren, raw exposures of the Coalmont Formation, a rusty-colored sandy substrate	E	Colorado
Pikeminnow (=squawfish), Colorado except Salt and Verde R. drainages, AZ	*Ptychocheilus lucius*	Deep turbid strongly flowing water, eddies, runs, flooded bottoms, or backwaters	E	Colorado
Pimpleback, orangefoot (pearlymussel)	*Plethobasus cooperianus*	Large rivers in sand, gravel, and cobble substrates	E	Illinois
Plover, piping except Great Lakes	*Charadrius melodus*	Sandy beaches, islands	T	Oklahoma

watershed				
Plover, piping except Great Lakes watershed	*Charadrius melodus*	Sandy beaches, islands	T	Colorado
Plover, piping except Great Lakes watershed	*Charadrius melodus*	Lakeshore beaches	T	Kansas
Plover, piping except Great Lakes watershed	*Charadrius melodus*	Sandy beaches, islands	T	Missouri
Plover, piping Great Lakes watershed	*Charadrius melodus*	Sandy beaches, islands	E	Illinois
Pocketbook, fat	*Potamilus capax*	Sand, mud, and fine gravel substrates	E	Illinois
Pocketbook, fat	*Potamilus capax*	Sand, mud, and fine gravel substrates	E	Missouri

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Pocketbook, fat	*Potamilus capax*	Sand, mud, and fine gravel substrates	E	Arkansas
Pocketbook, Ouachita rock	*Arkansia wheeleri*	Pools, side channels, rivers and large creeks in or near the Ouachita Uplift	E	Arkansas
Pocketbook, Ouachita rock	*Arkansia wheeleri*	Pools, side channels, rivers and large creeks in or near the Ouachita Uplift	E	Oklahoma
Pocketbook, speckled	*Lampsilis streckeri*	Coarse to muddy sand with a constant flow of water	E	Arkansas
Pogonia, small		Cidic soils, in		

whorled	*Isotria medeoloides*	dry to mesic second-growth	T	Missouri
Pogonia, small whorled	*Isotria medeoloides*	Acidic soils, in dry to mesic second-growth	T	Illinois
Pondberry	*Lindera melissifolia*	Floodplain hardwood forests and forested swales	E	Missouri
Pondberry	*Lindera melissifolia*	Floodplain hardwood forests and forested swales	E	Arkansas
Potato-bean, Price's	*Apios priceana*	Open, rocky, wooded slopes and floodplain edges	T	Illinois
Prairie-clover, leafy	*Dalea foliosa*	Thin-soiled limestone glades and limestone barrens	E	Illinois
Shagreen, Magazine Mountain	*Mesodon magazinensis*	Rock slide; cool moist climate and will move deeper into rock crevasses in warmer dry weather	T	Arkansas
Shiner, Arkansas River Arkansas R. Basin	*Notropis girardi*	Unshaded channels of creeks and small to large rivers	T	Arkansas
Shiner, Arkansas River Arkansas R. Basin	*Notropis girardi*	Unshaded channels of creeks and small to large rivers	T	Oklahoma
Shiner, Arkansas River Arkansas R. Basin	*Notropis girardi*	Benthopelagic; freshwater	T	Kansas
Shiner, Topeka	*Notropis topeka (=tristis)*	Streams	E	Kansas

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Shiner, Topeka	*Notropis topeka (=tristis)*	Streams	E	Missouri
Skipper, Pawnee montane	*Hesperia leonardus montana*	Open grassy areas including native prairies, fields, barrens, and meadows	T	Colorado
Snail, Iowa Pleistocene	*Discus macclintocki*	Aquatic environment	E	Illinois
Sneezeweed, Virginia	*Helenium virginicum*	Seasonally inundated ponds	T	Missouri
Sturgeon, pallid	*Scaphirhynchus albus*	Free-flowing riverine	E	Arkansas
Sturgeon, pallid	*Scaphirhynchus albus*	Free-flowing riverine	E	Colorado
Sturgeon, pallid	*Scaphirhynchus albus*	Free-flowing riverine	E	Illinois
Sturgeon, pallid	*Scaphirhynchus albus*	Free-flowing riverine	E	Missouri
Sturgeon, pallid	*Scaphirhynchus albus*	Free-flowing riverine	E	Kansas
Sucker, razorback entire	*Xyrauchen texanus*	Slow areas, backwaters, and eddies of medium to large rivers	E	Colorado
Tern, least interior pop.	*Sterna antillarum*	Open sandy or gravelly beach, dredge spoil and other open shoreline areas	E	Colorado
Tern, least interior pop.	*Sterna antillarum*	Open sandy or gravelly beach, dredge spoil and other open shoreline areas	E	Arkansas
Tern, least interior pop.	*Sterna antillarum*	Open sandy or gravelly beach, dredge spoil and other open shoreline areas	E	Kansas
Tern, least interior		Open sandy or gravelly beach,		

pop.	*Sterna antillarum*	dredge spoil and other open shoreline areas	E	Missouri
Tern, least interior pop.	*Sterna antillarum*	Open sandy or gravelly beach, dredge spoil and other open shoreline areas	E	Illinois

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Tern, least interior pop.	*Sterna antillarum*	Open sandy or gravelly beach, dredge spoil and other open shoreline areas	E	Oklahoma
Thistle, Pitcher's	*Cirsium pitcheri*	Shorelines of Lakes Michigan, Huron and Superior	T	Illinois
Trout, greenback cutthroat	*Oncorhynchus clarki stomias*	Freshwater; Front Range streams and lakes	T	Colorado
Twinpod, Dudley Bluffs	*Physaria obcordata*	Barren, raw exposures of the Coalmont Formation, a rusty-colored sandy substrate	T	Colorado
Vireo, black-capped	*Vireo atricapillus*	Shrubland/chaparral	E	Oklahoma
Wild-buckwheat, clay-loving	*Eriogonum pelinophilum*	Whitish, alkaline clay soils on Mancos shale	E	Colorado
Wolf, gray Lower 48 States, except where delisted and where EXPN. Mexico	*Canis lupus*	Mixed, grassland/herbaceous	E	Colorado
Woodpecker, ivory-billed entire	*Campephilus principalis*	Mature old-growth forest, cypress swamps and mature	E	Arkansas

		pine forests		
Woodpecker, red-cockaded	*Picoides borealis*	Open pine forests with large, widely-spaced older trees	E	Arkansas
Woodpecker, red-cockaded	*Picoides borealis*	Open pine forests with large, widely-spaced older trees	E	Oklahoma
Woodpecker, red-cockaded	*Picoides borealis*	Open pine forests with large, widely-spaced older trees	E	Missouri

T - Threatened
E - Endangered

6.6 PIPELINE MAP FEATURE INDEX

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6.9 Waterway and Tactical Sites

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Glenpool Waterway Overview
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Tactical Sites

Glenpool
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6.9 Waterway and Tactical Sites

Waterway Overview

Jenks Waterway Overview
(Click here for Jenks)

Tactical Sites

Jenks
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6.9 Waterway and Tactical Sites

Waterway Overview

Missouri River KC Waterway Overview
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Tactical Sites

Missouri River KC
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SECTION 7 Last revised: May 11, 2010

SUSTAINED RESPONSE ACTIONS

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7.1 RESPONSE RESOURCES

7.1.1 Response Equipment

CATEGORY	TYPE/MODEL	QUANTITY	SIZE	YEAR PURCHASED	OPERATIONAL STATUS/ CONTAINMENT CAPACITY	LOCATION AT FACILITY
Response Equipment	Containment Boom	250-ft	4-inch mini boom	Replaced as necessary	In operation	Humboldt
Response Equipment	Containment Boom	25-ft	4-inch	Replaced as necessary	In operation	Ponca City ER Trailer
Response Equipment	Containment Boom	50-ft	8-inch	Replaced as necessary	In operation	Ponca City ER Trailer
Response Equipment	Containment Boom	300-ft	6-inch	Replaced as necessary	In operation	West Tulsa Terminal
Response Equipment	Containment Boom	130-ft	4-inch	Replaced as necessary	In operation	Oklahoma City Terminal
Response Equipment	Containment Boom	100-ft	6-inch	Replaced as necessary	In operation	Ft. Smith Terminal
Response Equipment	Containment Boom	100-ft	6-inch	Unk	In storage	Enid Terminal

***Note:** Response equipment is tested and deployed as described in **APPENDIX A** of the Spill Response Plan. Response equipment not included in the above table is not maintained at this facility for response (i.e. weirs, booms, etc.). Containment capacity for sorbents is equivalent to absorption capacity.

***Note:** The response resources listed above have been determined to be appropriate for this facility given the unique characteristics of the facility which may include flow paths, proximity to spill contractors, and natural and man-made tertiary containment. The analysis to determine the appropriate response resources, including functional equivalents of containment boom, is explained in the Discharge Scenarios in **APPENDIX D.5.1.**

FIGURE 7.1-1 - EQUIPMENT/RESPONSE CAPABILITIES AND LIMITATIONS

* USCG Classified OSRO for facility

COMPANY/CONTRACTOR	EQUIPMENT	RESPONSE TIME
*Haz-Mat Response, Inc.	Full response capabilities	0 hours

Great Bend, KS		
*Haz-Mat Response, Inc Wichita, Kansas	Full Response Equipment	0 hours
*Future Environmental (OSRO #350) Cushing, Oklahoma	USCG OSRO	0 hours
*United States Environmental Services, LLC North Little Rock, AR		0 hours
*Haz-Mat Response, Inc. Olathe, KS	Full response capabilities	1 hours
*A-Clean Environmental Tulsa, OK	OSRO Response Equipment	2 hours
*TAS Environmental Fort Worth, TX	Full Response Capabilities	2 hours
*Heritage Environmental Services St. Louis, MO	Full response capabilities	2 hours
*A-Clean Environment Wilson, OK	Full response capabilities	3.25 hours
*Acme Products Co. Tulsa, OK	Full response capabilities	3.5 hours
*TAS Environmental Alexander, Arkansas	Response Equipment	4 hours
*SWS (OSRO 247) Fort Worth, TX	Full response capabilities	6 hours

7.1.2 Response Equipment Inspection and Maintenance

Depending on the region, Company response resources consist of:

- Strategically located response trailers containing primarily safety and emergency response equipment
- Facility based equipment designed for releases at or near facilities.

In general, regional response contractors as well as one or more trailers can be mobilized to any location along the pipeline within six to 12 hours to meet the federal Tier 1 response planning requirements. Vacuum truck contractors can also respond to most locations along the pipeline system within six hours and multiple regional response contractors can respond to any location within 30 to 36 hours to meet the Tier 2 and Tier 3 response requirements.

Company response equipment is tested and inspected as noted below. The Manager of Operations is responsible for ensuring that the following response equipment and testing procedures are implemented. These consist of:

Containment boom During boom deployment exercises, boom will be inspected for

signs of structural deficiencies. If tears in fabric or rotting is observed, boom will be repaired or replaced. In addition, end connectors will be inspected for evidence of corrosion. If severe corrosion is detected, equipment will be repaired or replaced.

Miscellaneous equipment Other response equipment identified in this Plan will be inventoried and tested on a semiannual basis to ensure that the stated quantities are in inventory and in proper working order. The equipment inspection and deployment exercises are recorded and maintained at the facility and retained for a period of five years. Exercise requirements are listed in **APPENDIX A**. A Spill/Exercise Documentation form is in **FIGURE A.1-3**. **FIGURE A.1-4** provides a log for response equipment testing and deployment drills.

7.1.3 Contractors, Contractor Equipment, and Labor

- The Company's primary response contractors' names and phone numbers, as well as other companies who can provide spill response services are provided in **SECTION 3**
- The Company has ensured by contract the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to the worst case discharge or the substantial threat of such discharge
- Contractors without USCG classification deploy and inspect boom to meet PREP guidelines. Company requires that these exercises are completed annually
- **APPENDIX B** contains evidence of contracts for the Company's primary response contractors and equipment lists of contractors without USCG classification

7.1.4 Command Post

In the event of a major spill, both an off-site Emergency Operations Center (EOC) and a Command Post would be established. For a minor spill, only a Command Post would be established. Refer to **FIGURE 7.1-2** for guidelines in establishing a Command Post.

