7.3 MPL FIRE CONTROL FACILITIES

7.3.1 North Tank Field Dwg D-4248
7.3.2 Highwater Dwg D-3835
7.3.3 St. Cesaire Dwg D-3834
7.3.4 Montreal East Dwg D-3833

This Page Intentionally Left Blank

(b) (7)(F)

[redacted]

(b) (7)(F)

(b) (7)(F)

[redacted]

(b) (7)(F)

APPENDIX A

GENERAL INFORMATION

PORTLAND MONTREAL PIPE LINE SYSTEM
Health and Safety Policy
Security Policy
Policy on the Environment

For the PMPL Corporate Policies on Health and Safety, Security and the Environment, see the Portland Montreal Integrity Managing System manual.

The policies are also posted at facility locations.

U.S. EPA 40 CFR Part 112.20(h)
CROSS REFERENCE

§ 112.20 (h)	BRIEF DESCRIPTION	LOCATION in PLAN
(1)	***Emergency Response Action Plan***	
(1)(I)	The identity and telephone number of a qualified individual	ERAP - QI Info Figure 2.6
(1)(ii)	The identity of individuals or organizations to be contacted in the event of a discharge	ERAP - Notif. Figures 2.6 to 2.15
(1)(iii)	A description of information to pass to response personnel in the event of a reportable spill	ERAP - Notif. Figure 2.1
(1)(iv)	A description of the facility's response equipment and its location	ERAP - Facility Response Equip.- Appendix C
(1)(v)	A description of response personnel capabilities, including duties during response actions and their response times and qualifications	ERAP - Local Response Team Section 4.0, Figure 2.1, App B
(1)(vi)	Plans for evacuation of the Facility and a reference to community evacuation plans, as appropriate	ERAP - Initial Response Actions Figures 3.1, 3.2, App. D
(1)(vii)	A description of immediate measures to secure the source of the discharge, and to provide adequate containment and drainage of spilled oil	ERAP - Initial Response Actions Figure 2.1
(1)(viii)	A diagram of the facility	ERAP - Facility Diagram Figure 1.5
(2)	***Facility information***	
	location and type of the facility	Fig 1.7
	the identity and tenure of the present owner and operator	Fig 1.7
	the identity of the qualified individual	Fig 1.2, 1.5, 1.7
(3)	***Information about emergency response.***	
(3)(I)	The identity of private personnel and equipment	Fig 4.3, App C
(3)(ii)	Evidence of contracts or other approved means for ensuring the availability of such personnel and equipment	App. C
(3)(iii)	The identity and the telephone number of individuals or organizations to be contacted in the event of a discharge	Fig 2.4 to 2.14
(3)(iv)	A description of information to pass to response personnel	Figure 2.1
(3)(v)	A description of response personnel capabilities, including:	
	• duties of persons at the Facility during a response action	Fig 3.1 to 3.13, 4.3, App B
	• response times and qualifications...	§ 4.5, Fig 2.6 to 2.15
(3)(vi)	A description of the facility's response equipment including:	
	• location of the equipment	§ 5.1, App C,
	• equipment testing	App C, App K
(3)(vii)	Plans for evacuation of the Facility and a reference to community evacuation plans, as appropriate	Fig 3.7; App D
(3)(viii)	A diagram of evacuation routes	App D

U.S. EPA 40 CFR Part 112.20(h)
CROSS REFERENCE (Cont'd)

§ 112.20 (h)	BRIEF DESCRIPTION	LOCATION in PLAN
(3)(ix)	A description of the duties of the qualified individual that include	
(3)(ix)(A)	Activate internal alarms and hazard communications systems	§ 4.2
(3)(ix)(B)	Notify all response personnel, as needed	§ 4.2
(3)(ix)(C)	Identify the character, exact source, amount, and extent of release	§ 4.2
(3)(ix)(D)	Notify and provide necessary information to the appropriate Federal, State, and local authorities	§ 4.2
(3)(ix)(E)	Assess the interaction of the spilled substance with water and/or other substances stored at the Facility	§ 4.2
(3)(ix)(F)	Assess the possible hazards to human health and environment	§ 4.2
(3)(ix)(G)	Assess and implement prompt removal actions	§ 4.2
(3)(ix)(H)	Coordinate rescue and response actions	§ 4.2
(3)(ix)(I)	Use authority to immediately access company funding	§ 4.2
(3)(ix)(J)	Direct cleanup activities until properly relieved	§ 4.2
(4)	***Hazard evaluation***	
	identifiable history of discharges reportable under 40 CFR part 110 for the entire life of the facility	App H
	identify areas within the facility where discharges could occur	App H
	what the potential effects would be on the affected environment	App H
(5)	***Response planning levels***	
(5)(I)	A worst case discharge, as calculated using the appropriate worksheet in appendix D	§ 1.2, App G
(5)(ii)	A discharge of 2,100 gallons or less provided this amount is less than the WCD amount	§ 1.2, App G
(5)(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, whichever is less	§ 1.2, App G
(6)	***Discharge detection systems*** ... Describe the procedures and equipment used to detect discharges	§ SPCC 5.1
(7)	***Plan implementation***	
(7)(I)	Response actions to be carried out by facility personnel or contracted personnel	§ 3.1, Fig 3.1to 3.13
(7)(ii)	A description of the equipment to be used for each scenario	App C, G
(7)(iii)	Plans to dispose of contaminated cleanup materials	App F
(7)(iv)	Measures to provide adequate containment and drainage of spilled oil	§ 3.1, Fig 3.1 to 3.13
(8)	***Self-inspection, training, and meeting logs.***	
(8)(I)	A checklist and record of inspection for:	
	• tanks	App K
	• secondary containment	App K
	• response equipment	§ 5.2, App K

