SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN
And
STORM WATER POLLUTION PREVENTION PLAN

OF

STOLTHAVEN FACILITY
BRAITHWAITE, LOUISIANA

Prepared By:
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TABLE OF REVISIONS

Revision No.	Date	Revision Detail
0	1/2001	Initial SPCC
1	5/2007	5 year update and P.E. Certification
2	10/2008	Revisions to Spill History, Spill Response Procedures and Control Design Changes
3	3/28/2011	Design Changes to C, D/E & H Tank Farms for Phase V Construction of Tanks, Update of Spill History and Review /Update A Tank Farm Containment
4	9/17/2012	Revisions to Spill History, Tank Farm Calculations following Hurricane Isaac, and QI Name

1.0 INTRODUCTION

The purpose of this Spill Prevention Control and Countermeasure (SPCC) Plan is to comply with both the Louisiana Department of Environmental Quality (LDEQ) and US Environmental Protection Agency (EPA) SPCC regulations, to establish procedures and methods in accordance with best management practices, and to control and prevent the discharge of pollutants that may result from a spill into navigable waters. The plan also addresses emergency condition(s) that may arise at the facility.

Federal regulations (40 CFR 112) require the preparation and implementation of a SPCC Plan for all non-transportation related facilities which could reasonably be expected to discharge oil into navigable waters of the United States or the adjoining shorelines.

This SPCC Plan is prepared in accordance with 40 CFR 112 and the State of Louisiana Spill Prevention and Control (SPC) Regulations, Louisiana Administrative Code, Title 33 (LAC 33), Part IX, Chapter 9. Louisiana regulations require that the SPCC Plan include "oil of any kind or in any form" and "all substances listed in LAC 33:I.3931 that are in liquid form at temperatures ranging between 0-35 degrees C and pressures at or near 760 mm Hg".

This SPCC Plan is on file in the Environmental Superintendent's office.

2.0 FACILITY IDENTIFICATION

Name of Facility:	Stolthaven New Orleans
Name and Address of Facility Operator:	Stolthaven New Orleans, LLC 2444 English Turn Rd. Braithwaite, LA 70040
Facility Location:	2444 English Turn Rd. Braithwaite, LA 70040 (Approximately 2 miles west on Highway 39 from Braithwaite, Plaquemines Parish) Latitude N 29° 52" 6" Longitude: W 89° 56" 26"
Type of Facility:	Liquid Bulk Terminal – Includes diked tank farms, truck loading/unloading racks, railcar loading/unloading racks, two marine docks, a wastewater treatment system, and administrative and utility support facilities
Date of Initial Operation:	2001

Designated Facility Response Coordinator:

Dustin Durapu	Extension (504) 682-1615
Fire Chief	Cell/Pager (504)202-3028

Alternate Facility Coordinator:

William Turnage	Extension (504) 682-1616
Assistant Fire Chief	Cell/Pager (504)376-3012

Response Team Members:

Vincent Vo	Extension (504) 682-1619 Cell/Pager (504) 202-3113
Frank Vujnovich	Extension (504) 682-1619 Cell/Pager (504) 202-3113
Gerald Grosch	Extension (504) 682-1619 Cell/Pager (504) 329-0810
Kerry Rodriguez	Extension 5(04) 682-1619 Cell/Pager (504) 202-3113

Safety and Environmental Officer
Timothy J. Smith — Extension (504) 682-1611
Cell/Pager (504) 559-0223

Media Relations
Philip Watt, — Extension (504) 682-1626
Terminal Manager — Cell/Pager (504) 330-3013

Facility Security Officer
Brad Wilson– — Extension (504) 682-1613
Cell/Pager (504) 342-5220

Refer to Figures 1 and 2 (in the Figures section) for the location/vicinity map and plot plan of the facility, respectively.

3.0 FACILITY DESCRIPTION

Stolthaven owns and operates a bulk liquid terminal comprising six diked tank farms, four truck loading/unloading racks (T-1, T-2, T-5 and T-6), three railcar loading/unloading racks (R-1, R-2 and R-3), two marine docks (M-3 and M-4), a wastewater treatment system, railroad spurs, and administrative and utility support facilities.

The site drainage system consists of numerous aboveground ditches and culverts in and surrounding the facility. The drainage system directs all non-contaminated storm water and treated sanitary flows towards the un-named ditch south of the facility along LA Highway 3137, LA Highway 39 and English Turn Road. Wastewater, including contaminated storm water and storm water from the hazardous drum storage area are treated in the LPDES permitted wastewater treatment plant before being discharged into the Mississippi River through permitted Outfall 001. The wastewater treatment plant comprises an oil/water separator, two equalization tanks, a Dissolved Air Flotation (DAF) unit, a trickle filter, two activated sludge biological reactors (tanks), two clarifiers, a sludge digester, and a carbon polishing unit. The site drainage is indicated in Figure 2.

3.1 On-Site Storage, Spill Potential, and Spill Response

3.1.1 Identity, Quantity, and Location of Substances Stored

Sources of potential spills at the Stolthaven facility include storage tanks, drum storage, portable storage tanks, truck loading/unloading, railcar unloading/loading and marine dock loading/unloading areas. A listing of the potential spill sources is found in Table 3-1 along with their respective secondary containment volumes. The location of each potential spill source is denoted in Figure 2. The inventory will be reviewed, and whenever the service is changed plant personnel will be made aware of the changes to facilitate appropriate responses to spill events.

Table 3-1. Storage Tank Inventory

Containment Location	Description	Capacity (gallons)	Secondary Containment Capacity (gallons)
Tank Farm A	Tank A15-1	630,000	2,350,998 gal (>110% of largest tank)
	Tank A15-2	630,000	
	Tank A15-3	630,000	
	Tank A15-4	630,000	
	Tank A15-5	630,000	
	Tank A15-6	630,000	
	Tank A50-1	2,100,000	
	Tank A50-2	2,100,000	
	Tank A50-3	2,100,000	
	Tank A50-4	2,100,000	
	Tank A50-5	2,100,000	
	Tank A50-6	2,100,000	
	Tank A50-7	2,100,000	
	Tank A50-8	2,100,000	
Tank Farm B	Tank B15-25	1,050,000	5,883,500 (>110% of largest tank)
	Tank B50-9	2,100,000	
	Tank B50-10	2,100,000	
	Tank B50-11	2,100,000	
	Tank B50-12	2,100,000	
	Tank B50-13	2,100,000	
	Tank B50-14	2,100,000	
	Tank B5-15	2,100,000	
	Tank B50-16	2,100,000	
	Tank B80-1	3,360,000	
	Tank B80-2	3,360,000	
	Tank B80-3	3,3600,000	
	Tank B110-1	4,620,000	
	Tank B110-2	4,620,000	

Tank Farm C	Tank C15-7	630,000	1,159,814 gal (>largest tank plus 10 inch precipitation)
	Tank C15-8	630,000	
	Tank C15-9	630,000	
	Tank C15-10	630,000	
	Tank C15-11	630,000	
	Tank C15-12	630,000	
	Tank C15-13	630,000	
	Tank C15-14	630,000	
	Tank C15-15	630,000	
	Tank C15-16	630,000	
	Tank C15-17	630,000	Tank secondary containment was being modified to allow construction of C15-17 –C15-24. A temporary dike was added north of the existing tank dike. This dike has sufficient height and surface area (7,100 ft^2) to ensure the containment capacity is sufficient.
	Tank C15-18	630,000	
	Tank C15-19	630,000	
	Tank C15-20	630,000	
	Tank C15-21	630,000	
	Tank C15-22	630,000	
	Tank C15-23	630,000	
	Tank C15-24	630,000	
Tank Farm D&E	Tank D8-1	336,000	783,800 gallons (> largest tank plus 10-inch precipitation)
	Tank D8-2	336,000	
	Tank D8-3	336,000	
	Tank D8-4	336,000	
	Tank D8-5	336,000	
	Tank D8-6	336,000	
	Tank D8-7	336,000	
	Tank D8-8	336,000	
	Tank E12.5-1	525,000	
	Tank E12.5-2	525,000	
	Tank E12.5-3	525,000	
	Tank E12.5-4	525,000	
	Tank E12.5-5	525,000	
	Tank E12.5-6	525,000	
	Tank E12.5-7	525,000	
	Tank E12.5-9	525,000	
	Tank E12.5-10	525,000	

	Tank E12.5-11	525,000	
	Tank E12,5-12	525,000	
	Tank E12.5-13	525,000	
	TankE12.5-14	525,000	
	Tank E12.5-15	525,000	
	Tank E12.5-16	5250,000	
Tank Farm H	Tank H25-1	1,050,000	2,100,000 gal
	Tank H25-2	1,050,000	
	Tank H30-1	1,260,000	
	Tank H30-2	1,260,000	
	Tank H30-3	1,260,000	
	Tank H30-4	1,260,000	
	Tank H30-5	1,260,000	
	Tank H30-6	1,260,000	
	Tank H 30-7	1,260,000	Tank containment is modified to allow the construction of H30-7 - H30-15. A temporary Diked will be added south of existing tank dike. Dike will will have sufficient height and surface area (20,000 ft^2) to ensure the containment capacity will remain unchanged.
	Tank H30-8	1,260,000	
	Tank H30-9	1,260,000	
	Tank H30-10	1,260,000	
	Tank H30-11	1,260,000	
	Tank H30-12	1,260,000	
	Tank H30-13	1,260,000	
	Tank H30-14	1,260,000	
	Tank H30-15	1,260,000	
Tank Farm V	Tank V2-1	84,000	131,861 gal This tank farms containment is combined with MM-2 to ensure adequate containment capacity.
	Tank V2-2	84,000	
	Tank V2-3	84,000	
	Tank V2-4	84,000	
Hazardous Waste Drum Storage Area	Caustic	280 totes	550
Non-Hazardous Waste Containers	Used oil/Miscellaneous Non-Haz waste	280 totes	
Gasoline Tank	GAS-1	1,000	5,202 gal
Diesel Tank	GAS 2	2,000	5,202 gal

(1) Products that may potentially be stored in the tank are listed in Table 3.2 I notice only certain tanks have this note

*Refer to daily inventory report for quantities, identities, and specific tank locations for customer products stored in the terminal.

Table 3-2. Potential Product Storage List

CERCLA Hazardous Substance?	Product Name	Reportable Quantity, lbs
	Acetal	
Y	Acetic Acid	1000
Y	Acetic Anhydride	1000
Y	Acetone	1
Y	Acetonitrile	1
Y	Acrylic Acid	1
Y	Acrylonitrile	1000
	Adiponitrile	
	Alfol 10's through 14's	
	Alfol 16's through 30's	
	Alfol 4 through 8's	
	Alfonic 10's through 14's	
	Alkyl Benzene	
	Alkyl Ketone	
	Alkylates	
Y	Allyl Alcohol	100
Y	Amyl Acetate, n & sec-	1000
	Amyl Alcohol, n-, sec- & tert-	
Y	Aniline	1000
	Apple Juice	
	Asphalt	
	Beer	
Y	Benzene	1000
	Butanediol (all isomers)	
	Butyl Acetate, n-, 2-, & sec-	
	Butyl Acrylate, n-	
	Butyl Alcohol, n- & sec-	
	Butyl Alcohol, tert-	
	Butyl Cellosolve	
	Butyl Formate, n-	
	Butylene Glycol, 1,3- & 1,4-	
	Butyraldehyde, n-	
	Butyronitrile	
	C10-C12+ Linear Olefins	
	Calcium Bromide	
	Caradol	
Y	Carbon Tetrachloride	5000
	Castor Oil	
	Caustic Potash (50%)	
Y	Caustic Soda (50%)	1000
	Cellosolve Acetates	
	Cellosolve Solvent	
Y	Cyclohexane	1000
Y	Chloroform	5000
	Chlorowax	
	Coconut Oil	
	Corn Oil	

	Cottonseed Oil	
Y	Cresols	1
	Cresylic Acid (Methyphenol, 2, 3,& 4)	
	Croton Oil	
	Crude Oil	
	Crude Oil Condensates	
Y	Cumene	1
Y	Cyclohexane	1000
	Cyclohexanol	
Y	Cycylohexanone	1
	Cyclohexene	
	Cyclopentane	
	Cyclopentanel	
	Cyclopentanone	
	Cyclopenene	
	Decane	
	Decene	
	Decyl Alcohol	
Y	Di Octyl Phthalate	1
	Diacetone Alcohol	
	Dicchlorobenzene (all isomers)	1
Y	Dichlorobenzene – 1,2	1
	Dicyclopentadiene	
	Diesel	
Y	Diethanolamine	1
	Diethyl Carbonate	
	Diethyl Ketone	
Y	Diethylamine	1000
	Diethylene Glycol	
	Monobutyl Ether	
	Diethylenetriamine	
	Diisobutyl Ketone	
	Diisobutylene	
	Diisodecyl Phthalate & Diisononyl Phthalate	
	Diisononyl Phthalate	
	Dimethyl Formamide	
Y	Dimethylamine (40%)	1000
	Dimethylbutane, 2,2	
	Dimethylcyclohexane-1,1	
	Dimethylhexane, 2,2	
	Dimethylpentane, 2,2-	
	Dipentene	
	Dipropyl Ketone	
	Dipropylene Glycol	
	Dodecene	
	Dodecyl Alcohol	
Y	Epichlorohydrin	1000
	Epoxy Resins	
Y	Ethyl Acetate	1
Y	Ethyl Acrylate	1
	Ethyl Alcohol	
	Ethyl Butanol, 2	
	Ethyl Butyl Ketone	

	Ethyl Butyrate	
	Ethyl Carbonate	
	Ethyl Cyclohexane	
	Ethyl Cyclopentane	
	Ethyl Ether	
	Ethyl Formate	
	Ethyl Hexanol, 2	
	Ethyl Methacrylate	
	Ethyl Morpholine	
	Ethyl Propionate	
Y	Ethylbenzene	1000
	Ethylene Dibromide	
	Ethylene Dichloride	
Y	Ethylene Glycol	1
Y	Ethylenediamine	1
	Ethylhexane, 2-diol-1,3	
	Ethylhexyl Acrylate, 2-	
	Fatty Acids	
	Fatty Alcohol	
	Fish Oil	
	Fuel Oil #2 (Marine Diesel Oil)	
	Fluorosilicic Acid	
	Fuel Oil #4-#6	
	Fuel Oil – Cutter Stock	
Y	Furfural	1000
	Furfuryl Alcohol	
	Gas Oil	
	Gasoline, RVP 7	
	Glycerine	
	Glycol Ethers (Diethylene Glycol Methyl Ether)	
	Ground Nut Oil	
	Heavy Aromatic Distillates	
	Heptane	
	Heptene	
	Heptene, 2-(cis) & (trans)	
	Heptene, 3- (cis) & (trans)	
	Hexamethyleneimine	
	Hexane	
	Hexanone, 2	
	Hexene	
	Hexyl Acetate	
	Hexyl Alcohol	
	Hexyl Cellosolve	
	Hexylene Glycol	
Y	Isoamyl Acetate	1000
Y	Isobutyl Acetate	5000
	Isobutyl Alcohol	1
	Isobutyl Cellosolve	
	Isobutyl Heptyl Ketone	
	Isobutyl Isobutyrate	
	Isodecyl Alcohol	
	Isohexane	
	Isononyl Alcohol	

	Isooctane	
	Isooctyl Alcohol	
Y	Isophrone	1
	Isopropyl Acetate	
	Isopropyl Alcohol	
	Isopropyl Ether	
	Jet Fuel (Jet A, Jet B, JP-4, Kerosene)	
	Lactic Acid	
	Lanolin	
	Lard Oil	
	Latex	
	Lemon Oil	
	Linseed Oil	
	Lube Oil & Lube Oil Additives	
	Paramins	
	MDI (Diphenylmethane Diisocyante, 4,4-)	
	Metam Sodium	
	Methyl Acetate	
	Methyl Acrylate	10
Y	Methyl Alcohol	1
	Methyl Amyl Alcohol	
	Methyl Amyl Ketone	
	Methyl Cellosolve	
	Methyl Cyclohexane	
	Methyl Cyclopentane	
Y	Methyl Ethyl Ketone	1
	Methyl Formate	
	Methyl Heptane (all isomers)	
	Methyl Hexane	
	Methyl Isoamyl Ketone	
Y	Methyl Isobutyl Ketone	1
Y	Methyl Methacrylate	5000
	Methyl Pentane, 2	
	Methyl Pentane, 3	
	Methyl Propionate	
	Methyl Propel Ketone	
	Methyl Tert Butyl Ether	
	Methyl, -2-Pentanol, 4-	
	Methyl-1-Butanol, 3-	
	Methyl-1-Propanol, 2-	
	Methyl-2-Heptane, 2-	
	Ethylene Chloride	
	Methylheptane, 2-	
	Methylhexane, 2-	
	Methyhexane, 3-	
	Metolachlor-Tech	
	Mineral Spirits	
	Mollasses	
	Monoethanolamine	
	Monoethylamine	
	Monoisopropylamine, 70%	
	Morpholine	
	Naphtha	

Y	Naphthalene	5000
	Neodene 1014	
	Neodol	
	Neoflex 6-11	
	Neohexane	
	Niax Polyols	
Y	Nitrobenzene	1000
	Nitrochlorobenzene	
	o-(ONCB)	
	Nonene	
	Octane, n	
	Octene (all isomers)	
	Orange Juice	
	Palm Kernel Oils	
	Palm Oils	
	Pentadiene, 1,2 (cis)	
Y	Pentadiene, 1,3 (trans)	1
	Pentanediol, -1,5	
	Phenol	
	Phosphoric Acid	
	Polybutadiene	
	Polybutene	
	Polyols	
	Polypropylene Glycol	
	Polysiloxane	
	Propiophenone	
	Propyl Acetate	
	Propyl Alcohol	
	Propyl Ether	
	Propyl Formate	
	Propyl Propionate	
	Propylene Glycol	
	Propylene Glycol Monomethyl Ether Acetate	
	Propylene Oxide (all isomers)	
	Pyridine	
	Pyrolysis Gasoline	
	Raffinate	
	Rapeseed Oil	
	Refinery Petroleum Products	
	Cont<10% Benzene	
	Safflower Oil	
	Sodium Bisulfite Solution (38%)	
	Sodium Hydrosulfide	
	Soybean Oil	
Y	Styrene	1000
Y	Sulfuric Acid (90-99%)	1000
	Sunflower Oil	
	Tall Oil	
	Tallow	
Y	Tetrachloroethylene	1
	Tetraethylene Glycol	
	Tetrahydrofuran	
Y	Toluene	1000

Y	Toluene 2,4-Diisocyanate	1
Y	Triclorobenzene 1,2,4	1
Y	Trichlorethane 1,1,1-	1
Y	Trichloroethylene	
	Tridecyl Alcohol	1000
Y	Triethanolamine	1000
Y	Triethylamine	5000
	Triethylene Glycol	
	Triethylenetetramine	
	Trimethylbutane, 2,2,3-	
Y	Trimethylpentane, 2,2,4-	1
	Tripropylene Glycol	
	Tripropylene Glycol Monomethyl Ether	
	Turpentine	
	Urea-Ammonium Nitrate	
	Vegetable oil	
Y	Vinyl Acetate	1000
	Wax-Parrafin	
	Wine	
Y	Xylene,meta	1
Y	Xylene, ortho	1
Y	Xylene, para	1

*Refer to daily inventory report for quantities, identities, and specific tank locations for customer products stored in the terminal.

Material Data Safety Sheets (MSDS) are available at the facility.

3.1.2 Prediction of Direction, Total Quantity, and Rate of Flow of Potentially Spilled Substances

Drainage at the site is provided by aboveground ditches, above ground concrete lined chemical sewer and storm water drain lines; as well as the earthen and concrete berms, which surround each tank farm area. These drainage measures will be hereafter referred to as the facility drainage system.

The contaminated storm water is routed to sumps and lift stations where the first 10 minutes of rainwater is pumped to the wastewater treatment plant for treatment. The remaining non-contaminated rainwater is pumped to the Mississippi River. Total Organic Carbon (TOC) and pH continuous monitors are installed at three storm water internal sumps upstream of Permitted Storm water Outfalls 002 and 003.). When the TOC and/or pH exceed the alarm set point, the transmitter sends a signal to close the specific stormwater outfall valve and pump to stop the discharge to the river. The continuous monitors are positioned far enough upstream of the outfalls to ensure that no non-compliant storm water will be discharged to the river. Rainwater that falls outside the tank(s) and loading rack containment areas flows into the facility drainage system and eventually to the catch basins (CB-1, CB-2 and CB-3). The facility drainage system ensures that all drainage flows to the south and eventually into the parish ditch along Highway 3137, Highway 39 and English Turn Rd. The parish drainage ditches flow into the Braithwaite Canal and tributaries that eventually reaches Lake Borgne.

All storage tanks subject to the requirements of 40 CFR Part 112 included in this SPCC Plan are provided with secondary containments of sufficient size to contain the contents of the largest tank in the area plus sufficient freeboard to handle a 25-yr rain event

(10 inches in 24 hours,) or 110% of the largest tank in the secondary containment area.

A spill in the loading areas on site will flow to the chemical sewer and storm trench. Any overflow from containment will flow into the facility drainage system. The facility has the capability of deploying spill mitigation equipment along the ditches within the perimeter to prevent any migration offsite. The facility also has portable storage containers and drums as indicated in Table 3-1 (above), which are located at the east end of the facility (upriver side) and within the boundaries of the facility drainage system should a failure or spill occur. Storm water from the hazardous waste drum storage area is routed to the wastewater treatment system for treatment. The capacities of the secondary containment areas of the tank farms are sufficient to contain the quantity of the largest tank within the specific tank farm plus a 25 year rain event or 110% of the largest tank within the secondary containment. The tank levels are monitored with high level alarms to prevent overtopping during loading operations. No spillage would be allowed to leave the site since the facility drainage system will be used to contain any spill that may occur. Safe guards are being implemented, as mentioned previously, to preclude any discharge to the river that may result from any spills in the tank farms, rail racks and /or truck racks. All efforts will be made to prevent and/or minimize any spilled material from reaching the parish drainage ditch and river.

3.1.3 Spill History

The table below is a summary of the 5-year reportable spill history of the facility.

Date	Product Spilled	Quantity Spilled	Location of Spill
7/26/05	Tank Passivation Solution	50 pounds	E Tank Farm
12/11/06	Lube Oil	1 gallon	Dock 3 (sheen)
205/07	Flourosilicic Acid	48,960 lbs	Outfall OO3/river
2/07/07	Styrene	7 lbs	Rail Car
9/04/07	Acrylonitrile	7-34 lbs	Dock 3 (sheen)
3/17/2008	Fluorosilicic Acid (FSA)	454,465 gallons	CTank Farm
7/29/2008	Ethylene Glycol	11,907 gallons	A Tank Farm
1/14/2009	Treated process wastewater through storm water Outfalls	1,000 gallons	Wastewater Treatment Plant
12/25/09	Ultra S-Base Oil	400 gallons	A Tank Farm
5/13/2010	Treated process wastewater through storm water Outfalls	7,650 gallons	Wastewater Treatment Plant
5/22/2010	PFAD	210 gallons	A Tank Farm
2/06/2011	Ultra S-Base Oil	52,494 gallons	A Tank Farm
8/29/2012	Hurricane Isaac caused the following releases:		
	Octene	<81,407 gallons	
	S-Lube Oil	<36,161 gallons	A Tank Farm
	Vivatec Lube Oil	<2,546 gallons	A Tank Farm
	Diesel	>42 gallons	Fuel Storage

3.2 Spill Response Procedures

3.2.1 Spill Control

The implementation of the spill control measures for spill prevention is the responsibility of the Emergency Response Coordinator. The designated Emergency Response Coordinators for the facility are listed in Section 2.0. In the event of a spill, immediate action will be taken. This action constitutes the elimination of the source and control of the spill to prevent spreading. Spills will be controlled by utilizing absorbent materials, skimmers, and/or pumps. Additional personnel or services will be provided as required. A list of contractors capable of clean up of oil spills on the land is provided in Section 3.2.3, Spill Removal.

For spills within tank containment areas, all areas are sufficiently large enough to contain a spill of the largest tank within the area plus provide sufficient freeboard to allow for precipitation. The diked areas are constructed of concrete and earth to contain spills. The containment capacities are included in Table 3-1.

The storm water within the tank containment areas is routed to sumps and lift stations where the first 10 minutes of rainwater is pumped to the wastewater treatment plant for treatment. The remaining non-contaminated rainwater is pumped to the Mississippi River. Total Organic Carbon (TOC) and pH monitors have been installed at the storm water outfalls in sumps upstream of storm water outfall 002 and 003. When the TOC and/or pH exceed the set point, the transmitter sends a signal to close the corresponding storm water outfall valve and pump operation. The wastewater operator can manually restart the pumps.

Should a spill occur on-site, but outside of a secondary containment area, the spilled material may reach the aboveground ditches. Absorbent material, booms and other appropriate spill mitigation equipment would be utilized, as needed, to prevent spills from migrating offsite. In addition, if any surface suspended solids or floating oils enter the sump, the material would be routed to the oil/water separator in the wastewater treatment system for recovery. Should a spill reach an outfall, the manual valve (in its closed and locked position) will isolate the contamination and a vacuum truck will be used to remove the spilled material.

Any contaminated soils will be removed and disposed of at an approved/permitted end user. Remediation will follow the LDEQ RECAP protocol.

3.2.2 Spill Notifications

An Emergency Response Coordinator (see list in Section 2.0) will ensure that all notifications to all appropriate federal, state and local agencies are made in the event of a reportable spill. This section defines reportable spills at Stolthaven and the reporting requirements for regulatory purposes only. Prior to reporting a spill, an Emergency Response Coordinator will complete the Agency Notification Form (Figure 3 in the Figures section at the end of this document) to aid in notifications. All notifications will be followed with a written notification letter to the appropriate agencies.

The facility may elect to make voluntary notification "as a courtesy" for any incident that does not rise to the notification thresholds.

REPORTABLE SPILL CONDITIONS

A reportable spill has occurred when there has been a release to the

environment (land, air, surface water and groundwater) and any of the following has occurred:

{Environment is defined as air, land, surface water and ground water}

Case 1 – Emergency Condition. Any release which results in an emergency condition. An emergency condition is defined as any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, surface water, groundwater, or air environment, result in a road closure or evacuation, or cause severe damage to property.

Case 2 – RQ Exceeded. A release to the environment has occurred of a quantity equal to or exceeding the "reportable quantity" (RQ) of a hazardous substance within a 24-hour period. The hazardous chemicals with reportable quantities located at Stolthaven are listed in Table 3-2.

Federal regulations define harmful quantities of oil as that which: a) violate applicable water quality standards, or b) cause discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

Case 3 – Off-Site Release of Material That Does Not Have an RQ. A release of a material which does not have an RQ and escapes beyond the boundaries of the facility and has a State Police reporting condition as defined by one of the following:

State Police Reporting Condition

- Is a compressed or refrigerated flammable gas and exceeds 100 lbs; or
- Is a flammable liquid and exceeds 100 lbs; or
- Is a liquid which requires maintenance of MSDS and exceeds 1000 lbs; or
- Is a solid which requires maintenance of MSDS and exceeds 5000 lbs.

Case 4 – Permit Exceedance. A Louisiana Pollutant Discharge Elimination System (LPDES) permit parameter has been exceeded.

Case 5 – Spill to Mississippi River. A release of oil, diesel, or other hazardous substance into the Mississippi River.

Case 6 – Discharges into a navigable waterway of more than 42 gallons of oil in each of two discharges occurring within any twelve month period or a single discharge of more than 1,000 gallons.

AGENCIES REQUIRING NOTIFICATION

The following verbal notifications refer to the cases listed above. A spill may require notifications under multiple cases and care should be taken so that all required notifications are made. The telephone numbers for agency reporting are present in the Subsection Phone Numbers for Agency Reporting, at the end of this subsection.

Case 1 – Emergency Condition. Notify the following immediately but in no case later than 1 hour after discovery of the release. Follow up written notification also required.

- Louisiana State Police, Louisiana Emergency

Hazardous Materials (24-hour Hotline Number)

- Plaquemines Parish Local Emergency Planning Committee (LEPC)

Case 2 – RQ Exceeded. Notify the following agencies within 24 hours after the discovery of the release if the release has not escaped beyond the boundaries of the facility. Follow up written notification also required.

- DEQ Office of Environmental Compliance
  (If unable, notify the DEQ 24-hour number)

If the release has escaped beyond the boundaries of the facility, in addition to the above agencies, also notify:

- Louisiana State Police, Louisiana Emergency Hazardous Materials
- Plaquemines Parish Local Emergency Planning Committee (LEPC)

If the RQ was exceeded for any of the chemicals listed in Table 3-2 and has escaped off site, in addition to the above, also immediately notify:

- The National Response Center (NRC)

Case 3 – Off-Site Release. If the material does not have an RQ, but goes off site, notify the following agencies within 1 hour after the discovery of the release.

- Louisiana State Police, Louisiana Emergency Hazardous Materials
- Plaquemines Parish Local Emergency Planning Committee (LEPC)

Case 4 – Permit Exceedance. Notify the following within 24 hours after learning of the discharge.

Case 5 – Spill to Mississippi River. Check also for Cases 1 and 2. Notify the following:

- Louisiana State Police, Louisiana Emergency Hazardous Materials
- Plaquemines Local Emergency Planning Committee (LEPC)
- U. S. Coast Guard (if spill reaches navigable waterways)
- LDEQ

Case 6 – Discharges into a navigable waterway of more than 42 gallons of oil in each of two discharges occurring within any twelve month period or a single discharge of more than 1,000 gallons. Within 60 days, report the information required in 40 CFR 112.4(a) to the Regional Administrator at the address below, along with a copy to LDEQ.

Region 6 Administrator, EPA
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

SPILL INFORMATION TO BE REPORTED

Prior to notifying the agencies, the Agency Notification Form (Figure 3 located in the Figures section at the end of this document) should be completed to aid in responding to the questions that may be asked by the regulatory agencies. The notifications must be done promptly as required and stated above. Therefore, the information must be gathered quickly. Notification is not to be held up in order to wait on missing information. Agencies are to be notified within one hour after

becoming aware that an incident has occurred. Additional information may be reported as it is gathered once initial notifications are made and an incident number(s) is obtained.

PHONE NUMBERS FOR AGENCY REPORTING

The following contact list and phone numbers have been provided for reference as follows:

- Louisiana State Police
  Louisiana Emergency Hazardous Materials
  24-hour Hotline (225) 925-6595
- Louisiana Department of Environmental Quality
  24-hour number (225) 342-1234
  Office of Environmental Compliance (225) 219-3640
  Plaquemines Parish Local Emergency Planning Committee
  (c/o Plaquemines Parish Government/Port Authority)
  (504) 682-1073
- National Response Center (NRC) 1-800-424-8802
- Fire Department (Plaquemines Parish) 911
- U.S. Coast Guard (only if spill reaches navigable waterways)
  (504) 671-2230

3.2.3 Spill Removal

Provisions to remove spilled oil from containment include the use of the chemical sewer and storm water trench to route the oil to the wastewater treatment plant for recovery. If vacuum trucks are used in the clean-up the vacuum truck, will transport the material to the wastewater treatment plant for treatment or packaging for disposal of the spilled material. To adequately dry all oil from the area, absorbent materials or pads will be used.

Absorbent pads and oil absorbent booms used to clean up oil will be

disposed of through a solid waste disposal contractor in accordance with applicable legal requirements. Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts of sufficient quantities to cause an accumulation of oil in diked areas will be promptly corrected. Accumulated contaminated materials resulting from such discharge will be completely removed in a timely manner.

CLEAN UP CONTRACTORS

Stolthaven will utilize one or more of the following oil spill clean-up contractors capable of handling clean-up in the event of a spill.

Primary Contractors

U.S. Environmental Services, LLC
2809 East Judge Perez Dr.
Phone: (888)279-9930 (manned 24 hours)
(504)279-9934 (also manned 24 hours)
Fax: (504) 279-7756

Garner Environmental Services, Inc.
1717 W. 13th Street
Deer Park, TX 77530
Phone: (800)-4-GARNER(800-424-1716)

3.3 Containment

3.3.1 Appropriate Containment/Diversionary Structures

All storage tanks located at the facility have been provided with secondary containment capable of containing the contents of the largest tank in the area plus sufficient freeboard (10 inches for precipitation resulting from a 24-hour, 25 year storm event) or 110% of the largest tank in the area. These containment areas are constructed out of concrete and earthen materials. In addition to having secondary containment, the individual tank farms are equipped with a drainage system that can divert spills into two wastewater equalization tanks. As a precautionary measure one EQ

tank will be maintained to operate with a minimum inventory. Any overflow will be captured in the EQ tank(s) and contained there until an environmentally acceptable disposal method is delineated. The possibility of a spill reaching the parish ditch and or river is remote.

3.3.2 Drainage from Containment Areas

Drainage from containment areas is restrained by valves and/or other means to prevent spills from reaching the environment. The storm water within the tank containment areas is routed to sumps and lift stations where the first 10 minutes of rainwater is pumped to the wastewater treatment plant for treatment. The remaining non-contaminated rainwater is pumped to the Mississippi River. Total Organic Carbon (TOC) and pH monitors have been installed in sumps upstream of storm water outfalls (Outfalls 002 and 003). When the TOC and/or pH exceed the set point, the transmitter sends a signal to close the corresponding storm water outfall valve and pump operation. The operator can manually restart the pumps.

3.3.3 Facility Drainage System

The process area of the facility is surrounded by a system of aboveground ditches and earthen berms. All drainage (for stormwater outside the containment) flows to the southern portion of the site towards Catch Basins CB-1, CB-2 and CB-3. The catch basins can be controlled by manual valves that are closed and locked in the event of a spill. Contaminated storm water will be contained onsite and will be either treated onsite or disposed of offsite at a permitted disposal facility.

3.4 Tanks and Pipelines

3.4.1 Materials of Construction

The material of construction of all tanks used for the storage of any

oil, hazardous material, or hazardous waste at the facility is compatible with their respective contents in usual conditions of storage. Corrosivity of materials is reviewed during the Management Of Change process.

3.4.2 Tank Design

All storage tanks are located aboveground and are designed in accordance with applicable industry accepted standards, such as American Petroleum Institute (API) or American Society for Testing and Materials (ASTM).

3.4.3 Overfill Prevention

All tanks at the facility that receive material on a continuous or intermittent basis are engineered to avoid spills. For these tanks, a fast response SAAB system for determining the liquid level of each bulk storage tank is used. The SAAB system is tied to PC monitors located in the shift supervisor's office. Surveillance cameras are also used to monitor loading operations.

The tanks in the tank farm areas are loaded via pumps situated in the tank containment areas through aboveground piping. The pumps are in pump pad containments, which are tied to the chemical sewer system. Transfers to and from the tanks to marine vessels, railcars and/or tank trucks are performed in the designated loading areas. All potential spill sources, such as bleeder valves have been identified and prior to the transfer the systems are checked to ensure that all bleeder valves are in the closed position and all open ended lines are capped. Critical valves are part of the facility car seal program. Under special circumstances, portable containment is used to load products outside designated loading areas. Railcars and tank trucks are inspected to ensure that all valves are closed before and after filling

operations before they depart the facility. Also, during loading/unloading operations, all railcar and tank trucks are chocked. Operating procedures require all vehicles are chocked before attaching any transfer hoses and must remain in place while transfer hoses are attached. Only once the transfer hoses are removed can also the chocks be removed. All transfers into or out of storage tanks, marine vessels/barges, railcars, and tank trucks are supervised by facility personnel. The facility maintains operational procedures located in the local training manual (LTM) for filling all storage tanks, marine vessel, railcar and tank trucks.

The tank farm, railcar loading, and truck loading areas are within the containment areas of the facility drainage system. The tank farms also have their own secondary containment areas.

3.4.4 Buried Pipelines

There are no buried piping at the facility other than firewater lines, sanitary lines and wastewater treatment lines.

The buried metallic piping is coated to prohibit corrosion. Anytime a section of buried line is exposed, it will be carefully examined for deterioration. If significant corrosion is detected, corrective action will be taken to remedy the potential threat to the environment. The buried piping will be closely monitored for any signs of leakage.

3.4.5 Standby or Out-of-Service Pipelines

In the event that a pipeline is scheduled to be out-of-service, or placed in standby service for an extended time, it will be isolated, capped, or blind-flanged and tagged out of service.

3.4.6 Pipe Support Design

Any pipe supports at the facility are properly designed to minimize abrasion and corrosion, allow for expansion and contraction, and adequately support thrust loadings at bends.

3.4.7 Tank Repairs

If any field constructed above ground tank undergoes a repair, alteration, or change in service, the facility will evaluate the tank for risk of failure and as necessary take appropriate action, as required by the facility's Management of Change (MOC) program.

3.5 Loading/Unloading Areas

3.5.1 Railcar/Tank Truck Loading/Unloading Containment

All railcar and tank truck loading/unloading areas onsite have been sloped for quick drainage. The drainage from the railcar and truck loading areas flows into one of the nearby sumps where it is pumped to the wastewater treatment system for treatment. The drainage system is able to contain the maximum capacity of any single compartment of a railcar or tank truck loaded/unloaded at the facility. The largest single compartment of a tank truck which loads/unloads at the facility is approximately 5,000 gallons and for a railcar is approximately 25,000 gallons. The contingency procedure would be to stop and contain the spill and remove the spill material via absorbent pads/material or vacuum truck(s). Under special circumstances, portable containment is used to load products outside designated loading areas.

Any spills or drainage resulting from railcar or tank truck unloading into the storage tanks in the tank farms are contained by the concrete/earthen walls surrounding the corresponding tank farm area. The drain valves located at the lift stations (sumps) for the

concrete secondary containment structures shall remain in the closed position at all times, unless approval is granted by the Wastewater Supervisor.