FIGURE 7.1-2 - COMMAND POST CHECKLIST

COMMAND POST CHECKLIST	INITIALS	DATE/TIME STARTED	DATE/TIME COMPLETED
Ensure adequate space for size of staff.			
Ensure 24 hour accessibility.			
Ensure personal hygiene facilities.			
Ensure suitability of existing communications resources (phone/fax/radio).			

Ensure suitability of private conference and briefing rooms.			
Identify Command Post security requirements, safe location.			
Notify other parties of Command Post location; provide maps/driving directions.			
Determine staging areas and incident base locations.			
Identify future need to move, upgrade facilities.			

7.1.5 Staging Area

In a major spill response, numerous staging areas may be required to support containment and clean-up operations.

In selecting a suitable staging area, the following criteria should be considered:

- Accessibility to impacted areas
- Proximity to secure parking, airports, docks, pier, or boat launches
- Accessibility to large trucks and trailers which may be used to transfer equipment

In addition, the staging area should:

- Be in a large open area in order to provide storage for equipment and not interfere with equipment loading and offloading operations
- Have a dock/pier on site for deploying equipment
- Have moorage available for vessels to aid the loading/offloading of personnel

7.1.6 Communications Plan

Company owned communications equipment and quantities commonly used to address response communications are listed below:

64 land-line phones
44 cellular phones
1 pagers
16 two-way radios
14 fax machines
40 computers

Additional communications equipment (VHF portable radios with chargers and accessories, command post with UHF, VHF, single sideband, marine, aeronautical, telephone, and hard-line

capability) may be provided by the Company or leased from a communications company in the area. Communications with government agencies, state police, and contractors can be conducted on portable radios. Refer to **FIGURE 7.1-3** for guidelines to setup communications.

It is the responsibility of the Qualified Individual to provide an adequate communications system. The Communications Plan, written at the time of an incident, will identify telephone numbers and radio frequencies used by responders. This may also involve activation of multiple types of communications equipment and coordination among multiple responding agencies and contractors.

FIGURE 7.1-3 - COMMUNICATIONS CHECKLIST

COMMUNICATIONS CHECKLIST	INITIALS	DATE/TIME STARTED	DATE/TIME COMPLETED
Develop a Communications Plan.			
Ensure adequate phone lines per staff element - contact local provider.			
Ensure adequate fax lines - contact local provider.			
Internet access necessary?			
Ensure recharging stations for cellular phones.			
VHF radio communications: • Establish frequencies • Assign call signs • Distribute radios • Establish communications schedule			
Ensure recharging stations for VHF radios.			
Determine need for VHF repeaters.			
Ensure copy machine available.			
Ensure communications resource accountability.			
Ensure responders have capability to communicate with aircraft.			

Note: Actions on this checklist may not be applicable or may be continuous activities.

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7.3 WASTE MANAGEMENT

Initial oil handling and disposal needs may be overlooked in the emergency phase of a response, which could result in delays and interruptions of cleanup operations. Initially, waste management concerns should address:

- Equipment capacity
- Periodic recovery of contained oil
- Adequate supply of temporary storage capacity and materials

The following action items should be conducted during a spill response:

- Development of a Site Safety and Health Plan (**SECTION 5.3**) addressing the proper PPE and waste handling procedures
- Notify and inform State Environmental Agency and local agencies
- Development of a Disposal Plan (**SECTION 5.5**) in accordance with any federal, state, and/or local regulations
- Continuous tracking of oil disposition in order to better estimate amount of waste that could be generated over the short and long-term
- Organization of waste collection, segregation, storage, transportation, and proper disposal
- Minimization of risk of any additional pollution
- Regulatory review of applicable laws to ensure compliance and (if appropriate) obtain permits
- Documentation of all waste handling and disposal activities
- Disposal of all waste in a safe and approved manner

Good hazardous waste management includes:

- Reusing materials when possible
- Recycling or reclaiming waste
- Treating waste to reduce hazards or reducing amount of waste generated

- The management of the wastes generated in cleanup and recovery activities must be conducted with the overall objective of ensuring:
    - Worker safety
    - Waste minimization
    - Cost effectiveness
    - Minimization of environmental impacts
- Proper disposal
- Minimization of present and future environmental liability

Solid wastes such as sorbents, PPE, debris, and equipment will typically be transported from

the collection site to a designated facility for:

- Storage
- Waste segregation
- Packaging
- Transportation

Once this process is complete, the waste will be shipped off-site to an approved facility for required disposal.

A general flow chart for waste management guidelines is provided in **FIGURE 7.3-1**. An overall checklist for containment and disposal is provided in **FIGURE 7.3-2**.

FIGURE 7.3-1 - WASTE MANAGEMENT FLOW CHART

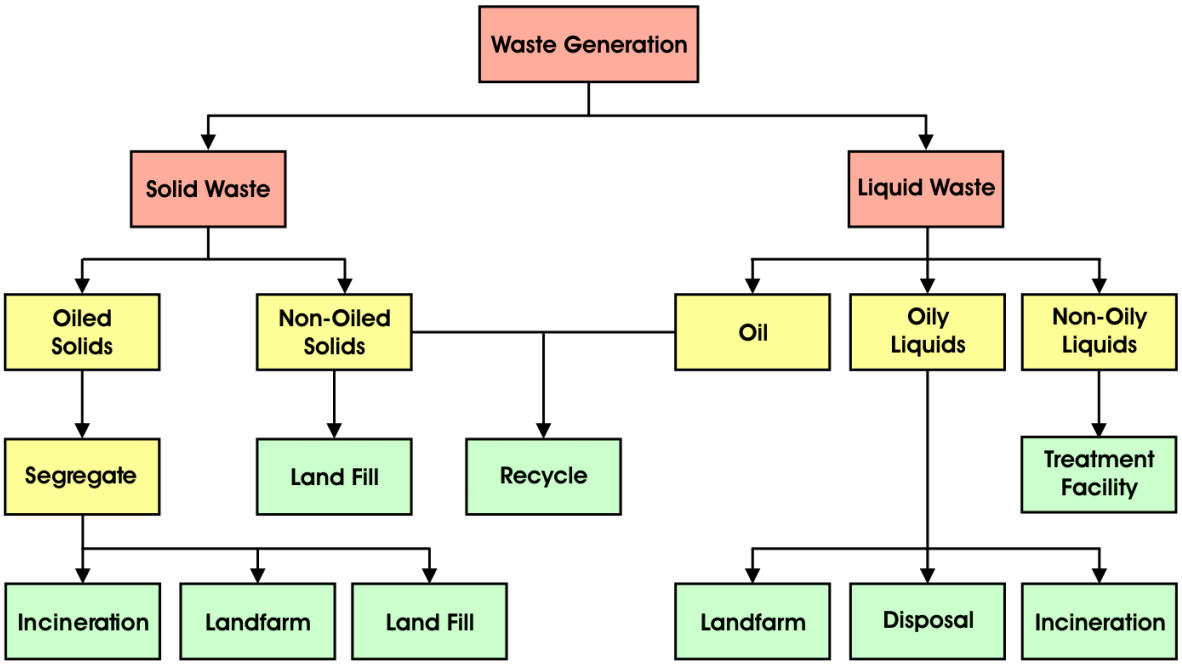

FIGURE 7.3-2 - GENERAL WASTE CONTAINMENT AND DISPOSAL CHECKLIST

CONSIDERATION	YES/NO/NA
Is the material being recovered a waste or reusable product?	
Has all recovered waste been containerized and secured so there is no potential for further leakage while the material is being stored?	
Has each of the discrete waste streams been identified?	
Has a representative sample of each waste stream been collected?	
Has the sample been sent to an approved laboratory for the appropriate	

analysis, (i.e. hazardous waste determination)?	
Has the appropriate waste classification and waste code number(s) for the individual waste streams been received?	
Has a temporary EPA identification number and generator number(s) been received, if they are not already registered with EPA?	
Have the services of a registered hazardous waste transporter been contracted, if waste is hazardous?	
If the waste is nonhazardous, is the transporter registered?	
Is the waste being taken to an approved disposal site?	
Is the waste hazardous or Class I nonhazardous?	
If the waste is hazardous or Class I nonhazardous, is a manifest being used?	
Is the manifest properly completed?	
Are all federal, state, and local laws/regulations being followed?	
Have State Environmental and local agencies been notified?	
Are all necessary permits being obtained?	
Has a Disposal Plan been submitted for approval/review?	
Has PPE and waste-handling procedures been included in the Site Safety and Health Plan to protect the health and safety of waste handling personnel?	

7.3.1 Waste Storage

During an oil spill, the volume of oil that can be recovered depends on the storage capacity available. Typical short-term (temporary) storage methods are provided in FIGURE 7.3-3. If storage containers such as bags or drums are used, the container should be clearly marked and/or color-coded to indicate the type of material or waste contained and/or the ultimate disposal option.

Use of any site for storage is dependent on the approval of local authorities. The following elements affect the choice of a potential storage site:

- Geology
- Soil
- Surface water
- Covered materials
- Climatic factor
- Toxic air emissions
- Ground water
- Flooding
- Slope
- Capacity
- Land use
- Security

Access Public contact

FIGURE 7.3-3 - TEMPORARY STORAGE METHODS

CONTAINMENT	PRODUCT						
	OIL	OIL/WATER	OIL/SOIL	OIL/DEBRIS (Small)	OIL/DEBRIS (Medium)	OIL/DEBRIS (Large)	CAPACITY
Drums	X	X	X				0.2-0.5 yd^3
Bags		X	X	X			1.0-2.0 yd^3
Boxes		X	X	X			1-5 yd^3
Open top rolloff	X	X	X	X	X	X	8-40 yd^3
Roll top rolloff	X	X	X	X	X	X	15-25 yd^3
Vacuum box	X	X					15-25 yd^3
Frac tank	X	X					500-20,000 gal
Poly tank	X	X					200-4,000 gal
Vacuum truck	X	X	X				2,000-5,000 gal
Tank trailer	X	X					2,000-4,000 gal
Barge	X	X					3,000+gal
Berm, 4 ft		X	X	X	X	X	1 yd^3
Bladders	X	X					25 gal-1,500 gal

7.3.2 Waste Transfer

In most oil spill response operations, it would be necessary to transfer recovered oil and oil debris from one point to another several times before the oil and oily debris are ultimately disposed of at a state approved disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur.

- Directly into the storage tank of a vacuum device.
- Directly in to impermeable bags that, in turn, are placed in impermeable containers.
- From a vacuum device storage tank to a truck.
- From containers to trucks.
- From trucks to lined pits.

From lined pits to incinerators and/or landfills.

- From a tank truck to a processing system (i.e., oil/water separator).
- From a processing system to a recovery system and or incinerator.
- From a skimming vessel or flexible bladder to a barge.
- From a barge to a tank truck.
- Directly into the storage tank on a dredge.
- From portable or vessel mounted skimmers into flexible bladder tanks, the storage tanks of the skimming vessel itself, or a barge.

There are four general classes of transfer systems that could be employed to effect oily waste transfer operations. The following is a brief description of the four transfer systems:

Pumps
Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates.

The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

Vacuum Systems
Vacuum systems, such as air conveyors, vacuum trucks and portable vacuum units, may be used to transfer viscous oils and debris but they usually pick up a very high water/oil ratio.

Belt/Screw Conveyors
Conveyor may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances but are bulky and difficult to operate.

Wheeled Vehicles
Wheeled vehicles may be used to transfer liquid waste of oily debris to storage or disposal sites. These vehicles are readily available but have a limited rate (i.e., 100 bbls) and require good site access.

7.3.3 Waste Disposal

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal techniques are employed.

The Company is permitted, and maintains said permits (i.e., Department of Transportation), to

recover and transport recovered liquids (water, petroleum). The Company uses contractors who maintain permits for transportation of recovered liquids and spill debris.

The following is a brief description of some disposal techniques available for recovered oil and oily debris.

Recycling
Recycling involves processing discarded materials for another use.

Incineration
This technique entails the destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority.

In Situ Burning/Open Burning
Burning techniques entail igniting oil or oiled debris allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state, and local laws. Permission for in situ burning may be difficult to obtain when the burn takes place near populated areas.