U.S. EPA 40 CFR Part 112.20(h)
CROSS REFERENCE (Cont'd)

§ 112.20 (h)	BRIEF DESCRIPTION	LOCATION in PLAN
(8)(ii)	A description of the drill/exercise program to be carried out under the response plan as described in § 112.21	§ 4.6
(8)(iii)	A description of the training program to be carried out under the response plan as described in § 112.21	§ 4.5, 4.6
(8)(iv)	Logs of:	
	• discharge prevention meetings	App K
	• training sessions	App K
	• drills/exercises	App K
(9)	***Diagrams***	
	• site plan	Fig 1.5
	• drainage plan	§ SPCC 9.0; App H
(10)	***Security systems.*** The review plan shall include a description of facility security systems.	§ SPCC 8.0
(11)	***Response plan cover sheet***	App M

U.S. EPA 40 CFR Part 112.21
CROSS REFERENCE

§ 112.21	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Develop a training and drill program that satisfies the requirements of this section	
(b)	Develop a facility response training program to train personnel involved in response activities.	§ 4.5
(b)(1)	Proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations`	§ 4.5
(b)(2)	Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel	§ 4.5
(b)(3)	Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup	§ 4.5
(c)	Develop a program of facility response drills/exercises, including evaluation procedures. Can follow PREP.	§ 4.6

U.S. EPA 40 CFR Part 112, Appendix F
CROSS REFERENCE

Appendix F to Part 112	BRIEF DESCRIPTION	LOCATION in PLAN
1.0	***Model Facility-Specific Response Plan***	
1.1	***Emergency Response Action Plan***	
	1. Qualified Individual Information	ERAP - QI Info, Fig 2.6
	2. Emergency Notification Phone List	ERAP – Notifications, Fig 2.6 to 2.15
	3. Spill Response Notification Form	ERAP – Notifications, Fig 2.1 to 2.3
	4. Response Equipment List and Location	ERAP – Facility Response Equipment App C
	5. Response Equipment Testing and Deployment	ERAP – Facility Response Equipment § 5.2, App C, App K
	6. Facility Response Team	ERAP – Local Response Team Fig 4.2, 4.3
	7. Evacuation Plan	ERAP - Evacuation Diagram App D
	8. Immediate Actions	ERAP - Initial Response Actions § 3.1, Fig 3.1-3.14
	9. Facility Diagram	ERAP - Facility Diagram Fig 1.5
1.2	***Facility Information***	
1.2.1	Facility name and location	Fig 1.7
1.2.2	Latitude and Longitude	Fig 1.7
1.2.3	Wellhead Protection Area	Fig 1.7
1.2.4	Owner/operator	Fig 1.5, 1.7
1.2.5	Qualified Individual	Fig 1.5, 1.7
1.2.6	Date of Oil Storage Start-up	Fig 1.7
1.2.7	Current Operation	Fig 1.7, App H
1.2.8	Dates and Types of Substantial Expansion	Fig 1.7
1.3	***Emergency Response Information***	
1.3.1	Notification	§ 2.0 (all)
1.3.2	Response Equipment List	§ 5.1, App C
1.3.3	Response Equipment Testing/Deployment	§ 5.2, App C, App K
1.3.4	Personnel	§ 4.3, Fig 2.3, 2.4 to 2.7
1.3.5	Evacuation Plans	App D
1.3.6	Qualified Individual's Duties	§ 4.2
1.4	***Hazard Evaluation***	
1.4.1	Hazard Identification	App H
1.4.2	Vulnerability Analysis	App H
1.4.3	Analysis of the Potential for an Oil Spill	App H

U.S. EPA 40 CFR Part 112, Appendix F
CROSS REFERENCE (Cont'd)