3.5.2 Physical Barrier or Warning Signs

The loading/unloading of the storage tanks, railcars and tank trucks are supervised by facility personnel. It is the responsibility of facility personnel, jointly with the railcar conductor or truck driver, for ensuring that the proper transfer line connections between railcar/tank truck and tank during filling are made. The railcar operator/tank truck driver is responsible for ensuring that the railcar/tank truck does not move during the loading operation and that the railcar/tank truck brake does not move during the loading operation. A sign is posted to warn operators to disconnect the railcar/tank truck before departure.

3.5.3 Examination of Railcar/Tank Truck Drain Valves

It is the responsibility of the railcar operator/tank truck driver to examine the lower most drains and all outlets of the railcar/tank truck for leakage prior to loading or unloading and/or departure. If necessary, the operator/driver will tighten, adjust or replace these outlets. It is the responsibility of facility personnel to verify that this was performed.

3.5.4 Examination of Marine Dock Hoses

On the two marine docks, it is the responsibility of the dock operator .person in charge to ensure that all hoses are properly drained back, capped/blind flanged and stowed in its proper position.

4.0 INSPECTION AND TESTING

4.1 Inspection Program

Visual inspection of storage tanks are conducted weekly by environmental personnel and the inspection reports are filed electronically in the shared drive. This inspection includes a visual inspection of the tanks, piping, valves, and associated fittings for any signs of deterioration, leaks or accumulation of oil inside the diked areas. Visible leaks are promptly corrected through the use of the maintenance work order system.

4.2 Inspection Records

The Weekly SPCC Inspection Reports are kept at the facility in the Environmental Department for a period of not less than three (3) years.

4.3 Testing

4.3.1 Tanks

Each tank is visually inspected (corrosion or overtopping stains) on a weekly basis, and when material repairs are performed on the tank. Other non-destructive shell testing techniques (hydrostatic testing, ultrasonic testing, etc...) shall be performed per API 653 guidelines. Visual inspections are performed on steel and fiberglass tanks weekly. The inspection results will be kept in the maintenance history files. Comparison records shall be kept and tank supports and foundations shall be included in the inspections. These records will be kept at the facility by the Maintenance Department.

4.3.2 Buried Pipelines

There is no buried product piping present at the facility. The only buried piping is associated with the facility firewater lines, the sanitary system, and the waster treatment system.

If a section of buried line is exposed for any reason, it shall be carefully examined for deterioration. Operations personnel will originate a Maintenance Work Order to correct any deficiencies noted as a result of this inspection. Associated maintenance will be performed as the need arises.

4.3.3 Record Keeping

Records of the inspections and testing conducted in accordance with this SPCC Plan are maintained for at least three years. Records are kept at the facility in the Environmental Department and the Maintenance Department, and, not with this SPCC Plan due to the volume of paper anticipated.

4.3.4 TOC and pH Monitors

The three sets of TOC and pH monitors are calibrated and tested daily. A log sheet is maintained to ensure that calibration is being carried out. Each of the three sets of monitors is tested to determine if the valves and pumps shutdown system operates in accordance with the set points.

4.4 SPCC Plan Review

In accordance with LAC 33:IX.905.F, this SPCC Plan is reviewed every three years and shall be amended within 90 days of the review. This plan shall also be amended whenever there is a modification in facility design, construction, storage capacity, large spill event, operations or maintenance which renders the existing plan inadequate. Per 40 CFR 112.5(b), each 3-year review and update of the SPCC shall be documented and signed.

In accordance with 40 CFR 112, a Professional Engineer's (PE) signature is only required for technical amendments. Non-technical amendments such as changes to phone numbers, names, etc... do not require a PE signature.

Refer to Section 7.0 for the P.E. Certification sheet.

5.0 FACILITY SECURITY

5.1 Restricting Unauthorized Entry

All visitors must check in with security at the facility front gate. The facility front gate is electronically controlled by security inside the security building. Upon entry into the facility, all visitors shall report to the security building to obtain a visitor's badge. Visitors are escorted as directed by supervisory personnel. Access is controlled on a 24-hour basis and security or operations personnel performing the security functions will challenge any unescorted, non-employee. A chain-link fence along the access road serves as a barrier to prevent unauthorized ingress and egress of the facility.

5.2 Master Flow and Drain Valves

The only master flow valves present at the facility are located at Outfall 001 which is the effluent from the wastewater treatment system, 002 and 003 which are storm water that discharges into the Mississippi River.

5.3 Pump Starter Controls

Three continuous TOC and pH monitors are installed in three separate lift station upstream of storm water sumps. These systems are designed to preclude the discharge of any non-compliant storm water into the river. If any monitor detects pH or TOC above the set points a signal is sent to the valve and pump to close the valve and shutdown the pump. The alarm set point is set at 6.5(low) and 8.5 (high) for pH and 45 mg/L for TOC.

5.4 *Pipeline Loading/Unloading Connections*

The loading/unloading connections of pipelines are securely capped, blind-flanged or secured with fail safe closure devices when not in service, or in standby service.

5.5 Lighting

Facility lighting is sufficient for the discovery of spills occurring during hours of darkness by facility personnel. The lighting is also adequate enough to help prevent spills that may occur through acts of vandalism.

6.0 TRAINING

6.1 Personnel Training

Training will be performed for all personnel (including appropriate contractors) who are involved in oil and chemical handling activities and will include, but is not limited to, control equipment operation and maintenance, general facility operations, discharge prevention laws and regulations, the contents of the SPCC Plan, and their specific designated responsibilities for spill prevention and control. Each person is made aware of routine as well as emergency procedures to be followed under the SPCC Plan. In addition, training will cover potential spill sources, new SPCC information, any recent spills, and possible improvements to the SPCC Plan. All SPCC training is maintained and recorded.

6.2 Training Frequency

All personnel (including appropriate contractors) who are involved in oil and/or chemical handling activities shall receive annual training on the SPCC Plan. In the case of new employees, training shall be given to such personnel on a timely basis.

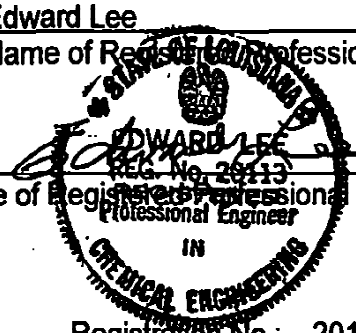
6.3 Drills

All personnel (including appropriate contractors) who are involved in oil and chemical handling activities shall participate in unannounced and announced drills to be conducted on a timely basis. Drills are maintained and recorded, as part of the Facility Response Plan (FRP).

7.0 PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I have visited and examined the facility, that procedures for required inspections and testing have been established for all tank farms, and that this SPCC Plan is adequate for the facility. Being familiar with the provisions of Chapter 9 of the State of Louisiana, Department of Environmental Quality, Water Pollution Control Regulations (LAC 33:IX), and the Environmental Protection Agency Regulations 40 CFR Part 112, Oil Pollution Prevention, and Response; Non-Transportation Related Onshore and Offshore Facilities, I attest that this SPCC Plan has been prepared in accordance with the requirements and guidelines presented therein and good engineering practices.

Edward Lee
Printed Name of Registered Professional Engineer



Signature of Registered Professional Engineer

Date: 9-26-12 Registration No.: 20113 State: Louisiana

8.0 MANAGEMENT APPROVAL

This SPCC Plan will be implemented as herein described.

Signature: _____ Date: 9/27/12

Name: Philip Watt

Title: Terminal Manager

9.0 CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility: Stolthaven New Orleans, LLC
2444 English Turn Rd.
Braithwaite, LA 70040

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

- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground storage tank, plus sufficient freeboard to allow for precipitation within the aboveground storage tank area? **NO**

- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? **Yes**

- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shut down a public drinking water intake? **Yes**

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

CERTIFICATION:

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

Signature: _____

Name (print): Philip Watt

Title: Terminal Manager

Date: 4-12-12

This certification is required by 40 CFR 112, Appendix C. "Substantial Harm Criteria", Section 3.0, "Certification for Facilities That Do Not Pose Substantial Harm". (FR 34103, July 1, 1994).

FIGURE 1

LOCATION AND VICINITY MAP

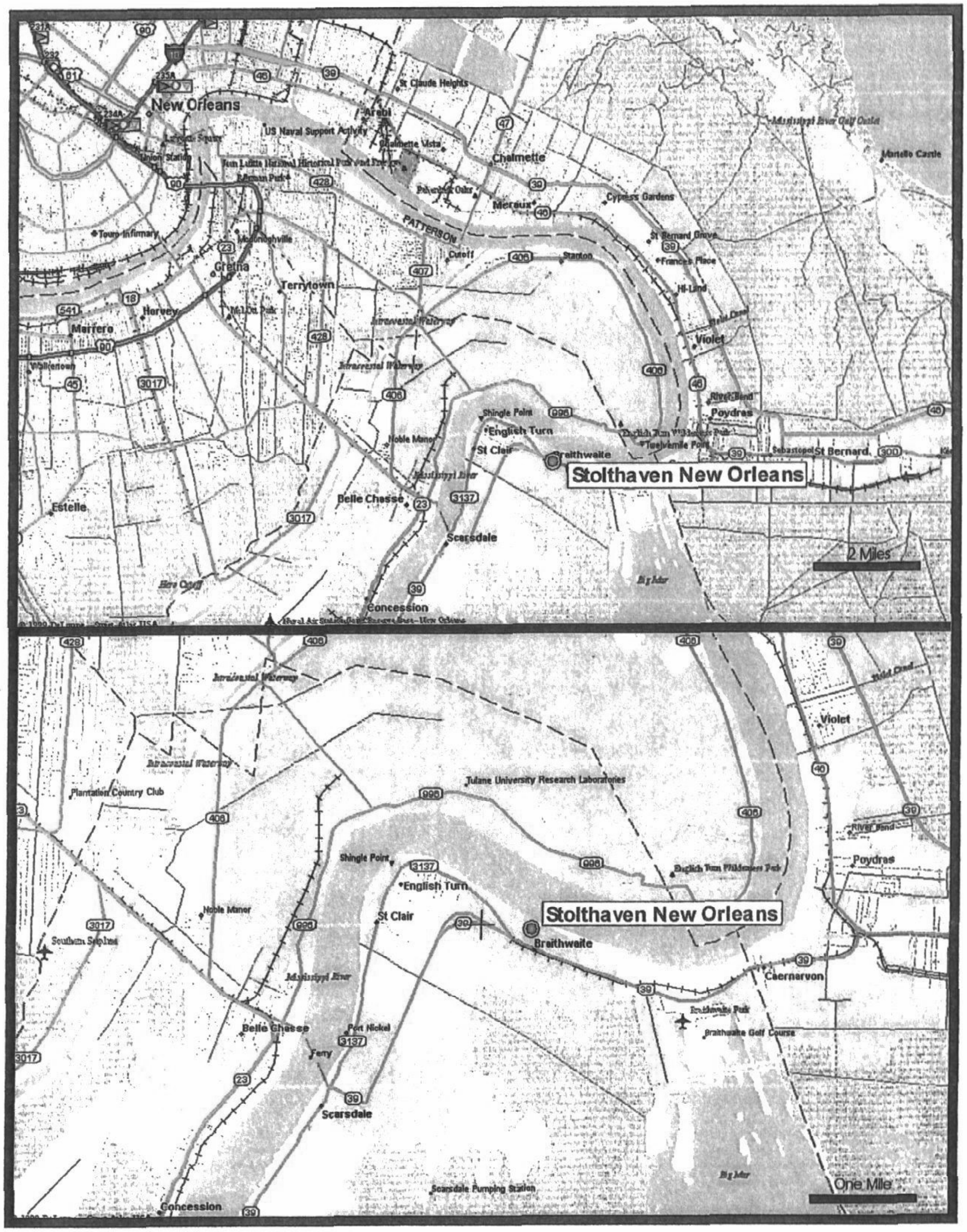

New Orleans
Chalmette
Meraux
Arabi
Gretna
Terrytown
Harvey
Marrero
Violet
Poydras
St Bernard
Shingle Point
English Turn
St Clair
Braithwaite
Stolthaven New Orleans
Belle Chasse
Estelle
Scarsdale
Concession
2 Miles
Tulane University Research Laboratories
Plantation Country Club
Noble Manor
Caernarvon
Port Nickel
Ferry
Scarsdale Pumping Station
One Mile

FIGURE 2

PLOT PLAN

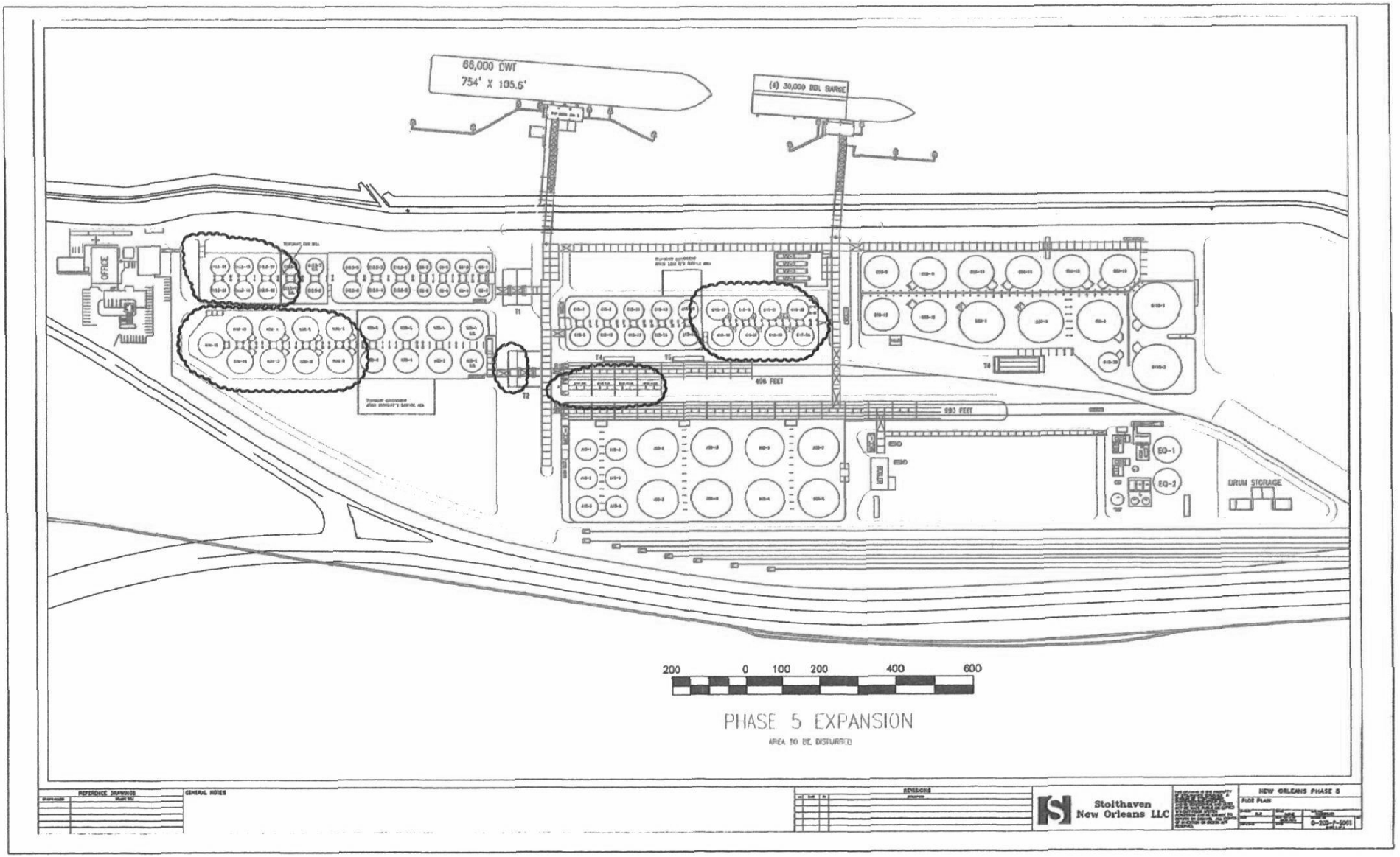


FIGURE 3

AGENCY NOTIFICATION FORM

AGENCY NOTIFICATION FORM

All agencies will request information in a format consistent with a form they will be filling out. Be direct and give specific, short answers. Do not elaborate or speculate. Provide only requested information. Always request and record the agency contact to whom you gave the information, the incident number, and the date and time notification was made.

Terminal Name:	Date of Incident:
Incident Report No.	Time of Incident:
Completed By:	Location of Incident:

Release to atmosphere:_____ Release to ground or water:_____

(gas release) Minor_____ Minor:_____

Major_____ Major:_____

Release to Containment: Yes_____ No_____

Name of Chemical		Source of Release	
Date and time release began		Date and time release stopped	
Quantity released, pounds		Reportable Quantity, pounds	
Wind direction		Cloud Cover	
Wind speed		Humidity, %	
Temperature,deg F		Precipitation	

Did Release leave Property? Yes_____ No_____

Road Closure: Yes____ No____ Evacuation: Yes____No____

Fire: Yes___No___ Injuries: Yes___No___Fatalities: Yes___No___

Notification	Telephone Number	Person Contacted	Date and Time	Report Number
Operations Superintendent				
Operations Manager				
EHS Superintendent				
General Manager				
CSR				
U.S.C.G	504-846-5923			
NRC	800-424-8802			
State Police	877-925-6595			
LDEQ	225-342-1234			
OEP Plaquemines	504-274-2476			
OEP St. Bernard	504-278-4267			

Figure 4

STORM WATER POLLUTION PREVENTION PLAN

(SWPPP)

1.0 INTRODUCTION

The site on which the terminal is constructed is located in the town of Braithwaite, Louisiana. The address for the plant is 2444 English Turn Road, Braithwaite, LA, 70040. Prior to the commencement of construction activities, the site was in a wooded natural state. The site topography is relatively flat with an average elevation of 6 feet NGVD. The site slopes gently to the south toward Highway 39. The elevation change is 6 feet NGVD at the north end of the site, to 5 feet NGVD near Highway 39. The total area of the property is approximately 106 acres. This plan addresses the 81 acres of the site south of the Mississippi River Levee. Weighted runoff coefficients ("C") have been developed for the entire site: this will be used to estimate storm water flows from the site. The table below shows the coefficients and the basis for their calculation, the "C" values used for sloped areas are less than 1%.

Project Area	Area (Acres)	"C"	A x C
Rail Area	11	0.7	7.9
Green Space	4	0.3	1.3
Tank Farm	9	0.5	4.6
Roads, Parking, Equipment Areas	7	0.5	3.6
Undeveloped Area	49	0.3	14.7
Totals	**81**		**32.1**
Weighted "C" = 32.1/81		**.40**	

The surface soils (top-soil) are organic soils which have been fallow for many years. Beneath the organic top-soils, the site consists of 5-15 feet of soft to medium stiff clay, representing the natural levee surface. The area overlays are very soft to soft clay, some with silty fine sand or silt, to a depth of –100 NGCD. Groundwater was measured at an average depth of 7 feet below existing surface; however, groundwater levels will vary with the level of the Mississippi River.

Nature of Operational Activities

Figure 1.1 - Facility Information Summary

Owner/Operator:	Stolthaven New Orleans, LLC 2444 English Turn Rd. Braithwaite, LA 70040
Facility Name / SIC Code:	Stolthaven New Orleans/4226
Name and Address of person to whom correspondence should be sent:	Philip Watt Terminal Manager Stolthaven New Orleans 2444 English Turn Rd. Braithwaite, LA 70040
County/Parish	Plaquemines
Description of Facility:	Includes six diked tank farms, four truck loading/unloading racks, three railcar loading/unloading racks, two marine docks, a waste water treatment system, and administrative and utility support facilities.
Description of Dock Facility	The docks are constructed of concrete and steel. Dock #3 will accommodate a vessel up to 754 feet in length. Dock #4 will accommodate a vessel up to 433 feet in length. The facility is capable of conducting transfers with two vessels simultaneously.
Description of Operations:	The Stolthaven New Orleans Terminal receives, stores and ships a variety of bulk liquid materials. All bulk liquid products are stored in above ground storage tanks. Containment dikes are sized to contain a complete failure of the largest tank within the containment area surrounding each tank farm, plus sufficient free board for precipitation.
Description of Tanks:	Four (4) 2000 bbl, Eight(8) 8,000 bbl, Ten (10) 12,500 bbl, Seventeen (17) 15,000 bbl,two (2) 25,000 bbl, six (6) 30,000 bbl, Sixteen (16) 50,000 bbl , Three (3) 80,000 bbl, two (2) 110,000 bbl and Two(2) 25,000 bbl waste water tanks.
Hours of Operating/Manning:	This Facility is manned and operated 24 hrs per day.
Facility Throughput:	
Products Handled:	Table 3-2
Physical Address:	2444 English Turn Rd. Braithwaite, LA 70040
Mailing Address:	2444 English Turn Rd. Braithwaite, LA 70040
Location:	Latitude 29° 52' 6"N Longitude 89° 56' 26"W
Telephone/FAX:	(504) 682-9989/(504) 682-9803
Primary Qualified Individual*:	(504) 682-9989 (Office) (504) 682-1626 (Direct) (504) 330-3013 (Mobile) Philip Watt, Terminal Manager
Alternate Qualified Individual*:	(504) 682-9989 (Office) (504) 682-1611 (Direct) (504) 559-0223 (mobile) Timothy J. Smith, Environmental Specialist

FIGURE 1.2 - FACILITY INFORMATION SUMMARY, CONTINUED

Date of Storage Startup:	May 2001
Wellhead Protection Area:	Not Applicable
Dates(s) and Type(s) of Substantial Expansion:	Not Applicable
Date Revised:	September 2012

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 Plan.

1.3 Pollution Prevention Team

The EHS Department has the responsibility for developing, implementing, maintaining, and revising the SWP[3]. The team is comprised of members of the environmental department and designated operations and maintenance personnel.

2.0 DESCRIPTION & SEQUENCE OF MAJOR ACTIVITIES

Permanent drainage systems were constructed at the site. These include wastewater basins, drainage ditches, and subsurface collection systems. The direction of storm water drainage at the terminal site is generally north to south. Any wastewater from developed areas, are routed through subsurface drainage for collection, treatment and testing before being discharged through a permitted process outfall 001 to the Mississippi River. Stolthaven New Orleans has obtained a LPDES permit for discharges of industrial wastewater to the Mississippi River. Non-contaminated Storm water from developed areas will flow through ditches, swales and subsurface drainage and discharged through permitted storm water outfalls 009, 010, 011 & 012 along the southern boundary of the terminal.

Suspended sediment (also known as total suspended solids or TSS) is the primary pollutant that is expected to impact storm water runoff. Other potential pollutants may include oil and grease, pH and TOC (Total Organic Carbon). Stolthaven New Orleans takes all necessary precautions to minimize the amount of pollutants in all storm water discharged.

3.0 STORM WATER MANAGEMENT

3.1 Litter, Debris and Chemicals from Operational and Construction Activities.

Litter, debris and chemicals are prevented from becoming a source of storm water pollution through the implementation of weekly site inspections and litter removal. All waste materials are collected and transported offsite for disposal at a permitted waste disposal facility.

3.2 Sanitary Wastes

Portable sanitary units are provided by and utilized by contractors. Their sanitary waste is regularly collected by a licensed waste management company and disposed of offsite at a permitted facility. Sanitary waste generated by terminal personnel is discharged through three separate permitted outfalls.

3.3 Maintenance of Storm Water Controls

The following maintenance practices have been implemented to ensure the continued effectiveness of the storm water controls specified in this SWP[3].

- Sediment will be removed from basins and sediment traps when design capacity has been reduced by 50%.
- Sediment will be removed from silt fences whenever the sediment l evel reaches 1/3 of the height of the fence.
- Silt fences, fabric filters and sediment traps are inspected weekly, as part of the SPCC weekly inspection. Work orders to correct any observed problems are issued within 24 hours.

3.4 Non-Storm Water Discharges

The Terminal site is inspected to identify all sources of non-storm water that are combined with storm water associated with the operational activities and are discharged. The following non-storm waters may be discharged in accordance with the permit.

- Waters used to wash vehicles or control dust when detergents or chemicals are not used;
- Potable water sources including waterline flushings;
- Routine external building wash-downs;
- Pavement wash waters where spills or leaks have not occurred;
- Air conditioning condensate;
- Uncontaminated groundwater; and

- Foundation or footing drains where flows are not contaminated with process materials.

3.5 Storm Water Discharges

Contaminated storm water from developed areas are routed through subsurface drainage for collection and testing before being discharged to the Mississippi River through two separate permitted storm water Outfalls. Online TOC and pH analyzers on sumps upstream of the permitted outfalls monitor the quality of water being discharged to the river. Any non-compliant storm water that is detected by the online TOC and pH analyzers is routed to the wastewater treatment plant.

This SWP[3] has been developed to describe the procedures and methods to be implemented at the terminal to minimize the potential pollutants that may be present in storm water. Suspended sediment (also known as total suspended solids or TSS) is the primary pollutant that is expected to impact storm water runoff. Other potential pollutants may include oil and grease, pH and TOC.

Stolthaven New Orleans, LLC takes all necessary precautions to minimize the amount of pollutants in all storm water discharged.

4.0 MANAGEMENT OF MATERIALS AND SITE PRACTICES

4.1 Product Storage

Products are stored in tanks of various sizes. All tanks are provided with secondary containment (e.g. concrete & earthen dikes). High risk areas have incidental spill collection systems that are routed to the closed-loop chemical sewer where the discharge is routed to the wastewater treatment plant for treatment.

4.2 Product Transfers

Material transfer pumps are numerous and pose a potential for storm water contamination from leaks and drips; however, all pumps are situated on concrete slabs within their own secondary containment. Thus, the material and any contaminated storm water can be easily contained and treated in the wastewater treatment plant.

4.3 Piping and Equipment

Pipelines and transfer lines are found in great numbers at Stolthaven. Raw materials, intermediates, and products are transported by pipeline throughout the plant to storage tanks, marine vessels, truck and rail loading

areas, and offsite. The potential for exposure of these materials to storm water exists only by leak or other accidental release. High risk areas are equipped with drip pans and collection drums for pigging operations.

5.0 MEASURES AND CONTROLS

5.1 Good Housekeeping

Measures designed to maintain a safe, clean, and orderly work environment also can be tailored to contribute to the prevention of potential pollutant sources from impacting storm water runoff. Good housekeeping practices can also reduce the potential for accidental spills caused by mishandling of significant materials. General order and cleanliness is practiced throughout the facility. Each employee is responsible for keeping work areas clean and orderly. All debris and waste materials are properly disposed of in designated waste receptacles for subsequent disposal. Immediately upon discovery, equipment failures and required repairs are addressed promptly.

Improperly stored materials can also result in the exposure of potential pollutants to storm water runoff. Sound storage methods and procedures ensure that the potential for exposure is minimized. All materials are stored and all chemicals are clearly identified in secure locations away from direct traffic routes. Materials identified as hazardous substances are stored in an appropriate manner. Adequate aisle space is maintained near all materials in order to provide easy and safe access for storage and handling.

All process units are located on concrete surfaces whereby spills or leaks can readily be remediated. Process units are periodically washed with water.

All loading/unloading of rail cars and tank trucks are conducted in such a way that all connections and hoses are within loading/unloading areas of containment, or within areas that drain to catch basins and then to the wastewater plant. Before material transfers begin, plant personnel must set the brakes and place chocks on the rail car. Prior to departure, drains and outlets on rail cars are checked for leakage, and if necessary, tightened, adjusted, or replaced. Similar procedures for materials transferred from tank trucks are followed. Any spills in this area will be sufficiently contained and isolated for recovery, neutralization, and/or treatment.

5.2 *Preventative Maintenance*

A preventative maintenance program for all storm water management and pollution prevention equipment and structural controls is an important component of the SWP[3]. This program includes visual inspections, general maintenance, and/or repairs and calibrations, and/or testing, if applicable.

These are conducted on a regular basis by Stolthaven personnel to observe and verify the effectiveness of the selected storm water management and pollution prevention equipment and structural controls at the site. The items below have been identified as having the greatest potential for contaminating storm water should preventative maintenance not occur in a routinely and timely manner:

- Storage tanks
- Material transfer pumps
- Pipelines and transfer lines
- Railcar loading areas
- Truck loading areas
- Drum storage area
- Satellite waste accumulation areas

5.3 Sediment and Erosion Control

Areas prone to sediment erosion are monitored and addressed by erosion controls. Each area identified through monitoring is maintained with ground cover to improve the stabilization of soils by re-establishing cover. Existing vegetative practices include the maintenance of vegetated buffer strips along the perimeter of the facility. All storm water conveyances are kept clear of obstruction.

5.4 Management of Runoff

The management of storm water runoff at the facility is achieved through existing structural controls and best management practices (BMPs). These include traditional storm water management practices such as the use of concrete curbing and containment dikes, drainage sumps and pump stations, and subsurface sewer systems used to collect, route, and segregate process and non-process area storm water. Stolthaven New Orleans adheres to the effluent limits set by its LPDES permit (LA0114405) for discharges of process wastewater in Outfall 001 and for discharges of storm water for Outfalls 002, 003, 009, 010, 011 &012.

In addition, in the event of severe weather and forces of nature beyond our control, and where severe property damage and endangerment to personnel is involved, Stolthaven will employ its best professional judgment to avoid damage to pumps, tanks, and other related equipment. Whenever Stolthaven encounters an exceptional incident which causes an unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond our control, then Stolthaven will not be subject to the regular effluent limitations for storm water discharges as described in its LPDES permit.

5.5 Spill Prevention and Response

Spills and leaks are a common source of pollutants to storm water discharges. Immediate response to spills or leaks minimizes the likelihood of contact with storm water runoff from the facility. In the event of a spill, the individual who discovers the spill will take any appropriate action to contain or minimize the spill and then notify the shift supervisor. In most cases, spills or leaks can be dry swept after an absorbent has been applied or a vacuum truck is dispatched to recover the spilled material. Physical removal is preferred over the use of chemicals such as detergents, emulsifiers, or dispersants. All responses to significant spill incidents requiring notification of regulatory agencies are conducted in accordance with applicable state and federal regulations as specified in the SPCC plan and Facility Response Plan (FRP).

5.6 Visual Inspections

Visual inspections of pumps, pipes, flange gaskets, drains, sumps, heat exchangers, compressors, and storage tanks are performed on a regular basis by the Environmental Department. Storage tank components such as gauge hatch covers, manhole covers, level indicators, gaskets, and roof seals are inspected, as well as tank foundations. All above ground piping and valves are inspected for corrosion, leaks, or mechanical damage. The inspections are documented on the weekly SPCC inspection log. The inspection log is distributed to site management personnel.

6.0 OTHER REQUIREMENTS

6.1 Recordkeeping

The following records are incorporated by reference into the SWP^3:

- DMR forms containing sampling data which characterize the quality & quantity of storm water discharges are located in the Environmental Group's wastewater permitting compliance files.
- Weekly SPCC/SWP^3 inspections.

6.2 Annual Site Compliance Evaluation

In accordance with its LPDES permit, Stolthaven New Orleans conducts a thorough comprehensive site compliance evaluation at least once/year. Personnel from the Environmental Department conducts inspections of the storm water drainage areas for evidence of pollutants entering or having the potential to enter a drainage system periodically. The purpose of this inspection is to evaluate whether measures to reduce pollutant loadings identified in the SWP^3 are adequate and have been properly implemented in accordance with the terms of the LPDES permit or whether additional

control measures are needed._When there is a change in the facility or a change in the operation of the facility that affects the potential for a discharge of pollutants in storm water, this SWP[3] will be changed accordingly, and those changes will be documented on the following form.

FIGURE 6.2 - RECORD OF CHANGES FORM

Changes to this plan will be documented in this form. Plan review and modifications will be initiated and coordinated by the Environmental Department.

Change Number	Date of Change	Description of Change	Name and Signature
001-2011	4-11-2011	Updated for Phase V Construction of 23 Storage Tanks, and, Incorporation of SWP[3] in the SPCC Plan.	Timothy J. Smith
004-2012	9-17-2012	Revisions to Spill History, Tank Farm Calculations following Hurricane Isaac, and QI Name	Timothy J. Smith

FIGURE 5

SUPPORTING CALCULATIONS – TANK FARM CONTAINMENT CAPACITY

A Tank Farm Capacity Calculations

Reference Drawing D-200-L-401

Revised EL 9-21-12

Dike w/o trench	Earthen Are length - ft	Earthen Are width - ft	Dike Height ft	Volume Cubic Ft
	741	288	2.645833	640224

	Qty	Width ft	Depth ft	Length ft	Volume Cubic Ft
Trench	0	0	0	0	0
Sumps	3	6	2	10	360

Total Volume in Cubic Feet **640,584** ft^3

Tank Ringwalls	Quantity	Max Height ft	Min Height ft	Diameter ft	Volume Cubic Ft
A15's	6	1.5	0.5	62.5	**18,398**
A50's	8	1.5	0.5	111.33	**77,837**

Tank Volume	Quantity	Diameter	Height	Volume
A15's	6	59.5	2.83	**47,189**
A50's	7	108.33	2.83	**182,495**

Secondary Containment Available Capacity = 314,665 Cubic feet 2,350,998 gallons

Extra capacity for rai Amount of largest Volume 0 cubic feet 0 gallons

Largest Tank Volume	Capacity barrels			
	50000	**280,711**	**cubic feet**	**2,100,000 gallons**
10% vol	5000	**28,071**	**cubic ft**	**210,000 gallons**

Extra volume Vol for liquid - rain - tk vol **5,882 cubic feet**

Is Containment volume greater than 110% of the volume of the largest tank? Yes

A Tank Farm Capacity Calculations

Date: 9/21/2012

By: Elee (HGI Engineering Associates)

Floor (ft)	Pile Cap (ft)
9.042	7.416667
9.000	7.166667
8.979	7.583333
8.979	8.166667
9.104166667	
9.625	
9.5	
9	
9.625	
9.229166667	
8.916666667	
9.208333333	
8.958333333	
8.5	
9.1875	
9.375	
9	
8.958333333	
8.75	
8.666666667	

Adj= 2.083333

South Wall (ft, including te	East Wall (ft)	Pile Cap (ft)
5.66666667	5.583333	6.5
5.58333333	5.333333	6.5625
5.75	5.166667	6.479167
5.08333333	4.916667	6.791667
5.33333333	4.833333	
5.27083333	5.125	
5.4375	5.395833	
4.97916667	4.958333	
5.27083333	Max 5.583333	
5.16666667		
5.08333333		
5.16666667		
5.41666667		
4.91666667		
5		
5.08333333		
5.08333333		
Max 5.75		

Floor (ft)	North Wall (ft)
7.291667	5.833333
8.25	5.875
8.333333	5.833333
8.104167	6
7.5625	5.958333
8.458333	5.833333
8.541667	
8.75	
8.375	

Adj= 1.75

North Wall (ft)	West Wall (ft)
5.916667	5.208333
6	4.754444
6	5.333333
5.708333	5.416667
5.729167	5.583333
5.770833	5.75
	5.666667
Average	5.38754
Max	5.75

Floor (ft)	Pile Cap (ft)
7.895833	7.25
8.458333	7.75
7.916667	7.875
7.666667	8.041667
7.75	8.083333
8.166667	
8.333333	
8.541667	
8.583333	
8.583333	
8.666667	
8.645833	

Combined Data:

9.042		7.416667
9.000		7.166667
8.979		7.583333
8.979		8.166667
9.104		6.5
9.625		6.5625
9.500		6.479167
9.000		6.791667
9.625		7.25
9.229		7.75
8.917		7.875
9.208		8.041667
8.958		8.083333
8.500	Average	7.358974
9.188		
9.375		
9.000		
8.958		
8.750		
8.667		
7.292		
8.250		
8.333		
8.104		
7.563		
8.458		
8.542		
8.750		
8.375		
7.896		
8.458		
7.917		
7.667		
7.750		
8.167		
8.333		
8.542		
8.583		
8.583		
8.667		
8.646		
Average		8.646

North Wall (ft)
5.833333
5.875
5.833333
6
5.958333
5.833333
5.916667
6
6
5.708333
5.729167
5.770833
Max 6

Basis: Floor = 0 ft elevation

Pile Cap (ft)	South Wall (ft)	East Wall (ft)	North Wall (ft)	West Wall (ft)
1.287	2.896	3.063	2.646	2.896

B Tank Farm Capacity Calculations Revised EL 9/16/2012

Reference Drawing D-200-L-401

Dike w/o trench	Concrete Area ft^2		Dike Height ft(1)	Volume Cubic Ft	
Area 1	172,365		4.854	836,657	
Area 2	93,077		4.854	451,796	Note: We estimate 75,000 ft^2 in Area 2 and
			Total =	**1,288,453**	185,000 ft^2 in Area 1. The area is set by the floor depth.
	Width ft	Depth ft	Length ft	Volume Cubic Ft	
Trench	2.33	3	1092	**7633.08**	
Ramp	15	4.854	64	**2329.92**	Two ramps, 2 x vol of triangle
Sump	0	0	0	0	

Note: Controlling wall height is south and east wall since north wall is slightly higher.

Pile Caps(1)	Quantity	Max Height ft	Min Height ft	Diameter ft	Volume Cubic Ft
B15	1	1.865	1.865	51.5	**3883**
B50	8	1.865	1.865	93.25	**101844**
B80	3	1.865	1.865	117	**60123**
B110	2	1.865	1.865	133	**51794**

Tank Volume	Quantity	Diameter	Height	Volume	
B15	1	48.5	2.989	**5519**	
B50	8	90.25	2.989	**152890**	
B80	3	114	2.989	**91480**	
B110	1	130	2.989	**39654**	Largest tank already includes volume to be subtracted,

Volume of Tanks, Pile Caps, Ramps **509,518** **ft^3**

Available Secondary Containment Capacity = **786,568** **ft^3**

Rainfall Event	Inches	Area, ft^2	Volume cuft	
	0	265441.5	**0**	**Based on 110% capacity of largest tank**

Largest Tank Volume	Capacity barrels			
	110000	**617,564**	**cubic feet**	4620000 gallons

Extra volume	Vol for liquid - 110% tk vol			
		107,248	**cubic feet**	802212 gallons

Is Tank Farm B Secondary Continment adequate? **Yes**

(1) - Elevations shots were retaken with a level on 9-13-12 by HGI Engineering Associates.