As a general rule, in situ burning would be appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal
This technique entails burying the recovered oil in a approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

FIGURE 7.3-4 - FACILITY SPECIFIC DISPOSAL PLAN

MATERIAL	DISPOSAL FACILITY	LOCATION
Recovered Product	Nearest MPC Facility	
Contaminated Soil	City of Great Bend Landfill Scott County Landfill East Oak Landfill Oklahoma City Landfill Osage Landfill Springfield Landfill	Great Bend, KS 67530 E Scott City, KS Oklahoma City, OK Oklahoma City, OK Osage County, OK Springfield, MO
Contaminated Equipment	City of Great Bend Landfill Scott County Landfill East Oak Landfill Oklahoma City Landfill Osage Landfill Springfield Landfill	Great Bend, KS 67530 E Scott City, KS Oklahoma City, OK Oklahoma City, OK Osage County, OK Springfield, MO

Personnel Protective Equipment	City of Great Bend Landfill Scott County Landfill East Oak Landfill Oklahoma City Landfill Osage Landfill Springfield Landfill	Great Bend, KS 67530 E Scott City, KS Oklahoma City, OK Oklahoma City, OK Osage County, OK Springfield, MO
Decontamination Solutions	Nearest MPC Facility	Nearest MPC Facility
Adsorbents and Spent Chemicals	City of Great Bend Landfill Scott County Landfill East Oak Landfill Oklahoma City Landfill Osage Landfill Springfield Landfill	Great Bend, KS 67530 E Scott City, KS Oklahoma City, OK Oklahoma City, OK Osage County, OK Springfield, MO

7.4 PUBLIC AFFAIRS

This section contains guidelines for dealing with the media during an emergency. The Incident Commander will play a key role in providing the initial public assessment and taking the first steps to provide the Company's public response. Information in this section includes:

- Guidelines for dealing with the media
- Incident Fact Sheet (**FIGURE 7.4-1**)

GUIDELINES FOR DEALING WITH THE MEDIA

- You as a Company Manager are the most logical person for reporters to seek out for information
- Reporters will look elsewhere to find out what happened if you do not answer their questions; however, if you do not have this information or are not prepared to answer a particular question, say so then say when they can expect the answers to their questions (such as one hour)
- It is important to be courteous to all media representatives and to provide a safe place for them to wait until a company representative can meet them; you may need to provide an initial statement

Provide

- A brief, general description of what happened
- Number of injured or killed, if known
- Steps being taken to handle the emergency

Don't provide

- Names of deceased or seriously injured employees until the next of kin have been notified
- Speculation about the cause of the emergency
- Any statement implying personal or company negligence
- Cost estimates of damage

Other considerations

- Safety considerations should always receive priority in determining access to company property
- Anticipate likely questions
- There are only six questions that can be asked about any subject: who, what, when, where, why, and how
- Keep answers short and understandable
- Answer only the question that is asked by the reporter
- Give the most important facts first
- Talk to the public's concern about the incident such as whether these were deaths, injuries, any threat to the public, or danger of explosion or fire
- If you don't know the answer to a question, don't be afraid to say "I don't know"; make note of the question and tell the reporter that you will try to get the answer for him - then do it
- Don't be defensive

Other considerations, continued:

- There is no such thing as "Talking off the record"; assume that anything and everything you say to a reporter is going to be printed and/or used in the story
- Avoid "What If?" or speculative questions; these questions should be answered with a restatement of the problem and what is being done to control it
- Don't speculate about the cause of the incident
- Don't minimize the situation

FIGURE 7.4-1 - INCIDENT FACT SHEET

What occurred:
When (time):
Where (location):
What are hazards:
How is the situation being handled:
How many people involved:
Confirmed injuries/fatalities:
Treatment location:
Name of injured (release only after next of kin are notified):
Name of fatalities (release only after next of kin are notified):
What agencies have been notified:
On scene? (yes/no):
Who is in-charge:
Has outside help been requested:
Who:
On scene? (yes/no):
Is there danger to the plant:
Is there danger to the community:
What:
Is there an environmental hazard:
What is the environmental hazard:
What is being done to minimize environmental threat:
Is there a need for evacuation:

SECTION 8 Last revised: January 2005

DEMOBILIZATION / POST-INCIDENT REVIEW

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8.1 TERMINATING THE RESPONSE

- A team of federal, state, and company personnel must certify that each area is clean before halting cleanup operations
- Demobilize equipment and personnel at the first opportunity in order to reduce cost
- Consider which resources should be demobilized first; for example, berthing expenses can be saved by demobilizing out-of-area contractors before local ones
- Equipment may need both maintenance and decontamination before being demobilized
- All facilities (staging area, Command Post, etc.) should be returned to their pre-spill condition before terminating operations
- Determine what documentation should be maintained, where, and for how long
- Contract personnel may be more susceptible to "suffering" injuries as they approach termination
- Some activities will continue after the cleanup ends; examples include incident debriefing, bioremediation, NRDA studies, claims, and legal actions
- Consider expressing gratitude to the community, police department, fire department, and emergency crews for their work during the response

8.2 DEMOBILIZATION

The Company can reduce costs considerably by developing a Demobilization Plan (**SECTION 5.7**). Therefore, emphasis must be placed on establishing efficient demobilization procedures. A Demobilization Checklist is provided in **FIGURE 8.2-1**.

FIGURE 8.2-1 - DEMOBILIZATION CHECKLIST

DEMOBILIZATION CHECKLIST	INITIALS	DATE/TIME STARTED	DATE/TIME COMPLETED
Assign personnel to identify surplus resources and probable release times.			
Establish demobilization priorities.			
Develop decontamination procedures.			
Initiate equipment repair and maintenance.			
Develop a Disposal Plan.			
Identify shipping needs.			
Identify personnel travel needs.			
Develop impact assessment and statements.			
Obtain concurrence of Planning and			

Operations Group Leaders before release of personnel or equipment.			

8.3 AFTER ACTION REVIEW

All facility personnel involved in the incident shall be debriefed by the Company Incident Commander. A Standard Incident Debriefing Form is provided in **FIGURE 8.3-1**. This form should be completed by the Incident Commander, and all members of the ICS Command Staff and General Staff involved in the incident within two weeks after termination of emergency operations.

The primary purpose of the After Action Review is to identify actual or potential deficiencies in this Plan and to determine the changes required to correct the deficiencies. The After Action Review is also intended to identify which response procedures, equipment, and techniques were or were not effective and the reasons why or why not. This type of information is very helpful in the development of a functional Plan by eliminating or modifying those response procedures that are less effective and emphasizing those that are highly effective.

The After Action Review process should also be used for evaluating training and exercises. Key agency personnel that were involved in the response will be invited to attend the After Action Review.

FIGURE 8.3-1 - STANDARD INCIDENT DEBRIEFING FORM

Name of incident:
Date:
PERSONNEL DEBRIEFED
Name:
Normal duty:
Summary of duties performed during incident (list date, time, and location):
Positive aspects of the response:

Aspects of the response which could be improved:
Name:
Title:
Signature:

8.3.1 After Action Review Guidelines

1. **Purpose.** The purpose of this document is to provide guidance on the conduct of after-action reviews or AARs.

2. **Overview.** To improve the effectiveness of our operations, we must continuously improve and learn from both our successes and failures. AARs are effective means to this end. Fundamental to the success of an AAR is the spirit in which it is conducted. Incident Commanders and ICS Staff should openly and honestly discuss what actually transpired in sufficient detail and clarity so that everyone understands what happened and why, and then implement process improvements.

3. **Definition and Purpose of the AAR.** A professional discussion of an event focused on improving the performance of the organization or team. The heart of the AAR is identifying what was supposed to happen, what actually happened, why it happened, and how to sustain strengths and improve weaknesses. An AAR is not a critique, problem solving, or allocating blame. Feedback generated during the AAR process compares the actual output of a process with the expected outcome.

4. **Formal versus Informal AARs.** AARs are either formal or informal. Both follow the same general format and involve the exchange of observations and ideas. Both types should be appropriately documented so lessons learned may be shared across functional

and geographic boundaries, and so that implementation of improvements can be tracked.

a. A formal AAR is more structured, requires planning and takes longer to conduct. The formal AAR usually occurs immediately or soon after an event is completed. It may also occur while the event is in-progress. A neutral third party should facilitate a formal AAR.

b. Informal AARs are less structured, require much less preparation and planning and can be conducted anywhere, anytime, for any event, by anyone. Incident Commanders, Section Leaders, Safety Officers or other interested parties may facilitate their own informal AARs.

5. **Agenda for an AAR.** Formal AARs will follow this simple format:

- Introduction and ground rules
- Analysis of the Incident according to the 15 National Preparedness for Response (PREP) Response Plan Core Components (**FIGURE A.1-1**):

  For each PREP Core Component:

  - What was supposed to happen?
  - What actually happened?
  - Why did it happen that way?
  - What will we do to improve the way we do it next time?

- Closing comments and agreement on next steps

8.3.1 After Action Review Guidelines, Continued

6. **AAR Planning and Execution Sequence.** Schedule AARs as close to the completion of the event as possible. The amount of planning and preparation required for an AAR will vary based on the type of AAR conducted; however, the process for both informal and formal AARs has three steps:

   Planning and Preparation:

   - Schedule the AAR
   - Select a facilitator
   - Notify participants
   - Establish the AAR agenda

   Conduct:

   - Seek maximum participation
   - Maintain focus on AAR objectives
   - Review key points learned
   - Record the AAR and maintain accurate meeting attendance list

   Follow up:

- Prepare an After Action Review Report (memorandum or e-mail), and distribute the report to all participants
- Consider publishing lessons learned to the entire Company
- Develop action plan to resolve deficiencies (revise procedure, develop a new process, etc.)

7. **Role of the AAR Facilitator.** The AAR facilitator's role should be to ensure the goals of the AAR are met. The AAR facilitator:

   - Remains unbiased throughout the process
   - Speaks only to draw out comments from all participants
   - Ensures the discussion remains professional and focused on continuous improvement
   - Keeps AAR on track and determines when to move on to discuss other points
   - Does not allow personal attacks
   - Does not offer solutions; allows the participants to do that.

8.3.1 After Action Review Guidelines, Continued

8. **Ground Rules for Conducting the AAR.**

   - Participants are participants, not a passive audience. The facilitator should prepare leading questions and may have to ask it of several people
   - An AAR is a dynamic, candid, professional discussion of events and projects, focusing on performance against the known standards and/or expected outcomes. Everyone involved with the event should participate to share an insight, observation or question that will help identify areas for improvement.
   - An AAR is not a critique. No one, regardless of position has all of the information and answers. AARs maximize learning and continuous improvement by allowing everyone to learn from each other.
   - An AAR does not grade success or failure. There are always areas of improvement and strengths to improve as well.
   - Set ground rules up front, e.g. no personal attacks, focus on how to improve, commit to getting to the heart of the issue, etc.

9. **Conclusion.** An AAR is both an art and science. What makes AARs so powerful is that they can be applied across a wide spectrum of events from two individuals conducting a 5-minute AAR at the end of a short meeting to a longer AAR held by a Spill Management Team at the end of a large emergency. Individuals involved may absorb lessons learned on the spot and they can be documented in a format that can be shared with a wider audience. A properly conducted AAR can also have a powerful influence on the climate of the organization. It is a part of the communication process that educates and motivates people and focuses them on organizational priorities to improve procedures across the organization.

8.3.1 After Action Review Guidelines, Continued

MEMORANDUM FOR RECORD

SUBJECT: (Document name of the incident for which the AAR was conducted)

1. Begin the memo with an overview/introduction. Identify the Incident Commander and briefly describe the project or event. Document what kind of AAR was conducted and how. For informal AARs, detail how the AAR was conducted (via meeting, teleconference, etc.) and who provided feedback. For formal AARs, identify all participants.

2. Following are the results of the AAR:

    a. **Issue:** Analysis of the incident according to a (or a logical grouping) PREP Core Component. The intent is to leave a record of the analysis so others may learn. (What should have happened?)

    Discussion: Succinctly discuss the emergency response in terms of the PREP Core Components (or logical grouping) so the reader can understand why the component or group was important or relevant, what the ramifications were, and so on. (What actually happened and why?)

    Recommendation: Present a recommendation with respect to any issues raised during the discussion. In the case of issues where something positive occurred, the recommendation may simply be to continue to follow processes/procedures. In the case where the issue represented a problem, recommend a solution to prevent the problem from occurring in the future. (How do we improve or sustain success?)