B Tank Farm Capacity Calculations - Elev Shots taken on Sept 14, 2012

	North Floor		North Wall	Pile Cap	Centerline	Adj =	0.1875 South Flr	South Wall	Pile Cap	Adj=	0.5 East Floor	East Wall	Pile Caps
	4.208		0.75	3.645833	5.792		5.604167	0.9375	4.020833		5.875	0.854167	5.145833
	4.396		0.791667	3.5			5.458333	0.9375	3.708333		5.875	0.833333	
	5.250		0.8125	4.083333			5	0.854167	3.875		5.541667	0.9375	
	5.271		0.8125				4.4375	0.854167	3.4375	**Average**	**5.763889**	**Average** **0.875**	
	5.458		0.708333			**Average**	**5.125**	0.854167				**Max** **0.9375**	
Average	**4.917**		0.708333					0.854167					
		Average	**0.763889**					**Average** **0.881944**					
		Max	**0.8125**					**Max** **0.9375**					

		3.645833
		3.5
		4.083333
		4.020833
		3.708333
		3.875
		3.4375
		5.145833
	Average	**3.927083**

Basis Centerline=0.0

North Floor	North Wall	Pile Caps	South Floor	South wall	East Floor	East Wall
0.875	4.979	1.865	0.667	4.854	0.028	4.854

C Tank Farm Capacity Calculations

By: EL 9/14/2012

Reference: Drawing D-200-P-5001

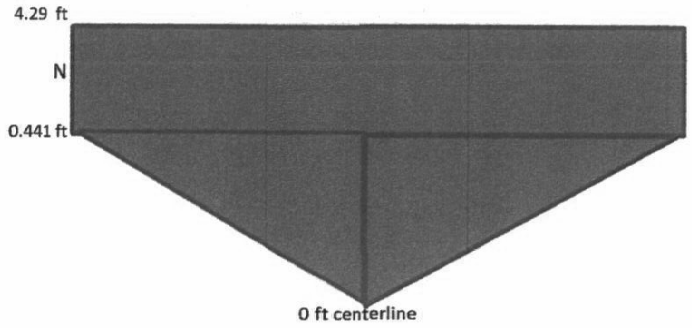
	Dimensions				
Dike w/o trench	**Length (ft)**	**Width (ft)**	**Area (ft^2)**	**Dike Height (ft)[1]**	**Vol (ft^3)**
concrete top	369	151	55,719	3.83	213,590
earthen ext	141	51	7,191	3.83	27,566
	Base (ft)	**Height (ft)**	**Area (ft^2)**	**Length (ft)**	
north triangle	75.5	0.291667	11	369	4,063
south triangle	75.5	0.208333	8	369	2,902
				Subtotal	**248,120**

Height at edge of sloped floor to account for rectangular portion

	Qty	Width (ft)	Depth (ft)	Length (ft)	Volume (ft^3)
Trench	1	2	2	369	1476
Sump		0	0	0	0
Notch sq section	1	14.66	4.0417	22.5833333	1,338
Triangular notche:	2	5.66	4.0417	5.66	259
Small nothes	2	5.66	4.0417	9	412

		Quantity	Avg Hgt (ft)[1]	Dia (ft)	Volume (ft^3)
Pile Caps	C15	10	1.54792	57.5	40,195
Tank Volume	C15	9	2.49375	54.5	52,357

South wall sets capacity of secondary containment



Vol of Tanks, Pile Caps, Notch, Ramp **94,561 ft^3**

Rainfall Event 10 inches Area= 62,910 ft^2 Vol= **52,425 ft^3**

Available Secondary Containment Capacity = **155,035 ft^3** **1,159,814 gal**

Largest Tank Vol 15,000 barrels = **84,213 ft^3**

Extra Volume= **18,396 ft^3** = 137,623 gallons

Is Tank Farm C Secondary Containment adequate? **Yes**

[1] - Elevations were taken with a level on 9-12-12 by HGI Engineering Associates

Elevation shots

	North flr edge	Cap Height	Centerline	North wall	South flr edge	South wall	Cap Hgt	Earthen Floor
	5.208333	4.125	5.625	1.458333	5.354167	1.500	4	6.2083
	5.291667	4		1.458333	5.004444	1.542	4.083333	
	5.395833	4.083333		1.458333	5.375	1.583	4.083333	
	5.375	4		1.4375	5.458333	1.583	4.083333	
	5.395833	4		1.416667	5.416667	1.542	4.3125	
average	**5.333333**			**Average 1.445833**	**Average 5.166667**	1.500		
				Max 1.458333		**Average 1.542**		
						Max 1.583		

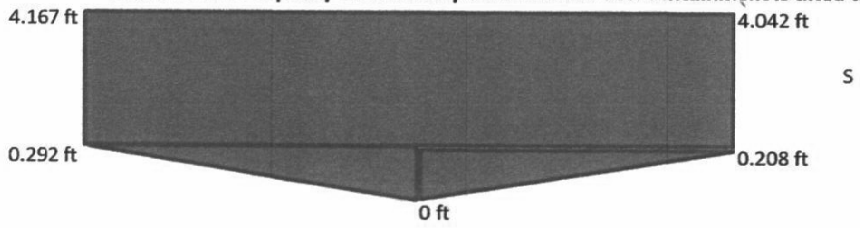
Adjsment 0

	4.125
	4
	4.083333
	4
	4
	4
	4.083333
	4.083333
	4.083333
	4.3125
Average	**4.077083**

Basis: **Centerline at 0 ft**

North floor edge	North Wall	SouthFloor edge	South wall	Cap Hts
0.292	4.167	0.208	4.042	1.548

South wall sets capacity of secondary containment. Sec. containment is tilted to south.



Earthen extension floor =	-0.5833 ft
Earthen wall height =	4.083 ft
Difference=	4.667 ft

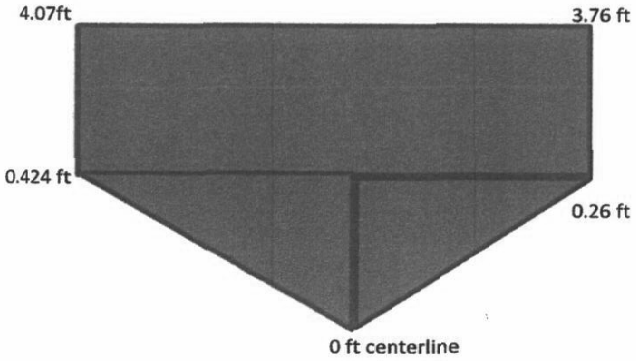
D/E Tank Farm Capacity Calculations By: EL 9/12/2012

Reference: Drawing D-200-P-5001

	Dimensions				
Dike w/o trench	**Length (ft)**	**Width (ft)**	**Area (ft^2)**	**Dike Height (ft)[1]**	**Vol (ft^3)**
concrete top	867.5	140	121,450	3.5	425,075
	Base (ft)	**Height (ft)**	**Area (ft^2)**	**Length (ft)**	
north triangle	0.4243056	70	15	867.5	12,883
south triangle	0.2604167	70	9	867.5	7,907
				Subtotal	**445,865**

		Width (ft)	**Depth (ft)**	**Length (ft)**	**Volume (ft^3)**
Trench		2	2	867.5	3470
Sump		0	0	0	0
SE Corner notched		12.08333	3.2396	52	2,036
Ramps (2x)		12.33333	3.2396	66.75	2,667
Pile Caps		**Quantity**	**Avg Hgt (ft)[1]**	**Dia (ft)**	**Volume (ft^3)**
	D8	8	1.47140	42	16,308
	E12.5	10	1.47140	51.5	30,650
Tank Volume	D8	8	2.02860	39	19,387
	E12.5	9	2.02860	48.5	33,730

South wall sets capacity of secondary containment



Vol of Tanks, Pile Caps, Notch, Ramp **104,778** **ft^3**

Available Secondary Containment Capacity = **344,557** **ft^3**

Rainfall Event 10 inches Area= 121,450 ft^2 **Vol=** **101,208** **ft^3**

Largest Tank Vol 12,500 barrels = **70,178** **ft^3**

Extra Volume= **173,171** **ft^3** = 1,295,494 gallons

Is Tank Farm D/E Secondary Containment adequate? **Yes**

[1] - Elevations were taken with a level on 9-12-12 by HGI Engineering Associates

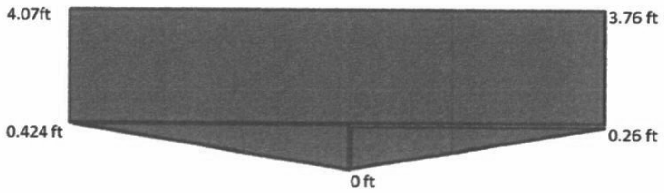
Elevation shots

	North flr edge	Centerline		North wall	Adjsment 0.804167 South flr edge	South wall	Cap Hgt	Adjment 0.270833 South wall	South Flr Edge	Centerline	Cap Hgt
	5.020833	5.291667		1.416667	5.0125	1.679167	3.679167	1.72916667	5.5625	5.770833	4.4375
	5.041667			1.4375	5.0125	1.679167	3.6375	1.77083333	5.604167		4.4375
	5			1.4375	4.991667	1.679167	3.616667	1.4375	5.4375		4.270833
	4.979167			1.416667	5.0125	1.6375	3.720833	1.4375	5.4375		4.3125
	4.979167			1.458333	5.116667	1.616667	4.095833		5.4375		4.354167
	5.041667			1.416667		1.7	4.095833		5.354167		
	5.25			1.354167		1.7625					
	5.291667			1.333333							
	5.291667			1.416667							
	5.291667			1.333333							
	5.083333			1.25							
	5.083333			1.333333							
	5.083333			1.333333							
	5.083333			1.333333							
	5.083333		Average	**1.376488**							
average	**5.106944**		Max	**1.458333**							

	5.291667	5.0125	1.679167	3.679167	
	5.770833	5.0125	1.679167	3.6375	
Average	**5.53125**	4.991667	1.679167	3.616667	
		5.0125	1.6375	3.720833	
		5.116667	1.616667	4.095833	
		5.5625	1.7	4.095833	
		5.604167	1.7625	4.4375	
		5.4375	1.729167	4.4375	
		5.4375	1.770833	4.270833	
		5.4375	1.4375	4.3125	
		5.354167	1.4375	4.354167	
		Average	**5.270833** **Average**	**1.648106** **Average**	**4.059848**
			Max	**1.770833**	

Basis: **Centerline at 0 ft**

North floor edge	North Wall	SouthFloor edge	South wall	Cap Hts
0.424306	4.072917	0.260417	3.760417	1.471402



South wall sets capacity of secondary containment

H Tank Farm Capacity Calculations

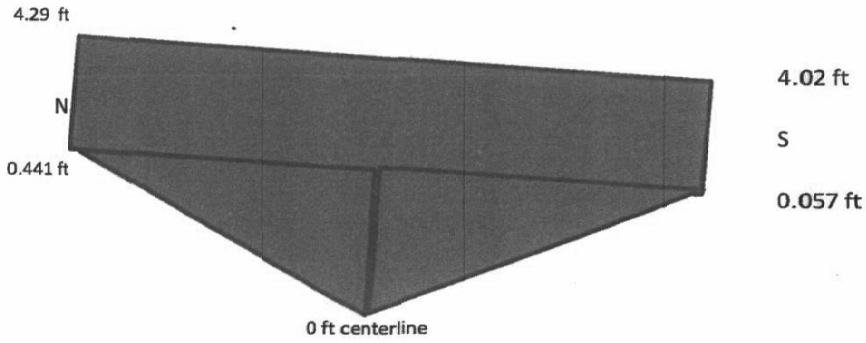
By: EL 9/14/2012

Reference: Drawing D-200-P-5001

	Dimensions					
Dike w/o trench	**Length (ft)**	**Width (ft)**	**Area (ft^2)**	**Dike Height (ft)[1]**	**Vol (ft^3)**	
concrete top	356	189	67,284	3.96	266,683	Rectangular portion at edge above sloped floor
earthen ext	200	147	29,400	3.88	113,925	Earthen dike wall was raised to concrete wall height. Dike height is normalized for vol calc.
	Base (ft)	**Height (ft)**	**Area (ft^2)**	**Length (ft)**		since floor of earhtem area is higher than concrete floor inside Tank Farm H.
north triangle flr	94.5	0.440972	21	356	7,418	
south triangle flr	94.5	0.057292	3	356	964	
				Subtotal	**388,989**	

		Width (ft)	**Depth (ft)**	**Length (ft)**	**Volume (ft^3)**
Trench		2	2	356	1424
Sump		0	0	0	0
SE Corner notched		12	4.0208	25	1,206
Ramp		0	0.0000	0	-
Pile Caps		**Quantity**	**Avg Hgt (ft)[1]**	**Dia (ft)**	**Volume (ft^3)**
	H25	2	1.52025	65.5	10,245
	H30	6	1.52025	71	36,114
Tank Volume	H25	2	2.50058	62.5	15,343
	H30	5	2.50058	68	45,406

South wall sets capacity of secondary containment



Vol of Tanks, Pile Caps, Notch, Ramp = **108,315 ft^3**

Available Secondary Containment Capacity = 282,098

Rainfall Event 10 inches Area= 96,684 ft^2 Vol= **80,570 ft^3**

Largest Tank Vol 30,000 barrels = **168,427 ft^3**

Extra Volume= **33,101 ft^3** = 247,632 gallons

Is Tank Farm H Secondary Containment adequate? **Yes**

[1] - Elevations were taken with a level on 9-12-12 by HGI Engineering Associates

Elevation shots

	North flr edge	Cap Height	Centerline	North wall		South flr edge		South wall	Cap Hgt	Earthen Floor
	4.5625	3.125	5.041667	0.5625		5		1.020833	3.5625	4.8958
	4.5625	3.041667		0.520833		5.020833		0.875	3.75	
	4.625	3.75		0.604167		4.979167		1.020833	3.604167	
	4.625	3.833333		0.625		4.9375		0.979167	3.4375	
	4.583333			0.625	Average	**4.984375**		0.979167	3.588542	
	4.645833			0.75			Average	**0.975**		
average	**4.600694**			0.583333			Max	**1.020833**		
			Average	**0.610119**						
			Max	**0.75**						

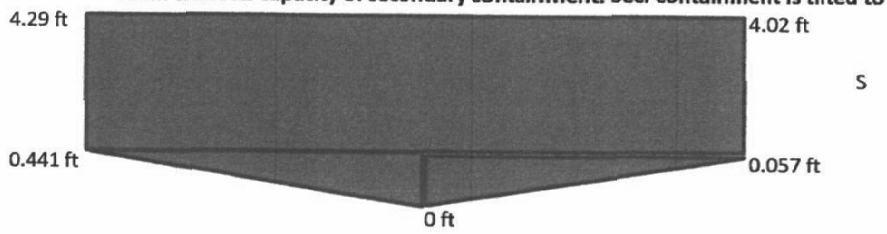
Adjsment 1.3125

	3.125
	3.041667
	3.75
	3.833333
	3.5625
	3.75
	3.604167
	3.4375
	3.588542
Average	**3.521412**

Basis: **Centerline at 0 ft**

North floor edge	North Wall	SouthFloor edge	South wall	Cap Hts
0.441	4.292	0.057	4.021	1.520

South wall sets capacity of secondary containment. Sec. containment is tilted to south.



Earthen extension floor =	0.1458 ft	
Earthen wall height =	4.021 ft	Set to equal concrete wall
Difference=	3.875 ft	

V Tank Farm Capacity Calculations

Reference	Drawing D-200-L-401		run 9-30-09		Reviewed	04/05/2011 PHA/RNL	
					Revised	EL 9/20/12	
Dike w/o trench	Concrete Area ft^2	Dike Height ft	Volume Cubic Ft				
Area 1	7310	1.208333	**8833**	Avg Depth	14.5"	1.208333	(@North-midway)
New Manifold Area	5376	1.583333	**8512**	Avg Depth	19"	1.583333	{Corner 1 15", Corner 2 18"}
		Subtotal	**17345**				
Old Manifold							{Corner 3 18", Corner 4 27"}
Part 1 Area 1	72	1.25	**90**				
Part 2 Area 2	135	1.42	**191.25**				
		Total		**17,626**	**ft^3**		

	Width ft	Depth ft	Length ft	Volume Cubic Ft
Trench	0	0	0	**0**

Pile Caps	Quantity	Max Height	Min Height	Diameter	Volume
Tank Volume	Quantity	Diameter	Height		Volume

Volume of Tanks and Pile Caps

Volume for liquid — Dike - Caps - Tank Volume — Cubic feet

Rainfall Event — Inches — Area, ft^2 — Volume — cubic feet

Spill Capacity

V Tank Farm Secondary Capacity Available	**17,626**	**ft^3**	131,881	gallons
Largest Tank Volume	10,594	ft^3	79,254	gallons
10% excess (largest tank)	1,059	ft^3	7,925	gallons
Excess Cacpaity of Secondary Conainment	**5,973**	**ft^3**	44,682	gallons

Is Tank Farm Containment adequate? **Yes** 17850 > 10594+1059= 11653 ft^3

Stolthaven New Orleans LLC

Survey points taken on April 21, 2011 Gasoline-Diesel Tanks

Secondary Containment Dimensions

Width	90 inches	7.5 ft	
Length	445 inches	37.08333 ft	
Depth	31 inches	2.5 ft	30" on one end and 32" on other

Volume **5201.633** gal

Diesel Tank Volume

Length	18'2" or	18.16667 ft	
Diameter	64" or	5.333333 ft	
Volume		405.8469 cf	3036.141 gal

Gasoline Tank Volume

Length	134"	11.16667 ft	
Diameter		4 ft	
Volume		140.3244 cf	1049.766 gal

Volume of diesel tank inside secondary containment

Depth= 21"

Per Perry's 5th Ed. Chemical Engineering Handbook, the vomume of a partially filled tank is $V=LR^2(\alpha/57.30-\sin\alpha * \cos\alpha)$, where $\cos\alpha = 1-2H/D$.

$\cos\alpha = 1-2H/D$.

H/D = 0.4375

Fraction of vol= 0.42

Therefore volume inside sec. containment = 1275.179 gal

Tank Volume above secondary containment = 1760.962 gal

110% of largest tank **1937.058**

Is secondary containment sufficient? Yes

FIGURE 6

SPCC PLAN CROSS REFERENCE

SPCC PLAN CROSS REFERENCE [40 CFR 112.7]

This reference is provided since the Plan does not follow the sequence of the SPCC rule (40 CFR 112).

REGULATORY CITATION	REGULATORY REQUIREMENT*	PLAN SECTION
40 CFR 112.3 - PREPARATION AND IMPLEMENTATION OF A SPCC PLAN		
112.3(a)	Plan amended and implemented by July 2009	N/A
112.3(b) & (c)	Plan prepare and fully implement Plan before beginning operations, if after July 2009	N/A
112.3(d)	Professional Engineer Certification	7.0
112.3(e)	Plan available onsite	1.0
112.3(f)	Request for extension to prepare and/or implement or amend the Plan	N/A
40 CFR 112.4 - AMENDMENT OF PLAN BY EPA – RA		
112.4(a-c)	Notify RA if discharge RQ of oil in amounts harmful and submit information to State	3.2.2
112.4(d-e)	Amend Plan if required by RA and implement Plan	3.2.2
112.4(f)	Procedures to appeal RA decision regarding Plan/facility amendments	3.2.2
40 CFR 112.5 - AMENDMENT OF SPCC PLAN BY OWNER/OPERATOR		
112.5(a)	Amend Plan to address changes that materially affects the potential for discharge	1.0
112.5(b)	Plan review and evaluation and documentation of review	4.4
112.5(c)	PE Certification of Plan for technical amendments	4.4 & 7.0
40 CFR 112.7 - GENERAL SPCC REQUIREMENTS		
	Management approval	7.0
	Plan cross-reference	Figure 6
112.7(a)(3)(i)-(iii)	Facility layout to include regulated containers, transfer stations, piping, etc	Figure 2
112.7(a)(3)(iv)-(vi)		Figure 2
112.7(a)(4)	Discharge reporting procedures	3.2.2
112.7(a)(5)	Readily available procedures to be used when a discharge occurs (in an emergency)	3.2.2
112.7(b)	Predict flow direction, rate and quantity if equipment failed	3.1.2
112.7(c)	Containment and/or diversionary structures to prevent a discharge	3.3
112.7(d)(1), (2)	Determination of impracticability of secondary containment - contingency plan	NA
112.7(e)	Inspections, tests and records	4.0
112.7(f) (1)-(3)	Personnel, training, and oil discharge prevention procedures	6.0
112.7(g)(1)-(5)	Security	5.0
112.7(h)	Tank car/tank truck loading/unloading rack	3.5
112.7(i)	Brittle fracture evaluation of field-constructed aboveground containers	4.1
112.7(j)	State rules, regulations and guidelines and conformance with 40 CFR part 112	Figure 8
112.8 - ONSHORE FACILITIES (EXCLUDING PRODUCTION)		
112.8(a)	Specific Requirements for discharge prevention and containment	3.2
112.8(b)	Facility Drainage	3.3.3
112.8(c)(1)-(8)	Bulk Storage Containers	3.4.2
112.8(c)(9)	Observe effluent treatment facilities	NA
112.8(c)(10)	Promptly remove visible discharges from loss of oil from containers	3.2.3
112.8(c)(11)	Position mobile or portable containers to prevent discharge	NA
112.8(d)	Facility transfer operations, pumping, and facility process	3.5
112.20 - FACILITY RESPONSE PLAN (FRP) APPLICABILITY		
112.20	Prepare Facility Response Plan if applicable	See OPA 90 FRP

* Only selected excerpts of relevant rule text are provided. Refer to the full rule text cited at 40 CFR 112 for all SPCC requirements.

FIGURE 7

STATE AND FEDERAL RULES AND REGULATIONS

B. Definitions

Chlorine-Bleaching Pulp and Paper Mill Dischargers—pulp and paper mills utilizing caustic sulfide reagents to process wood chips under high heat and pressure, producing brown paper and subsequently adding chlorine or chlorine compounds to produce bleached white paper.

C. Effluent Guidelines. The following effluent limitations establish the quantity or quality of pollutants or pollutant properties that may be discharged by a facility subject to this Section after applying to process wastes with the treatment technology currently available. The relaxation of effluent limits based upon state water quality standards or best professional judgement shall be prohibited.

Pollutant or Pollutant Property	Concentration in pg/L (ppq) Daily Average	Daily Maximum
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)	NA	20

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 17:965 (October 1991), repromulgated LR 17:1082 (November 1991).

Chapter 9. Spill Prevention and Control

§901. Purpose and Scope

A. This Chapter establishes requirements for contingency planning and implementation of operating procedures and best management practices to prevent and control the discharge of pollutants resulting from spill events. For the purpose of this Chapter, *spill event* means the accidental or unauthorized leaking or releasing of a substance from its intended container or conveyance structure that has the potential to be discharged or results in a discharge to the waters of the state. Discharges resulting from circumstances identified, reviewed, and made part of the public record with respect to a valid LPDES permit are not considered spill events.

B. The preparation and implementation of a Spill Prevention and Control Plan (hereinafter referred to as "plan") is required for any facility or person meeting the applicability criteria.

C. This Chapter establishes minimal procedures, methods, equipment, control structures and response actions necessary for compliance.

D. Definitions. The following definitions apply to terms used in this Chapter. Definitions of other terms and meanings of abbreviations are set forth in LAC 33:IX.107.

Oil—any kind or form of oil, including but not limited to: fats, oils, or greases from animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and other oils and greases including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, and oil mixed with waste other than dredged spoil.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 11:1066 (November 1985), amended by the Office of the Secretary, Legal Affairs Division, LR 36:1779 (August 2010).

§903. Applicability

A. The provisions of this Chapter apply to:

1. all substances listed in LAC 33:I.3931 of the Notification Regulations and Procedures For Unauthorized Discharges, other than *oil* as defined in LAC 33:IX.901.D, that are in liquid form at temperatures ranging between 0° and 35°C and pressures at or near 760 mm Hg;

2. *oil* as defined in LAC 33:IX.901.D; and

3. any other substance that the administrative authority declares, in light of the circumstances presented, offers sufficient danger of pollution of the waters of the state to justify application of the provisions of this Chapter.

B. The minimum aboveground storage capacity at which Paragraph A.1 of this Section applies is 1,320 U.S. gallons for two or more individual containers in aggregate within a common storage area, or 660 U.S. gallons for an individual container.

C. The minimum aggregate aboveground storage capacity at which Paragraph A.2 of this Section applies is 1,320 U.S. gallons. For the purposes of this aggregate quantity determination, only containers with a capacity of 55 U.S. gallons or greater are counted.

D. The provisions of this Chapter apply also to any equipment or structures utilized for the conveyance or transfer (loading/unloading) of applicable substances to/from transportation vehicles or vessels to/from facility storage, processing, or disposal areas. For the purposes of this Chapter, the term *facility* includes those of fixed location when in operation, and that are land based or situated upon or within wetlands and/or surface waters of the state. The requirements of this Chapter shall not apply to off-site transmission pipelines.

E. The storage and conveyance applicability of this Chapter includes, but is not limited to, all substances meeting the applicability criteria outlined in Subsection A of this Section, whether handled as raw materials, products, process intermediaries, byproducts, wastes, process catalysts, lubricants, or fuels.

F. The provisions of this Chapter shall not apply in those cases where applicable substances are stored within process equipment or conveyance structures located in process areas, provided that the drainage from these areas is routed via an LPDES treatment train to a permitted LPDES outfall.

G. The provisions of this Chapter do not require the preparation of a plan for storage or conveyance of substances in solid form except in instances or at facilities where there exists the potential for solid substances to be spilled, released or discharged either directly to waters of the state or to a flowing drainage conveyance that would

immediately transport spilled solid substances to waters of the state. In such cases the requirements for preparation of a plan may apply to solid substances for which there is reasonable evidence or cause to believe that an appreciable degradation of water quality would result from a spill or release due to the nature and/or quantity of the solid substances handled. Even if it has been determined that the preparation of a plan is not required for the storage or conveyance of solid substances at a given facility, it is incumbent upon the operator of that facility to avoid potential contamination to the waters of the state.

H. Upon notification to the owner/operator of a facility and demonstration of reasonable cause, the administrative authority may require the preparation of a plan for substances not expressly covered by the applicability requirements of this Chapter.

I. The requirements of this Chapter are intended to complement existing laws, rules, regulations and standards pertaining to the prevention of water pollution. Compliance with this Chapter does not relieve the operator of a facility from compliance with other federal, state or local laws and regulations. Spill Prevention Control and Countermeasure (SPCC) Plans prepared pursuant to 40 CFR Part 112, or manuals prepared relative to any other state or federal requirement, will be acceptable for inclusion in the plan required by this Chapter. A complete plan, however, shall address all applicable substances.

J. Underground Storage Containers—Reserved

K. Drum and Barrel Storage—Reserved

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 11:1066 (November 1985), amended by the Office of the Secretary, Legal Affairs Division, LR 36:1779 (August 2010).

§905. Requirements for Preparation and Implementation of Plans

A. Operators of facilities in operation or under construction on or before the effective date of these regulations that meet the criteria outlined in LAC 33:IX.903 shall prepare a plan within 180 days of the effective date of these regulations. The plan shall be fully implemented as soon as possible after preparation, but not later than one year after it was prepared. The Office of Environmental Services may, upon written request, grant additional implementation time to existing facilities in those cases where substantial upgrading or modification may be required in order to comply with this Chapter.

B. Operators of facilities meeting the criteria outlined in LAC 33:IX.903 that become operational 180 days after the effective date of these regulations shall prepare a plan within 180 days after the facility begins operation and shall be fully implemented as soon as possible, but not later than one year after such facility begins operation.

C. Operators of facilities for which a plan is required shall keep a complete copy of the plan at the facility if the facility is normally attended at least eight hours per day, or at the nearest office within the state if the facility is not so attended. The plan shall be made available to authorized representatives of the department for on-site review during normal working hours. Plans need not be submitted to the department unless a request to do so has been made by an authorized representative of the department.

D. Amendment of Plans by the Department. After review of the plan by the department and/or upon receiving notice of a spill pursuant to the notification requirements of R.S. 30:2025(J), the department may require the operator of the facility to amend the plan if it finds that the plan does not meet the requirements of this Chapter.

E. Amendments of Plans by Owners/Operators. Owners or operators of facilities shall amend the plan for such facility whenever there is a modification in facility design, construction, storage capacity, operation or maintenance which renders the existing plan inadequate. The amendment shall be implemented prior to or concurrent with the facility modification.

F. Periodic Review of Plans. Operators of facilities shall review the plan every five years and shall amend the plan within 90 days of the review to include more effective prevention and control technology if such technology will significantly reduce the likelihood of a spill event and if such technology has been field proven at the time of the review.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 11:1066 (November 1985), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2545 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2507 (October 2005), LR 33:2163 (October 2007), LR 36:1779 (August 2010).

§907. Guidelines for the Preparation and Implementation of a Plan

A. The plan shall be prepared in accordance with sound engineering practices. If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items shall be discussed, and the details of installation and operational start-up shall be explained individually. The department recognizes that the designs of major facilities differ and that in certain cases the appropriate methods for spill prevention and control must be site-specific. While the guidelines presented herein suggest the use of specific methodologies for this purpose, alternate methods may be employed if it can be demonstrated to the satisfaction of the department that the alternate methods will adequately prevent and control spills, and that they are reasonably equivalent to the suggested methods. A complete plan shall follow the sequence outlined in LAC 33:IX.903.B-F.

B. A complete plan shall include the following:

1. name of facility;

2. name of the operator of the facility;

3. mailing address of the facility;

4. location of the facility;

5. date and year of initial facility operation;

6. a brief but adequate description of the facility, including an indication of the nearest potential receiving waters;

7. the identity, amount, and location of substances stored at the facility meeting the applicability criteria outlined in LAC 33:IX.903; and

8. facility capability and procedures for taking corrective actions and/or countermeasures when a spill event occurs.

C. The plan shall include a prediction of the direction, rate of flow and total quantity of applicable substances which could be spilled at the facility where experience indicates a reasonable potential for equipment failure and/or human error.

D. Appropriate containment and/or diversionary structures or equipment to prevent an applicable spilled substance from reaching waters of the state should be provided. One of the following should be used as a minimum:

1. dikes, berms or retaining walls sufficiently impervious to contain spills;

2. curbing, drip pans;

3. culverts, gutters or other drainage systems;

4. weirs, booms or other barriers;

5. spill diversion ponds;

6. retention ponds;

7. sorbent substances; and

8. sumps and collection systems.

E. When it is determined that the installation of structures or equipment listed in LAC 33:IX.907.D of this Chapter is not practical, the owner/operator of an applicable facility shall clearly demonstrate such impracticality and provide a strong spill contingency plan, including a written commitment of the manpower, equipment, and materials required to ensure timely and effective action to minimize damage resulting from a spill event.

F. In addition to the minimal prevention standards listed under LAC 33:IX.907.D of this Chapter, sections of the plan should include a complete discussion of conformance with the following applicable guidelines or other effective spill prevention and containment procedures.

1. All storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.

2. Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill event, except where facility treatment systems are designed to handle such spills. Flapper-type drain valves should not be used as a restraint device. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. In all cases, drainage from diked areas shall be in accordance with all applicable rules, regulations and laws.

3. New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Liquid level sensing devices should be regularly tested to insure proper operation. Consideration should be given to providing one or more of the following devices (optional for tanks served by adequate secondary containment systems):

a. high liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice;

b. high liquid level pump cutoff devices set to stop flow at predetermined tank content level;

c. direct audible or code signal communication between the tank gauger and the pumping station;

d. a fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent; and

e. additional tank(s) connected to automatically receive overflow.

4. All above-ground tanks should be visually inspected by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground. Visible leaks from a tank and its appurtenances shall be promptly corrected.

5. Buried metallic piping installations should have a protective wrapping and coating or the equivalent, and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it shall be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action shall be taken as indicated by the magnitude of the damage.

6. When a pipeline is not in service or in standby service for an extended time, the terminal connection at the transfer point should be isolated, capped, or blank-flanged as well as marked, or the on/off switch tagged as to origin.

7. Pipe supports shall be properly designed to minimize abrasion and corrosion; to allow for expansion and contraction, and to adequately support thrust loadings at bends.

8. All above-ground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general conditions of items such as flange joints, pipeline supports, locking of valves, and metal

surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event if there is reason to suspect the integrity of the piping. Records of such inspections and tests shall be kept for three years and include all items addressed.

9. All tank car and tank truck loading/unloading area drainage shall flow into a catchment basin, treatment system or other containment system designed to hold at least the maximum capacity of any single compartment of a tank car or truck loaded or unloaded at the facility.

10. An interlocked warning light, physical barrier system, or warning signs shall be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

11. Prior to filling and departure of any tank car or truck, the lowermost drain and all outlets of such vehicles shall be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent leakage.

G. The plan, as applicable, should include a complete discussion of conformance with the following guidelines for facility drainage.

1. Facility drainage from undiked areas subject to spill events should if possible, flow into ponds, lagoons or catchment basins designed to retain spills or return them to the facility. Catchment basins should not be located in areas subject to flooding.

2. Facility drainage systems should be adequately engineered to prevent spills from reaching the waters of the state in the event of equipment failure or human error at the facility.

H. The plan, as applicable, should include a complete discussion of conformance with the following guidelines for facility security.

1. Means for restricting unauthorized entry or other security procedures should be provided when the facility is not attended.

2. Master flow and drain valves and any other valves that permit direct outward flow of spilled substances to the waters of the state should be securely locked, tagged, or sealed in the closed position when unattended. Sample cocks, gauge valves, and other small valves are not subject to this requirement.

3. The starter control on all pumps with discharge piping open to the waters of the state should be locked in the "off" position, or accessible only to authorized personnel when in nonoperating or nonstandby status.

4. The loading/unloading connections of pipelines should be securely capped or blank-flanged when not in service or standby service. This security practice should also apply to pipelines that are emptied either by draining or by inert gas pressure.

5. Facility lighting should be commensurate with the type and location of the facility and should provide for the following: (These provisions may not apply to oil and gas production sites.)

a. discovery of spills occurring during hours of darkness, both by operating personnel and by nonoperating personnel (the general public, local police, etc.); and

b. prevention of spills that may result through acts of vandalism.

I. Personnel training and spill prevention procedures should be employed, and brief discussions of the following should be included in the plan.

1. Operators are responsible for properly instructing the appropriate personnel in the operation and maintenance of equipment to prevent or contain spills of substances that are subject to this Chapter's provisions, and all applicable spill control rules and regulations associated with substances present on the facility site that are subject to this Chapter's provisions.

2. Each facility should have a designated person who is accountable for spill prevention who reports to line management.

3. Operators should schedule and conduct spill prevention briefings for their operating personnel and appropriate contractors at intervals frequent enough to assure adequate understanding of the plan for that facility. Such briefings should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

J. Inspections and Records. The plan shall provide for inspections required by this Chapter. Inspections shall be in accordance with written procedures developed for the facility by the operator. These written procedures shall be part of the plan. Inspection records shall be signed or initialed by the inspector, appropriate supervisor or the facility designee (LAC 33:IX.303.H), and shall be retained for a minimum of three years.

K. Verification by the Department. Facilities at which this Chapter applies may be inspected by an authorized representative of the department to assure implementation and adequacy of the plan. Such inspections shall be covered by the conditions provided for in LAC 33:IX.311.I of these regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 11:1066 (November 1985), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2545 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 36:1780 (August 2010).

Chapter 11. Surface Water Quality Standards

§1101. Introduction

A. The purpose of this Chapter is to establish surface water quality standards which will:

engine on a public vessel) and any discharges of such oil accumulated in the bilges of a vessel discharged in compliance with MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A;

(b) Other discharges of oil permitted under MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A; and

(c) Any discharge of oil explicitly permitted by the Administrator in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of oil pollution.

[61 FR 7421, Feb. 28, 1996]

§ 110.6 Notice.

Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as he or she has knowledge of any discharge of oil from such vessel or facility in violation of section 311(b)(3) of the Act, immediately notify the National Response Center (NRC) (800–424–8802; in the Washington, DC metropolitan area, 202–426–2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OCS immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible. The reports shall be made in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR part 153, subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR part 300, subpart E.

(Approved by the Office of Management and Budget under control number 2050–0046)

[52 FR 10719, Apr. 2, 1987. Redesignated and amended at 61 FR 7421, Feb. 28, 1996; 61 FR 14032, Mar. 29, 1996]

PART 112—OIL POLLUTION PREVENTION

Sec.

AUTHORITY: 33 U.S.C. 1251 *et seq.*; 33 U.S.C. 2720; E.O. 12777 (October 18, 1991), 3 CFR, 1991 Comp., p. 351.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part 112 appear at 65 FR 40798, June 30, 2000.

Subpart A—Applicability, Definitions, and General Requirements for All Facilities and All Types of Oils

SOURCE: 67 FR 47140, July 17, 2002, unless otherwise noted.

§ 112.1 General applicability.

(a)(1) This part establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act).

(2) As used in this part, words in the singular also include the plural and words in the masculine gender also include the feminine and vice versa, as the case may require.