    Action Taken: Present an action taken or to be taken by the stakeholders. Commit to doing what is written here. Examples of actions taken for successes: verified current procedures are valid; provided a copy of AAR to all affected parties and so on. Examples of actions taken for problems: coordinated with PPM and changed SOP; published information paper on small business contracting requirements and briefed the District; changed specifications to reflect new wall covering, etc. Clearly identify the “action owner” in this paragraph. For example: Revise PMPB SOP on accepting new work. Action: PPMD.

    b. **Repeat** the above for each of the 15 PREP Response Plan Core Components.

3. Conclude by summarizing key lessons learned, noting when and where the AAR will be published for others to access. The Incident Commander shall sign and date the AAR Report.

Note: AAR writers are to be mindful that documented AARs may be the subject of litigation or a media report. Accordingly, AARs are to present accurate, factual information and solid, focused recommendations.

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APPENDICES

A. **TRAINING / EXERCISES**

B. **CONTRACTOR RESPONSE EQUIPMENT**

C. **HAZARD EVALUATION AND RISK ANALYSIS**

D. **CROSS-REFERENCES**

E. **ACRONYMS AND DEFINITIONS**

APPENDIX A Last revised: September 17, 2012

TRAINING / EXERCISES

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A.1 EXERCISE REQUIREMENTS AND SCHEDULES

- The Company participates in the National Preparedness for Response Exercise Program (PREP)
- During each triennial cycle, all components of the Plan (**FIGURE A.1-1**) must be exercised at least once
- The District Manager is responsible for the following aspects:
    - Scheduling
    - Maintaining records
    - Implementing
    - Evaluation of the Company's training and exercise program
    - Post-drill evaluation improvements
- FIGURE A.1-2 provides descriptions of exercise requirements, FIGURE A.1-3 provides a Spill/Exercise Documentation form or corresponding Company form may be used, and **FIGURE A.1-4** provides a log for response equipment testing and deployment drill

FIGURE A.1-1 - PREP RESPONSE PLAN CORE COMPONENTS

CORE COMPONENTS	DESCRIPTION
1. Notifications	Test the notifications procedures identified in the Area Contingency Plan (ACP) and the Spill Response Plan.
2. Staff mobilization	Demonstrate the ability to assemble the spill response organization identified in the ACP and the Spill Response Plan.
3. Ability to operate within the response management system described in the Plan: • Unified Command • Response management system	Demonstrate the ability of the spill response organization to work within a unified command. Demonstrate the ability of the response organization to operate within the framework of the response management system identified in their respective plans.
4. Discharge control	Demonstrate the ability of the spill response organization to control and stop the discharge at the source.
5. Assessment	Demonstrate the ability of the spill response organization to provide initial assessment of the discharge and provide continuing assessments of the effectiveness of the tactical

	operations.
6. Containment	Demonstrate the ability of the spill response organization to contain the discharge at the source or in various locations for recovery operations.
7. Recovery	Demonstrate the ability of the spill response organization to recover the discharged product.
8. Protection	Demonstrate the ability of the spill response organization to protect the environmentally and economically sensitive areas identified in the ACP and the respective industry response plan.
9. Disposal	Demonstrate the ability of the spill response organization to dispose of the recovered material and contaminated debris.
10. Communications	Demonstrate the ability to establish an effective communications system for the spill response organization.
11. Transportation	Demonstrate the ability to establish multi-mode transportation both for execution of the discharge and support functions.
12. Personnel support	Demonstrate the ability to provide the necessary support of all personnel associated with response.
13. Equipment maintenance and support	Demonstrate the ability to maintain and support all equipment associated with the response.
14. Procurement	Demonstrate the ability to establish and effective procurement system.
15. Documentation	Demonstrate the ability of the spill response organization to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.

FIGURE A.1-2 - EXERCISE REQUIREMENTS

EXERCISE TYPE	EXERCISE CHARACTERISTICS
Facility/QI notification	• Conducted quarterly (one per year must be performed during non-business hours) • The facility initiates mock spill notification to QI • The Qualified Individual documents time/date of notification, name, and phone number of individual contacted • Document in accordance with form in **FIGURE A.1-5**
Equipment deployment	• Terminals with response equipment such as boom will conduct semiannually • Terminals without response equipment will obtain documentation from OSRO response contractors indicating participation in annual deployment exercise • Conducted annually (Pipeline) • Document in accordance with form in **FIGURE A.1-4**

SMT tabletop	• Conducted annually • Tests SMT's response activities/responsibilities • Documents Plan?s effectiveness • Must exercise worst case discharge scenario once every three years • Must test all Plan components at least once every three years • Document in accordance with form in **FIGURE A.1-6**
Unannounced	• Company will either participate in unannounced tabletop exercise or equipment deployment exercise on an annual basis, if selected • Company may take credit for participation in government initiated unannounced drill in lieu of drill required by PREP guidelines • Plan holders who have participated in a PREP government-initiated unannounced exercise will not be required to participate in another one for at least 36 months from the date of the exercise
Area	• An industry plan holder that participates in an Area Exercise would not be required to participate in another Area Exercise for a minimum of six years
OTHER EXERCISE CONSIDERATIONS	
Drill program evaluation procedures	• Company conducts post-exercise meetings to discuss positive items, areas for improvement, and to develop action item checklist to be implemented later
Records of drills	• Company will maintain exercise records for five years following completion of each exercise • Records will be made available to applicable agencies upon request • Company will verify appropriate records are kept for each spill response contractor listed in Plan as required by PREP guidelines (annual equipment deployment drill, triennial unannounced drill, etc.)

FIGURE A.1-3 - SPILL / EXERCISE DOCUMENTATION FORM

Retain this form for a minimum of five years.

1. Date(s) performed:
2. ☐ Exercise ☐ Actual spill
If exercise:

☐ Announced ☐ Unannounced ☐ Deployment ☐ Notification ☐ Tabletop
If exercise, frequency: ☐ Quarter ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th ☐ Annual
3. Location of exercise/spill:
4. Time started:
5. Description of scenario or spill including volume and content (crude oil, condensate, etc.)
6. Describe how the following objectives were exercised:

Team's knowledge of the Oil Spill Response Plan:		
	Yes	**No**
Was briefing meeting conducted	☐	☐
Established field Command Post	☐	☐
Confirmed source was stopped	☐	☐
Developed Site Safety and Health Plan	☐	☐
Prepared ICS 201	☐	☐
Established work zones and perimeter security	☐	☐
Developed short range tactical plan	☐	☐
Developed long range tactical plan	☐	☐
Proper Notifications:		
Qualified Individual (or designee)	☐	☐
EHS&T Department	☐	☐
Release/Spill Report Form completed	☐	☐
Notification to agencies completed (attach log)	☐	☐
Transportation/Communication System:		
Established primary/secondary communication system		

	☐	☐
Primary: cellular phone ☐ two way radio ☐ land telephone line ☐		
Secondary: cellular phone ☐ two way radio ☐ land telephone line ☐		
☐ Other		

FIGURE A.1-3 - SPILL / EXERCISE DOCUMENTATION FORM, CONTINUED

Transportation/Communication System, Continued:		
	Yes	**No**
Motor vessel deployed	☐	☐
Provider name:		
Helicopter/Sea plane deployed	☐	☐
Call sign:		
Describe function (i.e., transportation, surveillance, dispersant application):		
Ability to access contracted Oil Spill Removal Organizations (OSROs):		
Who contacted - (name of individual and OSRO):		
When contacted:		
Response time projection for deployment:		
Type and amount of containment used:		
Spill material recovered	☐	☐
Spilled material disposed	☐	☐
Where?		
Ability to coordinate spill response with on-scene coordinator, state, and applicable agencies:		
Was regulatory on-scene coordinator(s) contacted	☐	☐

List person and agency represented:		
Ability to access sensitive site and resource information in the Area Contingency Plan (ACP):		
Was pre-impact assessment conducted?	☐	☐
Were pre-impact samples taken?	☐	☐
Were pre-impact photographs taken?	☐	☐
Were NRDA specialists mobilized?	☐	☐
Were deficiencies identified?	☐	☐
If yes, changes implemented?	☐	☐
If no, why were changes not implemented?		

LESSONS LEARNED	PERSON RESPONSIBLE FOR FOLLOW-UP OF CORRECTIVE MEASURES

Name:
Position:
Certifying Signature:

FIGURE A.1-4 - EPA REQUIRED RESPONSE EQUIPMENT TESTING AND DEPLOYMENT DRILL LOG

Item:	Date of Last Update:
ACTIVITY	**INFORMATION**
Last inspection or response equipment test date	
Inspection frequency	
Last deployment drill date	
Deployment frequency	

OSRO Certification (if applicable)	

Item:	Date of Last Update:
ACTIVITY	**INFORMATION**
Last inspection or response equipment test date	
Inspection frequency	
Last deployment drill date	
Deployment frequency	
OSRO Certification (if applicable)	

Item:	Date of Last Update:
ACTIVITY	**INFORMATION**
Last inspection or response equipment test date	
Inspection frequency	
Last deployment drill date	
Deployment frequency	
OSRO Certification (if applicable)	

Item:	Date of Last Update:
ACTIVITY	**INFORMATION**
Last inspection or response equipment test date	
Inspection frequency	
Last deployment drill date	
Deployment frequency	
OSRO Certification (if applicable)	

FIGURE A.1-5 - QUALIFIED INDIVIDUAL NOTIFICATION DRILL LOG

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s) Contacted	
Emergency Scenario	
Evaluation	
Changes to be Implemented	

Time Table for Implementation	

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s) Contacted	
Emergency Scenario	
Evaluation	
Changes to be Implemented	
Time Table for Implementation	

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s) Contacted	
Emergency Scenario	
Evaluation	
Changes to be Implemented	
Time Table for Implementation	

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s) Contacted	
Emergency Scenario	
Evaluation	
Changes to be Implemented	
Time Table for Implementation	

FIGURE A.1-6 - SPILL MANAGEMENT TEAM TABLETOP EXERCISE LOG

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s)	
Participants	
Emergency Scenario	
Evaluation	
Changes to be Implemented	
Time Table for Implementation	

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s)	
Participants	
Emergency Scenario	
Evaluation	
Changes to be Implemented	
Time Table for Implementation	

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s)	
Participants	
Emergency Scenario	
Evaluation	
Changes to be Implemented	
Time Table for Implementation	

Company:	Date:
ACTIVITY	**INFORMATION**
Qualified Individual(s)	
Participants	
Emergency Scenario	
Evaluation	
Changes to be Implemented	
Time Table for Implementation	

A.2 TRAINING PROGRAM

FIGURE A.2-1 provides training requirements for spill responders. **FIGURE A.2-2** provides the program matrix. **FIGURE A.2-3** provides a personnel response training log.

FIGURE A.2-1 - TRAINING REQUIREMENTS

TRAINING TYPE	TRAINING CHARACTERISTICS
Training in use of spill response plan	• All field personnel will be trained to properly report/monitor spills • Plan will be reviewed annually with all employees and contract personnel

	Plan will be reviewed with all employees and contract personnel: • When the plan is developed or the employee is assigned initially to a job; • When the employee's responsibilities under the plan change; and • When the plan is changed. • The Personnel Response Training Log is located in **FIGURE A.2-3**
OSHA training requirements	• All Company responders designated in Plan must have 24 hours of initial spill response training • Laborers having potential for minimal exposure must have 24 hours of initial oil spill response instruction and eight hours of actual field experience • Spill responders having potential exposure to hazardous substances at levels exceeding permissible exposure limits must have 40 hours of initial training offsite and 24 hours of actual field experience • On-site management/supervisors required to receive same training as equipment operators/general laborers plus eight hours of specialized hazardous waste management training • Managers/employees require eight hours of annual refresher training
Spill management team personnel training	• See recommended PREP Training Matrix (FIGURE A.2-2)
Training for casual laborers or volunteers	• Company will not use casual laborers/volunteers for operations requiring HAZWOPER training
Wildlife	• Only trained personnel approved by USFWS and appropriate state agency will be used to treat oiled wildlife
Training documentation and record maintenance	• Training activity records will be retained five years for all personnel following completion of training • Company will retain training records indefinitely for individuals assigned specific duties in the Plan • Training records will be retained at each facility or pipeline office; Manager of Operations will document all applicable training

FIGURE A.2-2 - PREP TRAINING PROGRAM MATRIX

	QUALIFIED	SPILL	

TRAINING ELEMENT	INDIVIDUAL (QI)	MANAGEMENT TEAM (SMT)	FACILITY PERSONNEL
Captain of the Port (COTP) Zones or Environmental Protection Agency (EPA) Regions in which the facility is located	x	x	x
Notification procedures and requirements for facility owners or operators; internal response organizations; federal and state agencies; and contracted oil spill removal organizations (OSROs) and the information required for those organizations	x	x	x
Communication system used for the notifications	x	x	x
Information on the products stored, used, or transferred by the facility, including familiarity with the material safety data sheets (MSDS), special handling procedures, health and safety hazards, spill and fire fighting procedures	x	x	x
Procedures the facility personnel may use to mitigate or prevent any discharge or a substantial threat of a discharge of oil resulting from facility operational activities associated with internal or external cargo transfers, storage, or use	x		
Facility personnel responsibilities and procedures for use of facility equipment which may be available to mitigate or prevent an oil discharge	x	x	x
Operational capabilities of the contracted OSRO?s to respond small, medium, and large discharges	x	x	x
Responsibilities and authority of the Qualified Individual (QI) as described in the Spill Response Plan and Company response organization	x	x	x
The organization structure that will be used to manage the response actions including: • Command and control • Public information • Safety • Liaison with government agencies • Spill response operations • Planning • Logistics support • Finance	x	x	x

The responsibilities and duties of each spill management team (SMT) within the organization structure	x	x	
The drill and exercise program to meet federal and state regulations as required under Oil Pollution Act of 1990 (OPA 90)	x	x	x
The role of the QI in the post discharge review of the Plan to evaluate and validate its effectiveness	x		
The Area Contingency Plan (ACP) for the area in which the facility is located	x	x	x
The National Contingency Plan (NCP)	x	x	x
Roles and responsibilities of federal and state agencies in pollution response	x	x	x

FIGURE A.2-2 - PREP TRAINING PROGRAM MATRIX, CONTINUED

TRAINING ELEMENT	QUALIFIED INDIVIDUAL (QI)	SPILL MANAGEMENT TEAM (SMT)	FACILITY PERSONNEL
Available response resources identified in the Plan	x	x	
Contracting and ordering procedures to acquire OSRO resources identified in the Plan	x	x	
OSHA requirements for worker health and safety (29 CFR 1910.120)	x	x	x
Incident Command System/Unified Command System	x	x	
Public affairs	x	x	
Crisis management	x	x	
Procedures for obtaining approval for dispersant use or in-situ burning of the spill	x		
Oil spill trajectory analyses	x		
Sensitive biological areas	x	x	
This training procedure as described in the Plan for members of the SMT		x	
Procedures for the post discharge review of the plan to evaluate and validate its effectiveness		x	
Basic information on spill operations and		x	

oil spill clean-up technology including: • Oil containment • Oil recovery methods and devices • Equipment limitations and uses • Shoreline cleanup and protection • Spill trajectory analysis • Use of dispersants, in-situ burning, bioremediation • Waste storage and disposal considerations			
Hazard recognition and evaluation		x	
Site safety and security procedures		x	
Personnel management, as applicable to designated job responsibilities		x	
Procedures for directing the deployment and use of spill response equipment, as applicable to designated job responsibilities		x	x
Specific procedures to shut down effected operations			x
Procedures to follow in the event of discharge, potential discharge, or emergency involving the following equipment or scenarios: • Tank overfill • Tank rupture • Piping or pipeline rupture • Piping or pipeline leak, both under pressure or not under pressure, if applicable • Explosion or fire • Equipment failure • Failure of secondary containment system			x
QI's name and how to contact him or her			x

FIGURE A.2-3 - PERSONNEL RESPONSE TRAINING LOG

NAME	RESPONSE TRAINING/DATE AND NUMBER OF HOURS	PREVENTION TRAINING/DATE AND NUMBER OF HOURS
Rick Bondy	01/04/2012 - 8hr Hazwoper Refresher	01/04/2012 - 8hr Hazwoper Refresher

Dennis Crawford	02/21/2012- 8hr Hazwoper Refresher	02/21/2012 - 8hr Hazwoper Refresher
*Kevan Heil	2/7/12 - 8 hr Hazwoper Refresher	9/18/12
*Steven Hill	4/11/12 - 8 hr Hazwoper Refresher	12/17/12
*Jeffrey Myers	1/8/13 - 8 hr Hazwoper refresher	1/8/13 - 8 hr Hazwoper refresher
*Raleigh Myers	2/24/2012 - 8 hr HAZWOPR	3/16/2010 - 8hr Hazwoper Refresher
Greg Peck	1/4/2012 - 8 hr Hazwoper refresher	None
*Timothy Powers	2/7/12 - 8 hrs Hazwoper refresher	12/12/12
*Greg Tarr	2/8/11 - 8 hr Hazwoper refresher	2/8/11 - 8 hr Hazwoper refresher

*Qualified Individual

APPENDIX B Last revised: May 11, 2010

CONTRACTOR RESPONSE EQUIPMENT

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B.1 COOPERATIVES AND CONTRACTORS

The Company has contracted with additional Oil Spill Removal Organizations (OSROs) to provide personnel and equipment in the event of a spill. The classification, response capabilities and equipment are described below.

B.1.1 OSRO Classification

The OSRO classification process was developed by the U.S. Coast Guard (USCG) to provide guidelines to enable USCG and plan preparers to evaluate an OSROs potential to respond to oil spills. Plan holders that utilize USCG classified OSRO services are not required to list response resources in their plans.

The following is a listing of the USCG classified OSROs that may respond to incidents for areas listed in this Plan. For a detailed listing of USCG classified OSROs and other contractors by terminal, refer to **FIGURE 3.1-3** and **FIGURE 7.1-1**.

<table>
<tr><th>COMPANY / CONTRACTOR</th><th>APPLICABLE COPT ZONE (S)</th><th>USCG CLASSIFICATIONS</th><th>RESPONSE TIME</th></tr>
<tr><td>Haz-Mat Response, Inc.
731 B Street
Great Bend
KS
67530</td><td>Saint Louis</td><td>
<table>
<tr><th></th><th colspan="4">Facilities</th><th colspan="4">Vessels</th></tr>
<tr><th></th><th>MM</th><th>W1</th><th>W2</th><th>W3</th><th>MM</th><th>W1</th><th>W2</th><th>W3</th></tr>
<tr><td>River/Canal</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Inland</td><td>✓</td><td>✓</td><td>✓</td><td></td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>Open Ocean</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Offshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Nearshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Great Lakes</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td>0 hours</td></tr>
<tr><td>Haz-Mat Response, Inc
4830 South Hydraulic
Wichita
Kansas
67216</td><td></td><td>
<table>
<tr><th></th><th colspan="4">Facilities</th><th colspan="4">Vessels</th></tr>
<tr><th></th><th>MM</th><th>W1</th><th>W2</th><th>W3</th><th>MM</th><th>W1</th><th>W2</th><th>W3</th></tr>
<tr><td>River/Canal</td><td>✓</td><td></td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Inland</td><td>✓</td><td>✓</td><td>✓</td><td></td><td>✓</td><td>✓</td><td>✓</td><td></td></tr>
<tr><td>Open Ocean</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Offshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Nearshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Great Lakes</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td>0 hours</td></tr>
<tr><td>Future Environmental (OSRO #350)
701 Grandstaff
Cushing
Oklahoma
74023</td><td>Chicago/ Upper Mississippi</td><td>
<table>
<tr><th></th><th colspan="4">Facilities</th><th colspan="4">Vessels</th></tr>
<tr><th></th><th>MM</th><th>W1</th><th>W2</th><th>W3</th><th>MM</th><th>W1</th><th>W2</th><th>W3</th></tr>
<tr><td>River/Canal</td><td>✓</td><td></td><td></td><td></td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>Inland</td><td>✓</td><td></td><td></td><td></td><td>✓</td><td></td><td></td><td></td></tr>
<tr><td>Open Ocean</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Offshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td>0 hours</td></tr>
</table>

		Nearshore								
		Great Lakes	✓				✓			

COMPANY / CONTRACTOR	APPLICABLE COPT ZONE (S)	USCG CLASSIFICATIONS								RESPONSE TIME
			Facilities				Vessels			
			MM	W1	W2	W3	MM	W1	W2	W3
United States Environmental Services, LLC 1309 N Hills Blvd, Suite 212 North Little Rock AR 72114	Lower Mississippi	River/Canal	✓		✓	✓	✓	✓	✓	✓
		Inland	✓	✓	✓		✓	✓	✓	
		Open Ocean								
		Offshore								
		Nearshore								
		Great Lakes								
Haz-Mat Response, Inc. 1203 C South Park Olathe KS 66061	Saint Louis	River/Canal	✓	✓	✓	✓	✓	✓	✓	✓
		Inland	✓	✓	✓		✓	✓	✓	
		Open Ocean								
		Offshore								
		Nearshore								
		Great Lakes								
A-Clean Environmental 2700 South 25th West Avenue Tulsa OK 74107		River/Canal								
		Inland								
		Open Ocean								
		Offshore								
		Nearshore								
		Great Lakes								
TAS Environmental 3929 California Parkway E. Fort Worth	Houston-Galveston, Port Arthur	River/Canal	✓	✓	✓	✓	✓	✓	✓	✓
		Inland	✓	✓	✓	✓	✓	✓	✓	✓
					✓				✓	

B.1.1 OSRO Classification, Continued

TX 76119		Open Ocean								
		Offshore			✓				✓	
		Nearshore			✓				✓	
		Great Lakes								
Heritage Environmental Services 251 N. Old St. Louis Road St. Louis MO 62095	Saint Louis		Facilities				Vessels				2 hours
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal	✓	✓	✓	✓	✓	✓	✓	✓	
		Inland	✓		✓	✓	✓		✓	✓	
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									

B.1.1 OSRO Classification, Continued

COMPANY / CONTRACTOR	APPLICABLE COPT ZONE (S)	USCG CLASSIFICATIONS									RESPONSE TIME
A-Clean Environment 2071 Cimmaron Road Wilson OK 73463	Memphis		Facilities				Vessels				3.25 hours
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal	✓				✓				
		Inland									
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									
Acme Products Co. 2666 N. Darlington Tulsa OK 74115	Sector Lower Mississippi, Sector Upper Mississippi		Facilities				Vessels				3.5 hours
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal	✓				✓				
		Inland	✓				✓				
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									
TAS Environmental			Facilities				Vessels				4 hours

180 Cornerstone Road Alexander Arkansas			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal									
		Inland									
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									
SWS (OSRO 247) 9204 US Highway 287 Fort Worth TX 76131	Houston-Galveston		Facilities				Vessels				6 hours
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal			✓	✓	✓	✓	✓	✓	
		Inland									
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									

The following contractors retained by the Company, but are not USCG classified OSRO's within this Area, are as follows:

FIGURE B.1-1 provides evidence of contracts with OSRO's and equipmentlists for contractors without USCG classification. **FIGURE 7.1-1** provides local response contractor's equipment lists and response times.

FIGURE B.1-1 - EVIDENCE OF CONTRACTS AND EQUIPMENT LISTS

- A-Clean Environment, Wilson, OK
- A-Clean Environmental, Tulsa, OK
- Acme Products Co., Tulsa, OK
- Bodine Environmental Decatur, Illinois, Decatur and Peoria, Illinois
- Environmental Restoration, LLC , St. Louis, MO
- Future Environmental (OSRO #350), Cushing, Oklahoma
- Ham and Philips *****NO CONTRACT*****, Enid, OK
- Haz-Mat Response, Inc, Wichita, Kansas

- Haz-Mat Response, Inc., Olathe, KS
- Haz-Mat Response, Inc. , Great Bend, KS
- Heritage Environmental Services , Lemont, IL
- Heritage Environmental Services, St. Louis, MO
- Mid America Pipeline, Foyil, OK
- SWS (OSRO 247), Fort Worth, TX
- TAS Environmental, Fort Worth, TX
- TAS Environmental, Alexander, Arkansas
- United States Environmental Services, LLC, North Little Rock, AR
- Veolia Special Services, Inc., Germantown, WI

FIGURE B.1-2 - OSRO COVERAGE OVERVIEW MAP

Click here to view Central District OSRO Coverage Overview Map

APPENDIX C Last revised: August 23, 2010

HAZARD EVALUATION AND RISK ANALYSIS

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C.1 **SPILL DETECTION** Detection

Detection of a discharge from the Company system may occur in a number of ways including:

- Automated detection by the Supervisory Control and Data Acquisition (SCADA) system
- Visual detection by Company personnel
- Visual detection by the public

AVAILABILITY - ALL TANKS

Automated detection

(b) (7)(F)

[redacted]

(b) (7)(F)

[redacted]

(b) (7)(F)

Visual detection by Company personnel

Aerial patrol flights will be made 26 times a year not to exceed 21 days apart. If unable to fly area personnel will walk or drive the right-of-way. The intent of the patrol is to observe the area directly over the pipeline right-of-way for leaks, exposed pipes, washes, missing markers and other unusual conditions. Construction on either side of the pipeline right-of-way is also monitored.