(b) Except as provided in paragraph (d) of this section, this part applies to any owner or operator of a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful, as described in part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act) that has oil in:

(1) Any aboveground container;

(2) Any completely buried tank as defined in § 112.2;

(3) Any container that is used for standby storage, for seasonal storage, or for temporary storage, or not otherwise "permanently closed" as defined in § 112.2;

(4) Any "bunkered tank" or "partially buried tank" as defined in § 112.2, or any container in a vault, each of which is considered an aboveground storage container for purposes of this part.

(c) As provided in section 313 of the Clean Water Act (CWA), departments, agencies, and instrumentalities of the Federal government are subject to this part to the same extent as any person.

(d) Except as provided in paragraph (f) of this section, this part does not apply to:

(1) The owner or operator of any facility, equipment, or operation that is not subject to the jurisdiction of the

Environmental Protection Agency (EPA) under section 311(j)(1)(C) of the CWA, as follows:

(i) Any onshore or offshore facility, that due to its location, could not reasonably be expected to have a discharge as described in paragraph (b) of this section. This determination must be based solely upon consideration of the geographical and location aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and must exclude consideration of man-made features such as dikes, equipment or other structures, which may serve to restrain, hinder, contain, or otherwise prevent a discharge as described in paragraph (b) of this section.

(ii) Any equipment, or operation of a vessel or transportation-related onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of EPA, dated November 24, 1971 (Appendix A of this part).

(iii) Any equipment, or operation of a vessel or onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation or the U.S. Department of the Interior, as defined in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (Appendix B of this part).

(2) Any facility which, although otherwise subject to the jurisdiction of EPA, meets both of the following requirements:

(i) The completely buried storage capacity of the facility is 42,000 gallons or less of oil. For purposes of this exemption, the completely buried storage capacity of a facility excludes the capacity of a completely buried tank, as defined in §112.2, and connected underground piping, underground ancillary equipment, and containment systems, that is currently subject to all of the technical requirements of part 280 of this chapter or all of the technical requirements of a State program approved under part 281 of this chapter. The completely buried storage capacity of a facility also excludes the capacity of a container that is "permanently closed," as defined in §112.2.

(ii) The aggregate aboveground storage capacity of the facility is 1,320 gallons or less of oil. For purposes of this exemption, only containers of oil with a capacity of 55 gallons or greater are counted. The aggregate aboveground storage capacity of a facility excludes the capacity of a container that is "permanently closed," as defined in §112.2.

(3) Any offshore oil drilling, production, or workover facility that is subject to the notices and regulations of the Minerals Management Service, as specified in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (Appendix B of this part).

(4) Any completely buried storage tank, as defined in §112.2, and connected underground piping, underground ancillary equipment, and containment systems, at any facility, that is subject to all of the technical requirements of part 280 of this chapter or a State program approved under part 281 of this chapter, except that such a tank must be marked on the facility diagram as provided in §112.7(a)(3), if the facility is otherwise subject to this part.

(5) Any container with a storage capacity of less than 55 gallons of oil.

(6) Any facility or part thereof used exclusively for wastewater treatment and not used to satisfy any requirement of this part. The production, recovery, or recycling of oil is not wastewater treatment for purposes of this paragraph.

(e) This part establishes requirements for the preparation and implementation of Spill Prevention, Control, and Countermeasure (SPCC) Plans. SPCC Plans are designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules. The purpose of an SPCC Plan is to form a comprehensive Federal/State spill prevention program that minimizes the potential for discharges. The SPCC Plan must address

all relevant spill prevention, control, and countermeasures necessary at the specific facility. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State, or local laws.

(f) Notwithstanding paragraph (d) of this section, the Regional Administrator may require that the owner or operator of any facility subject to the jurisdiction of EPA under section 311(j) of the CWA prepare and implement an SPCC Plan, or any applicable part, to carry out the purposes of the CWA.

(1) Following a preliminary determination, the Regional Administrator must provide a written notice to the owner or operator stating the reasons why he must prepare an SPCC Plan, or applicable part. The Regional Administrator must send such notice to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of such notice to the registered agent, if any and if known, of the corporation in the State where the facility is located.

(2) Within 30 days of receipt of such written notice, the owner or operator may provide information and data and may consult with the Agency about the need to prepare an SPCC Plan, or applicable part.

(3) Within 30 days following the time under paragraph (b)(2) of this section within which the owner or operator may provide information and data and consult with the Agency about the need to prepare an SPCC Plan, or applicable part, the Regional Administrator must make a final determination regarding whether the owner or operator is required to prepare and implement an SPCC Plan, or applicable part. The Regional Administrator must send the final determination to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of the final determination to the registered agent, if any and if known, of the corporation in the State where the facility is located..

(4) If the Regional Administrator makes a final determination that an SPCC Plan, or applicable part, is necessary, the owner or operator must prepare the Plan, or applicable part, within six months of that final determination and implement the Plan, or applicable part, as soon as possible, but not later than one year after the Regional Administrator has made a final determination.

(5) The owner or operator may appeal a final determination made by the Regional Administrator requiring preparation and implementation of an SPCC Plan, or applicable part, under this paragraph. The owner or operator must make the appeal to the Administrator of EPA within 30 days of receipt of the final determination under paragraph (b)(3) of this section from the Regional Administrator requiring preparation and/or implementation of an SPCC Plan, or applicable part. The owner or operator must send a complete copy of the appeal to the Regional Administrator at the time he makes the appeal to the Administrator. The appeal must contain a clear and concise statement of the issues and points of fact in the case. In the appeal, the owner or operator may also provide additional information. The additional information may be from any person. The Administrator may request additional information from the owner or operator. The Administrator must render a decision within 60 days of receiving the appeal or additional information submitted by the owner or operator and must serve the owner or operator with the decision made in the appeal in the manner described in paragraph (f)(1) of this section.

§112.3 Definitions.

For the purposes of this part:

Adverse weather means weather conditions that make it difficult for response equipment and personnel to clean up or remove spilled oil, and that must be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height as specified in Appendix E to this part (as appropriate), ice conditions, temperatures, weather-related visibility, and currents within the area in which the systems or equipment is intended to function.

Alteration means any work on a container involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of the container.

Animal fat means a non-petroleum oil, fat, or grease of animal, fish, or marine mammal origin.

Breakout tank means a container used to relieve surges in an oil pipeline system or to receive and store oil transported by a pipeline for reinjection and continued transportation by pipeline.

Bulk storage container means any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container.

Bunkered tank means a container constructed or placed in the ground by cutting the earth and re-covering the container in a manner that breaks the surrounding natural grade, or that lies above grade, and is covered with earth, sand, gravel, asphalt, or other material. A bunkered tank is considered an aboveground storage container for purposes of this part.

Completely buried tank means any container completely below grade and covered with earth, sand, gravel, asphalt, or other material. Containers in vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for purposes of this part.

Complex means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the CWA.

Contiguous zone means the zone established by the United States under Article 24 of the Convention of the Territorial Sea and Contiguous Zone, that is contiguous to the territorial sea and that extends nine miles seaward from the outer limit of the territorial area.

Contract or other approved means means:

(1) A written contractual agreement with an oil spill removal organization that identifies and ensures the availability of the necessary personnel and equipment within appropriate response times; and/or

(2) A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times; and/or

(3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic area; and/or

(4) Any other specific arrangement approved by the Regional Administrator upon request of the owner or operator.

Discharge includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA; discharges resulting from circumstances identified, reviewed, and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of this part, the term discharge shall not include any discharge of oil that is authorized by a permit issued under section 13 of the River and Harbor Act of 1899 (33 U.S.C. 407).

Facility means any mobile or fixed, onshore or offshore building, structure, installation, equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil distribution, and waste treatment, or in which oil is used, as described in Appendix A to this part. The boundaries of a facility depend on several site-specific factors, including, but not limited to, the ownership or operation of buildings, structures, and

equipment on the same site and the types of activity at the site.

Fish and wildlife and sensitive environments means areas that may be identified by their legal designation or by evaluations of Area Committees (for planning) or members of the Federal On-Scene Coordinator's spill response structure (during responses). These areas may include wetlands, National and State parks, critical habitats for endangered or threatened species, wilderness and natural resource areas, marine sanctuaries and estuarine reserves, conservation areas, preserves, wildlife areas, wildlife refuges, wild and scenic rivers, recreational areas, national forests, Federal and State lands that are research national areas, heritage program areas, land trust areas, and historical and archaeological sites and parks. These areas may also include unique habitats such as aquaculture sites and agricultural surface water intakes, bird nesting areas, critical biological resource areas, designated migratory routes, and designated seasonal habitats.

Injury means a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge, or exposure to a product of reactions resulting from a discharge.

Maximum extent practicable means within the limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst case discharges from onshore non-transportation-related facilities in adverse weather. It includes the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the requirements in §112.20 or in a specific plan approved by the Regional Administrator.

Navigable waters means the waters of the United States, including the territorial seas.

(1) The term includes:

(i) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:

(A) That are or could be used by interstate or foreign travelers for recreational or other purposes; or

(B) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or,

(C) That are or could be used for industrial purposes by industries in interstate commerce;

(iv) All impoundments of waters otherwise defined as waters of the United States under this section;

(v) Tributaries of waters identified in paragraphs (1)(i) through (iv) of this definition;

(vi) The territorial sea; and

(vii) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraph (1) of this definition.

(2) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds which also meet the criteria of this definition) are not waters of the United States. Navigable waters do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA.

Non-petroleum oil means oil of any kind that is not petroleum-based, including but not limited to: Fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

Offshore facility means any facility of any kind (other than a vessel or public vessel) located in, on, or under any of the navigable waters of the United States, and any facility of any kind that is subject to the jurisdiction of

the United States and is located in, on, or under any other waters.

Oil means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.

Oil Spill Removal Organization means 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.

Onshore facility means any facility of any kind located in, on, or under any land within the United States, other than submerged lands.

Owner or operator means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated or maintained the facility immediately prior to such abandonment.

Partially buried tank means a storage container that is partially inserted or constructed in the ground, but not entirely below grade, and not completely covered with earth, sand, gravel, asphalt, or other material. A partially buried tank is considered an aboveground storage container for purposes of this part.

Permanently closed means any container or facility for which:

(1) All liquid and sludge has been removed from each container and connecting line; and

(2) All connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure.

Person includes an individual, firm, corporation, association, or partnership.

Petroleum oil means petroleum in any form, including but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products.

Production facility means all structures (including but not limited to wells, platforms, or storage facilities), piping (including but not limited to flowlines or gathering lines), or equipment (including but not limited to workover equipment, separation equipment, or auxiliary non-transportation-related equipment) used in the production, extraction, recovery, lifting, stabilization, separation or treating of oil, or associated storage or measurement, and located in a single geographical oil or gas field operated by a single operator.

Regional Administrator means the Regional Administrator of the Environmental Protection Agency, in and for the Region in which the facility is located.

Repair means any work necessary to maintain or restore a container to a condition suitable for safe operation, other than that necessary for ordinary, day-to-day maintenance to maintain the functional integrity of the container and that does not weaken the container.

Spill Prevention, Control, and Countermeasure Plan; SPCC Plan, or Plan means the document required by §112.3 that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge.

Storage capacity of a container means the shell capacity of the container.

Transportation-related and non-transportation-related, as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, (Appendix A of this part).

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, the U.S. Virgin Islands, and the Pacific Island Governments.

Vegetable oil means a non-petroleum oil or fat of vegetable origin, including but not limited to oils and fats derived

from plant seeds, nuts, fruits, and kernels.

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds.

Worst case discharge for an onshore non-transportation-related facility means the largest foreseeable discharge in adverse weather conditions as determined using the worksheets in Appendix D to this part.

§112.3 Requirement to prepare and implement a Spill Prevention, Control, and Countermeasure Plan.

The owner or operator of an onshore or offshore facility subject to this section must prepare a Spill Prevention, Control, and Countermeasure Plan (hereafter "SPCC Plan" or "Plan)," in writing, and in accordance with §112.7, and any other applicable section of this part.

(a) If your onshore or offshore facility was in operation on or before August 16, 2002, you must maintain your Plan, but must amend it, if necessary to ensure compliance with this part, on or before August 17, 2004, and must implement the amended Plan as soon as possible, but not later than February 18, 2005. If your onshore or offshore facility becomes operational after August 16, 2002, through February 18, 2005, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare a Plan on or before February 18, 2005 , and fully implement it as soon as possible, but not later than February 18, 2005.

(b) If you are the owner or operator of an onshore or offshore facility that becomes operational after February 18, 2005, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan before you begin operations.

(c) If you are the owner or operator of an onshore or offshore mobile facility, such as an onshore drilling or workover rig, barge mounted offshore drilling or workover rig, or portable fueling facility, you must prepare, implement, and maintain a facility Plan as required by this section. This provision does not require that you prepare a new Plan each time you move the facility to a new site. The Plan may be a general plan. When you move the mobile or portable facility, you must locate and install it using the discharge prevention practices outlined in the Plan for the facility. You may not operate a mobile or portable facility subject to this part unless you have implemented the Plan. The Plan is applicable only while the facility is in a fixed (non-transportation) operating mode.

(d) A licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.

(1) By means of this certification the Professional Engineer attests:

(i) That he is familiar with the requirements of this part ;

(ii) That he or his agent has visited and examined the facility;

(iii) That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;

(iv) That procedures for required inspections and testing have been established; and

(v) That the Plan is adequate for the facility.

(2) Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement such Plan in accordance with the requirements of this part.

(e) If you are the owner or operator of a facility for which a Plan is required under this section, you must:

(1) Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended, and

(2) Have the Plan available to the Regional Administrator for on-site review during normal working hours.

(f) *Extension of time.* (1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of a Plan, or any amendment thereto, beyond the time permitted for the preparation, implementation, or amendment of a Plan under this part, when he finds that the owner or operator of a facility subject to this section, cannot fully comply with the requirements as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or his agents or employees.

(2) If you are an owner or operator seeking an extension of time under paragraph (f)(1) of this section, you may submit a written extension request to the Regional Administrator. Your request must include:

(i) A full explanation of the cause for any such delay and the specific aspects of the Plan affected by the delay;

(ii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay; and

(iii) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment, or other preventive measures. In addition you may present additional oral or written statements in support of your extension request.

(3) The submission of a written extension request under paragraph (f)(2) of this section does not relieve you of your obligation to comply with the requirements of this part. The Regional Administrator may request a copy of your Plan to evaluate the extension request. When the Regional Administrator authorizes an extension of time for particular equipment or other specific aspects of the Plan, such extension does not affect your obligation to comply with the requirements related to other equipment or other specific aspects of the Plan for which the Regional Administrator has not expressly authorized an extension.

[67 FR 47140, July 17, 2002, as amended at 68 FR 1351, Jan. 9, 2003; 68 FR 18894, Apr. 17, 2003]

§ 112.4 Amendment of Spill Prevention, Control, and Countermeasure Plan by Regional Administrator.

If you are the owner or operator of a facility subject to this part, you must:

(a) Notwithstanding compliance with § 112.3, whenever your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharged more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b), occurring within any twelve month period, submit the following information to the Regional Administrator within 60 days from the time the facility becomes subject to this section:

(1) Name of the facility;

(2) Your name;

(3) Location of the facility;

(4) Maximum storage or handling capacity of the facility and normal daily throughput;

(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;

(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;

(7) The cause of such discharge as described in § 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;

(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and

(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

(b) Take no action under this section until it applies to your facility. This section does not apply until the expiration of the time permitted for the initial preparation and implementation of the Plan under § 112.3, but not including any amendments to the Plan.

(c) Send to the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located a complete copy of

all information you provided to the Regional Administrator under paragraph (a) of this section. Upon receipt of the information such State agency or agencies may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment, and other requirements necessary to prevent and to contain discharges from your facility.

(d) Amend your Plan, if after review by the Regional Administrator of the information you submit under paragraph (a) of this section, or submission of information to EPA by the State agency under paragraph (c) of this section, or after on-site review of your Plan, the Regional Administrator requires that you do so. The Regional Administrator may require you to amend your Plan if he finds that it does not meet the requirements of this part or that amendment is necessary to prevent and contain discharges from your facility.

(e) Act in accordance with this paragraph when the Regional Administrator proposes by certified mail or by personal delivery that you amend your SPCC Plan. If the owner or operator is a corporation, he must also notify by mail the registered agent of such corporation, if any and if known, in the State in which the facility is located. The Regional Administrator must specify the terms of such proposed amendment. Within 30 days from receipt of such notice, you may submit written information, views, and arguments on the proposed amendment. After considering all relevant material presented, the Regional Administrator must either notify you of any amendment required or rescind the notice. You must amend your Plan as required within 30 days after such notice, unless the Regional Administrator, for good cause, specifies another effective date. You must implement the amended Plan as soon as possible, but not later than six months after you amend your Plan, unless the Regional Administrator specifies another date.

(f) If you appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan, send the appeal to the EPA Administrator in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment under paragraph (e) of this section. You must send a complete copy of the appeal to the Regional Administrator at the time you make the appeal. The appeal must contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from you, or from any other person. The EPA Administrator may request additional information from you, or from any other person. The EPA Administrator must render a decision within 60 days of receiving the appeal and must notify you of his decision.

§ 112.5 Amendment of Spill Prevention, Control, and Countermeasure Plan by owners or operators.

If you are the owner or operator of a facility subject to this part, you must:

(a) Amend the SPCC Plan for your facility in accordance with the general requirements in § 112.7, and with any specific section of this part applicable to your facility, when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge as described in § 112.1(b). Examples of changes that may require amendment of the Plan include, but are not limited to: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility. An amendment made under this section must be prepared within six months, and implemented as soon as possible, but not later than six months following preparation of the amendment.

(b) Notwithstanding compliance with paragraph (a) of this section, complete a review and evaluation of the SPCC Plan at least once every five years from the date your facility becomes subject to this part; or, if your facility was in operation on or before August 16, 2002, five years from the date your last review was required under this part. As a result of this review and evaluation, you must amend your

SPCC Plan within six months of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge as described in §112.1(b) from the facility. You must implement any amendment as soon as possible, but not later than six months following preparation of any amendment. You must document your completion of the review and evaluation, and must sign a statement as to whether you will amend the Plan, either at the beginning or end of the Plan or in a log or an appendix to the Plan. The following words will suffice, "I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result."

(c) Have a Professional Engineer certify any technical amendment to your Plan in accordance with §112.3(d).

§ 112.6 [Reserved]

§ 112.7 General requirements for Spill Prevention, Control, and Countermeasure Plans.

If you are the owner or operator of a facility subject to this part you must prepare a Plan in accordance with good engineering practices. The Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. You must prepare the Plan in writing. If you do not follow the sequence specified in this section for the Plan, you must prepare an equivalent Plan acceptable to the Regional Administrator that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. If the Plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, you must discuss these items in separate paragraphs, and must explain separately the details of installation and operational start-up. As detailed elsewhere in this section, you must also:

(a)(1) Include a discussion of your facility's conformance with the requirements listed in this part.

(2) Comply with all applicable requirements listed in this part. Your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2),112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11),112.13(c)(2), and 112.14(c), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2), and 112.14(c), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in §112.4(d) and (e).

(3) Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container. The facility diagram must include completely buried tanks that are otherwise exempted from the requirements of this part under §112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes. You must also address in your Plan:

(i) The type of oil in each container and its storage capacity;

(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, *etc.*);

(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge;

(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);

(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and

(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of a discharge as described in §112.1(b).

(4) Unless you have submitted a response plan under §112.20, provide information and procedures in your Plan to enable a person reporting a discharge as described in §112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in §112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed; and, the names of individuals and/or organizations who have also been contacted.

(5) Unless you have submitted a response plan under §112.20, organize portions of the Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency, and include appropriate supporting material as appendices.

(b) Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

(c) Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs. At a minimum, you must use one of the following prevention systems or its equivalent:

(1) *For onshore facilities:*

(i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;

(ii) Curbing;

(iii) Culverting, gutters, or other drainage systems;

(iv) Weirs, booms, or other barriers;

(v) Spill diversion ponds;

(vi) Retention ponds; or

(vii) Sorbent materials.

(2) For offshore facilities:

(i) Curbing or drip pans; or

(ii) Sumps and collection systems.

(d) If you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.8(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2), and 112.14(c) to prevent a discharge as described in §112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under §112.20, provide in your Plan the following:

(1) An oil spill contingency plan following the provisions of part 109 of this chapter.

(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

(e) *Inspections, tests, and records.* Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying

engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

(f) *Personnel, training, and discharge prevention procedures.* (1) At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.

(2) Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

(3) Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in §112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.

(g) *Security (excluding oil production facilities).* (1) Fully fence each facility handling, processing, or storing oil, and lock and/or guard entrance gates when the facility is not in production or is unattended.

(2) Ensure that the master flow and drain valves and any other valves permitting direct outward flow of the container's contents to the surface have adequate security measures so that they remain in the closed position when in non-operating or non-standby status.

(3) Lock the starter control on each oil pump in the "off" position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

(4) Securely cap or blank-flange the loading/unloading connections of oil pipelines or facility piping when not in service or when in standby service for an extended time. This security practice also applies to piping that is emptied of liquid content either by draining or by inert gas pressure.

(5) Provide facility lighting commensurate with the type and location of the facility that will assist in the:

(i) Discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.); and

(ii) Prevention of discharges occurring through acts of vandalism.

(h) *Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).* (1) Where loading/unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading and unloading areas. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

(2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

(3) Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

(i) If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.

(j) In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or

any applicable more stringent State rules, regulations, and guidelines.

Subpart B—Requirements for Petroleum Oils and Non-Petroleum Oils, Except Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and Vegetable Oils (Including Oils from Seeds, Nuts, Fruits, and Kernels)

SOURCE: 67 FR 47146, July 17, 2002, unless otherwise noted.

§ 112.8 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities).

If you are the owner or operator of an onshore facility (excluding a production facility), you must:

(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in § 112.1(b) in case there is an equipment failure or human error at the facility.

(c) *Bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

(2) Construct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b).

(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§ 122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

(6) Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid-mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

(iii) Direct audible or code signal communication between the container gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

(v) You must regularly test liquid level sensing devices to ensure proper operation.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in § 112.1(b).

(10) Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b). You must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

(d) *Facility transfer operations, pumping, and facility process.* (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

§ 112.9 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil production facilities.

If you are the owner or operator of an onshore production facility, you must:

(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed under this section.

(b) *Oil production facility drainage.* (1) At tank batteries and separation and treating areas where there is a reasonable possibility of a discharge as described in § 112.1(b), close and seal at all times drains of dikes or drains of equivalent measures required under § 112.7(c)(1), except when draining uncontaminated rainwater. Prior to drainage, you must inspect the diked area and take action as provided in § 112.8(c)(3)(ii), (iii), and (iv). You must remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.

(2) Inspect at regularly scheduled intervals field drainage systems (such as drainage ditches or road ditches), and oil traps, sumps, or skimmers, for an accumulation of oil that may have resulted from any small discharge. You must promptly remove any accumulations of oil.

(c) *Oil production facility bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(2) Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

(3) Periodically and upon a regular schedule visually inspect each container of oil for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.

(4) Engineer or update new and old tank battery installations in accordance with good engineering practice to prevent discharges. You must provide at least one of the following:

(i) Container capacity adequate to assure that a container will not overfill if a pumper/gauger is delayed in making regularly scheduled rounds.

(ii) Overflow equalizing lines between containers so that a full container can overflow to an adjacent container.

(iii) Vacuum protection adequate to prevent container collapse during a pipeline run or other transfer of oil from the container.

(iv) High level sensors to generate and transmit an alarm signal to the computer where the facility is subject to a computer production control system.

(d) *Facility transfer operations, oil production facility.* (1) Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.

(2) Inspect saltwater (oil field brine) disposal facilities often, particularly following a sudden change in atmospheric temperature, to detect possible system upsets capable of causing a discharge.

(3) Have a program of flowline maintenance to prevent discharges from each flowline.

§ 112.10 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities.

If you are the owner or operator of an onshore oil drilling and workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Position or locate mobile drilling or workover equipment so as to prevent a discharge as described in § 112.1(b).

(c) Provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, or oily drilling fluids.

(d) Install a blowout prevention (BOP) assembly and well control system before drilling below any casing string or during workover operations. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

§ 112.11 Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities.

If you are the owner or operator of an offshore oil drilling, production, or workover facility, you must:

(a) Meet the general requirements listed under § 112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Use oil drainage collection equipment to prevent and control small oil discharges around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and associated equipment. You must control and direct facility drains toward a central collection sump to prevent the facility from having a discharge as described in § 112.1(b). Where drains and sumps are not practicable, you must remove oil contained in collection equipment as often as necessary to prevent overflow.

(c) For facilities employing a sump system, provide adequately sized sump and drains and make available a spare pump to remove liquid from the sump and assure that oil does not escape. You must employ a regularly scheduled preventive maintenance inspection and testing program to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(d) At facilities with areas where separators and treaters are equipped with dump valves which predominantly fail in the closed position and where pollution risk is high, specially equip the facility to prevent the discharge of oil. You must prevent the discharge of oil by:

(1) Extending the flare line to a diked area if the separator is near shore;

(2) Equipping the separator with a high liquid level sensor that will automatically shut in wells producing to the separator; or

(3) Installing parallel redundant dump valves.

(e) Equip atmospheric storage or surge containers with high liquid level sensing devices that activate an alarm or control the flow, or otherwise prevent discharges.

(f) Equip pressure containers with high and low pressure sensing devices that activate an alarm or control the flow.

(g) Equip containers with suitable corrosion protection.

(h) Prepare and maintain at the facility a written procedure within the Plan for inspecting and testing pollution prevention equipment and systems.

(i) Conduct testing and inspection of the pollution prevention equipment and systems at the facility on a scheduled periodic basis, commensurate with the complexity, conditions, and circumstances of the facility and any other appropriate regulations. You must use simulated discharges for testing and inspecting human and equipment pollution control and countermeasure systems.

(j) Describe in detailed records surface and subsurface well shut-in valves

and devices in use at the facility for each well sufficiently to determine their method of activation or control, such as pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms.

(k) Install a BOP assembly and well control system during workover operations and before drilling below any casing string. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while the BOP assembly and well control system are on the well.

(l) Equip all manifolds (headers) with check valves on individual flowlines.

(m) Equip the flowline with a high pressure sensing device and shut-in valve at the wellhead if the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves. Alternatively you may provide a pressure relief system for flowlines.

(n) Protect all piping appurtenant to the facility from corrosion, such as with protective coatings or cathodic protection.

(o) Adequately protect sub-marine piping appurtenant to the facility against environmental stresses and other activities such as fishing operations.

(p) Maintain sub-marine piping appurtenant to the facility in good operating condition at all times. You must periodically and according to a schedule inspect or test such piping for failures. You must document and keep a record of such inspections or tests at the facility.

Subpart C—Requirements for Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and for Vegetable Oils, Including Oils from Seeds, Nuts, Fruits, and Kernels.

SOURCE: 67 FR 57149, July 17, 2002, unless otherwise noted.

§112.12 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities)

If you are the owner or operator of an onshore facility (excluding a production facility), you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, subject to the requirements of paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two

"lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in §112.1(b) in case there is an equipment failure or human error at the facility.

(c) *Bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

(2) Construct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in §112.1(b).

(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

(6) Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid-mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

(iii) Direct audible or code signal communication between the container gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor

gauges and the overall filling of bulk storage containers.

(v) You must regularly test liquid level sensing devices to ensure proper operation.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in § 112.1(b).

(10) Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b). You must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

(d) *Facility transfer operations, pumping, and facility process.* (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

§ 112.13 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil production facilities.

If you are the owner or operator of an onshore production facility, you must:

(a) Meet the general requirements for the Plan listed under § 112.7, and the specific discharge prevention and containment procedures listed under this section.

(b) *Oil production facility drainage.* (1) At tank batteries and separation and treating areas where there is a reasonable possibility of a discharge as described in § 112.1(b), close and seal at all times drains of dikes or drains of equivalent measures required under § 112.7(c)(1), except when draining uncontaminated rainwater. Prior to drainage, you must inspect the diked area and take action as provided in § 112.12(c)(3)(ii), (iii), and (iv). You must remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.

(2) Inspect at regularly scheduled intervals field drainage systems (such as drainage ditches or road ditches), and oil traps, sumps, or skimmers, for an accumulation of oil that may have resulted from any small discharge. You must promptly remove any accumulations of oil.

(c) *Oil production facility bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(2) Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

(3) Periodically and upon a regular schedule visually inspect each container of oil for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.

(4) Engineer or update new and old tank battery installations in accordance with good engineering practice to prevent discharges. You must provide at least one of the following:

(i) Container capacity adequate to assure that a container will not overfill if a pumper/gauger is delayed in making regularly scheduled rounds.

(ii) Overflow equalizing lines between containers so that a full container can overflow to an adjacent container.

(iii) Vacuum protection adequate to prevent container collapse during a pipeline run or other transfer of oil from the container.

(iv) High level sensors to generate and transmit an alarm signal to the computer where the facility is subject to a computer production control system.

(d) *Facility transfer operations, oil production facility.* (1) Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.

(2) Inspect saltwater (oil field brine) disposal facilities often, particularly following a sudden change in atmospheric temperature, to detect possible system upsets capable of causing a discharge.

(3) Have a program of flowline maintenance to prevent discharges from each flowline.

§ 112.14 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities.

If you are the owner or operator of an onshore oil drilling and workover facility, you must:

(a) Meet the general requirements listed under §112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Position or locate mobile drilling or workover equipment so as to prevent a discharge as described in §112.1(b).

(c) Provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, or oily drilling fluids.

(d) Install a blowout prevention (BOP) assembly and well control system before drilling below any casing string or during workover operations. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

§ 112.15 Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities.

If you are the owner or operator of an offshore oil drilling, production, or workover facility, you must:

(a) Meet the general requirements listed under §112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Use oil drainage collection equipment to prevent and control small oil discharges around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and associated equipment. You must control and direct facility drains toward a central collection sump to prevent the facility from having a discharge as described in §112.1(b). Where drains and sumps are not practicable, you must remove oil contained in collection equipment as often as necessary to prevent overflow.

(c) For facilities employing a sump system, provide adequately sized sump and drains and make available a spare pump to remove liquid from the sump and assure that oil does not escape. You must employ a regularly scheduled preventive maintenance inspection and testing program to assure reliable operation of the liquid removal system and pump start-up device. Redundant

automatic sump pumps and control devices may be required on some installations.

(d) At facilities with areas where separators and treaters are equipped with dump valves which predominantly fail in the closed position and where pollution risk is high, specially equip the facility to prevent the discharge of oil. You must prevent the discharge of oil by:

(1) Extending the flare line to a diked area if the separator is near shore;

(2) Equipping the separator with a high liquid level sensor that will automatically shut in wells producing to the separator; or

(3) Installing parallel redundant dump valves.

(e) Equip atmospheric storage or surge containers with high liquid level sensing devices that activate an alarm or control the flow, or otherwise prevent discharges.

(f) Equip pressure containers with high and low pressure sensing devices that activate an alarm or control the flow.

(g) Equip containers with suitable corrosion protection.

(h) Prepare and maintain at the facility a written procedure within the Plan for inspecting and testing pollution prevention equipment and systems.

(i) Conduct testing and inspection of the pollution prevention equipment and systems at the facility on a scheduled periodic basis, commensurate with the complexity, conditions, and circumstances of the facility and any other appropriate regulations. You must use simulated discharges for testing and inspecting human and equipment pollution control and countermeasure systems.

(j) Describe in detailed records surface and subsurface well shut-in valves and devices in use at the facility for each well sufficiently to determine their method of activation or control, such as pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms.

(k) Install a BOP assembly and well control system during workover operations and before drilling below any casing string. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

(l) Equip all manifolds (headers) with check valves on individual flowlines.

(m) Equip the flowline with a high pressure sensing device and shut-in valve at the wellhead if the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves. Alternatively you may provide a pressure relief system for flowlines.

(n) Protect all piping appurtenant to the facility from corrosion, such as with protective coatings or cathodic protection.

(o) Adequately protect sub-marine piping appurtenant to the facility against environmental stresses and other activities such as fishing operations.

(p) Maintain sub-marine piping appurtenant to the facility in good operating condition at all times. You must periodically and according to a schedule inspect or test such piping for failures. You must document and keep a record of such inspections or tests at the facility.

Subpart D—Response Requirements

§ 113.20 Facility response plans.

(a) The owner or operator of any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare and submit a facility response plan to the Regional Administrator, according to the following provisions:

(1) For the owner or operator of a facility in operation on or before February 18, 1993 who is required to prepare and submit a response plan under 33 U.S.C. 1321(j)(5), the Oil Pollution Act of 1990 (Pub. L. 101-380, 33 U.S.C. 2701 *et seq.*) requires the submission of a response plan that satisfies the requirements of 33 U.S.C. 1321(j)(5) no later than February 18, 1993.

(i) The owner or operator of an existing facility that was in operation on or

before February 18, 1993 who submitted a response plan by February 18, 1993 shall revise the response plan to satisfy the requirements of this section and resubmit the response plan or updated portions of the response plan to the Regional Administrator by February 18, 1995.

(ii) The owner or operator of an existing facility in operation on or before February 18, 1993 who failed to submit a response plan by February 18, 1993 shall prepare and submit a response plan that satisfies the requirements of this section to the Regional Administrator before August 30, 1994.

(2) The owner or operator of a facility in operation on or after August 30, 1994 that satisfies the criteria in paragraph (f)(1) of this section or that is notified by the Regional Administrator pursuant to paragraph (b) of this section shall prepare and submit a facility response plan that satisfies the requirements of this section to the Regional Administrator.

(i) For a facility that commenced operations after February 18, 1993 but prior to August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan or updated portions of the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator prior to August 30, 1994.

(ii) For a newly constructed facility that commences operation after August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator prior to the start of operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iii) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of a planned change in design, construction, operation, or maintenance that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator before the portion of the facility undergoing change commences operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iv) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of an unplanned event or change in facility characteristics that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in Appendix F to this part, to the Regional Administrator within six months of the unplanned event or change.

(3) In the event the owner or operator of a facility that is required to prepare and submit a response plan uses an alternative formula that is comparable to one contained in Appendix C to this part to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the response plan cover sheet contained in Appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula.

(4) *Preparation and submission of response plans—Animal fat and vegetable oil facilities.* The owner or operator of any non-transportation-related facility that handles, stores, or transports animal fats and vegetable oils must prepare and submit a facility response plan as follows:

(i) *Facilities with approved plans.* The owner or operator of a facility with a facility response plan that has been approved under paragraph (c) of this section by July 31, 2000 need not prepare

or submit a revised plan except as otherwise required by paragraphs (b), (c), or (d) of this section.

(ii) *Facilities with plans that have been submitted to the Regional Administrator.* Except for facilities with approved plans as provided in paragraph (a)(4)(i) of this section, the owner or operator of a facility that has submitted a response plan to the Regional Administrator prior to July 31, 2000 must review the plan to determine if it meets or exceeds the applicable provisions of this part. An owner or operator need not prepare or submit a new plan if the existing plan meets or exceeds the applicable provisions of this part. If the plan does not meet or exceed the applicable provisions of this part, the owner or operator must prepare and submit a new plan by September 28, 2000.

(iii) *Newly regulated facilities.* The owner or operator of a newly constructed facility that commences operation after July 31, 2000 must prepare and submit a plan to the Regional Administrator in accordance with paragraph (a)(2)(ii) of this section. The plan must meet or exceed the applicable provisions of this part. The owner or operator of an existing facility that must prepare and submit a plan after July 31, 2000 as a result of a planned or unplanned change in facility characteristics that causes the facility to become regulated under paragraph (f)(1) of this section, must prepare and submit a plan to the Regional Administrator in accordance with paragraph (a)(2)(iii) or (iv) of this section, as appropriate. The plan must meet or exceed the applicable provisions of this part.

(iv) *Facilities amending existing plans.* The owner or operator of a facility submitting an amended plan in accordance with paragraph (d) of this section after July 31, 2000, including plans that had been previously approved, must also review the plan to determine if it meets or exceeds the applicable provisions of this part. If the plan does not meet or exceed the applicable provisions of this part, the owner or operator must revise and resubmit revised portions of an amended plan to the Regional Administrator in accordance with paragraph (d) of this section, as appropriate. The plan must meet or exceed the applicable provisions of this part.

(b)(1) The Regional Administrator may at any time require the owner or operator of any non-transportation-related onshore facility to prepare and submit a facility response plan under this section after considering the factors in paragraph (f)(2) of this section. If such a determination is made, the Regional Administrator shall notify the facility owner or operator in writing and shall provide a basis for the determination. If the Regional Administrator notifies the owner or operator in writing of the requirement to prepare and submit a response plan under this section, the owner or operator of the facility shall submit the response plan to the Regional Administrator within six months of receipt of such written notification.

(2) The Regional Administrator shall review plans submitted by such facilities to determine whether the facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(c) The Regional Administrator shall determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, based on the factors in paragraph (f)(3) of this section. If such a determination is made, the Regional Administrator shall notify the owner or operator of the facility in writing and:

(1) Promptly review the facility response plan;

(2) Require amendments to any response plan that does not meet the requirements of this section;

(3) Approve any response plan that meets the requirements of this section; and

(4) Review each response plan periodically thereafter on a schedule established by the Regional Administrator provided that the period between plan reviews does not exceed five years.

(d)(1) The owner or operator of a facility for which a response plan is required under this part shall revise and

resubmit revised portions of the response plan within 60 days of each facility change that materially may affect the response to a worst case discharge, including:

(i) A change in the facility's configuration that materially alters the information included in the response plan;

(ii) A change in the type of oil handled, stored, or transferred that materially alters the required response resources;

(iii) A material change in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil described in paragraph (h)(5) of this section;

(iv) A material change in the facility's spill prevention and response equipment or emergency response procedures; and

(v) Any other changes that materially affect the implementation of the response plan.

(2) Except as provided in paragraph (d)(1) of this section, amendments to personnel and telephone number lists included in the response plan and a change in the oil spill removal organization(s) that does not result in a material change in support capabilities do not require approval by the Regional Administrator. Facility owners or operators shall provide a copy of such changes to the Regional Administrator as the revisions occur.