Discharges to the land or surface waters may also be detected by Company personnel during regular operations and inspections. Should a leak be detected, the appropriate actions are taken including but not limited to:

- Notifications as per **SECTION 3**
- A preliminary assessment of the incident area
- If appropriate, initiate initial response actions per SECTION 2

FIGURE 2-1 provides a checklist for initial response actions.

Visual detection by the public

Right-of-way marker signs are installed and maintained at road crossing and other noticeable points and provide an Operations Control 24-hour number for reporting emergency situations. The Company also participates in the ?call before you dig? or ?One Call? utility notification services which can be contacted to report a leak and determine the owner/operator of the pipeline. If the notification is made to a local office or pump station, the Company representative receiving the call will generally implement the following actions:

- Notify the Pipeline Control and region/designated office
- Dispatch Company field personnel to the site to confirm discharge and conduct preliminary assessment
- Notify their immediate area supervisor and provide assessment results

Pipeline shutdown

If any of these situations are outside the expected values, abnormal conditions are considered to exist. If abnormal conditions exist, Pipeline Control will take the appropriate actions to ensure that a release does not occur. If a discharge has occurred, Pipeline Control will take actions to limit the magnitude. In either case, appropriate actions taken by Company personnel could include, but are not limited to:

- Shut down effected line segment if there is an indication of a leak
- Isolate line segment
- Depressurize line
- Start internal and external notifications
- Mobilize additional personnel as required

C.2 WORST CASE DISCHARGE (WCD) SCENARIO

The equipment and personnel to respond to a spill are available from several sources and are provided with the equipment and contractors in **SECTION 7** and **APPENDIX B**. The

following sections are discussions of these scenarios.

APPENDIX C.4 provides worst case discharge calculations. Discussion of this scenario is as follows:

Upon discovery of a spill, the following procedures would be followed:

1. The First Responder would notify the Area Supervisor/Manager of Operations and Operations Control Center and notifications would be initiated in accordance with **FIGURE 2-1**.

2. The Area Supervisor/Manager of Operations would assume the role of Incident Commander/Qualified Individual until relieved and would initiate response actions and notifications in accordance with **SECTION 2**. If this were a small spill, the local/company personnel may handle all aspects of the response. Among those actions would be to:

    - Conduct safety assessment in accordance with **FIGURE 2-1** and evacuate personnel as needed in accordance with **SECTION 2**
    - Direct facility responders to shut down ignition sources
    - Direct facility personnel to position resources in accordance with **SECTION 2.4**
    - Complete spill report form in accordance with **SECTION 3** and notify 3E Company or Environmental Specialist
    - Ensure regulatory agencies are notified

3. If this were a small or medium spill, the Qualified Individual/Incident Commander may elect for the First Responder to remain the Incident Commander or to activate selected portions of the Spill Management Team. However, for a large spill, the Qualified Individual would assume the role of Incident Commander and would activate the entire Spill Management Team in accordance with activation procedures described in **SECTION 4.2**.

4. The Incident Commander would then initiate spill assessment procedures including surveillance operations, trajectory calculations, and spill volume estimating in accordance with **SECTION 2.3**.

5. The Incident Commander would then utilize checklists in the **SECTION 4.6** as a reminder of issues to address. The primary focus would be to establish incident priorities and objectives and to brief staff accordingly.

6. The Spill Management Team would develop the following plans, as appropriate (some of these plans may not be required during a small or medium spill):

    - Site Safety and Health
    - Site Security
    - Incident Action
    - Decontamination
    - Disposal
    - Demobilization

    Plan templates are included in **SECTION 5**.

7. The response would continue until an appropriate level of cleanup is obtained.

C.3 PLANNING VOLUME CALCULATIONS

Once the worst case discharge volume has been calculated, response resources must be identified to meet the requirements of 49 CFR 194.105(b). Calculations to determine sufficient amount of response equipment necessary to respond to a worst case discharge is described below. A demonstration of the planning volume calculations is provided below.

C.4 SPILL VOLUME CALCULATIONS

DOT/PHMSA portion of pipeline/facilities

The worst case discharge (WCD) for the DOT portion of the pipeline and facilities, as defined in 49 CFR 194.105(b), as the largest volume of the following:

1. The pipeline?s maximum shut-down response time in hours (based on historic discharge data or in the absence of such data, the operators best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest drainage volume after shutdown of the line section(s) in the response zone expressed in barrels; or

2. The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels (cubic meters), based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventative action taken; or

3. If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels.

Under PHMSA?s current policy, operators are allowed to reduce the worst case discharge volume derived from 49 CFR 194.105(b)(3) by no more than 75% if an operator is taking certain spill prevention measures for their breakout tanks and presents supporting information in the response plan. An operator can reduce the worst case discharge volume based on breakout tanks in the response zones as follows:

SPILL PREVENTION MEASURES	PERCENT REDUCTION ALLOWED
Secondary containment capacity greater than 100% capacity of tank and designed according to NFPA 30	50%
Tank built, rebuilt, and repaired according to API Std 620/650/653	10%
Automatic high-level alarms/shutdowns designed according to NFPA/API RP 2350	5%
Testing/cathodic protection designed according to API Std	5%

650/651/653	
Tertiary containment/drainage/treatment per NFPA 30	5%*
Maximum allowable credit or reduction	75%

* Note: The facilities do not have tertiary containment.

The worst case discharge for each response zone was based on the largest volume of the three criteria given above.

The Company has determined the worst case discharge volume to be a catastrophic line failure of the largest line section with the greatest drainage capacity in each response zone or 30 percent of the volume of the largest tank in each zone.

The line sections with the highest throughput and largest drainage volume between block valves on pump stations were chosen to calculate the pipeline worst case discharge. Although the entire discharge volume of each line was used for the worst case discharge, in an actual spill event, it would take days to drain the line completely. The line would be sealed early in the response effort.

All of the breakout tanks in the pipeline system are within adequate secondary containment, therefore, the discharge volumes for the largest tank was determined by adjusting the total tank volume downward by .50% per the company guidelines.

Considering the volume of release from a line break compared to that of historic discharge in each zone and to the volumes released from a tank failure, the tank failure was found to represent the worst case scenario.

The maximum historic discharge is not applicable for WCD covered by this plan. Given below are the tank and pipeline WCD calculations for this plan.

(b) (7)(F)

(b) (7)(F)

[redacted]

The worst case tank volume is calculated as follows:

Largest tank x Credit for containment tank standards = Tank standards credit

The Company has implemented all of the spill prevention measures, listed on the previous page, except tertiary containment. Therefore, the percent reduction allowed for credit equals .50% and the worst case discharge volume is .50% of the total volume.

(b) (7)(F)

[redacted]

(b) (7)(F)

(b) (7)(F)

C.5 PIPELINE - ABNORMAL CONDITIONS

Because PHMSA considers the ?substantial threat? term in 49 CFR Part 194.115(a) equivalent to the ?abnormal conditions? term under 49 CFR Part 195.402(d), procedures to identify events and conditions that can pose a threat of worst case discharge, and actions to take for preventing and mitigating such events and conditions are described in the System Integrity Plan.

C.6 PRODUCT CHARACTERISTICS AND HAZARDS

Pipeline systems described in this plan may transport various types of commodities including but not limited to:

- Butane
- Crude Oil
- Diesel
- Gasoline
- Jet fuel
- Naptha

- Natural Gas
- Natural gasoline
- Propane

The key chemical and physical characteristics of each of these oils and/or other small quantity products/chemicals are identified in MSDS. MSDS can be obtained by the facility online through the Compass website or via fax from the MSDS Hotline (**FIGURE 3.1-3**). Telephone information concerning the potential hazards can also be obtained from the hotline.

FIGURE C.6-1 describes primary oils handled.

FIGURE C.6-1 - SUMMARY OF COMMODITY CHARACTERISTICS

COMMON NAME	MSDS NAME	HEALTH HAZARD	FLASH POINT	SPECIAL HAZARD	REACTIVITY	HEALTH HAZARD WARNING STATEMENT
Butane	Appropriate product name	1	4	A	0	This product is highly flammable; UN1011; Toxicity -Butane is a simple asphyxiant
Crude Oil	Appropriate product name	2	3	C, H2S	0	May contain benzene, a carcinogen, or hydrogen sulfide, which is harmful if inhaled; flash point varies widely
Diesel	Appropriate product name	2	2	C	0	Long term, repeated exposure may cause skin cancer.
Gasoline	Appropriate product name	1	3	C	0	Long term, repeated exposure may cause cancer, blood, kidney and nervous system damage, and contains benzene.
Jet fuel	Appropriate product name	2	2	C	0	Long term, repeated exposure may cause cancer.
Naptha	Appropriate product name	1	3		0	May cause nerve or kidney damage.
						Flammable gas under pressure.

Natural Gas	Methane	1	4	A, P	0	Can cause explosive mixtures with air. May be non-odorized.Generally used to fuel compression engines on mainline pumps.
Natural gasoline	W-Grade	1	3	C	0	Long term, repeated exposure may cause cancer, blood, kidney and nervous system damage, and contains benzene.
Propane	Propane	2	4	A, P	0	Flammable liquid/gas under pressure. Can Cause explosive mixtures with air. May cause frostbite

Health Hazard	**4 = Extremely Hazardous** **3 = Hazardous** **2 = Warning** **1 = Slightly Hazardous** **0 = No Unusual Hazard**	**Fire Hazard (Flash Point)**	**4 = Below 73? F, 22? C** **3 = Below 100? F, 37? C** **2 = Below 200? F, 93? C** **1 = Above 200? F, 93? C** **0 = Will not burn**
Special Hazard	**A = Asphyxiant** **C = Contains Carcinogen** **W = Reacts with Water** **Y = Radiation Hazard** **COR = Corrosive** **OX = Oxidizer** **H_2S = Hydrogen Sulfide** **P = Contents under Pressure** **T = Hot Material**	**Reactivity Hazard**	**4 = May Detonate at Room Temperature** **3 = May Detonate with Heat or Shock** **2 = Violent Chemical Change with High Temperature and Pressure** **1 = Not Stable if Heated** **0 = Stable**

C.7 SUPPORTING DOCUMENTATION

(Click here for Supporting Documentation)

APPENDIX D Last revised: January 2005

CROSS-REFERENCES

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DOT / PHMSA 194 CROSS-REFERENCE

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
Information Summary	
• For the core plan:	
• Name and address of operator	Figure 1-3
• For each Response Zone which contains one or more line sections that meet the criteria for determining significant and substantial harm (?194.103), listing and description of Response Zones, including county(s) and state(s)	Figure 1-3
• For each Response Zone appendix:	
• Information summary for core plan	Section 1
• QI names and telephone numbers, available on 24-hr basis	Figure 1-3
• Description of Response Zone, including county(s) and state(s) in which a worst case discharge could cause substantial harm to the environment	Figure 1-3
• List of line sections contained in Response Zone, identified by milepost or survey station or other operator designation	Figure 1-3
• Basis for operator?s determination of significant and substantial harm	Figure 1-3
• The type of oil and volume of the worst case discharge	Appendix D
• Certification that the operator has obtained, through contract or other approved means, the necessary private personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge or threat of such discharge	Section 1.3, Appendix B
Notification Procedures	
• Notification requirements that apply in each area of operation of pipelines covered by the plan, including applicable state or local requirements	Section 3
• Checklist of notifications the operator or Qualified Individual is required to make under the response plan, listed in the order of priority	Section 3.1

• Name of persons (individuals or organizations) to be notified of discharge, indicating whether notification is to be performed by operating personnel or other personnel	Section 3.1, Figure 3.1-3
• Procedures for notifying Qualified Individuals	Figure 3.1-1, Section 4.5, Figure 4.5-1
• Primary and secondary communication methods by which notifications can be made	Section 7.1.6