(3) The owner or operator of a facility that submits changes to a response plan as provided in paragraph (d)(1) or (d)(2) of this section shall provide the EPA-issued facility identification number (where one has been assigned) with the changes.

(4) The Regional Administrator shall review for approval changes to a response plan submitted pursuant to paragraph (d)(1) of this section for a facility determined pursuant to paragraph (f)(3) of this section to have the potential to cause significant and substantial harm to the environment.

(e) If the owner or operator of a facility determines pursuant to paragraph (a)(2) of this section that the facility could not, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the owner or operator shall complete and maintain at the facility the certification form contained in Appendix C to this part and, in the event an alternative formula that is comparable to one contained in Appendix C to this part is used to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

(f)(1) A facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (a)(2) of this section, if it meets any of the following criteria applied in accordance with the flowchart contained in Attachment C-I to Appendix C to this part:

(i) The facility transfers oil over water to or from vessels and has a total oil storage capacity greater than or equal to 42,000 gallons; or

(ii) The facility's total oil storage capacity is greater than or equal to 1 million gallons, and one of the following is true:

(A) The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground oil storage tank within each storage area plus sufficient freeboard to allow for precipitation;

(B) The facility is located at a distance (as calculated using the appropriate formula in Appendix C to this part or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III of the "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable

Area Contingency Plan prepared pursuant to section 311(j)(4) of the Clean Water Act;

(C) The facility is located at a distance (as calculated using the appropriate formula in Appendix C to this part or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake; or

(D) The facility has had a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years.

(2)(i) To determine whether a facility *could, because of its location, reasonably* be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (b) of this section, the Regional Administrator shall consider the following:

(A) Type of transfer operation;

(B) Oil storage capacity;

(C) Lack of secondary containment;

(D) Proximity to fish and wildlife and sensitive environments and other areas determined by the Regional Administrator to possess ecological value;

(E) Proximity to drinking water intakes;

(F) Spill history; and

(G) Other site-specific characteristics and environmental factors that the Regional Administrator determines to be relevant to protecting the environment from harm by discharges of oil into or on navigable waters or adjoining shorelines.

(ii) Any person, including a member of the public or any representative from a Federal, State, or local agency who believes that a facility subject to this section could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines may petition the Regional Administrator to determine whether the facility meets the criteria in paragraph (f)(2)(i) of this section. Such petition shall include a discussion of how the factors in paragraph (f)(2)(i) of this section apply to the facility in question. The RA shall consider such petitions and respond in an appropriate amount of time.

(3) To determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the Regional Administrator may consider the factors in paragraph (f)(2) of this section as well as the following:

(i) Frequency of past discharges;

(ii) Proximity to navigable waters;

(iii) Age of oil storage tanks; and

(iv) Other facility-specific and Region-specific information, including local impacts on public health.

(g)(1) *All facility response plans shall* be consistent with the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (40 CFR part 300) and applicable Area Contingency Plans prepared pursuant to section 311(j)(4) of the Clean Water Act. The facility response plan should be coordinated with the local emergency response plan developed by the local emergency planning committee under section 303 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 11001 et seq.). Upon request, the owner or operator should provide a copy of the facility response plan to the local emergency planning committee or State emergency response commission.

(2) The owner or operator shall review relevant portions of the National Oil and Hazardous Substances Pollution Contingency Plan and applicable Area Contingency Plan annually and, if necessary, revise the facility response plan to ensure consistency with these plans.

(3) The owner or operator shall review and update the facility response plan periodically to reflect changes at the facility.

(h) A response plan shall follow the format of the model facility-specific response plan included in Appendix F to this part, unless you have prepared an equivalent response plan acceptable to the Regional Administrator to meet State or other Federal requirements. A response plan that does not follow the specified format in Appendix F to this part shall have an emergency response action plan as specified in paragraphs (h)(1) of this section and be supplemented with a cross-reference section

to identify the location of the elements listed in paragraphs (h)(2) through (h)(10) of this section. To meet the requirements of this part, a response plan shall address the following elements, as further described in Appendix F to this part:

(1) *Emergency response action plan.* The response plan shall include an emergency response action plan in the format specified in paragraphs (h)(1)(i) through (viii) of this section that is maintained in the front of the response plan, or as a separate document accompanying the response plan, and that includes the following information:

(i) The identity and telephone number of a qualified individual having full authority, including contracting authority, to implement removal actions;

(ii) The identity of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal officials and the persons providing response personnel and equipment can be ensured;

(iii) A description of information to pass to response personnel in the event of a reportable discharge;

(iv) A description of the facility's response equipment and its location;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(vii) A description of immediate measures to secure the source of the discharge, and to provide adequate containment and drainage of discharged oil; and

(viii) A diagram of the facility.

(2) *Facility information.* The response plan shall identify and discuss the location and type of the facility, the identity and tenure of the present owner and operator, and the identity of the qualified individual identified in paragraph (h)(1) of this section.

(3) *Information about emergency response.* The response plan shall include:

(i) The identity of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge and other discharges of oil described in paragraph (h)(5) of this section, and to mitigate or prevent a substantial threat of a worst case discharge (To identify response resources to meet the facility response plan requirements of this section, owners or operators shall follow Appendix E to this part or, where not appropriate, shall clearly demonstrate in the response plan why use of Appendix E of this part is not appropriate at the facility and make comparable arrangements for response resources);

(ii) Evidence of contracts or other approved means for ensuring the availability of such personnel and equipment;

(iii) The identity and the telephone number of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal official and the persons providing response personnel and equipment can be ensured;

(iv) A description of information to pass to response personnel in the event of a reportable discharge;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) A description of the facility's response equipment, the location of the equipment, and equipment testing;

(vii) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(viii) A diagram of evacuation routes; and

(ix) A description of the duties of the qualified individual identified in paragraph (h)(1) of this section, that include:

(A) Activate internal alarms and hazard communication systems to notify all facility personnel;

(B) Notify all response personnel, as needed;

(C) Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;

(D) Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;

(E) Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;

(F) Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);

(G) Assess and implement prompt removal actions to contain and remove the substance released;

(H) Coordinate rescue and response actions as previously arranged with all response personnel;

(I) Use authority to immediately access company funding to initiate cleanup activities; and

(J) Direct cleanup activities until properly relieved of this responsibility.

(4) *Hazard evaluation.* The response plan shall discuss the facility's known or reasonably identifiable history of discharges reportable under 40 CFR part 110 for the entire life of the facility and shall identify areas within the facility where discharges could occur and what the potential effects of the discharges would be on the affected environment. To assess the range of areas potentially affected, owners or operators shall, where appropriate, consider the distance calculated in paragraph (f)(1)(ii) of this section to determine whether a facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(5) *Response planning levels.* The response plan shall include discussion of specific planning scenarios for:

(i) A worst case discharge, as calculated using the appropriate worksheet in Appendix D to this part. In cases where the Regional Administrator determines that the worst case discharge volume calculated by the facility is not appropriate, the Regional Administrator may specify the worst case discharge amount to be used for response planning at the facility. For complexes, the worst case planning quantity shall be the larger of the amounts calculated for each component of the facility;

(ii) A discharge of 2,100 gallons or less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility; and

(iii) A discharge greater than 2,100 gallons and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility.

(6) *Discharge detection systems.* The response plan shall describe the procedures and equipment used to detect discharges.

(7) *Plan implementation.* The response plan shall describe:

(i) Response actions to be carried out by facility personnel or contracted personnel under the response plan to ensure the safety of the facility and to mitigate or prevent discharges described in paragraph (h)(5) of this section or the substantial threat of such discharges;

(ii) A description of the equipment to be used for each scenario;

(iii) Plans to dispose of contaminated cleanup materials; and

(iv) Measures to provide adequate containment and drainage of discharged oil.

(8) *Self-inspection, drills/exercises, and response training.* The response plan shall include:

(i) A checklist and record of inspections for tanks, secondary containment, and response equipment;

(ii) A description of the drill/exercise program to be carried out under the response plan as described in § 112.21;

(iii) A description of the training program to be carried out under the response plan as described in §112.21; and

(iv) Logs of discharge prevention meetings, training sessions, and drills/exercises. These logs may be maintained as an annex to the response plan.

(9) *Diagrams.* The response plan shall include site plan and drainage plan diagrams.

(10) *Security systems.* The response plan shall include a description of facility security systems.

(11) *Response plan cover sheet.* The response plan shall include a completed response plan cover sheet provided in Section 2.0 of Appendix F to this part.

(i)(1) In the event the owner or operator of a facility does not agree with the Regional Administrator's determination that the facility could, because of its location, reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, or that amendments to the facility response plan are necessary prior to approval, such as changes to the worst case discharge planning volume, the owner or operator may submit a request for reconsideration to the Regional Administrator and provide additional information and data in writing to support the request. The request and accompanying information must be submitted to the Regional Administrator within 60 days of receipt of notice of the Regional Administrator's original decision. The Regional Administrator shall consider the request and render a decision as rapidly as practicable.

(2) In the event the owner or operator of a facility believes a change in the facility's classification status is warranted because of an unplanned event or change in the facility's characteristics (i.e., substantial harm or significant and substantial harm), the owner or operator may submit a request for reconsideration to the Regional Administrator and provide additional information and data in writing to support the request. The Regional Administrator shall consider the request and render a decision as rapidly as practicable.

(3) After a request for reconsideration under paragraph (i)(1) or (i)(2) of this section has been denied by the Regional Administrator, an owner or operator may appeal a determination made by the Regional Administrator. The appeal shall be made to the EPA Administrator and shall be made in writing within 60 days of receipt of the decision from the Regional Administrator that the request for reconsideration was denied. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It also may contain additional information from the owner or operator, or from any other person. The EPA Administrator may request additional information from the owner or operator, or from any other person. The EPA Administrator shall render a decision as rapidly as practicable and shall notify the owner or operator of the decision.

[59 FR 34093, July 1, 1994, as amended at 65 FR 40798, June 30, 2000; 66 FR 34560, June 29, 2001; 67 FR 47151, July 17, 2002]

§112.21 Facility response training and drills/exercises.

(a) The owner or operator of any facility required to prepare a facility response plan under §112.20 shall develop and implement a facility response training program and a drill/exercise program that satisfy the requirements of this section. The owner or operator shall describe the programs in the response plan as provided in §112.20(h)(8).

(b) The facility owner or operator shall develop a facility response training program to train those personnel involved in oil spill response activities. It is recommended that the training program be based on the USCG's Training Elements for Oil Spill Response, as applicable to facility operations. An alternative program can also be acceptable subject to approval by the Regional Administrator.

(1) The owner or operator shall be responsible for the proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations.

(2) Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel.

(3) Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup.

(c) The facility owner or operator shall develop a program of facility response drills/exercises, including evaluation procedures. A program that follows the National Preparedness for Response Exercise Program (PREP) (see Appendix E to this part, section 13, for availability) will be deemed satisfactory for purposes of this section. An alternative program can also be acceptable subject to approval by the Regional Administrator.

[59 FR 34101, July 1, 1994, as amended at 65 FR 40798, June 30, 2000]

APPENDIX A TO PART 112—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

SECTION 11—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) *Non-transportation-related onshore and offshore facilities* means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility

or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) *Transportation-related onshore and offshore facilities* means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a non-transportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

APPENDIX B TO PART 112—MEMORANDUM OF UNDERSTANDING AMONG THE SECRETARY OF THE INTERIOR, SECRETARY OF TRANSPORTATION, AND ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

PURPOSE

This Memorandum of Understanding (MOU) establishes the jurisdictional responsibilities for offshore facilities, including pipelines, pursuant to section 311 (j)(1)(c), (j)(5), and (j)(5)(A) of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990 (Public Law 101-380). The Secretary of the Department of the Interior (DOI), Secretary of the Department of Transportation (DOT), and Administrator of the Environmental Protection Agency (EPA) agree to the division of responsibilities set forth below for spill prevention and control, response planning, and equipment inspection activities pursuant to those provisions.

BACKGROUND

Executive Order (E.O.) 12777 (56 FR 54757) delegates to DOI, DOT, and EPA various responsibilities identified in section 311(j) of the CWA. Sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 assigned to DOI spill prevention and control, contingency planning, and equipment inspection activities associated with offshore facilities. Section 311(a)(11) defines the term "offshore facility" to include facilities of any kind located in, on, or under navigable waters of the United States. By using this definition, the traditional DOI role of regulating facilities on the Outer Continental Shelf is expanded by E.O. 12777 to include inland lakes, rivers, streams, and any other inland waters.

RESPONSIBILITIES

Pursuant to section 2(l) of E.O. 12777, DOI redelegates, and EPA and DOT agree to assume, the functions vested in DOI by sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 as set forth below. For purposes of this MOU, the term "coast line" shall be defined as in the Submerged Lands Act (43 U.S.C. 1301(c)) to mean "the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters."

1. To EPA, DOI redelegates responsibility for non-transportation-related offshore facilities located landward of the coast line.

2. To DOT, DOI redelegates responsibility for transportation-related facilities, including pipelines, located landward of the coast line. The DOT retains jurisdiction for deepwater ports and their associated seaward pipelines, as delegated by E.O. 12777.

3. The DOI retains jurisdiction over facilities, including pipelines, located seaward of the coast line, except for deepwater ports and associated seaward pipelines delegated by E.O. 12777 to DOT.

EFFECTIVE DATE

This MOU is effective on the date of the final execution by the indicated signatories.

LIMITATIONS

1. The DOI, DOT, and EPA may agree in writing to exceptions to this MOU on a facility-specific basis. Affected parties will receive notification of the exceptions.

2. Nothing in this MOU is intended to replace, supersede, or modify any existing agreements between or among DOI, DOT, or EPA.

MODIFICATION AND TERMINATION

Any party to this agreement may propose modifications by submitting them in writing to the heads of the other agency/department. No modification may be adopted except with the consent of all parties. All parties shall indicate their consent to or disagreement with any proposed modification within 60 days of receipt. Upon the request of any party, representatives of all parties shall meet for the purpose of considering exceptions or modifications to this agreement. This MOU may be terminated only with the mutual consent of all parties.

Dated: November 8, 1993.
Bruce Babbitt,
Secretary of the Interior.
Dated: December 14, 1993.
Federico Peña,
Secretary of Transportation.
Dated: February 3, 1994.
Carol M. Browner,
Administrator, Environmental Protection Agency.

[59 FR 34102, July 1, 1994]

APPENDIX C TO PART 112—SUBSTANTIAL HARM CRITERIA

1.0 Introduction

The flowchart provided in Attachment C–I to this appendix shows the decision tree with the criteria to identify whether a facility "could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable waters or adjoining shorelines." In addition, the Regional Administrator has the discretion to identify facilities that must prepare and submit facility-specific response plans to EPA.

1.1 Definitions

1.1.1 *Great Lakes* means Lakes Superior, Michigan, Huron, Erie, and Ontario, their connecting and tributary waters, the Saint Lawrence River as far as Saint Regis, and adjacent port areas.

1.1.2 Higher Volume Port Areas include

(1) Boston, MA;
(2) New York, NY;
(3) Delaware Bay and River to Philadelphia, PA;
(4) St. Croix, VI;
(5) Pascagoula, MS;
(6) Mississippi River from Southwest Pass, LA to Baton Rouge, LA;
(7) Louisiana Offshore Oil Port (LOOP), LA;
(8) Lake Charles, LA;
(9) Sabine-Neches River, TX;
(10) Galveston Bay and Houston Ship Channel, TX;
(11) Corpus Christi, TX;
(12) Los Angeles/Long Beach Harbor, CA;
(13) San Francisco Bay, San Pablo Bay, Carquinez Strait, and Suisun Bay to Antioch, CA;
(14) Straits of Juan de Fuca from Port Angeles, WA to and including Puget Sound, WA;
(15) Prince William Sound, AK; and
(16) Others as specified by the Regional Administrator for any EPA Region.

1.1.3 *Inland Area* means the area shoreward of the boundary lines defined in 46 CFR part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines as defined in 33 CFR 80.740—80.850). The inland area does not include the Great Lakes.

1.1.4 *Rivers and Canals* means a body of water confined within the inland area, including the Intracoastal Waterways and other waterways artificially created for navigating that have project depths of 12 feet or less.

2.0 Description of Screening Criteria for the Substantial Harm Flowchart

A facility that has the potential to cause substantial harm to the environment in the event of a discharge must prepare and submit a facility-specific response plan to EPA in accordance with Appendix F to this part. A description of the screening criteria for the substantial harm flowchart is provided below:

2.1 *Non-Transportation-Related Facilities With a Total Oil Storage Capacity Greater Than or Equal to 42,000 Gallons Where Operations Include Over-Water Transfers of Oil.* A non-transportation-related facility with a total oil storage capacity greater than or equal to 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA. Daily oil transfer operations at these types of facilities occur between barges and vessels and onshore bulk storage tanks over open water. These facilities are located adjacent to navigable water.

2.2 *Lack of Adequate Secondary Containment at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* Any facility with a total oil storage capacity greater than or equal to 1 million gallons without secondary containment sufficiently large to contain the capacity of the largest aboveground oil storage tank within each area plus sufficient freeboard to allow for precipitation must submit a response plan to EPA. Secondary containment structures that meet the standard of good engineering practice for the purposes of this part include berms, dikes, retaining walls, curbing, culverts, gutters, or other drainage systems.

2.3 *Proximity to Fish and Wildlife and Sensitive Environments at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* A facility with a total oil storage capacity greater than or equal to 1

million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury (as defined at 40 CFR 112.2) to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan. Facility owners or operators must determine the distance at which an oil discharge could cause injury to fish and wildlife and sensitive environments using the appropriate formula presented in Attachment C–III to this appendix or a comparable formula.

2.4 *Proximity to Public Drinking Water Intakes at Facilities with a Total Oil Storage Capacity Greater than or Equal to 1 Million Gallons* A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2(c). The distance at which an oil discharge from an SPCC-regulated facility would shut down a public drinking water intake shall be calculated using the appropriate formula presented in Attachment C–III to this appendix or a comparable formula.

2.5 *Facilities That Have Experienced Reportable Oil Discharges in an Amount Greater Than or Equal to 10,000 Gallons Within the Past 5 Years and That Have a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* A facility's oil spill history within the past 5 years shall be considered in the evaluation for substantial harm. Any facility with a total oil storage capacity greater than or equal to 1 million gallons that has experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the past 5 years must submit a response plan to EPA.

3.0 Certification for Facilities That Do Not Pose Substantial Harm

If the facility does not meet the substantial harm criteria listed in Attachment C–I to this appendix, the owner or operator shall complete and maintain at the facility the certification form contained in Attachment C–II to this appendix. In the event an alternative formula that is comparable to the one in this appendix is used to evaluate the substantial harm criteria, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

4.0 References

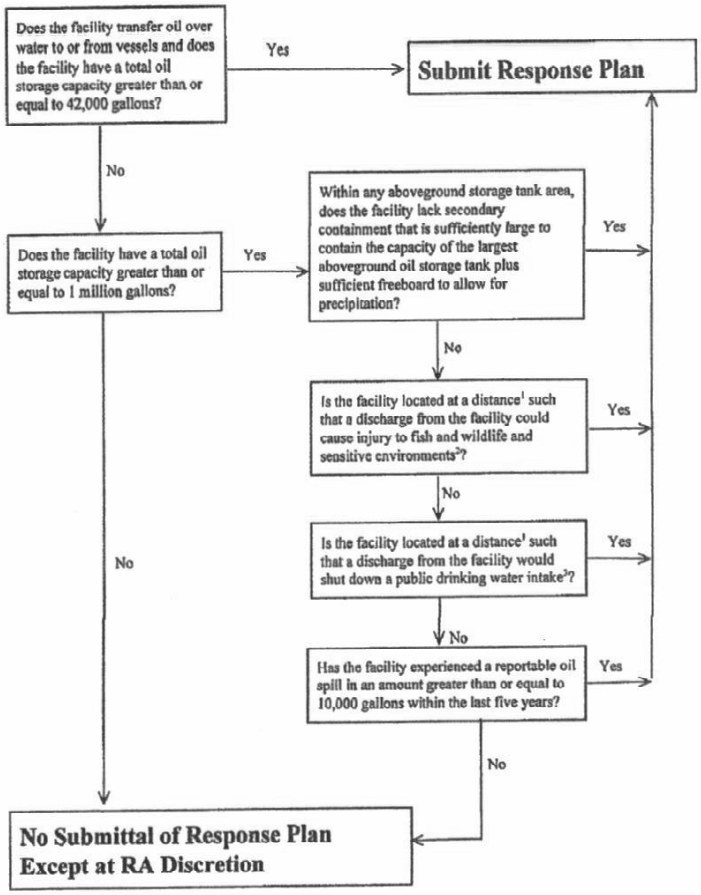
Chow, V.T. 1959. Open Channel Hydraulics. McGraw Hill.

USCG IFR (58 FR 7353, February 5, 1993). This document is available through EPA's rulemaking docket as noted in Appendix E to this part, section 13.

ATTACHMENTS TO APPENDIX C

Attachment C-I

Flowchart of Criteria for Substantial Harm



[1] Calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula.

[2] For further description of fish and wildlife and sensitive environments, see Appendices I,II, and III to DOC/NOAA's "Guidance for Facility and vessel response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.

[3] Public drinking water intakes are analogous to public water systems as described at CFR 143.2(c).

ATTACHMENT C-II—CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: _____

Facility Address:

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

Yes ____ No ____

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

Yes ____ No ____

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan.

Yes ____ No ____

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?

Yes ____ No ____

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

Yes No

Certification

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

_____

Signature

Name (please type or print)

_____

Title

_____

Date

ATTACHMENT C-III—CALCULATION OF THE PLANNING DISTANCE

1.0 Introduction

1.1 The facility owner or operator must evaluate whether the facility is located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments or disrupt operations at a public drinking water intake. To quantify that distance, EPA considered oil transport mechanisms over land and on still, tidal influence, and moving navigable waters. EPA has determined that the primary concern for calculation of a planning distance is the transport of oil in navigable waters during adverse weather conditions. Therefore, two formulas have been developed to determine distances for planning purposes from the point of discharge at the facility to the potential site of impact on moving and still waters, respectively. The formula for oil transport on moving navigable water is based on the velocity of the water body and the time interval for arrival of response resources. The still water formula accounts for the spread of discharged oil over the surface of the water. The method to determine oil transport on tidal influence areas is based on the type of oil discharged and the distance down current during ebb tide and up current during flood tide to the point of maximum tidal influence.

1.2 EPA's formulas were designed to be simple to use. However, facility owners or operators may calculate planning distances using more sophisticated formulas, which take into account broader scientific or engineering principles, or local conditions. Such comparable formulas may result in different planning distances than EPA's formulas. In the event that an alternative formula that is comparable to one contained in this appendix is used to evaluate the criterion in 40 CFR 112.20(f)(1)(ii)(B) or (f)(1)(ii)(C), the owner or operator shall attach documentation to the response plan cover sheet contained in Appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula and shall notify the Regional Administrator in

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

writing that an alternative formula was used.[1]

1.3 A regulated facility may meet the criteria for the potential to cause substantial harm to the environment without having to perform a planning distance calculation. For facilities that meet the substantial harm criteria because of inadequate secondary containment or oil spill history, as listed in the flowchart in Attachment C–I to this appendix, calculation of the planning distance is unnecessary. For facilities that do not meet the substantial harm criteria for secondary containment or oil spill history as listed in the flowchart, calculation of a planning distance for proximity to fish and wildlife and sensitive environments and public drinking water intakes is required, unless it is clear without performing the calculation (e.g., the facility is located in a wetland) that these areas would be impacted.

1.4 A facility owner or operator who must perform a planning distance calculation on navigable water is only required to do so for the type of navigable water conditions (i.e., moving water, still water, or tidal- influenced water) applicable to the facility. If a facility owner or operator determines that more than one type of navigable water condition applies, then the facility owner or operator is required to perform a planning distance calculation for each navigable water type to determine the greatest single distance that oil may be transported. As a result, the final planning distance for oil transport on water shall be the greatest individual distance rather than a summation of each calculated planning distance.

1.5 The planning distance formula for transport on moving waterways contains three variables: the velocity of the navigable water (v), the response time interval (t), and a conversion factor (c). The velocity, v, is determined by using the Chezy-Manning equation, which, in this case, models the flood flow rate of water in open channels. The Chezy-Manning equation contains three variables which must be determined by facility owners or operators. Manning's Roughness Coefficient (for flood flow rates), n, can be determined from Table 1 of this attachment. The hydraulic radius, r, can be estimated using the average mid-channel depth from charts provided by the sources listed in Table 2 of this attachment. The average slope of the river, s, can be determined using topographic maps that can be ordered from the U.S. Geological Survey, as listed in Table 2 of this attachment.

1.6 Table 3 of this attachment contains specified time intervals for estimating the arrival of response resources at the scene of a discharge. Assuming no prior planning, response resources should be able to arrive at the discharge site within 12 hours of the discovery of any oil discharge in Higher Volume Port Areas and within 24 hours in Great Lakes and all other river, canal, inland, and nearshore areas. The specified time intervals in Table 3 of Appendix C are to be used only to aid in the identification of whether a facility could cause substantial harm to the environment. Once it is determined that a plan must be developed for the facility, the owner or operator shall reference Appendix E to this part to determine appropriate resource levels and response times. The specified time intervals of this appendix include a 3-hour time period for deployment of boom and other response equipment. The Regional Administrator may identify additional areas as appropriate.

2.0 Oil Transport on Moving Navigable Waters

2.1 The facility owner or operator must use the following formula or a comparable formula as described in §112.20(a)(3) to calculate the planning distance for oil transport on moving navigable water:

$d=vxtxc$; where

d: the distance downstream from a facility within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down in the event of an oil discharge (in miles);

v: the velocity of the river/navigable water of concern (in ft/sec) as determined by Chezy-Manning's equation (see below and Tables 1 and 2 of this attachment);

t: the time interval specified in Table 3 based upon the type of water body and location (in hours); and

c: constant conversion factor 0.68 secxmile/hrxft (3600 sec/hr ÷ 5280 ft/mile).

2.2 Chezy-Manning's equation is used to determine velocity:

$v=1.5/nxr^{2/3}xs^{1/2}$; where

v=the velocity of the river of concern (in ft/sec);

n=Manning's Roughness Coefficient from Table 1 of this attachment;

r=the hydraulic radius; the hydraulic radius can be approximated for parabolic channels by multiplying the average mid-channel depth of the river (in feet) by 0.667

[1] For persistent oils or non-persistent oils, a worst case trajectory model (i.e., an alternative formula) may be substituted for the distance formulas described in still, moving, and tidal waters, subject to Regional Administrator's review of the model. An example of an alternative formula that is comparable to the one contained in this appendix would be a worst case trajectory calculation based on credible adverse winds, currents, and/or river stages, over a range of seasons, weather conditions, and river stages. Based on historical information or a spill trajectory model, the Agency may require that additional fish and wildlife and sensitive environments or public drinking water intakes also be protected.

(sources for obtaining the mid-channel depth are listed in Table 2 of this attachment); and

s=the average slope of the river (unitless) obtained from U.S. Geological Survey topographic maps at the address listed in Table 2 of this attachment.

TABLE 1—MANNING'S ROUGHNESS COEFFICIENT FOR NATURAL STREAMS

[NOTE: Coefficients are presented for high flow rates at or near flood stage.]

Stream description	Roughness coefficient (n)
Minor Streams (Top Width <100 ft.)	
Clean:	
Straight	0.03
Winding	0.04
Sluggish (Weedy, deep pools):	
No trees or brush	0.06
Trees and/or brush	0.10
Major Streams (Top Width >100 ft.)	
Regular section:	
(No boulders/brush)	0.035
Irregular section:	
(Brush)	0.05

TABLE 2—SOURCES OF R AND S FOR THE CHEZY-MANNING EQUATION

All of the charts and related publications for navigational waters may be ordered from:
Distribution Branch
(N/CG33)
National Ocean Service
Riverdale, Maryland 20737-1199
Phone: (301) 436-6990
There will be a charge for materials ordered and a VISA or Mastercard will be accepted.
The mid-channel depth to be used in the calculation of the hydraulic radius (r) can be obtained directly from the following sources:
Charts of Canadian Coastal and Great Lakes Waters:
Canadian Hydrographic Service
Department of Fisheries and Oceans Institute
P.O. Box 8080
1675 Russell Road
Ottawa, Ontario KIG 3H6
Canada
Phone: (613) 998-4931
Charts and Maps of Lower Mississippi River (Gulf of Mexico to Ohio River and St. Francis, White, Big Sunflower, Atchafalaya, and other rivers):
U.S. Army Corps of Engineers
Vicksburg District
P.O. Box 60
Vicksburg, Mississippi 39180
Phone: (601) 634-5000
Charts of Upper Mississippi River and Illinois Waterway to Lake Michigan:
U.S. Army Corps of Engineers
Rock Island District
P.O. Box 2004
Rock Island, Illinois 61204
Phone: (309) 794-5552
Charts of Missouri River:
U.S. Army Corps of Engineers
Omaha District
6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102
Phone: (402) 221-3900
Charts of Ohio River:
U.S. Army Corps of Engineers
Ohio River Division
P.O. Box 1159
Cincinnati, Ohio 45201
Phone: (513) 684-3002
Charts of Tennessee Valley Authority Reservoirs, Tennessee River and Tributaries:
Tennessee Valley Authority
Maps and Engineering Section
416 Union Avenue
Knoxville, Tennessee 37902
Phone: (615) 632-2921
Charts of Black Warrior River, Alabama River, Tombigbee River, Apalachicola River and Pearl River:
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001
Phone: (205) 690-2511
The average slope of the river (s) may be obtained from topographic maps:
U.S. Geological Survey
Map Distribution
Federal Center
Bldg. 41
Box 25286
Denver, Colorado 80225
Additional information can be obtained from the following sources:

1. The State's Department of Natural Resources (DNR) or the State's Aids to Navigation office;
2. A knowledgeable local marina operator; or
3. A knowledgeable local water authority (e.g., State water commission)

2.3 The average slope of the river (s) can be determined from the topographic maps using the following steps:

(1) Locate the facility on the map.

(2) Find the Normal Pool Elevation at the point of discharge from the facility into the water (A).

(3) Find the Normal Pool Elevation of the public drinking water intake or fish and wildlife and sensitive environment located downstream (B) (Note: The owner or operator should use a minimum of 20 miles downstream as a cutoff to obtain the average slope if the location of a specific public drinking water intake or fish and wildlife and sensitive environment is unknown).

(4) If the Normal Pool Elevation is not available, the elevation contours can be used to find the slope. Determine elevation of the water at the point of discharge from the facility (A). Determine the elevation of the

water at the appropriate distance downstream (B). The formula presented below can be used to calculate the slope.

(5) Determine the distance (in miles) between the facility and the public drinking water intake or fish and wildlife and sensitive environments (C).

(6) Use the following formula to find the slope, which will be a unitless value: Average Slope=[(A−B) (ft)/C (miles)] × [1 mile/5280 feet]

2.4 If it is not feasible to determine the slope and mid-channel depth by the Chezy-Manning equation, then the river velocity can be approximated on- site. A specific length, such as 100 feet, can be marked off along the shoreline. A float can be dropped into the stream above the mark, and the time required for the float to travel the distance can be used to determine the velocity in feet per second. However, this method will not yield an average velocity for the length of the stream, but a velocity only for the specific location of measurement. In addition, the flow rate will vary depending on weather conditions such as wind and rainfall. It is recommended that facility owners or operators repeat the measurement under a variety of conditions to obtain the most accurate estimate of the surface water velocity under adverse weather conditions.

2.5 The planning distance calculations for moving and still navigable waters are based on worst case discharges of persistent oils. Persistent oils are of concern because they can remain in the water for significant periods of time and can potentially exist in large quantities downstream. Owners or operators of facilities that store persistent as well as non-persistent oils may use a comparable formula. The volume of oil discharged is not included as part of the planning distance calculation for moving navigable waters. Facilities that will meet this substantial harm criterion are those with facility capacities greater than or equal to 1 million gallons. It is assumed that these facilities are capable of having an oil discharge of sufficient quantity to cause injury to fish and wildlife and sensitive environments or shut down a public drinking water intake. While owners or operators of transfer facilities that store greater than or equal to 42,000 gallons are not required to use a planning distance formula for purposes of the substantial harm criteria, they should use a planning distance calculation in the development of facility-specific response plans.

TABLE 3—SPECIFIED TIME INTERVALS

Operating areas	Substantial harm planning time (hrs)
Higher volume port area.	12 hour arrival+3 hour deployment=15 hours.
Great Lakes ...	24 hour arrival+3 hour deployment=27 hours.
All other rivers and canals, inland, and nearshore areas.	24 hour arrival+3 hour deployment=27 hours.

2.6 *Example of the Planning Distance Calculation for Oil Transport on Moving Navigable Waters.* The following example provides a sample calculation using the planning distance formula for a facility discharging oil into the Monongahela River:

(1) Solve for v by evaluating n, r, and s for the Chezy-Manning equation:

Find the roughness coefficient, n, on Table 1 of this attachment for a regular section of a major stream with a top width greater than 100 feet. The top width of the river can be found from the topographic map.

n=0.035.

Find slope, s, where A=727 feet, B=710 feet, and C=25 miles.

Solving:

s=[(727 ft−1710 ft)/25 miles]×[1 mile/5280 feet]=1.3×10^{-4}

The average mid-channel depth is found by averaging the mid-channel depth for each mile along the length of the river between the facility and the public drinking water intake or the fish or wildlife or sensitive environment (or 20 miles downstream if applicable). This value is multiplied by 0.667 to obtain the hydraulic radius. The mid-channel depth is found by obtaining values for r and s from the sources shown in Table 2 for the Monongahela River.

Solving:

r=0.667×20 feet=13.33 feet

Solve for v using:

$v=1.5/n\times r^{2/3}\times s^{1/2}$;

$v=[1.5/0.035]\times(13.33)^{2/3}\times(1.3\times10^{-4})^{1/2}$

v=2.73 feet/second

(2) Find t from Table 3 of this attachment. The Monongahela River's resource response time is 27 hours.

(3) Solve for planning distance, d:

d=v×t×c

d=(2.73 ft/sec)×(27 hours)×(0.68 sec/mile/hr/ft)

d=50 miles

Therefore, 50 miles downstream is the appropriate planning distance for this facility.

3.0 Oil Transport on Still Water

3.1 For bodies of water including lakes or ponds that do not have a measurable velocity, the spreading of the oil over the surface must be considered. Owners or operators of facilities located next to still water bodies may use a comparable means of calculating

the planning distance. If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable calculation must be attached to the response plan cover sheet.

3.2 *Example of the Planning Distance Calculation for Oil Transport on Still Water.* To assist those facilities which could potentially discharge into a still body of water, the following analysis was performed to provide an example of the type of formula that may be used to calculate the planning distance. For this example, a worst case discharge of 2,000,000 gallons is used.

(1) The surface area in square feet covered by an oil discharge on still water, A1, can be determined by the following formula,[2] where V is the volume of the discharge in gallons and C is a constant conversion factor:

$A_1=10^5xV^{2/3}xC$

C=0.1643

$A_1=10^5x(2,000,000\ gallons)^{2/3}x(0.1643)$

$A_1=6.74x10^8\ ft^2$

(2) The spreading formula is based on the theoretical condition that the oil will spread uniformly in all directions forming a circle. In reality, the outfall of the discharge will direct the oil to the surface of the water where it intersects the shoreline. Although the oil will not spread uniformly in all directions, it is assumed that the discharge will spread from the shoreline into a semi-circle (this assumption does not account for winds or wave action).

(3) The area of a circle=πr^2

(4) To account for the assumption that oil will spread in a semi-circular shape, the area of a circle is divided by 2 and is designated as A_2.

$A_2=(\pi r^2)/2$

Solving for the radius, r, using the relationship $A_1=A_2$: $6.74x10^8\ ft^2=(\pi r^2)/2$

Therefore, r=23,588 ft

r=23,588 ft÷5,280 ft/mile=4.5 miles

Assuming a 20 knot wind under storm conditions:

1 knot=1.15 miles/hour

20 knots×1.15 miles/hour/knot=23 miles/hr

Assuming that the oil slick moves at 3 percent of the wind's speed:[3]

23 miles/hour×0.03=0.69 miles/hour

(5) To estimate the distance that the oil will travel, use the times required for response resources to arrive at different geographic locations as shown in Table 3 of this attachment.

For example:

For Higher Volume Port Areas: 15 hrs×0.69 miles/hr=10.4 miles

For Great Lakes and all other areas: 27 hrs×0.69 miles/hr=18.6 miles

(6) The total distance that the oil will travel from the point of discharge, including the distance due to spreading, is calculated as follows:

Higher Volume Port Areas: d=10.4+4.5 miles or approximately 15 miles

Great Lakes and all other areas: d=18.6+4.5 miles or approximately 23 miles

4.0 Oil Transport on Tidal-Influence Areas

4.1 The planning distance method for tidal influence navigable water is based on worst case discharges of persistent and non-persistent oils. Persistent oils are of primary concern because they can potentially cause harm over a greater distance. For persistent oils discharged into tidal waters, the planning distance is 15 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 15 miles, whichever is less, during flood tide.

4.2 For non-persistent oils discharged into tidal waters, the planning distance is 5 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 5 miles, whichever is less, during flood tide.

4.3 *Example of Determining the Planning Distance for Two Types of Navigable Water Conditions.* Below is an example of how to determine the proper planning distance when a facility could impact two types of navigable water conditions: moving water and tidal water.

(1) Facility X stores persistent oil and is located downstream from locks along a slow moving river which is affected by tides. The river velocity, v, is determined to be 0.5 feet/second from the Chezy-Manning equation used to calculate oil transport on moving navigable waters. The specified time interval, t, obtained from Table 3 of this attachment for river areas is 27 hours. Therefore, solving for the planning distance, d:

d=vxtx:

d=(0.5 ft/sec)x(27 hours)x(0.68 secmile/hrft)

d=9.18 miles.

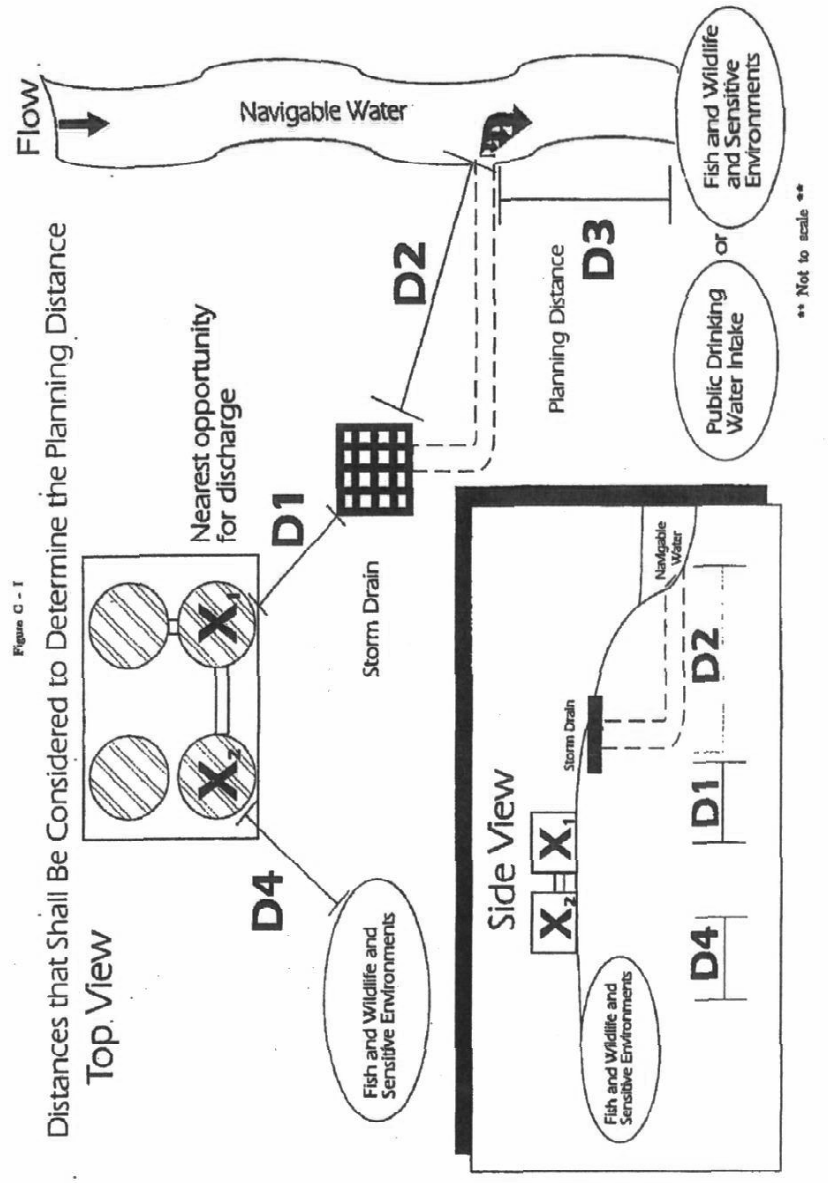
(2) However, the planning distance for maximum tidal influence down current during ebb tide is 15 miles, which is greater than the calculated 9.18 miles. Therefore, 15 miles downstream is the appropriate planning distance for this facility.

5.0 Oil Transport Over Land

5.1 Facility owners or operators must evaluate the potential for oil to be transported over land to navigable waters of the United States. The owner or operator must evaluate the likelihood that portions of a worst case discharge would reach navigable

[2] Huang, J.C. and Monastero, F.C., 1982. *Review of the State-of-the-Art of Oil Pollution Models.* Final report submitted to the American Petroleum Institute by Raytheon Ocean Systems, Co., East Providence, Rhode Island.

[3] *Oil Spill Prevention & Control.* National Spill Control School, Corpus Christi State University, Thirteenth Edition, May 1990.



[59 FR 34102, July 1, 1994, as amended at 65 FR 40798, June 30, 2000; 67 FR 47152, July 17, 2002]

APPENDIX D TO PART 112—DETERMINATION OF A WORST CASE DISCHARGE PLANNING VOLUME

1.0 Instructions

1.1 An owner or operator is required to complete this worksheet if the facility meets the criteria, as presented in Appendix C to this part, or it is determined by the RA that the facility could cause substantial harm to the environment. The calculation of a worst case discharge planning volume is used for emergency planning purposes, and is required in 40 CFR 112.20 for facility owners or operators who must prepare a response plan. When planning for the amount of resources and equipment necessary to respond to the worst case discharge planning volume, adverse weather conditions must be taken into consideration. An owner or operator is required to determine the facility's worst case discharge planning volume from either part A of this appendix for an onshore storage facility, or part B of this appendix for an onshore production facility. The worksheet considers the provision of adequate secondary containment at a facility.

1.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equalized). In a worst case discharge scenario, a single failure could cause the discharge of the contents of more than one tank. The owner or operator must provide evidence in the response plan that tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge planning volume would be based on the capacity of the largest oil storage tank within a common secondary containment area or the largest oil storage tank within a single secondary containment area, whichever is greater. For permanently manifolded tanks that function as one oil storage unit, the worst case discharge planning volume would be based on the combined oil storage capacity of all manifolded tanks or the capacity of the largest single oil storage tank within a secondary containment area, whichever is greater. For purposes of this rule, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.3 For production facilities, the presence of exploratory wells, production wells, and oil storage tanks must be considered in the calculation. Part B of this appendix takes these additional factors into consideration and provides steps for their inclusion in the total worst case discharge planning volume. Onshore oil production facilities may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator. Although a potential worst case discharge planning volume is calculated within each section of the worksheet, the final worst case amount depends on the risk parameter that results in the greatest volume.

1.4 Marine transportation-related transfer facilities that contain fixed aboveground onshore structures used for bulk oil storage are jointly regulated by EPA and the U.S. Coast Guard (USCG), and are termed "complexes." Because the USCG also requires response plans from transportation-related facilities to address a worst case discharge of oil, a separate calculation for the worst case discharge planning volume for USCG-related facilities is included in the USCG IFR (see Appendix E to this part, section 13, for availability). All complexes that are jointly regulated by EPA and the USCG must compare both calculations for worst case discharge planning volume derived by using the EPA and USCG methodologies and plan for whichever volume is greater.

PART A: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE STORAGE FACILITIES[1]

Part A of this worksheet is to be completed by the owner or operator of an SPCC-regulated facility (excluding oil production facilities) if the facility meets the criteria as presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm to the environment. If you are the owner or operator of a production facility, please proceed to part B of this worksheet.

A.1 SINGLE-TANK FACILITIES

For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the oil storage tank. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the oil storage tank, multiply the capacity of the tank by 0.8.

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

[1] "Storage facilities" represent all facilities subject to this part, excluding oil production facilities.

A.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?[2]

(Y/N)

A.2.1 If the answer is yes, the final worst case discharge planning volume equals the *total aboveground oil storage capacity at the facility.*

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

A.2.2 If the answer is no, calculate the total aboveground oil storage capacity of tanks without adequate secondary containment. If *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER "0" (zero).

_____ GAL

A.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, PLUS THE VOLUME FROM QUESTION A.2.2.

FINAL WORST CASE VOLUME:[3] _____ GAL

PART B: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE PRODUCTION FACILITIES

Part B of this worksheet is to be completed by the owner or operator of an SPCC-regulated oil production facility if the facility meets the criteria presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm. A production facility consists of all wells (producing and exploratory) and related equipment in a single geographical oil or gas field operated by a single operator.

B.1 SINGLE-TANK FACILITIES

B.1.1 For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the aboveground oil storage tank plus the production volume of the well with the highest output at the facility. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the storage tank, multiply the capacity of the tank by 0.8.

B.1.2 For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

B.1.3 If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

B.1.4 Attachment D–1 to this appendix provides methods for calculating the production volume for exploratory wells and production wells producing under pressure.

(1) FINAL WORST CASE VOLUME: GAL

(2) Do not proceed further.

B.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?

_____ (Y/N)

B.2.1 If the answer is yes, the final worst case volume equals the total aboveground oil storage capacity without adequate secondary containment plus the production volume of the well with the highest output at the facility.

(1) For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

(2) If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

(3) Attachment D–1 to this appendix provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(A) FINAL WORST CASE VOLUME: GAL

(B) Do not proceed further.

[2] *Secondary containment* is described in 40 CFR part 112, subparts A through C. Acceptable methods and structures for containment are also given in 40 CFR 112.7(c)(1).

[3] All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

B.2.2 If the answer is no, calculate the total aboveground oil storage capacity of tanks without adequate secondary containment. If *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER "0" (zero).

_____ GAL

B.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, plus the production volume of the well with the highest output, PLUS THE VOLUME FROM QUESTION B.2.2. Attachment D–I provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(1) FINAL WORST CASE VOLUME:[4] _____ GAL

(2) Do not proceed further.

ATTACHMENTS TO APPENDIX D

ATTACHMENT D–I—METHODS TO CALCULATE PRODUCTION VOLUMES FOR PRODUCTION FACILITIES WITH EXPLORATORY WELLS OR PRODUCTION WELLS PRODUCING UNDER PRESSURE

1.0 Introduction

The owner or operator of a production facility with exploratory wells or production wells producing under pressure shall compare the well rate of the highest output well (*rate of well*), in barrels per day, to the ability of response equipment and personnel to recover the volume of oil that could be discharged (rate of recovery), in barrels per day. The result of this comparison will determine the method used to calculate the production volume for the production facility. This production volume is to be used to calculate the worst case discharge planning volume in part B of this appendix.

2.0 Description of Methods

2.1 Method A

If the well rate would overwhelm the response efforts (i.e., rate of well/rate of recovery ≥1), then the production volume would be the 30-day forecasted well rate for a well 10,000 feet deep or less, or the 45-day forecasted well rate for a well deeper than 10,000 feet.

(1) For wells 10,000 feet deep or less:
Production volume=30 days × rate of well.

(2) For wells deeper than 10,000 feet:
Production volume=45 days × rate of well.

2.2 Method B

2.2.1 If the rate of recovery would be greater than the well rate (i.e., rate of well/rate of recovery <1), then the production volume would equal the sum of two terms:

Production volume=discharge volume$_1$ + discharge volume$_2$

2.2.2 The first term represents the volume of the oil discharged from the well between the time of the blowout and the time the response resources are on scene and recovering oil (discharge volume$_1$).

Discharge volume$_1$=(days unattended+days to respond) × (rate of well)

2.2.3 The second term represents the volume of oil discharged from the well after the response resources begin operating until the discharge is stopped, adjusted for the recovery rate of the response resources (discharge volume $_2$).

(1) For wells 10,000 feet deep or less:
Discharge volume$_2$=[30 days−(days unattended + days to respond)] × (rate of well) × (rate of well/rate of recovery)

(2) For wells deeper than 10,000 feet:
Discharge volume$_2$=[45 days−(days unattended + days to respond)] × (rate of well) × (rate of well/rate of recovery)

3.0 Example

3.1 A facility consists of two production wells producing under pressure, which are both less than 10,000 feet deep. The well rate of well A is 5 barrels per day, and the well rate of well B is 10 barrels per day. The facility is unattended for a maximum of 7 days. The facility operator estimates that it will take 2 days to have response equipment and personnel on scene and responding to a blowout, and that the projected rate of recovery will be 20 barrels per day.

(1) First, the facility operator determines that the highest output well is well B. The facility operator calculates the ratio of the rate of well to the rate of recovery:

10 barrels per day/20 barrels per day=0.5 Because the ratio is less than one, the facility operator will use Method B to calculate the production volume.

(2) The first term of the equation is:

Discharge volume$_1$=(7 days + 2 days) × (10 barrels per day)=90 barrels

(3) The second term of the equation is:

Discharge volume $_2$=[30 days−(7 days+2 days)] × (10 barrels per day) × (0.5)=105 barrels

(4) Therefore, the production volume is:

Production volume=90 barrels + 105 barrels=195 barrels

[4] All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

3.2 If the recovery rate was 5 barrels per day, the ratio of rate of well to rate of recovery would be 2, so the facility operator would use Method A. The production volume would have been:

30 days × 10 barrels per day=300 barrels

[59 FR 34110, July 1, 1994; 59 FR 49008, Sept. 26, 1994, as amended at 65 FR 40800, June 30, 2000; 67 FR 47152, July 17, 2002]

APPENDIX E TO PART 112—DETERMINATION AND EVALUATION OF REQUIRED RESPONSE RESOURCES FOR FACILITY RESPONSE PLANS

1.0 Purpose and Definitions

1.1 The purpose of this appendix is to describe the procedures to identify response resources to meet the requirements of §112.20. To identify response resources to meet the facility response plan requirements of 40 CFR 112.20(h), owners or operators shall follow this appendix or, where not appropriate, shall clearly demonstrate in the response plan why use of this appendix is not appropriate at the facility and make comparable arrangements for response resources.

1.2 Definitions.

1.2.1 *Animal fat* means a non-petroleum oil, fat, or grease of animal, fish, or marine mammal origin. Animal fats are further classified based on specific gravity as follows:

(1) Group A—specific gravity less than 0.8.

(2) Group B—specific gravity equal to or greater than 0.8 and less than 1.0.

(3) Group C—specific gravity equal to or greater than 1.0.

1.2.2 *Nearshore* is an operating area defined as 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 12 miles from the line of demarcation (COLREG lines) defined in 49 CFR 80.740 and 80.850.

1.2.3 *Non-persistent oils* or *Group 1 oils* include:

(1) A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

(A) At least 50 percent of which by volume, distill at a temperature of 340 degrees C (645 degrees F); and

(B) At least 95 percent of which by volume, distill at a temperature of 370 degrees C (700 degrees F); and

(2) A non-petroleum oil, other than an animal fat or vegetable oil, with a specific gravity less than 0.8.

1.2.4 *Non-petroleum oil* means oil of any kind that is not petroleum-based, including but not limited to: fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

1.2.5 *Ocean* means the nearshore area.

1.2.6 *Operating area* means Rivers and Canals, Inland, Nearshore, and Great Lakes geographic location(s) in which a facility is handling, storing, or transporting oil.

1.2.7 *Operating environment* means Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the conditions in which response equipment is designed to function.

1.2.8 *Persistent oils* include:

(1) A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. Persistent oils are further classified based on specific gravity as follows:

(A) Group 2—specific gravity less than 0.85;

(B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;

(C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or

(D) Group 5—specific gravity equal to or greater than 1.0.

(2) A non-petroleum oil, other than an animal fat or vegetable oil, with a specific gravity of 0.8 or greater. These oils are further classified based on specific gravity as follows:

(A) Group 2—specific gravity equal to or greater than 0.8 and less than 0.85;

(B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;

(C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or

(D) Group 5—specific gravity equal to or greater than 1.0.

1.2.9 *Vegetable oil* means a non-petroleum oil or fat of vegetable origin, including but not limited to oils and fats derived from plant seeds, nuts, fruits, and kernels. Vegetable oils are further classified based on specific gravity as follows:

(1) Group A—specific gravity less than 0.8.

(2) Group B—specific gravity equal to or greater than 0.8 and less than 1.0.

(3) Group C—specific gravity equal to or greater than 1.0.

1.2.10 Other definitions are included in §112.2, section 1.1 of Appendix C, and section 3.0 of Appendix F.

2.0 Equipment Operability and Readiness

2.1 All equipment identified in a response plan must be designed to operate in the conditions expected in the facility's geographic area (i.e., operating environment). These conditions vary widely based on location and season. Therefore, it is difficult to identify a single stockpile of response equipment that will function effectively in each geographic location (i.e., operating area).

2.2 Facilities handling, storing, or transporting oil in more than one operating environment as indicated in Table 1 of this appendix must identify equipment capable of successfully functioning in each operating environment.

2.3 When identifying equipment for the response plan (based on the use of this appendix), a facility owner or operator must consider the inherent limitations of the operability of equipment components and response systems. The criteria in Table 1 of this appendix shall be used to evaluate the operability in a given environment. These criteria reflect the general conditions in certain operating environments.

2.3.1 The Regional Administrator may require documentation that the boom identified in a facility response plan meets the criteria in Table 1 of this appendix. Absent acceptable documentation, the Regional Administrator may require that the boom be tested to demonstrate that it meets the criteria in Table 1 of this appendix. Testing must be in accordance with ASTM F 715, ASTM F 989, or other tests approved by EPA as deemed appropriate (see Appendix E to this part, section 13, for general availability of documents).

2.4 Table 1 of this appendix lists criteria for oil recovery devices and boom. All other equipment necessary to sustain or support response operations in an operating environment must be designed to function in the same conditions. For example, boats that deploy or support skimmers or boom must be capable of being safely operated in the significant wave heights listed for the applicable operating environment.

2.5 A facility owner or operator shall refer to the applicable Area Contingency Plan (ACP), where available, to determine if ice, debris, and weather-related visibility are significant factors to evaluate the operability of equipment. The ACP may also identify the average temperature ranges expected in the facility's operating area. All equipment identified in a response plan must be designed to operate within those conditions or ranges.

2.6 This appendix provides information on response resource mobilization and response times. The distance of the facility from the storage location of the response resources must be used to determine whether the resources can arrive on-scene within the stated time. A facility owner or operator shall include the time for notification, mobilization, and travel of resources identified to meet the medium and Tier 1 worst case discharge requirements identified in sections 4.3 and 9.3 of this appendix (for medium discharges) and section 5.3 of this appendix (for worst case discharges). The facility owner or operator must plan for notification and mobilization of Tier 2 and 3 response resources as necessary to meet the requirements for arrival on-scene in accordance with section 5.3 of this appendix. An on-water speed of 5 knots and a land speed of 35 miles per hour is assumed, unless the facility owner or operator can demonstrate otherwise.

2.7 In identifying equipment, the facility owner or operator shall list the storage location, quantity, and manufacturer's make and model. For oil recovery devices, the effective daily recovery capacity, as determined using section 6 of this appendix, must be included. For boom, the overall boom height (draft and freeboard) shall be included. A facility owner or operator is responsible for ensuring that the identified boom has compatible connectors.

3.0 Determining Response Resources Required for Small Discharges—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

3.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a small discharge. A small discharge is defined as any discharge volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge. The equipment must be designed to function in the operating environment at the point of expected use.

3.2 Complexes that are regulated by EPA and the United States Coast Guard (USCG) must also consider planning quantities for the transportation-related transfer portion of the facility.

3.2.1 *Petroleum oils.* The USCG planning level that corresponds to EPA's "small discharge" is termed "the average most probable discharge." A USCG rule found at 33 CFR 154.1020 defines "the average most probable discharge" as the lesser of 50 barrels (2,100 gallons) or 1 percent of the volume of the worst case discharge. Owners or operators of complexes that handle, store, or transport petroleum oils must compare oil discharge volumes for a small discharge and an average most probable discharge, and plan for whichever quantity is greater.

3.2.2 *Non-petroleum oils other than animal fats and vegetable oils.* Owners or operators of complexes that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils must plan for oil discharge volumes for a small discharge. There is no USCG planning level that directly corresponds to EPA's "small discharge." However, the USCG (at 33 CFR 154.545) has requirements to identify equipment to contain oil resulting from an operational discharge.

3.3 The response resources shall, as appropriate, include:

3.3.1 One thousand feet of containment boom (or, for complexes with marine transfer components, 1,000 feet of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within 1 hour of the discovery of a discharge;

3.3.2 Oil recovery devices with an effective daily recovery capacityequal to the amount of oil discharged in a small discharge or greater which is available at the

facility within 2 hours of the detection of an oil discharge; and

3.3.3 Oil storage capacity for recovered oily material indicated in section 12.2 of this appendix.

4.0 Determining Response Resources Required for Medium Discharges—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

4.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of oil for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

4.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility.

4.2.1 *Petroleum oils.* The USCG planning level that corresponds to EPA's "medium discharge" is termed "the maximum most probable discharge." The USCG rule found at 33 CFR part 154 defines "the maximum most probable discharge" as a discharge of 1,200 barrels (50,400 gallons) or 10 percent of the worst case discharge, whichever is less. Owners or operators of complexes that handle, store, or transport petroleum oils must compare calculated discharge volumes for a *medium discharge and a maximum most probable discharge*, and plan for whichever quantity is greater.

4.2.2 *Non-petroleum oils other than animal fats and vegetable oils.* Owners or operators of complexes that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils must plan for oil discharge volumes for a medium discharge. For non-petroleum oils, there is no USCG planning level that directly corresponds to EPA's "medium discharge."

4.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria must be located such that they are capable of arriving on-scene within 6 hours in higher volume port areas and the Great Lakes and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in section 1.1 of Appendix C to this part.

4.4 Because rapid control, containment, and removal of oil are critical to reduce discharge impact, the owner or operator must determine response resources using an effective daily recovery capacity for oil recovery devices equal to 50 percent of the planning volume applicable for the facility as determined in section 4.1 of this appendix. The effective daily recovery capacity for oil recovery devices identified in the plan must be determined using the criteria in section 6 of this appendix.

4.5 In addition to oil recovery capacity, the plan shall, as appropriate, identify sufficient quantity of containment boom available, by contract or other approved means as described in §112.2, to arrive within the required response times for oil collection and containment and for protection of fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable ACP. Although 40 CFR part 112 does not set required quantities of boom for oil collection and containment, the response plan shall identify and ensure, by contract or other approved means as described in §112.2, the availability of the quantity of boom identified in the plan for this purpose.

4.6 The plan must indicate the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient to meet this level, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

4.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port area: The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Because 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery capacity is 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity must be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene must equal twice the daily recovery capacity as indicated in section 12.2 of this appendix, or 36,000 gallons per day. This is the information the facility owner or operator must use to identify and ensure the availability of the required response resources, by contract or other approved means as described in §112.2. The facility owner shall also identify how much boom is available for use.

5.0 Determining Response Resources Required for the Worst Case Discharge to the Maximum Extent Practicable

5.1 A facility owner or operator shall identify and ensure the availability of, by

contract or other approved means as described in §112.2, sufficient response resources to respond to the worst case discharge of oil to the maximum extent practicable. Sections 7 and 10 of this appendix describe the method to determine the necessary response resources. Worksheets are provided as Attachments E–1 and E–2 at the end of this appendix to simplify the procedures involved in calculating the planning volume for response resources for the worst case discharge.

5.1 A facility owner or operator shall identify and ensure the availability of, by contract or other approved means as described in §112.2, sufficient response resources to respond to the worst case discharge of oil to the maximum extent practicable. Sections 7 and 10 of this appendix describe the method to determine the necessary response resources. Worksheets are provided as Attachments E–1 and E–2 at the end of this appendix to simplify the procedures involved in calculating the planning volume for response resources for the worst case discharge.

5.2 Complexes that are regulated by EPA and the USCG must also consider planning for the worst case discharge at the transportation-related portion of the facility. The USCG requires that transportation-related facility owners or operators use a different calculation for the worst case discharge in the revisions to 33 CFR part 154. Owners or operators of complex facilities that are regulated by EPA and the USCG must compare both calculations of worst case discharge derived by EPA and the USCG and plan for whichever volume is greater.

5.3 Oil discharge response resources identified in the response plan and available, by contract or other approved means as described in §112.2, to meet the applicable worst case discharge planning volume must be located such that they are capable of arriving at the scene of a discharge within the times specified for the applicable response tier listed as follows

	Tier 1 (in hours)	Tier 2 (in hours)	Tier 3 (in hours)
Higher volume port areas	6	30	54
Great Lakes	12	36	60
All other river and canal, inland, and nearshore areas	12	36	60

The three levels of response tiers apply to the amount of time in which facility owners or operators must plan for response resources to arrive at the scene of a discharge to respond to the worst case discharge planning volume. For example, at a worst case discharge in an inland area, the first tier of response resources (i.e., that amount of on-water and shoreline cleanup capacity necessary to respond to the fraction of the worst case discharge as indicated through the series of steps described in sections 7.2 and 7.3 or sections 10.2 and 10.3 of this appendix) would arrive at the scene of the discharge within 12 hours; the second tier of response resources would arrive within 36 hours; and the third tier of response resources would arrive within 60 hours.

5.4 The effective daily recovery capacity for oil recovery devices identified in the response plan must be determined using the criteria in section 6 of this appendix. A facility owner or operator shall identify the storage locations of all response resources used for each tier. The owner or operator of a facility whose required daily recovery capacity exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment, their location, and the arrangements made to obtain this equipment during a response. The owner or operator of a facility whose calculated planning volume exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment equal to twice the cap listed in Tier 3 or the amount necessary to reach the calculated planning volume, whichever is lower. The resources identified above the cap shall be capable of arriving on-scene not later than the Tier 3 response times in section 5.3 of this appendix. No contract is required. While general listings of available response equipment may be used to identify additional sources (i.e., "public" resources vs. "private" resources), the response plan shall identify the specific sources, locations, and quantities of equipment that a facility owner or operator has considered in his or her planning. When listing USCG-classified oil spill removal organization(s) that have sufficient removal capacity to recover the volume above the response capacity cap for the specific facility, as specified in Table 5 of this appendix, it is not necessary to list specific quantities of equipment.

5.5 A facility owner or operator shall identify the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

5.6 When selecting response resources necessary to meet the response plan requirements, the facility owner or operator shall, as appropriate, ensure that a portion of

those resources is capable of being used in close-to-shore response activities in shallow water. For any EPA-regulated facility that is required to plan for response in shallow water, at least 20 percent of the on-water response equipment identified for the applicable operating area shall, as appropriate, be capable of operating in water of 6 feet or less depth.

5.7 In addition to oil spill recovery devices, a facility owner or operator shall identify sufficient quantities of boom that are available, by contract or other approved means as described in §112.2, to arrive on-scene within the specified response times for oil containment and collection. The specific quantity of boom required for collection and containment will depend on the facility-specific information and response strategies employed. A facility owner or operator shall, as appropriate, also identify sufficient quantities of oil containment boom to protect fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability), and the applicable ACP. Refer to this guidance document for the number of days and geographic areas (*i.e.*, operating environments) specified in Table 2 and Table 6 of this appendix.

5.8 A facility owner or operator shall also identify, by contract or other approved means as described in §112.2, the availability of an oil spill removal organization(s) (as described in §112.2) capable of responding to a shoreline cleanup operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline. The volume of oil that shall, as appropriate, be planned for is calculated through the application of factors contained in Tables 2, 3, 6, and 7 of this appendix. The volume calculated from these tables is intended to assist the facility owner or operator to identify an oil spill removal organization with sufficient resources and expertise.

6.0 Determining Effective Daily Recovery Capacity for Oil Recovery Devices

6.1 Oil recovery devices identified by a facility owner or operator must be identified by the manufacturer, model, and effective daily recovery capacity. These capacities must be used to determine whether there is sufficient capacity to meet the applicable planning criteria for a small discharge, a medium discharge, and a worst case discharge to the maximum extent practicable.

6.2 To determine the effective daily recovery capacity of oil recovery devices, the formula listed in section 6.2.1 of this appendix shall be used. This formula considers potential limitations due to available daylight, weather, sea state, and percentage of emulsified oil in the recovered material. The RA may assign a lower efficiency factor to equipment listed in a response plan if it is determined that such a reduction is warranted.

6.2.1 The following formula shall be used to calculate the effective daily recovery capacity:

$R = T \times 24 \text{ hours} \times E$

where:

R—Effective daily recovery capacity;
T—Throughput rate in barrels per hour (nameplate capacity); and
E—20 percent efficiency factor (or lower factor as determined by the Regional Administrator).

6.2.2 For those devices in which the pump limits the throughput of liquid, throughput rate shall be calculated using the pump capacity.

6.2.3 For belt or moptype devices, the throughput rate shall be calculated using the speed of the belt or mop through the device, assumed thickness of oil adhering to or collected by the device, and surface area of the belt or mop. For purposes of this calculation, the assumed thickness of oil will be ¼ inch.

6.2.4 Facility owners or operators that include oil recovery devices whose throughput is not measurable using a pump capacity or belt/mop speed may provide information to support an alternative method of calculation. This information must be submitted following the procedures in section 6.3.2 of this appendix.

6.3 As an alternative to section 6.2 of this appendix, a facility owner or operator may submit adequate evidence that a different effective daily recovery capacity should be applied for a specific oil recovery device. Adequate evidence is actual verified performance data in discharge conditions or tests using American Society of Testing and Materials (ASTM) Standard F 631–89, F 808–83 (1999), or an equivalent test approved by EPA as deemed appropriate (see Appendix E to this part, section 13, for general availability of documents).

6.3.1 The following formula must be used to calculate the effective daily recovery capacity under this alternative:

$R = D \times U$

where:

R—Effective daily recovery capacity;
D—Average Oil Recovery Rate in barrels per hour (Item 28 in F 808–83; Item 13.2.16 in F 631–89; or actual performance data); and
U—Hours per day that equipment can operate under discharge conditions. Ten hours per day must be used unless a facility owner or operator can demonstrate that the recovery operation can be sustained for longer periods.

6.3.2 A facility owner or operator submitting a response plan shall provide data that supports the effective daily recovery capacities for the oil recovery devices listed. The following is an example of these calculations:

(1) A weir skimmer identified in a response plan has a manufacturer's rated throughput at the pump of 267 gallons per minute (gpm).

267 gpm=381 barrels per hour (bph)
R=381 bph×24 hr/day×0.2=1,829 barrels per day

(2) After testing using ASTM procedures, the skimmer's oil recovery rate is determined to be 220 gpm. The facility owner or operator identifies sufficient resources available to support operations for 12 hours per day.

220 gpm=314 bph
R=314 bph×12 hr/day=3,768 barrels per day

(3) The facility owner or operator will be able to use the higher capacity if sufficient temporary oil storage capacity is available. Determination of alternative efficiency factors under section 6.2 of this appendix or the acceptability of an alternative effective daily recovery capacity under section 6.3 of this appendix will be made by the Regional Administrator as deemed appropriate.

7.0 Calculating Planning Volumes for a Worst Case Discharge—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

7.1 A facility owner or operator shall plan for a response to the facility's worst case discharge. The planning for on-water oil recovery must take into account a loss of some oil to the environment due to evaporative and natural dissipation, potential increases in volume due to emulsification, and the potential for deposition of oil on the shoreline. The procedures for non-petroleum oils other than animal fats and vegetable oils are discussed in section 7.7 of this appendix.

7.2 The following procedures must be used by a facility owner or operator in determining the required on-water oil recovery capacity:

7.2.1 The following must be determined: the worst case discharge volume of oil in the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility (persistent (Groups 2, 3, 4, 5) or non-persistent (Group 1)); and the facility's specific operating area. See sections 1.2.3 and 1.2.8 of this appendix for the definitions of non-persistent and persistent oils, respectively. Facilities that handle, store, or transport oil from different oil groups must calculate each group separately, unless the oil group constitutes 10 percent or less by volume of the facility's total oil storage capacity. This information is to be used with Table 2 of this appendix to determine the percentages of the total volume to be used for removal capacity planning. Table 2 of this appendix divides the volume into three categories: oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

7.2.2 The on-water oil recovery volume shall, as appropriate, be adjusted using the appropriate emulsification factor found in Table 3 of this appendix. Facilities that handle, store, or transport oil from different petroleum groups must compare the on-water recovery volume for each oil group (unless the oil group constitutes 10 percent or less by volume of the facility's total storage capacity) and use the calculation that results in the largest on-water oil recovery volume to plan for the amount of response resources for a worst case discharge.

7.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4 of this appendix from the appropriate operating area and response tier to determine the total on-water oil recovery capacity in barrels per day that must be identified or contracted to arrive on-scene within the applicable time for each response tier. Three tiers are specified. For higher volume port areas, the contracted tiers of resources must be located such that they are capable of arriving on-scene within 6 hours for Tier 1, 30 hours for Tier 2, and 54 hours for Tier 3 of the discovery of an oil discharge. For all other rivers and canals, inland, nearshore areas, and the Great Lakes, these tiers are 12, 36, and 60 hours.

7.2.4 The resulting on-water oil recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable operating area. The equipment shall be capable of sustaining operations for the time period specified in Table 2 of this appendix. The facility owner or operator shall identify and ensure the availability, by contract or other approved means as described in §112.2, of sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5 of this appendix, then a facility owner or operator shall ensure, by contract or other approved means as described in §112.2, only for the quantity of resources required to meet the cap, but shall identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeded the cap in 1993 must make arrangements to identify and ensure the availability, by contract or other approved means as described in §112.2, for additional capacity to be under contract by 1998 or 2003, as appropriate. For a facility that handles multiple groups of oil, the required effective daily recovery capacity for each oil group is calculated before applying the cap. The oil group calculation resulting in the largest on-water recovery volume

must be used to plan for the amount of response resources for a worst case discharge, unless the oil group comprises 10 percent or less by volume of the facility's total oil storage capacity.

7.3 The procedures discussed in sections 7.3.1–7.3.3 of this appendix must be used to calculate the planning volume for identifying shoreline cleanup capacity (for Group 1 through Group 4 oils).

7.3.1 The following must be determined: the worst case discharge volume of oil for the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility [persistent (Groups 2, 3, or 4) or non-persistent (Group 1)]; and the geographic area(s) in which the facility operates (*i.e.*, operating areas). For a facility handling, storing, or transporting oil from different groups, each group must be calculated separately. Using this information, Table 2 of this appendix must be used to determine the percentages of the total volume to be used for shoreline cleanup resource planning.

7.3.2 The shoreline cleanup planning volume must be adjusted to reflect an emulsification factor using the same procedure as described in section 7.2.2 of this appendix.

7.3.3 The resulting volume shall be used to identify an oil spill removal organization with the appropriate shoreline cleanup capability.

7.4 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 1 through Group 4 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for Group 1 through Group 4 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

7.5 The following is an example of the procedure described above in sections 7.2 and 7.3 of this appendix: A facility with a 270,000 barrel (11.3 million gallons) capacity for #6 oil (specific gravity 0.96) is located in a higher volume port area. The facility is on a peninsula and has docks on both the ocean and bay sides. The facility has four aboveground oil storage tanks with a combined total capacity of 80,000 barrels (3.36 million gallons) and no secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground oil storage tank (90,000 barrels or 3.78 million gallons) has its own secondary containment. Two 50,000 barrel (2.1 million gallon) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 100,000 barrels (4.2 million gallons) plus sufficient freeboard.

7.5.1 The worst case discharge for the facility is calculated by adding the capacity of all aboveground oil storage tanks without secondary containment (80,000 barrels) plus the capacity of the largest aboveground oil storage tank inside secondary containment. The resulting worst case discharge volume is 170,000 barrels or 7.14 million gallons.

7.5.2 Because the requirements for Tiers 1, 2, and 3 for inland and nearshore exceed the caps identified in Table 5 of this appendix, the facility owner will contract for a response to 10,000 barrels per day (bpd) for Tier 1, 20,000 bpd for Tier 2, and 40,000 bpd for Tier 3. Resources for the remaining 7,850 bpd for Tier 1, 9,750 bpd for Tier 2, and 7,600 bpd for Tier 3 shall be identified but need not be contracted for in advance. The facility owner or operator shall, as appropriate, also identify or contract for quantities of boom identified in their response plan for the protection of fish and wildlife and sensitive environments within the area potentially impacted by a worst case discharge from the facility. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments," (see Appendix E to this part, section 13, for availability) and the applicable ACP. Attachment C–III to Appendix C provides a method for calculating a planning distance to fish and wildlife and sensitive environments and public drinking water intakes that may be impacted in the event of a worst case discharge.

7.6 The procedures discussed in sections 7.6.1–7.6.3 of this appendix must be used to determine appropriate response resources for facilities with Group 5 oils.

7.6.1 The owner or operator of a facility that handles, stores, or transports Group 5 oils shall, as appropriate, identify the response resources available by contract or other approved means, as described in §112.2. The equipment identified in a response plan shall, as appropriate, include:

(1) Sonar, sampling equipment, or other methods for locating the oil on the bottom or suspended in the water column;

(2) Containment boom, sorbent boom, silt curtains, or other methods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(3) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(4) Equipment necessary to assess the impact of such discharges; and

(5) Other appropriate equipment necessary to respond to a discharge involving the type of oil handled, stored,, or transported.

7.6.2 Response resources identified in a response plan for a facility that handles, stores, or transports Group 5 oils under section 7.6.1 of this appendix shall be capable of being deployed (on site) within 24 hours of discovery of a discharge to the area where the facility is operating.

7.6.3 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 5 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for Group 5 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

7.7 *Non-petroleum oils other than animal fats and vegetable oils.* The procedures described in sections 7.7.1 through 7.7.5 of this appendix must be used to determine appropriate response plan development and evaluation criteria for facilities that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils. Refer to section 11 of this appendix for information on the limitations on the use of chemical agents for inland and nearshore areas.

7.7.1 An owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must provide information in his or her plan that identifies:

(1) Procedures and strategies for responding to a worst case discharge to the maximum extent practicable; and

(2) Sources of the equipment and supplies necessary to locate, recover, and mitigate such a discharge.

7.7.2 An owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must ensure that any equipment identified in a response plan is capable of operating in the conditions expected in the geographic area(s) (*i.e.*, operating environments) in which the facility operates using the criteria in Table 1 of this appendix. When evaluating the operability of equipment, the facility owner or operator must consider limitations that are identified in the appropriate ACPs, including:

(1) Ice conditions;

(2) Debris;

(3) Temperature ranges; and

(4) Weather-related visibility.