DOT / PHMSA 194 CROSS-REFERENCE, CONTINUED

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
• Information to be provided in the initial and each follow-up notification, including the following: • Name of pipeline • Time of discharge • Location of discharge • Name of oil recovered • Reason for discharge (e.g. material failure, excavation damage, corrosion) • Estimated volume of oil discharged • Weather conditions on scene • Actions taken or planned by persons on scene	Figure 3.1-2
Spill Detection and On-Scene Spill Mitigation Procedures	
• Methods of initial discharge detection	Appendix C.1
• Procedures, listed in order of priority, that personnel are required to follow in responding to a pipeline emergency to mitigate or prevent any discharge from the pipeline	Section 2
• List of equipment that may be needed in response activities based on land and navigable waters including: • Transfer hoses and pumps • Portable pumps and ancillary equipment • Facilities available to transport and receive oil from a leaking pipeline	Section 7.1.1, Appendix B
• Identification of the availability, location, and contact phone numbers to obtain equipment for response activities on a 24-hour basis	Figure 3.1-3, Appendix B
• Identification of personnel and their location, telephone	Figure 3.1-3,

numbers, and responsibilities for use of equipment in response activities on a 24-hour basis	Appendix B
Response Activities	
• Responsibilities of, and actions to be taken by, operating personnel to initiate and supervise response actions pending the arrival of the Qualified Individual or other response resources identified in the response plan	Section 2, Section 4.5, Appendix B
• Qualified Individual?s responsibilities and authority, including notification of the response resources identified in the response plan	Section 4.5
• Procedures for coordinating the actions of the operator or Qualified Individual with the action of the OSC responsible for monitoring or directing those actions	Section 4.4, Section 4.5
• Oil spill response organizations (OSRO) available through contract or other approved means, to respond to a worst case discharge to the maximum extent practicable	Appendix B

• For each organization identified under paragraph (d), a listing of:
  • Equipment and supplies available
  • Trained personnel necessary to continue operation of the equipment and staff the oil spill removal organization for the first seven days of the response
	Appendix B

DOT / PHMSA 194 CROSS-REFERENCE, CONTINUED

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
List of Contacts	
• List of persons the Plan requires the operator to contact	Figure 3.1-1
• Qualified individuals for the operator?s areas of operation	Figure 1-3
• Applicable insurance representatives or surveyors for the operator?s areas of operation	Figure 3.1-1
• Persons or organizations to notify for activation of response resources	Figure 3.1-1
Training Procedures	

Description of training procedures and programs of the operations	Appendix A.2
Drill Procedures	
• Announced and unannounced drills	Appendix A.1

• Types of drills and their frequencies; for example:
  • Manned pipeline emergency procedures and qualified individual notification drills conducted quarterly
  • Drills involving emergency actions by assigned operating or maintenance personnel and notification of qualified individual on pipeline facilities which are normally unmanned, conducted quarterly
  • Shore-based spill management team (SMT) tabletop drills conducted yearly
  • Oil spill removal organization field equipment deployment drills conducted yearly
  • A drill that exercises entire response plan for each Response Zone, would be conducted at least once every three years
	Appendix A.1

Response Plan review and update procedures	
• Procedures to meet ?194.121	Section 1.2
• Procedures to review plan after a worst case discharge and to evaluate and record the plan?s effectiveness	Section 1.2, Appendix C
Response zone appendices	
Each response zone appendix would provide the following information:	
• Name and telephone number of the qualified individual	Figure 1-3
• Notification procedures	Section 3
• Spill detection and mitigation procedures	Section 2.1, Appendix C
• Name, address, and telephone number of oil spill response organization	Figure 3.1-1, Appendix B

• Response activities and response resources including:
  • Equipment and supplies necessary to meet ?194.115
  • Trained personnel necessary to sustain operation of the equipment and to staff the oil spill response organization and spill management team for the first seven days of the response
	Appendix A, Appendix B

DOT / PHMSA 194 CROSS-REFERENCE, CONTINUED

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
• Names and telephone numbers of federal, state, and local agencies which the operator expects to assume pollution response responsibilities	Figure 3.1-3
• Worst case discharge volume	Appendix C
• Method used to determine the worst case discharge volume, with calculations	Appendix C

• A map that clearly shows:
  • Location of worst case discharge
  • Distance between each line section in the Response Zone:
  • Each potentially affected public drinking water intake, lake, river, and stream within a radius of five miles of the line section
  • Each potentially affected environmentally sensitive area within a radius of one mile of the line section
	Figure 1-4, Section 6.6, Section 6.7

• Piping diagram and plan-profile drawing of each line section; may be kept separate from the response plan if the location is identified	Figure 1-3

• For every oil transported by each pipeline in the response zone, emergency response data that:
  • Include name, description, physical and chemical characteristics, health and safety hazards, and initial spill-handling and firefighting methods
  • Meet 29 CFR 1910.1200 or 49 CFR 172.602
	Figure C.6-1

DOT / PHMSA 192 CROSS-REFERENCE

EMERGENCY PLAN REQUIREMENTS (49 CFR 192.615)	LOCATION
a. Written procedures to minimize hazards	
1. Receiving, identifying, and classifying notices of events which require immediate response by the operator	Section 2

2. Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials	Section 3, Section 4.4
3. Prompt and effective response to a notice of each type of emergency, including the following:	
i. Gas detect inside or near a building	Section 2
ii. Fire located near or directly involving a pipeline facility	Section 2
iii. Explosion occurring near or directly involving a pipeline facility	Section 2
iv. Natural disaster	Section 2
4. The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency	Section 7.1, Appendix B
5. Actions directed toward protecting people first and then property	Section 2
6. Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property	
7. Making safe any actual or potential hazard to life or property	Section 2
8. Notifying appropriate fire, police, and other public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency	Section 2 , Section 4.4
9. Safely restoring any service outage	
10. Beginning action under §192.617, if applicable, as soon after the end of the emergency as possible	
b. Each operator shall:	
1. Furnish its supervisors who are responsible for emergency action a copy of that portion of the latest edition of the emergency procedures established under paragraph (a) of this section as necessary for compliance with those procedures	Figure 1-2

2. Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective	Appendix A
3. Review employee activities to determine whether the procedures were effectively followed in each emergency	Section 8.3

DOT / PHMSA 192 CROSS-REFERENCE, CONTINUED

EMERGENCY PLAN REQUIREMENTS (49 CFR 192.615)	LOCATION
c. Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:	
1. Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency	Appendix A
2. Acquaint the officials with the operator's ability in responding to a gas pipeline emergency	Appendix A
3. Identify the types of gas pipeline emergencies of which the operator notifies the officials; and	Section 2
4. Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property	Section 4

OSHA CROSS-REFERENCE

EAP REQUIREMENTS (29 CFR 1910.38 [a] [2])	LOCATION
• Emergency escape procedures and emergency escape route assignments	Section 2
• Procedures to be followed by employees who remain to operate critical plant operations before they evacuate	N/A
• Procedures to account for all employees after emergency evacuation has been completed	Section 2
• Rescue and medical duties for those employees who are to perform them	Section 2

• The preferred means of reporting fires and other emergencies	Section 2, Figure 3.1-1
• Names of regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan	Figure 3.1-3, Section 4.6

ERP REQUIREMENTS (29 CFR 1910.120 [q] [1])	LOCATION
• Emergency response plan. An emergency response plan shall be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations. The plan shall be in writing and available for inspection and copying by employees, their representatives and OSHA personnel. Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this paragraph if they provide an emergency action plan in accordance with 29 CFR 1910.38.	

ERP REQUIREMENTS (29 CFR 1910.120 [q] [2])	LOCATION
• Pre-emergency planning	Appendix C
• Personnel roles, lines of authority, and communication	Section 4.4, Section 4.6, Section 7.1.6
• Emergency recognition and prevention	Section 2
• Safe distances and places of refuge	Section 2
(b) (7)(F) [redacted]	
• Decontamination procedures which are not covered by the site safety and health plan	Section 5.4
• Emergency medical treatment and first aid	Section 2
• Emergency alerting and response procedures	Section 3
• Critique of response and follow-up	Section 8.3
• PPE and emergency equipment	Section 7, Appendix B

APPENDIX E Last revised: January 2005

ACRONYMS AND DEFINITIONS

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E.1 ACRONYMS

ACP	Area Contingency Plan
AFFF	Aqueous Film Forming Foam
ASTM	American Society of Testing Materials
BBL	Barrel(s)
BLM	Bureau of Land Management (USDOI)
BPD	Barrels Per Day
BPH	Barrels Per Hour
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act of 1980, as amended
CFR	Code of Federal Regulations
CO_2	Carbon Dioxide
COTP	Captain of the Port (USCG)
CRZ	Contamination Reduction Zone
CWA	Clean Water Act of 1977 (Federal)
EAP	Emergency Action Plan
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPA	U. S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERAP	Emergency Response Action Plan
ERP	Emergency Response Plan
ERT	Emergency Response Team
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FOSC	Federal On-Scene Coordinator
FRP	Facility Response Plan
FRT	Facility Response Team
FWPCA	Federal Water Pollution Control Act of 1972
GIS	Geographic Information System
GPM	Gallons Per Minute
HAZMAT	Hazardous Materials
HMIS	Hazardous Material Information System
IC	Incident Commander
ICS	Incident Command System

JIC	Joint Information Center
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Committee

LEPD	Local Emergency Planning District
LNG	Liquid Natural Gas
LPG	Liquefied Petroleum Gas
MSDS	Material Safety Data Sheets
MTR	Marine Transportation Related
N/A	Not Applicable
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NIIMS	National Interagency Incident Management System
NM	Nautical Miles
NOAA	National Oceanic and Atmospheric Administration
NRC	National Response Center
NRDA	National Resource Damage Assessment
NRT	National Response Team
OBA	Oxygen Breathing Apparatus
OPA 90	Oil Pollution Act of 1990
OSC	On-Scene Coordinator/Commander
OSHA	Occupational Safety and Health Administration (USDL)
PHMSA	Pipeline and Hazardous Materials Safety Administration (DOT)
PPE	Personal Protective Equipment
PREP	(National) Preparedness for Response Exercise Program
QI	Qualified Individual
RCRA	Resource Conservation and Recovery Act of 1976
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act
SCADA	Supervisory Control and Data Acquisition (System)
SCBA	Self Contained Breathing Apparatus
SDWA	Safe Drinking Water Act of 1986
SERC	State Emergency Response Commission
SETS	Safety Environment and Training Services
SI	Surface Impoundment
SIC	Standard Industrial Classification (Code)
SMT	Spill Management Team

SOSC	State On-Scene Coordinator
SPCC	Spill Prevention, Control, and Countermeasures (Plan)
SSC	Scientific Support Coordinator (NOAA)
UCS	Unified Command System
UEL	Upper Explosive Limit
USACOE	U. S. Army Corps of Engineers

USCG	U. S. Coast Guard
USDOD	U. S. Department of Defense
USDL	U. S. Department of Labor
USDOE	U. S. Department of Energy
USDOI	U. S. Department of the Interior
USDOJ	U. S. Department of Justice
USDOT	U. S. Department of Transportation
USFWS	U. S. Fish and Wildlife Service (USDOI)
USGS	U. S. Geological Survey (USDOI)

E.2 DEFINITIONS

Adverse Weather
The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice, temperature, weather-related visibility, and currents with the Captain of the Port (COTP) zone in which the systems or equipment are intended to function.

Aqueous Film Forming Foam
A fluoro-carbon surfactant that acts as an effective vapor securing agent due to its effect on the surface tension of the water. Its physical properties enable it to float and spread across surfaces of a hydrocarbon fuel with more density than protein foam.

Average Most Probable Discharge **(USCG)**
A discharge of the lesser of 50 barrels (2100 gallons) or one percent of the volume of the worst case discharge.

Barrel
Measure of space occupied by 42 U. S. gallons at 60 degrees Fahrenheit.

Bleve
A boiling liquid-expanding vapor explosion; failure of a liquefied flammable gas container caused by fire exposure. Pronounced "blevey."

Boilover
Occurs when the heat from a fire in a tank travels down to the bottom of the tank causing water that is already there to boil and push part of the tank's contents over the side.

Carbon Dioxide
A heavy, colorless, odorless, asphyxiating gas, that does not normally support combustion. It is one and one-half times heavier than air and when directed at the base of a fire its action is to dilute the fuel vapors to a lean mixture to extinguish the fire.