7.7.3 The owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must identify the response resources that are available by contract or other approved means, as described in §112.2. The equipment described in the response plan shall, as appropriate, include:

(1) Containment boom, sorbent boom, or other methods for containing oil floating on the surface or to protect shorelines from impact;

(2) Oil recovery devices appropriate for the type of non-petroleum oil carried; and

(3) Other appropriate equipment necessary to respond to a discharge involving the type of oil carried.

7.7.4 Response resources identified in a response plan according to section 7.7.3 of this appendix must be capable of commencing an effective on-scene response within the applicable tier response times in section 5.3 of this appendix.

7.7.5 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for fires of these oils. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

8.0 Determining Response Resources Required for Small Discharges—Animal Fats and Vegetable Oils

8.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a small discharge of animal fats or vegetable oils. A small discharge is defined as any discharge volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge. The equipment must be designed to function in the operating environment at the point of expected use.

8.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the marine transportation-related portion of the facility.

8.2.1 The USCG planning level that corresponds to EPA's "small discharge" is termed "the average most probable discharge." A USCG rule found at 33 CFR 154.1020 defines "the average most probable discharge" as the lesser of 50 barrels (2,100 gallons) or 1 percent of the volume of the worst case discharge. Owners or operators of complexes that handle, store, or transport animal fats and vegetable oils must compare oil discharge volumes for a small discharge and an average most probable discharge, and plan for whichever quantity is greater.

8.3 The response resources shall, as appropriate, include:

8.3.1 One thousand feet of containment boom (or, for complexes with marine transfer components, 1,000 feet of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within 1 hour of the discovery of a discharge;

8.3.2 Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a small discharge or greater which is available at the facility within 2 hours of the detection of a discharge; and

8.3.3 Oil storage capacity for recovered oily material indicated in section 12.2 of this appendix.

9.0 Determining Response Resources Required for Medium Discharges—Animal Fats and Vegetable Oils

9.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of animal fats or vegetable oils for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

9.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility. Owners or operators of complexes that handle, store, or transport animal fats or vegetable oils must plan for oil discharge volumes for a medium discharge. For non-petroleum oils, there is no USCG planning level that directly corresponds to EPA's "medium discharge." Although the USCG does not have planning requirements for medium discharges, they do have requirements (at 33 CFR 154.545) to identify equipment to contain oil resulting from an operational discharge.

9.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria must be located such that they are capable of arriving on-scene within 6 hours in higher volume port areas and the Great Lakes and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in section 1.1 of Appendix C to this part.

9.4 Because rapid control, containment, and removal of oil are critical to reduce discharge impact, the owner or operator must determine response resources using an effective daily recovery capacity for oil recovery devices equal to 50 percent of the planning volume applicable for the facility as determined in section 9.1 of this appendix. The effective daily recovery capacity for oil recovery devices identified in the plan must be determined using the criteria in section 6 of this appendix.

9.5 In addition to oil recovery capacity, the plan shall, as appropriate, identify sufficient quantity of containment boom available, by contract or other approved means as described in §112.2, to arrive within the required response times for oil collection and containment and for protection of fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713-22, March 29, 1994) and the applicable ACP. Although 40 CFR part 112 does not set required quantities of boom for oil collection and containment, the response plan shall identify and ensure, by contract or other approved means as described in §112.2, the availability of the quantity of boom identified in the plan for this purpose.

9.6 The plan must indicate the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient to meet this level, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

9.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port area:

The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Because 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery capacity is 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity must be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene must equal twice the

daily recovery capacity as indicated in section 12.2 of this appendix, or 36,000 gallons per day. This is the information the facility owner or operator must use to identify and ensure the availability of the required response resources, by contract or other approved means as described in §112.2. The facility owner shall also identify how much boom is available for use.

10.0 Calculating Planning Volumes for a Worst Case Discharge—Animal Fats and Vegetable Oils.

10.1 A facility owner or operator shall plan for a response to the facility's worst case discharge. The planning for on-water oil recovery must take into account a loss of some oil to the environment due to physical, chemical, and biological processes, potential increases in volume due to emulsification, and the potential for deposition of oil on the shoreline or on sediments. The response planning procedures for animal fats and vegetable oils are discussed in section 10.7 of this appendix. You may use alternate response planning procedures for animal fats and vegetable oils if those procedures result in environmental protection equivalent to that provided by the procedures in section 10.7 of this appendix.

10.2 The following procedures must be used by a facility owner or operator in determining the required on-water oil recovery capacity:

10.2.1 The following must be determined: the worst case discharge volume of oil in the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility (Groups A, B, C); and the facility's specific operating area. See sections 1.2.1 and 1.2.9 of this appendix for the definitions of animal fats and vegetable oils and groups thereof. Facilities that handle, store, or transport oil from different oil groups must calculate each group separately, unless the oil group constitutes 10 percent or less by volume of the facility's total oil storage capacity. This information is to be used with Table 6 of this appendix to determine the percentages of the total volume to be used for removal capacity planning. Table 6 of this appendix divides the volume into three categories: oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

10.2.2 The on-water oil recovery volume shall, as appropriate, be adjusted using the appropriate emulsification factor found in Table 7 of this appendix. Facilities that handle, store, or transport oil from different groups must compare the on-water recovery volume for each oil group (unless the oil group constitutes 10 percent or less by volume of the facility's total storage capacity) and use the calculation that results in the largest on-water oil recovery volume to plan for the amount of response resources for a worst case discharge.

10.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4 of this appendix from the appropriate operating area and response tier to determine the total on-water oil recovery capacity in barrels per day that must be identified or contracted to arrive on-scene within the applicable time for each response tier. Three tiers are specified. For higher volume port areas, the contracted tiers of resources must be located such that they are capable of arriving on-scene within 6 hours for Tier 1, 30 hours for Tier 2, and 54 hours for Tier 3 of the discovery of a discharge. For all other rivers and canals, inland, nearshore areas, and the Great Lakes, these tiers are 12, 36, and 60 hours.

10.2.4 The resulting on-water oil recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable operating area. The equipment shall be capable of sustaining operations for the time period specified in Table 8 of this appendix. The facility owner or operator shall identify and ensure, by contract or other approved means as described in §112.2, the availability of sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5 of this appendix, then a facility owner or operator shall ensure, by contract or other approved means as described in §112.2, only for the quantity of resources required to meet the cap, but shall identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeded the cap in 1998 must make arrangements to identify and ensure, by contract or other approved means as described in §112.2, the availability of additional capacity to be under contract by 2003, as appropriate. For a facility that handles multiple groups of oil, the required effective daily recovery capacity for each oil group is calculated before applying the cap. The oil group calculation resulting in the largest on-water recovery volume must be used to plan for the amount of response resources for a worst case discharge, unless the oil group comprises 10 percent or less by volume of the facility's oil storage capacity.

10.3 The procedures discussed in sections 10.3.1 through 10.3.3 of this appendix must be used to calculate the planning volume for identifying shoreline cleanup capacity (for Groups A and B oils).

10.3.1 The following must be determined: the worst case discharge volume of oil for the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility (Groups A or B); and the geographic area(s) in which the facility operates

(i.e., operating areas). For a facility handling, storing, or transporting oil from different groups, each group must be calculated separately. Using this information, Table 6 of this appendix must be used to determine the percentages of the total volume to be used for shoreline cleanup resource planning.

10.3.2 The shoreline cleanup planning volume must be adjusted to reflect an emulsification factor using the same procedure as described in section 10.2.2 of this appendix.

10.3.3 The resulting volume shall be used to identify an oil spill removal organization with the appropriate shoreline cleanup capability.

10.4 A response plan must identify response resources with fire fighting capability appropriate for the risk of fire and explosion at the facility from the discharge or threat of discharge of oil. The owner or operator of a facility that handles, stores, or transports Group A or B oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual to work with the fire department for Group A or B oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

10.5 The following is an example of the procedure described in sections 10.2 and 10.3 of this appendix. A facility with a 37.04 million gallon (881,904 barrel) capacity of several types of vegetable oils is located in the Inland Operating Area. The vegetable oil with the highest specific gravity stored at the facility is soybean oil (specific gravity 0.922, Group B vegetable oil). The facility has ten aboveground oil storage tanks with a combined total capacity of 18 million gallons (428,571 barrels) and without secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground oil storage tank (3 million gallons or 71,428 barrels) has its own secondary containment. Two 2.1 million gallon (50,000 barrel) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 4.2 million gallons (100,000 barrels) plus sufficient freeboard.

10.5.1 The worst case discharge for the facility is calculated by adding the capacity of all aboveground vegetable oil storage tanks without secondary containment (18.0 million gallons) plus the capacity of the largest aboveground storage tank inside secondary containment (3.0 million gallons). The resulting worst case discharge is 21 million gallons or 500,000 barrels.

10.5.2 With a specific worst case discharge identified, the planning volume for on-water recovery can be identified as follows:

Worst case discharge: 21 million gallons (500,000 barrels) of Group B vegetable oil

Operating Area: Inland

Planned percent recovered floating vegetable oil (from Table 6, column Nearshore/Inland/Great Lakes): Inland, Group B is 20%

Emulsion factor (from Table 7): 2.0

Planning volumes for on-water recovery: 21,000,000 gallons × 0.2 × 2.0 = 8,400,000 gallons or 200,000 barrels.

Determine required resources for on-water recovery for each of the three tiers using mobilization factors (from Table 4, column Inland/Nearshore/Great Lakes)

Inland Operating Area	Tier 1	Tier 2	Tier 3
Mobilization factor by which you multiply planning volume	.15	.25	.40
Estimated Daily Recovery Capacity (bbls)	30,000	50,000	80,000

10.5.3 Because the requirements for On-Water Recovery Resources for Tiers 1, 2, and 3 for Inland Operating Area exceed the caps identified in Table 5 of this appendix, the facility owner will contract for a response of 12,500 barrels per day (bpd) for Tier 1, 25,000 bpd for Tier 2, and 50,000 bpd for Tier 3. Resources for the remaining 17,500 bpd for Tier 1, 25,000 bpd for Tier 2, and 30,000 bpd for Tier 3 shall be identified but need not be contracted for in advance.

10.5.4 With the specific worst case discharge identified, the planning volume of onshore recovery can be identified as follows:

Worst case discharge: 21 million gallons (500,000 barrels) of Group B vegetable oil

Operating Area: Inland

Planned percent recovered floating vegetable oil from onshore (from Table 6, column Nearshore/Inland/Great Lakes): Inland, Group B is 65%

Emulsion factor (from Table 7): 2.0

Planning volumes for shoreline recovery:

21,000,000 gallons × 0.65 × 2.0 = 27,300,000 gallons or 650,000 barrels

10.5.5 The facility owner or operator shall, as appropriate, also identify or contract for quantities of boom identified in the response plan for the protection of fish and wildlife

and sensitive environments within the area potentially impacted by a worst case discharge from the facility. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments," (see Appendix E to this part, section 13, for availability) and the applicable ACP. Attachment C-III to Appendix C provides a method for calculating a planning distance to fish and wildlife and sensitive environments and public drinking water intakes that may be adversely affected in the event of a worst case discharge.

10.6 The procedures discussed in sections 10.6.1 through 10.6.3 of this appendix must be used to determine appropriate response resources for facilities with Group C oils.

10.6.1 The owner or operator of a facility that handles, stores, or transports Group C oils shall, as appropriate, identify the response resources available by contract or other approved means, as described in §112.2. The equipment identified in a response plan shall, as appropriate, include:

(1) Sonar, sampling equipment, or other methods for locating the oil on the bottom or suspended in the water column;

(2) Containment boom, sorbent boom, silt curtains, or other methods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(3) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(4) Equipment necessary to assess the impact of such discharges; and

(5) Other appropriate equipment necessary to respond to a discharge involving the type of oil handled, stored, or transported.

10.6.2 Response resources identified in a response plan for a facility that handles, stores, or transports Group C oils under section 10.6.1 of this appendix shall be capable of being deployed on scene within 24 hours of discovery of a discharge.

10.6.3 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group C oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for Group C oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

10.7 The procedures described in sections 10.7.1 through 10.7.5 of this appendix must be used to determine appropriate response plan development and evaluation criteria for facilities that handle, store, or transport animal fats and vegetable oils. Refer to section 11 of this appendix for information on the limitations on the use of chemical agents for inland and nearshore areas.

10.7.1 An owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must provide information in the response plan that identifies:

(1) Procedures and strategies for responding to a worst case discharge of animal fats and vegetable oils to the maximum extent practicable; and

(2) Sources of the equipment and supplies necessary to locate, recover, and mitigate such a discharge.

10.7.2 An owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must ensure that any equipment identified in a response plan is capable of operating in the geographic area(s) (*i.e.*, operating environments) in which the facility operates using the criteria in Table 1 of this appendix. When evaluating the operability of equipment, the facility owner or operator must consider limitations that are identified in the appropriate ACPs, including:

(1) Ice conditions;

(2) Debris;

(3) Temperature ranges; and

(4) Weather-related visibility.

10.7.3. The owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must identify the response resources that are available by contract or other approved means, as described in §112.2. The equipment described in the response plan shall, as appropriate, include:

(1) Containment boom, sorbent boom, or other methods for containing oil floating on the surface or to protect shorelines from impact;

(2) Oil recovery devices appropriate for the type of animal fat or vegetable oil carried; and

(3) Other appropriate equipment necessary to respond to a discharge involving the type of oil carried.

10.7.4 Response resources identified in a response plan according to section 10.7.3 of this appendix must be capable of commencing an effective on-scene response within the applicable tier response times in section 5.3 of this appendix.

10.7.5 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils that does not have adequate fire fighting resources located at

the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for animal fat and vegetable oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

11.0 Determining the Availability of Alternative Response Methods

11.1 For chemical agents to be identified in a response plan, they must be on the NCP Product Schedule that is maintained by EPA. (Some States have a list of approved dispersants for use within State waters. Not all of these State-approved dispersants are listed on the NCP Product Schedule.)

11.2 Identification of chemical agents in the plan does not imply that their use will be authorized. Actual authorization will be governed by the provisions of the NCP and the applicable ACP.

12.0 Additional Equipment Necessary to Sustain Response Operations

12.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of animal fats or vegetables oils for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

12.2 A facility owner or operator shall evaluate the availability of adequate temporary storage capacity to sustain the effective daily recovery capacities from equipment identified in the plan. Because of the inefficiencies of oil spill recovery devices, response plans must identify daily storage capacity equivalent to twice the effective daily recovery capacity required on-scene. This temporary storage capacity may be reduced if a facility owner or operator can demonstrate by waste stream analysis that the efficiencies of the oil recovery devices, ability to decant waste, or the availability of alternative temporary storage or disposal locations will reduce the overall volume of oily material storage.

12.3 A facility owner or operator shall ensure that response planning includes the capability to arrange for disposal of recovered oil products. Specific disposal procedures will be addressed in the applicable ACP.

13.0 References and Availability

13.1 All materials listed in this section are part of EPA's rulemaking docket and are located in the Superfund Docket, 1235 Jefferson Davis Highway, Crystal Gateway 1, Arlington, Virginia 22202, Suite 105 (Docket Numbers SPCC-2P, SPCC-3P, and SPCC-9P). The docket is available for inspection between 8 a.m. and 4 p.m., Monday through Friday, excluding Federal holidays.

Appointments to review the docket can be made by calling 703-603-9232. Docket hours are subject to change. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services.

13.2 The docket will mail copies of materials to requestors who are outside the Washington, DC metropolitan area. Materials may be available from other sources, as noted in this section. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services. The RCRA/Superfund Hotline at 800-424-9346 may also provide additional information on where to obtain documents. To contact the RCRA/Superfund Hotline in the Washington, DC metropolitan area, dial 703-412-9810. The Telecommunications Device for the Deaf (TDD) Hotline number is 800-553-7672, or, in the Washington, DC metropolitan area, 703-412-3323.

13.3 Documents

(1) National Preparedness for Response Exercise Program (PREP). The PREP draft guidelines are available from United States Coast Guard Headquarters (G-MEP-4), 2100 Second Street, SW., Washington, DC 20593. (See 58 FR 53990-91, October 19, 1993, Notice of Availability of PREP Guidelines).

(2) "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments (published in the Federal Register by DOC/NOAA at 59 FR 14713-22, March 29, 1994.). The guidance is available in the Superfund Docket (see sections 13.1 and 13.2 of this appendix).

(3) ASTM Standards. ASTM F 715, ASTM F 889, ASTM F 631-89, ASTM F 808-83 (1989). The ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(4) Response Plans for Marine Transportation-Related Facilities, Interim Final Rule. Published by USCG, DOT at 58 FR 7330-76, February 5, 1993.

TABLE 1 TO APPENDIX E—RESPONSE RESOURCE OPERATING CRITERIA

Oil Recovery Devices		
Operating environment	Significant wave height[1]	Sea state
Rivers and Canals	≤ 1 foot	1
Inland	≤ 3 feet	2
Great Lakes	≤ 4 feet	2–3
Ocean	≤ 6 feet	3–4

Boom				
Boom property	Use			
	Rivers and canals	Inland	Great Lakes	Ocean
Significant Wave Height[1]	≤1	≤3	≤4	≤6
Sea State	1	2	2–3	3–4
Boom height—inches (draft plus freeboard)	6–18	18–42	18–42	≥42
Reserve Buoyancy to Weight Ratio	2:1	2:1	2:1	3:1 to 4:1
Total Tensile Strength—pounds	4,500	15,000–20,000.	15,000–20,000.	≥20,000
Skirt Fabric Tensile Strength—pounds	200	300	300	500
Skirt Fabric Tear Strength—pounds	100	100	100	125

[1] Oil recovery devices and boom *shall* be at least capable of operating in wave heights up to and including the values listed in Table 1 for each operating environment.

TABLE 2 TO APPENDIX E—REMOVAL CAPACITY PLANNING TABLE FOR PETROLEUM OILS

Spill location	Rivers and canals			Nearshore/Inland/Great Lakes		
Sustainability of on-water oil recovery	3 days			4 days		
Oil group[1]	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore
1—Non-persistent oils	80	10	10	80	20	10
2—Light crudes	40	15	45	50	50	30
3—Medium crudes and fuels	20	15	65	30	50	50
4—Heavy crudes and fuels	5	20	75	10	50	70

[1] The response resource considerations for non-petroleum oils other than animal fats and vegetable oils are outlined in section 7.7 of this appendix.

Note: Group 5 oils are defined in section 1.2.8 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.

TABLE 3 TO APPENDIX E—EMULSIFICATION FACTORS FOR PETROLEUM OIL GROUPS[1]

Non-Persistent Oil:	
Group 1	1.0
Persistent Oil:	
Group 2	1.8
Group 3	2.0
Group 4	1.4

Group 5 oils are defined in section 1.2.7 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.

[1] See sections 1.2.2 and 1.2.7 of this appendix for group designations for non-persistent and persistent oils, respectively.

TABLE 4 TO APPENDIX E—ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

Operating area	Tier 1	Tier 2	Tier 3
Rivers and Canals	0.30	0.40	0.60
Inland/Nearshore Great Lakes	0.15	0.25	0.40

Note: These mobilization factors are for total resources mobilized, not incremental response resources.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA

	Tier 1	Tier 2	Tier 3
February 18, 1993:			
All except Rivers & Canals, Great Lakes	10K bbls/day	20K bbls/day	40K bbls/day.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA—Continued

	Tier 1	Tier 2	Tier 3
Great Lakes	5K bbls/day	10K bbls/day	20K bbls/day.
Rivers & Canals	1.5K bbls/day	3.0K bbls/day	6.0K bbls/day.
February 18, 1998:			
All except Rivers & Canals, Great Lakes	12.5K bbls/day	25K bbls/day	50K bbls/day.
Great Lakes	6.35K bbls/day	12.3K bbls/day	25K bbls/day.
Rivers & Canals	1.875K bbls/day	3.75K bbls/day	7.5K bbls/day.
February 18, 2003:			
All except Rivers & Canals, Great Lakes	TBD	TBD	TBD.
Great Lakes	TBD	TBD	TBD.
Rivers & Canals	TBD	TBD	TBD.

Note: The caps show cumulative overall effective daily recovery capacity, not incremental increases.
TBD=To Be Determined.

TABLE 6 TO APPENDIX E—REMOVAL CAPACITY PLANNING TABLE FOR ANIMAL FATS AND VEGETABLE OILS

Spill location	Rivers and canals			Nearshore/Inland/Great Lakes		
Sustainability of on-water oil recovery	3 days			4 days		
Oil group [1]	Percent natural loss	Percent recovered floating oil	Percent recovered oil from onshore	Percent natural loss	Percent recovered floating oil	Percent recovered oil from onshore
Group A	40	15	45	50	20	30
Group B	20	15	65	30	20	50

[1] Substances with a specific gravity greater than 1.0 generally sink below the surface of the water. Response resource considerations are outlined in section 10.6 of this appendix. The owner or operator of the facility is responsible for determining appropriate response resources for Group C oils including locating oil on the bottom or suspended in the water column; containment boom or other appropriate methods for containing oil that may remain floating on the surface; and dredges, pumps, or other equipment to recover animal fats or vegetable oils from the bottom and shoreline.

Note: Group C oils are defined in sections 1.2.1 and 1.2.9 of this appendix; the response resource procedures are discussed in section 10.6 of this appendix.

TABLE 7 TO APPENDIX E—EMULSIFICATION FACTORS FOR ANIMAL FATS AND VEGETABLE OILS

Oil Group [1]:	
Group A	1.0
Group B	2.0

[1] Substances with a specific gravity greater than 1.0 generally sink below the surface of the water. Response resource considerations are outlined in section 10.6 of this appendix. The owner or operator of the facility is responsible for determining appropriate response resources for Group C oils including locating oil on the bottom or suspended in the water column; containment boom or other appropriate methods for containing oil that may remain floating on the surface; and dredges, pumps, or other equipment to recover animal fats or vegetable oils from the bottom and shoreline.

Note: Group C oils are defined in sections 1.2.1 and 1.2.9 of this appendix; the response resource procedures are discussed in section 10.6 of this appendix.

ATTACHMENTS TO APPENDIX E

Attachment E-1 --
Worksheet to Plan Volume of Response Resources for Worst Case Discharge - Petroleum Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) [ ] (A)

Step (B) Oil Group[1] (Table 3 and section 1.2 of this appendix) . [ ]

Step (C) Operating Area (choose one) . . . . [ ] Near shore/Inland Great Lakes [ ] or Rivers and Canals

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

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
[ ] (D1)	[ ] (D2)	[ ] (D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ [ ] (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ . . . . [ ] (E2)

Step (F) Emulsification Factor (Table 3 of this appendix) . . . . . [ ] (F)

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

Tier 1	Tier 2	Tier 3
[ ] (G1)	[ ] (G2)	[ ] (G3)

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

Attachment E-1 (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

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

Tier 1	Tier 2	Tier 3
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) . . . . . [ ]
Step (E2) x Step (F)

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

Tier 1	Tier 2	Tier 3
(J1)	(J2)	(J3)

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

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

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

Attachment E-1 Example --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) | 170,000 | (A)

Step (B) Oil Group[1] (Table 3 and section 1.2 of this appendix) . | 4

Step (C) Operating Area (choose one) . . | X | Near shore/Inland Great Lakes | | or Rivers and Canals

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

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
10	50	70
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ | 85,000 | (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ | 119,000 | (E2)

Step (F) Emulsification Factor (Table 3 of this appendix) . . . . . | 1.4 | (F)

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

Tier 1	Tier 2	Tier 3
0.15	0.25	0.40
(G1)	(G2)	(G3)

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

Attachment E-1 Example (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

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

Tier 1	Tier 2	Tier 3
17,850	29,750	47,600
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) 166,600
Step (E2) x Step (F)

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

Tier 1	Tier 2	Tier 3
10,000	20,000	40,000
(J1)	(J2)	(J3)

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

Tier 1	Tier 2	Tier 3
7,850	9,750	7,600
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

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

Attachment E-2 --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) . ____ (A)

Step (B) Oil Group[1] (Table 7 and section 1.2 of this appendix) . ____

Step (C) Operating Area (choose one) . . . . ☐ Near shore/Inland Great Lakes ☐ or Rivers and Canals

Step (D) Percentages of Oil (Table 6 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ ____ (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ . . . ____ (E2)

Step (F) Emulsification Factor
(Table 7 of this appendix) . . . . . ____ (F)

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

Tier 1	Tier 2	Tier 3
(G1)	(G2)	(G3)

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

Attachment E-2 (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

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

Tier 1	Tier 2	Tier 3
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) . . . . [ ]
Step (E2) x Step (F)

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

Tier 1	Tier 2	Tier 3
(J1)	(J2)	(J3)

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

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

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

Attachment E-2 Example --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) . . . . . 500,000 (A)

Step (B) Oil Group[1] (Table 7 and section 1.2 of this appendix) . . . . . B

Step (C) Operating Area (choose one) [X] Near shore/Inl and Great Lakes [ ] or Rivers and Canals

Step (D) Percentages of Oil (Table 6 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
30 (D1)	20 (D2)	50 (D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ 100,000 (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ 250,000 (E2)

Step (F) Emulsification Factor (Table 7 of this appendix) . . . . . 2.0 (F)

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

Tier 1	Tier 2	Tier 3
0.15 (G1)	0.25 (G2)	0.40 (G3)

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

Attachment E-2 Example (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils (continued)

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

Tier 1	Tier 2	Tier 3
30,000	50,000	80,000
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) 500,000
Step (E2) x Step (F)

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

Tier 1	Tier 2	Tier 3
12,500	25,000	50,000
(J1)	(J2)	(J3)

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

Tier 1	Tier 2	Tier 3
17,500	25,000	30,000
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

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

[59 FR 34111, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40806, 40807, June 30, 2000; 65 FR 47325, Aug. 2, 2000; 66 FR 47325, Aug. 2, 2000; 66 FR 35460, 35461, June 29, 2001]

APPENDIX F TO PART 112—FACILITY-SPECIFIC RESPONSE PLAN

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1.0 Model Facility-Specific Response Plan

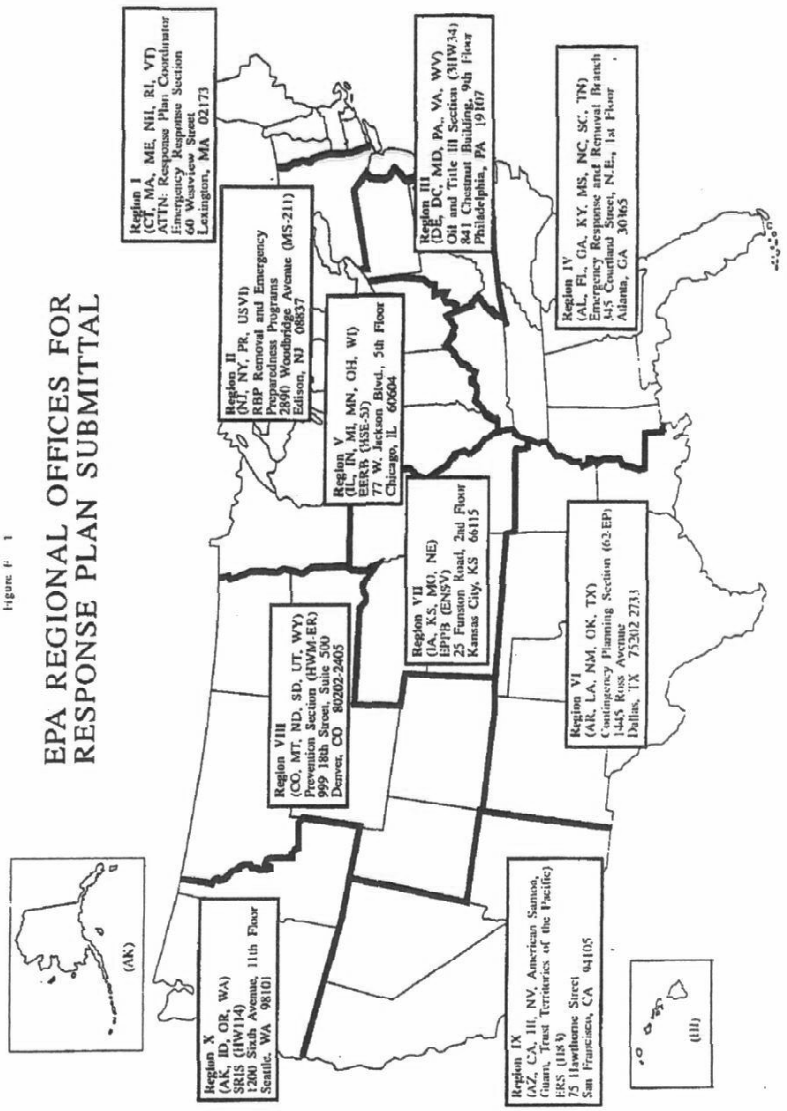
(A) Owners or operators of facilities regulated under this part which pose a threat of substantial harm to the environment by discharging oil into or on navigable waters or adjoining shorelines are required to prepare and submit facility-specific response plans to EPA in accordance with the provisions in this appendix. This appendix further describes the required elements in §112.20(h).

(B) Response plans must be sent to the appropriate EPA Regional office. Figure F-1 of this Appendix lists each EPA Regional office and the address where owners or operators must submit their response plans. Those facilities deemed by the Regional Administrator (RA) to pose a threat of significant and substantial harm to the environment will have their plans reviewed and approved by EPA. In certain cases, information required in the model response plan is similar to information currently maintained in the facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan as required by 40 CFR 112.3. In these cases, owners or operators may reproduce the information and include a photocopy in the response plan.

(C) A complex may develop a single response plan with a set of core elements for all regulating agencies and separate sections for the non-transportation-related and transportation-related components, as described in §112.20(h). Owners or operators of large facilities that handle, store, or transport oil at more than one geographically distinct location (e.g., oil storage areas at opposite ends of a single, continuous parcel of property) shall, as appropriate, develop separate sections of the response plan for each storage area.

Figure F-1

EPA REGIONAL OFFICES FOR RESPONSE PLAN SUBMITTAL



1.1 Emergency Response Action Plan

Several sections of the response plan shall be co-located for easy access by response personnel during an actual emergency or oil discharge. This collection of sections shall be called the Emergency Response Action Plan. The Agency intends that the Action Plan contain only as much information as is necessary to combat the discharge and be arranged so response actions are not delayed. The Action Plan may be arranged in a number of ways. For example, the sections of the Emergency Response Action Plan may be photocopies or condensed versions of the

forms included in the associated sections of the response plan. Each Emergency Response Action Plan section may be tabbed for quick reference. The Action Plan shall be maintained in the front of the same binder that contains the complete response plan or it shall be contained in a separate binder. In the latter case, both binders shall be kept together so that the entire plan can be accessed by the qualified individual and appropriate spill response personnel. The Emergency Response Action Plan shall be made up of the following sections:

1. Qualified Individual Information (Section 1.2) partial
2. Emergency Notification Phone List (Section 1.3.1) partial
3. Spill Response Notification Form (Section 1.3.1) partial
4. Response Equipment List and Location (Section 1.3.2) complete
5. Response Equipment Testing and Deployment (Section 1.3.3) complete
6. Facility Response Team (Section 1.3.4) partial
7. Evacuation Plan (Section 1.3.5) condensed
8. Immediate Actions (Section 1.7.1) complete
9. Facility Diagram (Section 1.9) complete

1.2 Facility Information

The facility information form is designed to provide an overview of the site and a description of past activities at the facility. Much of the information required by this section may be obtained from the facility's existing SPCC Plan.

1.2.1 *Facility name and location:* Enter facility name and street address. Enter the address of corporate headquarters only if corporate headquarters are physically located at the facility. Include city, county, state, zip code, and phone number.

1.2.2 *Latitude and Longitude:* Enter the latitude and longitude of the facility. Include degrees, minutes, and seconds of the main entrance of the facility.

1.2.3 *Wellhead Protection Area:* Indicate if the facility is located in or drains into a wellhead protection area as defined by the Safe Drinking Water Act of 1986 (SDWA).[1] The response plan requirements in the Wellhead Protection Program are outlined by the State or Territory in which the facility resides.

1.2.4 *Owner/operator:* Write the name of the company or person operating the facility and the name of the person or company that owns the facility, if the two are different. List the address of the owner, if the two are different.

1.2.5 *Qualified Individual:* Write the name of the qualified individual for the entire facility. If more than one person is listed, each individual indicated in this section shall have full authority to implement the facility response plan. For each individual, list: name, position, home and work addresses (street addresses, not P.O. boxes), emergency phone number, and specific response training experience.

1.2.6 *Date of Oil Storage Start-up:* Enter the year which the present facility first started storing oil.

1.2.7 *Current Operation:* Briefly describe the facility's operations and include the North American Industrial Classification System (NAICS) code.

1.2.8 *Dates and Type of Substantial Expansion:* Include information on expansions that have occurred at the facility. Examples of such expansions include, but are not limited to: Throughput expansion, addition of a product line, change of a product line, and installation of additional oil storage capacity. The data provided shall include all facility historical information and detail the expansion of the facility. An example of substantial expansion is any material alteration of the facility which causes the owner or operator of the facility to re-evaluate and increase the response equipment necessary to adequately respond to a worst case discharge from the facility.

Date of Last Update:

FACILITY INFORMATION FORM

Facility Name: _____
Location (Street Address): _____
City: _____ State: _____ Zip: _____
County: _____ Phone Number: ( ) _____
Latitude: _____ Degrees _____ Minutes _____ Seconds
Longitude: _____ Degrees _____ Minutes _____ Seconds
Wellhead Protection Area: _____
Owner: _____
Owner Location (Street Address): _____
(if different from Facility Address)
City: _____ State: _____ Zip: _____
County: _____ Phone Number: ( ) _____
Operator (if not Owner): _____
Qualified Individual(s): (attach additional sheets if more than one)
Name: _____
Position: _____
Work Address: _____
Home Address:
Emergency Phone Number: ( ) _____

[1] A wellhead protection area is defined as the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield. For further information regarding State and territory protection programs, facility owners or operators may contact the SDWA Hotline at 1–800–426–4791.

Date of Oil Storage Start-up: _____
Current Operations: _____
_____
_____
Date(s) and Type(s) of Substantial Expansion(s): _____

(Attach additional sheets if necessary)

1.3 Emergency Response Information

(A) The information provided in this section shall describe what will be needed in an actual emergency involving the discharge of oil or a combination of hazardous substances and oil discharge. The Emergency Response Information section of the plan must include the following components:

(1) The information provided in the Emergency Notification Phone List in section 1.3.1 identifies and prioritizes the names and phone numbers of the organizations and personnel that need to be notified immediately in the event of an emergency. This section shall include all the appropriate phone numbers for the facility. These numbers must be verified each time the plan is updated. The contact list must be accessible to all facility employees to ensure that, in case of a discharge, any employee on site could immediately notify the appropriate parties.

(2) The Spill Response Notification Form in section 1.3.1 creates a checklist of information that shall be provided to the National Response Center (NRC) and other response personnel. All information on this checklist must be known at the time of notification, or be in the process of being collected. This notification form is based on a similar form used by the NRC. Note: Do not delay spill notification to collect the information on the list.

(3) Section 1.3.2 provides a description of the facility's list of emergency response equipment and location of the response equipment. When appropriate, the amount of oil that emergency response equipment can handle and any limitations (e.g., launching sites) must be described.

(4) Section 1.3.3 provides information regarding response equipment tests and deployment drills. Response equipment deployment exercises shall be conducted to ensure that response equipment is operational and the personnel who would operate the equipment in a spill response are capable of deploying and operating it. Only a representative sample of each type of response equipment needs to be deployed and operated, as long as the remainder is properly maintained. If appropriate, testing of response equipment may be conducted while it is being deployed, Facilities without facility-owned response equipment must ensure that the oil spill removal organization that is identified in the response plan to provide this response equipment certifies that the deployment exercises have been met. Refer to the National Preparedness for Response Exercise Program (PREP) Guidelines (see Appendix E to this part, section 13, for availability), which satisfy Oil Pollution Act (OPA) response exercise requirements.

(5) Section 1.3.4 lists the facility response personnel, including those employed by the facility and those under contract to the facility for response activities, the amount of time needed for personnel to respond, their responsibility in the case of an emergency, and their level of response training. Three different forms are included in this section. The Emergency Response Personnel List shall be composed of all personnel employed by the facility whose duties involve responding to emergencies, including oil discharges, even when they are not physically present at the site. An example of this type of person would be the Building Engineer-in-Charge or Plant Fire Chief. The second form is a list of the Emergency Response Contractors (both primary and secondary) retained by the facility. Any changes in contractor status must be reflected in updates to the response plan. Evidence of contracts with response contractors shall be included in this section so that the availability of resources can be verified. The last form is the Facility Response Team List, which shall be composed of both emergency response personnel (referenced by job title/position) and emergency response contractors, included in one of the two lists described above, that will respond immediately upon discovery of an oil discharge or other emergency (i.e., the first people to respond). These are to be persons normally on the facility premises or primary response contractors. Examples of these personnel would be the Facility Hazardous Materials (HAZMAT) Spill Team 1, Facility Fire Engine Company 1, Production Supervisor, or Transfer Supervisor. Company personnel must be able to respond immediately and adequately if contractor support is not available.

(6) Section 1.3.5 lists factors that must, as appropriate, be considered when preparing an evacuation plan.

(7) Section 1.3.6 references the responsibilities of the qualified individual for the facility in the event of an emergency.

(B) The information provided in the emergency response section will aid in the assessment of the facility's ability to respond to a worst case discharge and will identify additional assistance that may be needed. In addition, the facility owner or operator may want to produce a wallet-size card containing a checklist of the immediate response and notification steps to be taken in the event of an oil discharge.

1.3.1 Notification

Date of Last Update: _____

EMERGENCY NOTIFICATION PHONE LIST WHOM TO NOTIFY

Reporter's Name: _____
Date: _____
Facility Name: _____
Owner Name: _____
Facility Identification Number: _____
Date and Time of Each NRC Notification: _____

Organization	Phone No.
1. National Response Center (NRC):	1–800–424–8802
2. Qualified Individual:	
Evening Phone:	
3. Company Response Team:	
Evening Phone:	
4. Federal On-Scene Coordinator (OSC) and/or Regional Response Center (RRC):	
Evening Phone(s):	
Pager Number(s):	
5. Local Response Team (Fire Dept./Cooperatives):	
6. Fire Marshall:	
Evening Phone:	
7. State Emergency Response Commission (SERC):	
Evening Phone:	
8. State Police:	
9. Local Emergency Planning Committee (LEPC):	
10. Local Water Supply System:	
Evening Phone:	
11. Weather Report:	
12. Local Television/Radio Station for Evacuation Notification:	
13. Hospitals:	

SPILL RESPONSE NOTIFICATION FORM

Reporter's Last Name: _____
First:
M.I.: _____
Position: _____
Phone Numbers:
Day ( ) -
Evening ( ) -
Company:
Organization Type: _____
Address: _____
_____
City: _____
State: _____
Zip: _____
Were Materials Discharged? _____ (Y/N) Confidential? _____ (Y/N)
Meeting Federal Obligations to Report? _____ (Y/N) Date Called: _____
Calling for Responsible Party? _____ (Y/N) Time Called:

Incident Description

Source and/or Cause of Incident:
_____
_____
_____
_____
Date of Incident: _____
Time of Incident: _____ AM/PM
Incident Address/Location:
_____
Nearest City:
State:_____
County:_____ Zip: _____
Distance from City: _____ Units of Measure: _____ Direction from City: _____
Section: _____ Township: _____ Range: _____ Borough: _____
Container Type: _____ Tank Oil Storage Capacity: _____ Units of Measure: _____
Facility Oil Storage Capacity: _____ Units of Measure: _____
Facility Latitude: _____ Degrees _____ Minutes _____ Seconds _____
Facility Longitude: _____ Degrees_____ Minutes Seconds

Material

CHRIS Code	Discharged quantity	Unit of measure	Material Discharged in water	Quantity	Unit of measure

Response Action

Actions Taken to Correct, Control or Mitigate Incident:

Impact

Number of Injuries: _____ Number of Deaths: _____

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

Was there any Damage? _____ (Y/N)

Damage in Dollars (approximate): _____

Medium Affected: _____

Description: _____

More Information about Medium: _____

Additional Information

Any information about the incident not recorded elsewhere in the report:

Caller Notifications

EPA? _____ (Y/N) USCG? _____ (Y/N) State? _____ (Y/N)

Other? (Y/N) Describe:

1.3.2 Response Equipment List

Date of Last Update:_____

FACILITY RESPONSE EQUIPMENT LIST

1. Skimmers/Pumps—Operational Status: _____

Type, Model, and Year: _____

Type Model Year

Number: _____

Capacity: _____ gal./min.

Daily Effective Recovery Rate: _____

Storage Location(s): _____

Date Fuel Last Changed: _____

2. Boom—Operational Status: _____

Type, Model, and Year:

Type Model Year

Number: _____

Size (length): _____ ft.

Containment Area: _____ sq. ft.

Storage Location: _____

3. Chemicals Stored (Dispersants listed on EPA's NCP Product Schedule)

Type	Amount	Date purchased	Treatment capacity	Storage location

Were appropriate procedures used to receive approval for use of dispersants in accordance with the NCP (40 CFR 300.910) and the Area Contingency Plan (ACP), where applicable?_____ (Y/N).

Name and State of On-Scene Coordinator (OSC) authorizing use: _____

Date Authorized:

4. Dispersant Dispensing Equipment—Operational Status: _____.

Type and year	Capacity	Storage location	Response time (minutes)

Type and year	Capacity	Storage location	Response time (minutes)

5. Sorbents—Operational Status: _____
Type and Year Purchased: _____
Amount: _____
Absorption Capacity (gal.): _____
Storage Location(s): _____
6. Hand Tools—Operational Status: _____

Type and year	Quantity	Storage location

7. Communication Equipment (include operating frequency and channel and/or cellular phone numbers)—Operational Status: _____

Type and year	Quantity	Storage location/ number

8. Fire Fighting and Personnel Protective Equipment—Operational Status: _____

Type and year	Quantity	Storage location

Type and year	Quantity	Storage location

9. Other (e.g., Heavy Equipment, Boats and Motors)—Operational Status: _____

Type and year	Quantity	Storage location

1.3.3 Response Equipment Testing/Deployment

Date of Last Update:_____

Response Equipment Testing and Deployment Drill Log

Last Inspection or Response Equipment Test Date:
Inspection Frequency: _____
Last Deployment Drill Date: _____
Deployment Frequency: _____
Oil Spill Removal Organization Certification (if applicable): _____

1.3.4 Personnel

Date of Last Update:_____

EMERGENCY RESPONSE PERSONNEL

Company Personnel

Name	Phone[1]	Response time	Responsibility during response action	Response training type/date
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

[1] Phone number to be used when person is not on-site.

EMERGENCY RESPONSE CONTRACTORS

Date of Last Update: _____

Contractor	Phone	Response time	Contract responsibility[1]
1.			
2.			
3.			
4.			

[1] Include evidence of contracts/agreements with response contractors to ensure the availability of personnel and response equipment.

FACILITY RESPONSE TEAM

Date of Last Update:

Team member	Response time (minutes)	Phone or pager number (day/evening)
Qualified Individual:		/
		/

FACILITY RESPONSE TEAM—Continued

Date of Last Update:_____

Team member	Response time (minutes)	Phone or pager number (day/evening)
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/

Note: If the facility uses contracted help in an emergency response situation, the owner or operator must provide the contractors' names and review the contractors' capacities to provide adequate personnel and response equipment.

1.3.5 Evacuation Plans

1.3.5.1 Based on the analysis of the facility, as discussed elsewhere in the plan, a facility-wide evacuation plan shall be developed. In addition, plans to evacuate parts of the facility that are at a high risk of exposure in the event of a discharge or other release must be developed. Evacuation routes must be shown on a diagram of the facility (see section 1.9 of this appendix). When developing evacuation plans, consideration must be given to the following factors, as appropriate:

(1) Location of stored materials;

(2) Hazard imposed by discharged material;

(3) Discharge flow direction;

(4) Prevailing wind direction and speed;

(5) Water currents, tides, or wave conditions (if applicable);

(6) Arrival route of emergency response personnel and response equipment;

(7) Evacuation routes;

(8) Alternative routes of evacuation;

(9) Transportation of injured personnel to nearest emergency medical facility;

(10) Location of alarm/notification systems;

(11) The need for a centralized check-in area for evacuation validation (roll call);

(12) Selection of a mitigation command center; and

(13) Location of shelter at the facility as an alternative to evacuation.

1.3.5.2 One resource that may be helpful to owners or operators in preparing this section of the response plan is The *Handbook of Chemical Hazard Analysis Procedures* by the Federal Emergency Management Agency (FEMA), Department of Transportation (DOT), and EPA. *The Handbook of Chemical Hazard Analysis Procedures* is available from: FEMA , Publication Office, 500 C. Street, S.W., Washington, DC 20472, (202) 646–3484.

1.3.5.3 As specified in §112.20(h)(1)(vi), the facility owner or operator must reference existing community evacuation plans, as appropriate.

1.3.6 Qualified Individual's Duties

The duties of the designated qualified individual are specified in §112.20(h)(3)(ix). The qualified individual's duties must be described and be consistent with the minimum requirements in §112.20(h)(3)(ix). In addition, the qualified individual must be identified with the Facility Information in section 1.2 of the response plan.

1.4 Hazard Evaluation

This section requires the facility owner or operator to examine the facility's operations closely and to predict where discharges could occur. Hazard evaluation is a widely used industry practice that allows facility owners or operators to develop a complete understanding of potential hazards and the response actions necessary to address these hazards. *The Handbook of Chemical Hazard Analysis Procedures*, prepared by the EPA, DOT, and the FEMA and the *Hazardous Materials Emergency Planning Guide* (NRT-1), prepared by the National Response Team are good references for conducting a hazard analysis. Hazard identification and evaluation will assist facility owners or operators in planning for potential discharges, thereby reducing the severity of discharge impacts that may occur in the future. The evaluation also may help the operator identify and correct potential sources of discharges. In addition, special hazards to workers and emergency response personnel's health and safety shall be evaluated, as well as the facility's oil spill history.

1.4.1 Hazard Identification

The Tank and Surface Impoundment (SI) forms, or their equivalent, that are part of this section must be completed according to the directions below. ("Surface Impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well or a seepage facility.) Similar worksheets, or their equivalent, must be developed for any other type of storage containers.

(1) List each tank at the facility with a separate and distinct identifier. Begin aboveground tank identifiers with an "A" and belowground tank identifiers with a "B", or submit multiple sheets with the aboveground tanks and belowground tanks on separate sheets.

(2) Use gallons for the maximum capacity of a tank; and use square feet for the area.

(3) Using the appropriate identifiers and the following instructions, fill in the appropriate forms:

(a) Tank or SI number—Using the aforementioned identifiers (A or B) or multiple reporting sheets, identify each tank or SI at the facility that stores oil or hazardous materials.

(b) Substance Stored—For each tank or SI identified, record the material that is stored therein. If the tank or SI is used to store more than one material, list all of the stored materials.

(c) Quantity Stored—For each material stored in each tank or SI, report the average volume of material stored on any given day.

(d) Tank Type or Surface Area/Year—For each tank, report the type of tank (e.g., floating top), and the year the tank was originally installed. If the tank has been refabricated, the year that the latest refabrication was completed must be recorded in parentheses next to the year installed. For each SI, record the surface area of the impoundment and the year it went into service.

(e) Maximum Capacity—Record the operational maximum capacity for each tank and SI. If the maximum capacity varies with the season, record the upper and lower limits.

(f) Failure/Cause—Record the cause and date of any tank or SI failure which has resulted in a loss of tank or SI contents.

(4) Using the numbers from the tank and SI forms, label a schematic drawing of the facility. This drawing shall be identical to any schematic drawings included in the SPCC Plan.

(5) Using knowledge of the facility and its operations, describe the following in writing:

(a) The loading and unloading of transportation vehicles that risk the discharge of oil or release of hazardous substances during transport processes. These operations may include loading and unloading of trucks, railroad cars, or vessels. Estimate the volume of material involved in transfer operations, if the exact volume cannot be determined.

(b) Day-to-day operations that may present a risk of discharging oil or releasing a hazardous substance. These activities include scheduled venting, piping repair or replacement, valve maintenance, transfer of tank contents from one tank to another, etc. (not including transportation-related activities). Estimate the volume of material involved in these operations, if the exact volume cannot be determined.

(c) The secondary containment volume associated with each tank and/or transfer point at the facility. The numbering scheme developed on the tables, or an equivalent system, must be used to identify each containment area. *Capacities must be listed for each individual unit* (tanks, slumps, drainage traps, and ponds), as well as the facility total.

(d) Normal daily throughput for the facility and any effect on potential discharge volumes that a negative or positive change in that throughput may cause.

HAZARD IDENTIFICATION TANKS [1]

Date of Last Update: _____

Tank No.	Substance Stored (Oil and Hazardous Substance)	Quantity Stored (gallons)	Tank Type/Year	Maximum Capacity (gallons)	Failure/Cause

[1] Tank = any container that stores oil.
Attach as many sheets as necessary.

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SIS)

Date of Last Update:

SI No.	Substance Stored	Quantity Stored (gallons)	Surface Area/Year	Maximum Capacity (gallons)	Failure/Cause

Attach as many sheets as necessary.

1.4.2 Vulnerability Analysis

The vulnerability analysis shall address the potential effects (i.e., to human health, property, or the environment) of an oil discharge. Attachment C-III to Appendix C to this part provides a method that owners or operators shall use to determine appropriate distances from the facility to fish and wildlife and sensitive environments. Owners or operators can use a comparable formula that is considered acceptable by the RA. If a comparable formula is used, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet. This analysis must be prepared for each facility and, as appropriate, must discuss the vulnerability of:

(1) Water intakes (drinking, cooling, or other);

(2) Schools;

(3) Medical facilities;

(4) Residential areas;

(5) Businesses;

(6) Wetlands or other sensitive environments;[2]
(7) Fish and wildlife;
(8) Lakes and streams;
(9) Endangered flora and fauna;
(10) Recreational areas;
(11) Transportation routes (air, land, and water);
(12) Utilities; and
(13) Other areas of economic importance (e.g., beaches, marinas) including terrestrially sensitive environments, aquatic environments, and unique habitats.

1.4.3 Analysis of the Potential for an Oil Discharge

Each owner or operator shall analyze the probability of a discharge occurring at the facility. This analysis shall incorporate factors such as oil discharge history, horizontal range of a potential discharge, and vulnerability to natural disaster, and shall, as appropriate, incorporate other factors such as tank age. This analysis will provide information for developing discharge scenarios for a worst case discharge and small and medium discharges and aid in the development of techniques to reduce the size and frequency of discharges. The owner or operator may need to research the age of the tanks the oil discharge history at the facility.

1.4.4 Facility Reportable Oil Spill History

Briefly describe the facility's reportable oil spill[3] history for the entire life of the facility to the extent that such information is reasonably identifiable, including:
(1) Date of discharge(s);
(2) List of discharge causes;
(3) Material(s) discharged;
(4) Amount discharged in gallons;
(5) Amount of discharge that reached navigable waters, if applicable;
(6) Effectiveness and capacity of secondary containment;
(7) Clean-up actions taken;
(8) Steps taken to reduce possibility of recurrence;
(9) Total oil storage capacity of the tank(s) or impoundment(s) from which the material discharged;
(10) Enforcement actions;
(11) Effectiveness of monitoring equipment; and
(12) Description(s) of how each oil discharge was detected.

The information solicited in this section may be similar to requirements in 40 CFR 112.4(a). Any duplicate information required by §112.4(a) may be photocopied and inserted.

1.5 Discharge Scenarios

In this section, the owner or operator is required to provide a description of the facility's worst case discharge, as well as a small and medium discharge, as appropriate. A multi-level planning approach has been chosen because the response actions to a discharge (*i.e.*, necessary response equipment, products, and personnel) are dependent on the magnitude of the discharge. Planning for lesser discharges is necessary because the nature of the response may be qualitatively different depending on the quantity of the discharge. The facility owner or operator shall discuss the potential direction of the discharge pathway.

1.5.1 Small and Medium Discharges

1.5.1.1 To address multi-level planning requirements, the owner or operator must consider types of facility-specific discharge scenarios that may contribute to a small or medium discharge. The scenarios shall account for all the operations that take place at the facility, including but not limited to:
(1) Loading and unloading of surface transportation;
(2) Facility maintenance;
(3) Facility piping;
(4) Pumping stations and sumps;
(5) Oil storage tanks;
(6) Vehicle refueling; and
(7) Age and condition of facility and components.

1.5.1.2 The scenarios shall also consider factors that affect the response efforts required by the facility. These include but are not limited to:
(1) Size of the discharge;
(2) Proximity to downgradient wells, waterways, and drinking water intakes;
(3) Proximity to fish and wildlife and sensitive environments;
(4) Likelihood that the discharge will travel offsite (*i.e.*, topography, drainage);
(5) Location of the material discharged (*i.e.*, on a concrete pad or directly on the soil);
(6) Material discharged;
(7) Weather or aquatic conditions (*i.e.*, river flow);
(8) Available remediation equipment;
(9) Probability of a chain reaction of failures; and
(10) Direction of discharge pathway.

[2] Refer to the DOC/NOAA "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (See appendix E to this part, section 13, for availability).

[3] As described in 40 CFR part 110, reportable oil spills are those that: (a) violate applicable water quality standards, or (b) cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

1.5.2 Worst Case Discharge

1.5.2.1 In this section, the owner or operator must identify the worst case discharge volume at the facility. Worksheets for production and non-production facility owners or operators to use when calculating worst case discharge are presented in Appendix D to this part. When planning for the worst case discharge response, all of the aforementioned factors listed in the small and medium discharge section of the response plan shall be addressed.

1.5.2.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equalized). In this section of the response plan, owners or operators must provide evidence that oil storage tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume shall be based on the combined oil storage capacity of all manifold tanks or the oil storage capacity of the largest single oil storage tank within the secondary containment area, whichever is greater. For permanently manifolded oil storage tanks that function as one storage unit, the worst case discharge shall be based on the combined oil storage capacity of all manifolded tanks or the oil storage capacity of the largest single tank within a secondary containment area, whichever is greater. For purposes of the worst case discharge calculation, permanently manifolded oil storage tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.6 Discharge Detection Systems

In this section, the facility owner or operator shall provide a detailed description of the procedures and equipment used to detect discharges. A section on discharge detection by personnel and a discussion of automated discharge detection, if applicable, shall be included for both regular operations and after hours operations. In addition, the facility owner or operator shall discuss how the reliability of any automated system will be checked and how frequently the system will be inspected.

1.6.1 Discharge Detection by Personnel

In this section, facility owners or operators shall describe the procedures and personnel that will detect any discharge of oil or release of a hazardous substance. A thorough discussion of facility inspections must be included. In addition, a description of initial response actions shall be addressed. This section shall reference section 1.3.1 of the response plan for emergency response information.

1.6.2 Automated Discharge Detection

In this section, facility owners or operators must describe any automated discharge detection equipment that the facility has in place. This section shall include a discussion of overfill alarms, secondary containment sensors, etc. A discussion of the plans to verify an automated alarm and the actions to be taken once verified must also be included.

1.7 Plan Implementation

In this section, facility owners or operators must explain in detail how to implement the facility's emergency response plan by describing response actions to be carried out under the plan to ensure the safety of the facility and to mitigate or prevent discharges described in section 1.5 of the response plan. This section shall include the identification of response resources for small, medium, and worst case discharges; disposal plans; and containment and drainage planning. A list of those personnel who would be involved in the cleanup shall be identified. Procedures that the facility will use, where appropriate or necessary, to update their plan after an oil discharge event and the time frame to update the plan must be described.

1.7.1 Response Resources for Small, Medium, and Worst Case Discharages

1.7.1.1 Once the discharge scenarios have been identified in section 1.5 of the response plan, the facility owner or operator shall identify and describe implementation of the response actions. The facility owner or operator shall demonstrate accessibility to the proper response personnel and equipment to effectively respond to all of the identified discharge scenarios. The determination and demonstration of adequate response capability are presented in Appendix E to this part. In addition, steps to expedite the cleanup of oil discharges must be discussed. At a minimum, the following items must be addressed:

(1) Emergency plans for spill response;

(2) Additional response training;

(3) Additional contracted help;

(4) Access to additional response equipment/experts; and

(5) Ability to implement the plan including response training and practice drills.

1.7.1.2A recommended form detailing immediate actions follows.

OIL SPILL RESPONSE—IMMEDIATE ACTIONS

1. Stop the product flow	Act quickly to secure pumps, close valves, etc.
2. Warn personnel	Enforce safety and security measures.
3. Shut off ignition sources.	Motors, electrical circuits, open flames, etc.
4. Initiate containment	Around the tank and/or in the water with oil boom.
5. Notify NRC	1–800–424–8802
6. Notify OSC	
7. Notify, as appropriate	

Source: FOSS, Oil Spill Response—Emergency Procedures, Revised December 3, 1992.

1.7.2 Disposal Plans

1.7.2.1 Facility owners or operators must describe how and where the facility intends to recover, reuse, decontaminate, or dispose of materials after a discharge has taken place. The appropriate permits required to transport or dispose of recovered materials according to local, State, and Federal requirements must be addressed. Materials that must be accounted for in the disposal plan, as appropriate, include:

(1) Recovered product;
(2) Contaminated soil;
(3) Contaminated equipment and materials, including drums, tank parts, valves, and shovels;
(4) Personnel protective equipment;
(5) Decontamination solutions;
(6) Adsorbents; and
(7) Spent chemicals.

1.7.2.2 These plans must be prepared in accordance with Federal (e.g., the Resource Conservation and Recovery Act [RCRA]), State, and local regulations, where applicable. A copy of the disposal plans from the facility's SPCC Plan may be inserted with this section, including any diagrams in those plans.

Material	Disposal facility	Location	RCRA permit/manifest
1.			
2.			
3.			
4.			

1.7.3 Containment and Drainage Planning

A proper plan to contain and control a discharge through drainage may limit the threat of harm to human health and the environment. This section shall describe how to contain and control a discharge through drainage, including:

(1) The available volume of containment (use the information presented in section 1.4.1 of the response plan);
(2) The route of drainage from oil storage and transfer areas;
(3) The construction materials used in drainage troughs;
(4) The type and number of valves and separators used in the drainage system;
(5) Sump pump capacities;
(6) The containment capacity of weirs and booms that might be used and their location (see section 1.3.2 of this appendix); and
(7) Other cleanup materials.

In addition, a facility owner or operator must meet the inspection and monitoring requirements for drainage contained in 40 CFR part 112, subparts A through C. A copy of the containment and drainage plans that are required in 40 CFR part 112, subparts A through C may be inserted in this section, including any diagrams in those plans.

NOTE: The general permit for stormwater drainage may contain additional requirements.

1.8 Self-Inspection, Drills/Exercises, and Response Training

The owner or operator must develop programs for facility response training and for drills/exercises according to the requirements of 40 CFR 112.21. Logs must be kept for facility drills/exercises, personnel response training, and spill prevention meetings. Much of the recordkeeping information required by this section is also contained in the SPCC Plan required by 40 CFR 112.3. These logs may be included in the facility response plan or kept as an annex to the facility response plan.

1.8.1 Facility Self-Inspection

Under 40 CFR 112.7(e), you must include the written procedures and records of inspections for each facility in the SPCC Plan. You must include the inspection records for each container, secondary containment, and item of response equipment at the facility. You must cross-reference the records of inspections of each container and secondary containment required by 40 CFR 112.7(e) in the facility response plan. The inspection record of response equipment is a new requirement in this plan. Facility self-inspection requires two-steps: (1) a checklist of things to inspect; and (2) a method of recording the actual inspection and its findings. You must note the date of each inspection. You must keep facility response plan records for five years. You must keep SPCC records for three years.

1.8.1.1. Tank Inspection

The tank inspection checklist presented below has been included as guidance during

inspections and monitoring. Similar requirements exist in 40 CFR part 112, subparts A through C. Duplicate information from the SPCC Plan may be photocopied and inserted in this section. The inspection checklist consists of the following items:

TANK INSPECTION CHECKLIST

1. Check tanks for leaks, specifically looking for:
   A. drip marks;
   B. discoloration of tanks;
   C. puddles containing spilled or leaked material;
   D. corrosion;
   E. cracks; and
   F. localized dead vegetation.
2. Check foundation for:
   A. cracks;
   B. discoloration;
   C. puddles containing spilled or leaked material;
   D. settling;
   E. gaps between tank and foundation; and
   F. damage caused by vegetation roots.
3. Check piping for:
   A. droplets of stored material;
   B. discoloration;
   C. corrosion;
   D. bowing of pipe between supports;
   E. evidence of stored material seepage from valves or seals; and
   F. localized dead vegetation.

TANK/SURFACE IMPOUNDMENT INSPECTION LOG

Inspector	Tank or SI#	Date	Comments

1.8.1.2 Response Equipment Inspection

Using the Emergency Response Equipment List provided in section 1.3.2 of the response plan, describe each type of response equipment, checking for the following:

Response Equipment Checklist

1. Inventory (item and quantity);
2. Storage location;
3. Accessibility (time to access and respond);
4. Operational status/condition;
5. Actual use/testing (last test date and frequency of testing); and
6. Shelf life (present age, expected replacement date).

Please note any discrepancies between this list and the available response equipment.

RESPONSE EQUIPMENT INSPECTION LOG

[Use section 1.3.2 of the response plan as a checklist]

Inspector	Date	Comments

1.8.1.3 Secondary Containment Inspection

Inspect the secondary containment (as described in sections 1.4.1 and 1.7.2 of the response plan), checking the following:

Secondary Containment Checklist

1. Dike or berm system.
   A. Level of precipitation in dike/available capacity;
   B. Operational status of drainage valves;
   C. Dike or berm permeability;
   D. Debris;
   E. Erosion;
   F. Permeability of the earthen floor of diked area; and
   G. Location/status of pipes, inlets, drainage beneath tanks, etc.
2. Secondary containment
   A. Cracks;
   B. Discoloration;
   C. Presence of spilled or leaked material (standing liquid);
   D. Corrosion; and
   E. Valve conditions.
3. Retention and drainage ponds
   A. Erosion;
   B. Available capacity;
   C. Presence of spilled or leaked material;
   D. Debris; and
   E. Stressed vegetation.

The tank inspection checklist presented below has been included as guidance during

inspections and monitoring. Similar requirements exist in 40 CFR part 112, subparts A through C. Similar requirements exist in 40 CFR 112.7(e). Duplicate information from the SPCC Plan may be photocopied and inserted in this section.

1.8.2 Facility Drills/Exercises

(A) CWA section 311(j)(5), as amended by OPA, requires the response plan to contain a description of facility drills/exercises. According to 40 CFR 112.21(c), the facility owner or operator shall develop a program of facility response drills/exercises, including evaluation procedures. Following the PREP guidelines (see Appendix E to this part, section 13, for availability) would satisfy a facility's requirements for drills/exercises under this part. Alternately, under §112.21(c), a facility owner or operator may develop a program that is not based on the PREP guidelines. Such a program is subject to approval by the Regional Administrator based on the description of the program provided in the response plan.

(B) The PREP Guidelines specify that the facility conduct internal and external drills/exercises. The internal exercises include: qualified individual notification drills, spill management team tabletop exercises, equipment deployment exercises, and unannounced exercises. External exercises include Area Exercises. Credit for an Area or Facility-specific Exercise will be given to the facility for an actual response to a discharge in the area if the plan was utilized for response to the discharge and the objectives of the Exercise were met and were properly evaluated, documented, and self-certified.

(C) Section 112.20(h)(8)(ii) requires the facility owner or operator to provide a description of the drill/exercise program to be carried out under the response plan. Qualified Individual Notification Drill and Spill Management Team Tabletop Drill logs shall be provided in sections 1.8.2.1 and 1.8.2.2, respectively. These logs may be included in the facility response plan or kept as an annex to the facility response plan. See section 1.3.3 of this appendix for Equipment Deployment Drill Logs.

1.8.2.1 Qualified Individual Notification Drill Logs

Qualified Individual Notification Drill Log

Date: _____
Company: _____
Qualified Individual(s): _____
Emergency Scenario: _____
_____
_____
Evaluation: _____
_____
_____
_____
Changes to be Implemented:
_____
_____
Time Table for Implementation: _____
_____

1.8.2.2 Spill Management Team Tabletop Exercise Logs

Spill Management Team Tabletop Exercise Log

Date: _____
Company:
Qualified Individual(s): _____
Emergency Scenario: _____
_____
_____
Evaluation: _____
_____
_____
Changes to be Implemented:
_____
_____
Time Table for Implementation: _____

1.8.3 Response Training

Section 112.21(a) requires facility owners or operators to develop programs for facility response training. Facility owners or operators are required by §112.20(h)(8)(iii) to provide a description of the response training program to be carried out under the response plan. A facility's training program can be based on the USCG's Training Elements for Oil Spill Response, to the extent applicable to facility operations, or another response training program acceptable to the RA. The training elements are available from the USCG Office of Response (G–MOR) at (202) 267–0518 or fax (202) 267–4085. Personnel response training logs and discharge prevention meeting logs shall be included in sections 1.8.3.1 and 1.8.3.2 of the response plan respectively. These logs may be included in the facility response plan or kept as an annex to the facility response plan.

1.8.3.1 Personnel Response Training Logs

PERSONNEL RESPONSE TRAINING LOG

Name	Response training/date and number of hours	Prevention training/date and number of hours

PERSONNEL RESPONSE TRAINING LOG—Continued

Name	Response training/date and number of hours	Prevention training/date and number of hours

1.8.3.2 Discharge Prevention Meetings Logs

DISCHARGE PREVENTION MEETING LOG

Date: _____

Attendees: _____

_____

Subject/issue identified	Required action	Implementation date

1.9 Diagrams

The facility-specific response plan shall include the following diagrams. Additional diagrams that would aid in the development of response plan sections may also be included.

(1) The Site Plan Diagram shall, as appropriate, include and identify:
(A) the entire facility to scale;
(B) above and below ground bulk oil storage tanks;
(C) the contents and capacities of bulk oil storage tanks;
(D) the contents and capacity of drum oil storage areas;
(E) the contents and capacities of surface impoundments;
(F) process buildings;
(G) transfer areas;
(H) secondary containment systems (location and capacity);
(I) structures where hazardous materials are stored or handled, including materials stored and capacity of storage;
(J) location of communication and emergency response equipment;
(K) location of electrical equipment which contains oil; and
(L) for complexes only, the interface(s) (i.e., valve or component) between the portion of the facility regulated by EPA and the portion(s) regulated by other Agencies. In most cases, this interface is defined as the last valve inside secondary containment before piping leaves the secondary containment area to connect to the transportation-related portion of the facility (i.e., the structure used or intended to be used to transfer oil to or from a vessel or pipeline). In the absence of secondary containment, this interface is the valve manifold adjacent to the

tank nearest the transfer structure as described above. The interface may be defined differently at a specific facility if agreed to by the RA and the appropriate Federal official.

(2) The Site Drainage Plan Diagram shall, as appropriate, include:
(A) major sanitary and storm sewers, manholes, and drains;
(B) weirs and shut-off valves;
(C) surface water receiving streams;
(D) fire fighting water sources;
(E) other utilities;
(F) response personnel ingress and egress;
(G) response equipment transportation routes; and
(H) direction of discharge flow from discharge points.

(3) The Site Evacuation Plan Diagram shall, as appropriate, include:
(A) site plan diagram with evacuation route(s); and
(B) location of evacuation regrouping areas.

1.10 Security

According to 40 CFR 112.7(g) facilities are required to maintain a certain level of security, as appropriate. In this section, a description of the facility security shall be provided and include, as appropriate:

(1) emergency cut-off locations (automatic or manual valves);
(2) enclosures (e.g., fencing, etc.);
(3) guards and their duties, day and night;
(4) lighting;
(5) valve and pump locks; and
(6) pipeline connection caps.

The SPCC Plan contains similar information. Duplicate information may be photocopied and inserted in this section.

2.0 Response Plan Cover Sheet

A three-page form has been developed to be completed and submitted to the RA by owners or operators who are required to prepare and submit a facility-specific response plan. The cover sheet (Attachment F–1) must accompany the response plan to provide the Agency with basic information concerning the facility. This section will describe the Response Plan Cover Sheet and provide instructions for its completion.

2.1 General Information

Owner/Operator of Facility: Enter the name of the owner of the facility (if the owner is the operator). Enter the operator of the facility if otherwise. If the owner/operator of the facility is a corporation, enter the name of the facility's principal corporate executive. Enter as much of the name as will fit in each section.

(1) *Facility Name:* Enter the proper name of the facility.

(2) *Facility Address:* Enter the street address, city, State, and zip code.

(3) *Facility Phone Number:* Enter the phone number of the facility.

(4) *Latitude and Longitude:* Enter the facility latitude and longitude in degrees, minutes, and seconds.

(5) *Dun and Bradstreet Number:* Enter the facility's Dun and Bradstreet number if available (this information may be obtained from public library resources).

(6) North American Industrial Classification System (NAICS) Code: Enter the facility's NAICS code as determined by the Office of Management and Budget (this information may be obtained from public library resources.)

(7) *Largest Oil Storage Tank Capacity:* Enter the capacity in GALLONS of the largest aboveground oil storage tank at the facility.

(8) *Maximum Oil Storage Capacity:* Enter the total maximum capacity in GALLONS of all aboveground oil storage tanks at the facility.

(9) *Number of Oil Storage Tanks:* Enter the number of all aboveground oil storage tanks at the facility.

(10) *Worst Case Discharge Amount:* Using information from the worksheets in Appendix D, enter the amount of the worst case discharge in GALLONS.

(11) *Facility Distance to Navigable Waters:* Mark the appropriate line for the nearest distance between an opportunity for discharge (i.e., oil storage tank, piping, or flowline) and a navigable water.

2.2 Applicability of Substantial Harm Criteria

Using the flowchart provided in Attachment C–I to Appendix C to this part, mark the appropriate answer to each question. Explanations of referenced terms can be found in Appendix C to this part. If a comparable formula to the ones described in Attachment C–III to Appendix C to this part is used to calculate the planning distance, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet.

2.3 Certification

Complete this block after all other questions have been answered.

3.0 Acronyms

ACP: Area Contingency Plan
ASTM: American Society of Testing Materials
bbls: Barrels
bpd: Barrels per Day
bph: Barrels per Hour
CHRIS: Chemical Hazards Response Information System
CWA: Clean Water Act
DOI: Department of Interior
DOC: Department of Commerce

DOT: Department of Transportation
EPA: Environmental Protection Agency
FEMA: Federal Emergency Management Agency
FR: Federal Register
gal: Gallons
gpm: Gallons per Minute
HAZMAT: Hazardous Materials
LEPC: Local Emergency Planning Committee
MMS: Minerals Management Service (part of DOI)
NAICS: North American Industrial Classification System
NCP: National Oil and Hazardous Substances Pollution Contingency Plan
NOAA: National Oceanic and Atmospheric Administration (part of DOC)
NRC: National Response Center
NRT: National Response Team
OPA: Oil Pollution Act of 1990
OSC: On-Scene Coordinator
PREP: National Preparedness for Response Exercise Program
RA: Regional Administrator
RCRA: Resource Conservation and Recovery Act
RRC: Regional Response Centers
RRT: Regional Response Team
RSPA: Research and Special Programs Administration
SARA: Superfund Amendments and Reauthorization Act
SERC: State Emergency Response Commission
SDWA: Safe Drinking Water Act of 1986
SI: Surface Impoundment
SPCC: Spill Prevention, Control, and Countermeasures
USCG: United States Coast Guard

4.0 References

CONCAWE. 1982. Methodologies for Hazard Analysis and Risk Assessment in the Petroleum Refining and Storage Industry. Prepared by CONCAWE's Risk Assessment Ad-hoc Group.

U.S. Department of Housing and Urban Development. 1987. Siting of HUD-Assisted Projects Near Hazardous Facilities: Acceptable Separation Distances from Explosive and Flammable Hazards. Prepared by the Office of Environment and Energy, Environmental Planning Division, Department of Housing and Urban Development. Washington, DC.

U.S. DOT, FEMA and U.S. EPA. Handbook of Chemical Hazard Analysis Procedures.

U.S. DOT, FEMA and U.S. EPA. Technical Guidance for Hazards Analysis: Emergency Planning for Extremely Hazardous Substances.

The National Response Team. 1987. Hazardous Materials Emergency Planning Guide. Washington, DC.

The National Response Team. 1990. Oil Spill Contingency Planning, National Status: A Report to the President. Washington, DC. U.S. Government Printing Office.

Offshore Inspection and Enforcement Division. 1988. Minerals Management Service, Offshore Inspection Program: National Potential Incident of Noncompliance (PINC) List. Reston, VA.

ATTACHMENTS TO APPENDIX F

Attachment F-1—Response Plan Cover Sheet

This cover sheet will provide EPA with basic information concerning the facility. It must accompany a submitted facility response plan. Explanations and detailed instructions can be found in Appendix F. Please type or write legibly in blue or black ink. Public reporting burden for the collection of this information is estimated to vary from 1 hour to 270 hours per response in the first year, with an average of 5 hours per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate of this information, including suggestions for reducing this burden to: Chief, Information Policy Branch, Mail Code: PM-2822, U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington D.C. 20503.

GENERAL INFORMATION

Owner/Operator of Facility:

_____

Facility Name: _____

Facility Address (street address or route):

_____

City, State, and U.S. Zip Code:

_____

Facility Phone No.: _____

Latitude (Degrees: North):

_____

degrees, minutes, seconds

Dun & Bradstreet Number:[1]

_____

Largest Aboveground Oil Storage Tank Capacity (Gallons):

_____

Number of Aboveground Oil Storage Tanks:

_____

Longitude (Degrees: West):

_____

degrees, minutes, seconds _____

[1] These numbers may be obtained from public library resources.

North American Industrial Classification System (NAICS) Code:[1]

Maximum Oil Storage Capacity (Gallons): _____

Worst Case Oil Discharge Amount (Gallons): _____

Facility Distance to Navigable Water. Mark the appropriate line.

0–¼ mile ___ ¼–½ mile ___ ½–1 mile ___ >1 mile ___

APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Does the facility transfer oil over-water[2] to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment [2] that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

Yes

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance [2] (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?[3]

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance [2] (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?[2] _____

Yes _____

No

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill [2] in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____

No _____

CERTIFICATION

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

Signature: _____

Name (Please type or print): _____

_____

Title: _____

Date: _____

[59 FR 34122, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40816, June 30, 2000; 65 FR 43840, July 14, 2000; 66 FR 34561, June 29, 2001; 67 FR 47152, July 17, 2002]

[2] Explanations of the above-referenced terms can be found in Appendix C to this part. If a comparable formula to the ones contained in Attachment C–III is used to establish the appropriate distance to fish and wildlife and sensitive environments or public drinking water intakes, documentation of the reliability and analytical soundness of the formula must be attached to this form.

[3] For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable ACP.

PART 113—LIABILITY LIMITS FOR SMALL ONSHORE STORAGE FACILITIES

Subpart A—Oil Storage Facilities

Sec.

AUTHORITY: Sec. 311(f)(2), 86 Stat. 867 (33 U.S.C. 1251 (1972)).

SOURCE: 38 FR 25440, Sept. 13, 1973, unless otherwise noted.

Subpart A—Oil Storage Facilities

§113.1 Purpose.

This subpart establishes size classifications and associated liability limits for small onshore oil storage facilities with fixed capacity of 1,000 barrels or less.