Class A Fire
A fire involving common combustible materials which can be extinguished by the use of water or water solutions. Materials in this category include wood and wood-based materials, cloth, paper, rubber and certain plastics.

Class B Fire
A fire involving flammable or combustible liquids, flammable gases, greases and similar products. Extinguishment is accomplished by cutting off the supply of oxygen to the fire or by preventing flammable vapors from being given off.

Class C Fire
A fire involving energized electrical equipment, conductors or appliances. Nonconducting extinguishing agents must be used for the protection of firefighters.

Class D Fire
A fire involving combustible metals, for example, sodium, potassium, magnesium, titanium and aluminum. Extinguishment is accomplished through the use of heat-absorbing extinguishing agents such as certain dry powders that do not react with the burning metals.

Cold (Support) Zone
An area free of contaminants so that Personal Protection Equipment (PPE) is not required for personnel working in this area. Command functions and supporting operations are carried out here.

Command Post
A site located at a safe distance from the spill site where response decisions are made, equipment and manpower deployed, and communications handled. The Incident Commander and the On-Scene Coordinators may direct the on-scene response from this location.

Communication Equipment
Equipment that will be utilized during response operations to maintain communication between employees, contractors, federal/state/local agencies.

Containment Boom
A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.

Contamination Reduction Zone
Same as the warm zone, a buffer between the hot and cold zones. Decontamination activities take place there. Equipment needed to support the primary response operation may be staged in the warm zone.

Contingency Plan
A document used by: (1) federal, state, and local agencies to guide planning and response procedures regarding spill of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies

occurring upon their vessels or at their facilities.

Contract or Other Approved Means
Includes:

- A written contractual agreement with a response contractor. The agreement should identify and ensure the availability of the specified personnel and equipment described under U.S.C.G. Regulations within stipulated response times in the specified geographic areas

- Certification by the facility owner or operator that the specified personnel and equipment described under USCG Regulations are owned, operated, or under the direct control of the facility owner or operator, and are available within stipulated times in the specified geographic areas

- Active membership in a local or regional oil spill removal organization that has identified specified personnel and equipment described under USCG Regulations that are available to respond to a discharge within stipulated times in the specified geographic areas

- A document which:

    - Identifies the personnel, equipment, services, capable of being provided by the response contractor within stipulated response times in specified geographic areas
    - Sets out the parties' acknowledgment that the response contractor intends to commit the resources in the event of a response
    - Permits the Coast Guard to verify the availability of the response resources identified through tests, inspections, drills
    - Is incorporated by reference in the Response Plan

- For a facility that could reasonably be expected to cause substantial harm to the environment, with the consent of the response contractor or oil spill removal organization, the identification of a response contractor or oil spill removal organization with specified equipment and personnel which are available within stipulated response times in specific geographic areas.

Demand Breathing Apparatus
A type of self-contained breathing apparatus that provides air or oxygen from a supply carried by the user.

Dispersants
Those chemical agents that emulsify, disperse, or solublize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Diversion Boom
A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert the product towards a pick up point, or away from certain areas.

Environmentally Sensitive Areas
Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.

Exclusion Zone
Same as hot zone, the area where a hazard exists. This is the hazardous location on site, therefore entry requires personal protective equipment (PPE). It must be big enough for both mitigation activities and protection of personnel in the warm zone should an explosion, fire, change of wind direction, or an unexpected release occur during response activities.

Explosive Range
Flammable range; the range of the mixture of air and flammable gas or flammable vapor of liquids that must be present in the proper proportions for the mixture to be ignited. The range has upper and lower limits; any mixture above the upper explosive limit or below the lower explosive limit will not burn.

Facility
Any pipeline, structure, equipment, or device used for handling oil including, but not limited to, underground and aboveground storage tanks, impoundments, mobile or portable drilling or workover rigs, barge mounted drilling or workover rigs, and portable fueling facilities located offshore or on or adjacent to coastal waters or any place where a discharge of oil from the facility could enter coastal waters or threaten to enter the coastal waters.

Federal Fund
The oil spill liability trust fund established under OPA.

First Responders, First Response Agency
A public health or safety agency (i.e., fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.

Flashover
The ignition of combustibles in an area heated by convection, radiation, or a combination of the two. The action may be a sudden ignition in a particular location followed by rapid spread or a "flash" of the entire area.

Flash Point
The temperature at which a liquid fuel gives off sufficient vapor to form an ignitable mixture near its surface.

Foam
A blanket of bubbles that extinguishes fire mainly by smothering. The blanket prevents flammable vapors from leaving the surface of the fire and prevents oxygen from reaching the fuel. The water in the foam also has a cooling effect.

Hazardous Material
Any nonradioactive solid, liquid, or gaseous substance which, when uncontrolled, may be

harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.

Hazardous Substance
Any substance designed as such by the Administrator of EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act; regulated pursuant to Section 311 of the Federal Water Pollution Control Act.

Hazardous Waste
Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resources Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.

Higher Volume Port Area
Ports of:

- Boston, MA
- New York, NY
- Delaware Bay and River to Philadelphia, PA
- St. Croix, VI
- Pascagoula, MS
- Mississippi River from Southwest Pass, LA to Baton Rouge, LA
- Louisiana Offshore Oil Port (LOOP), LA
- Lake Charles, LA
- Sabine-Nachez River, TX
- Galveston Bay and Houston Ship Channel, TX
- Corpus Christi, TX
- Los Angeles/Long Beach Harbor, CA
- San Francisco Bay, San Pablo Bay, Carquinez Strait, Suisun Bay to Antioch, CA
- Straits of Juan de Fuca and Puget Sound, WA
- Prince William Sound, AK

Hot (Exclusion) Zone
The area where a hazard exists. This is the hazardous location on site, therefore entry requires personal protective equipment (PPE). It must be big enough for both mitigation activities and protection of personnel in the warm zone should an explosion, fire, change of wind direction, or an unexpected release occur during response activities.

Hypothermia
A dangerously high fever that can damage nerve centers. This condition can result from exposure to excessive heat over an extended period of time.

Ignition Temperature
The lowest temperature at which a fuel will burn without continued application of an ignition source.

Incident Commander (IC)
The one individual in charge at any given time of an incident. The Incident Commander will be responsible for establishing a unified command with all on-scene coordinators.

Incident Command System
A method by which the response to an extraordinary event, including a spill, is categorized into functional components and responsibility for each component assigned to the appropriate individual or agency.

Interim Storage Site
A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.

Lead Agency
The government agency that assumes the lead for directing the spill response.

Lead Federal Agency
The agency which coordinates the federal response to incidents on navigable waters. The lead Federal agencies are:

- **U. S. Coast Guard (USCG):** Oil and chemically hazardous materials incidents on navigable waters
- **Environmental Protection Agency (EPA):** Oil and chemically hazardous materials incidents on most inland waters and in the inland zone

Lead State Agency
The agency which coordinates state support to Federal and/or Local governments or assumes the lead in the absence of a Federal spill response.

Lower Flammable Limit
Minimum flammable concentration of a particular gas in the air.

Marine Transportation-Related Facility (MTR Facility)
An onshore facility, including piping and any structure used to transfer oil to or from a vessel, subject to regulation under 33 CFR Part 154 and any deepwater port subject to regulation under 33 CFR Part 150.

Maximum Extent Practicable
The planning values derived from the planning criteria used to evaluate the response resources described in the response plan to provide the on-water recovery capability and the shoreline protection and clean-up capability to conduct response activities for a worst case discharge from a facility in adverse weather.

Maximum Most Probable Discharge (USCG)
A discharge of the lesser of 2,500 barrels or ten percent of the volume of a worst case discharge.

Medium Discharge **(EPA)**
Same as maximum most probable discharge.

National Contingency Plan
The plan prepared under the Federal Water Pollution Control Act (33 United States Code '1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code '9601 et seq), as revised from time to time.

Nearshore Area
The area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation (COLREG) lines) defined in '80.740 - 80.850 of Title 33 of the CFR.

Non-Persistent or Group I Oil
A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

- At least 50% of which by volume, distill at a temperature of 340EC (645EF)
- At least 95% of which volume, distill at a temperature of 370EC (700EF)

Non-Petroleum Oil
Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.

Offshore Area
The area beyond 12 nautical miles measured from the boundary lines defined in 46 CFR Part 7 extending seaward to 50 nautical miles, except in the Gulf of Mexico. In the Gulf of Mexico it is the area beyond 12 nautical miles of the line of demarcation (COLREG lines) defined in '80-740 - 80.850 of Title 33 of the CFR extending seaward to 50 nautical miles.

Oil or Oils
Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR Part 302 adopted August 14, 1989, under Section 101(14) of the Federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by P.L. 99-499.

Oil Spill Removal Organization (OSRO)
An entity that provides oil spill response resources, and includes any for profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provide required response resources.

Operating Area
The rivers and canals, inland, nearshore, Great Lakes, or offshore geographic location(s) in which a facility is handling, storing, or transporting oil.

Operating Environment
Rivers and canals, inland, Great Lakes, or ocean. These terms are used to define the conditions in which response equipment is designed to function.

Overhaul
A procedure following a fire whereby the area is examined for hidden fire and fire extension

and the fire area is cleaned up.

Owner or Operator
Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character.

Persistent Oil
A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:

- Group II - specific gravity less than .85
- Group III - specific gravity between .85 and less than .95
- Group IV - specific gravity .95 to and including 1.0
- Group V - specific gravity greater than 1.0

Primary Response Contractor(s)
An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil.

Qualified Individual(s)
An English-speaking representative(s) of the facility identified in the plan, located in the United States, available on a 24-hour basis, familiar with implementation of the facility response plan, and trained in his or her responsibilities under the plan. This person must have full written authority to implement the facility's response plan. This includes:

- Activating and engaging in contracting with identified oil spill removal organization(s)
- Acting as a liaison with the predesignated of Federal On-Scene Coordinator (FOCS)
- Obligating, either directly or through prearranged contracts, funds required to carry out all necessary or directed response activities

Regional Response Team
The Federal Response Organization (consisting of representatives from selected Federal and State agencies) which acts as a regional body responsible for planning and preparedness before an oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill.

Reid Vapor Pressure Method
Method used by the American Society of Testing Materials to test vapor pressure. It is a measure of the volatility, or tendency to vaporize, of a liquid.

Responsible Party
Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state.

Rivers and Canals
A body of water confined within the inland area that has a projected depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

Skimmers
Mechanical devices used to skim the surface of the water and recover floating oil. Skimmers fall into four basic categories (suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices) which vary in efficiency depending on the type of oil and size of spill.

Slopover
An event that occurs when water is introduced into a tank of very hot liquid, causing the liquid to froth and spatter.

Small Discharge (EPA)
Same as average most probable discharge.

Sorbents
Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.

Spill Management Team
The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Spontaneous Ignition
A fire that occurs without a flame, spark, hot surface, or other outside source of ignition.

Staging Areas
Designated areas near the spill site accessible for gathering and deploying equipment and/or personnel.

State Emergency Response Commission (SERC)
A group of officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Reauthorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.

Static Electricity
Charges of electricity accumulated on opposing and usually moving surfaces having negative and positive charges, respectively. A hazard exists where the static potential is sufficient to discharge a spark in the presence of flammable vapors or combustible dusts.

Support Zone
Same as cold zone, an area free of contaminants so that personal protection equipment (PPE) is not required for personnel working in this area. Command functions and supporting operations are carried out here.

Tornado Warning
A tornado has been sighted.

Tornado Watch
Conditions are favorable for tornados to form.

Unified Command
The method by which local, state, and federal agencies will work with the Incident Commander to:

- Determine their roles and responsibilities for a given incident
- Determine their overall objectives for management of an incident
- Select a strategy to achieve agreed upon objectives
- Deploy resources to achieve agreed-upon objectives

Warm (Contamination Reduction) Zone
A buffer between the hot and cold zones. Decontamination activities take place there. Equipment needed to support the primary response operation may be staged in the warm zone.

Waste
Oil or contaminated soil, debris, and other substances removed from coastal waters and adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized discharge. Waste means any solid, liquid, or other material intended to be disposed of or discarded and generated as a result of an unauthorized discharge of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of their generation or if they are brought to a recycling facility within that time.

Wildlife Rescue
Efforts made in conjunction with federal and state agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.