Appendix F to Part 112	BRIEF DESCRIPTION	LOCATION in PLAN
1.4.4	Facility Reportable Oil Spill History	App H
1.5	***Discharge Scenarios***	
1.5.1	Small and Medium Discharges	§ 1.2, App G
1.5.2	Worst Case Discharge	§ 1.2 App G
1.6	***Discharge Detection Systems***	
1.6.1	Discharge Detection by Personnel	§ SPCC 2.1
1.6.2	Automated Discharge Detection	§ SPCC 5.1
1.7	***Plan Implementation***	
1.7.1	Response Resources for Small, Medium, and Worst Case Spills	§ 5.1, App C, G
1.7.2	Disposal Plans	App F
1.7.3	Containment and Drainage Planning	§ SPCC 4.0, 9.0
1.8	***Self-Inspection, Drills/Exercises, and Response Training***	
1.8.1	Facility Self-Inspection	§ SPCC 3.0
1.8.1.1	Tank Inspection	§ SPCC 3.2
1.8.1.2	Response Equipment Inspection	§ 5.2, App C, App K
1.8.2	Facility Drills/Exercises	§ 4.6
1.8.2.1	Qualified Individual Notification Drill Log	App K
1.8.2.2	Spill Management Team Tabletop Exercise Log	App K
1.8.3	Response Training	§ 4.5
1.8.3.1	Personnel Response Training Log	App K
1.8.3.2	Discharge Prevention Meeting Log	App K
1.9	***Diagrams***	
	(1) Site Plan Diagram	Fig 1.5
	(2) Site Drainage Plan Diagram	§ SPCC 9.0
	(3) Site Evacuation Plan Diagram	App D
1.10	***Security***	§ SPCC 8.0
2.0	***Response Plan Cover Sheet***	App M
3.0	***Acronyms***	App L

U.S. EPA - SPCC
40 CFR § 112.3,5,7,8
CROSS REFERENCE

40 CFR § 112	BRIEF DESCRIPTION	SECTION
112.3	Requirement to prepare and implement a Spill Prevention Control and Countermeasure Plan	
(a,b,c)	Owners or operators must prepare and implement a Plan…	§ SPCC 1.5
(d)	A licensed Professional Engineer must review and certify a Plan for it to be effective...	§ SPCC - PE Certification Page
(e)	Maintain a complete copy of the Plan at the facility if the facility is normally attended at least 4 hours per day, or at the nearest field office...	§ SPCC 1.3
112.5	Amendment of Spill Prevention Control and Countermeasures Plan by owners or operators	
(a)	Amend the SPCC ...when there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil...	§ SPCC 1.4
(b)	...complete a review and evaluation of the SPCC at least once every five years... amend the SPCC within six months of the review...implement within six months of preparation of any amendment.	§ SPCC 1.4
(c)	Have a Professional Engineer certify any technical amendment…	§ SPCC 1.4
112.7	Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasures Plan	
-----	…must prepare a Plan…have full approval of management…in writing.	§ SPCC Management Approval Page, Entire Plan
-----	If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately.	N/A
-----	…follow the sequence specified (or cross-reference)…	App. A
(a)(2)	Comply with all applicable requirements in this part… [or] state reasons for non-conformance … and describe alternate methods…	N/A
(a)3)	Descr be … physical layout … and include diagram ….	§ SPCC 1.1; 9.0
(a)(3)(i)	… [address in your Plan] .. the type of oil in each container and its … capacity …	§ SPCC 9.0
(a)(3)(ii)	… discharge prevention measures including routine handling of products …	§ SPCC 2.6
(a)(3)(iii)	...Drainage or discharge controls … and procedures for control of a discharge …	§ SPCC 4.0
(a)(3)(iv)	Countermeasures for discharge discovery, response, and cleanup (both … facility's … and contractor ….)	§ SPCC 2.1
(a)(3)(v)	Methods of disposal of recovered materials …	§ SPCC 2.1, App. F, Waste Disposal
(a)(3)(vi)	Contact list and phone numbers …	§ SPCC 2,2, § 2.2, 2.3 Fig. 2.3
(a)(4)	Relate information … [on a discharge] …	§ SPCC 2.2, § 2.1 Fig. 2.1
(a)(5)	Organize portions of the Plan … that will make them readily usable….	Section Dividers
(b)	Where experience indicates a reasonable potential …..	Section 9.0 App. G

U.S. EPA - SPCC
40 CFR § 112.3,5,7,8
CROSS REFERENCE (Cont'd)

40 CFR § 112	BRIEF DESCRIPTION	SECTION
(c)(1)	Onshore facilities.	
(c)(1)(i)	Dikes, berms or retaining walls sufficiently impervious to contain spilled oil	§ SPCC 4.1, 4.2, 4.3, 5.1; 9.0
(c)(1)(ii)	Curbing	§ SPCC 4.1, 4.2, 4.3, 5.1; 9.0
(c)(1)(iii)	Culverting, gutters or other drainage systems	§ SPCC 4.1, 4.2, 4.3, 5.1; 9.0
(c)(1)(iv)	Weirs, booms or other barriers	N/A
(c)(1)(v)	Spill diversion ponds	N/A
(c)(1)(vi)	Retention ponds	SPCC 9.0
(c)(1)(vii)	Sorbent materials	N/A
(c)(2)	Offshore Facilities.	N/A
(c)(2)(i)	Curbing, drip pans	N/A
(c)(2)(ii)	Sumps and collection systems	N/A
(d)	If you determine that the installation of structures or equipment listed in paragraphs (c) and (h)(1) of this section…is not practicable…clearly explain in your Plan…and provide…	§ SPCC 1.7
(d)(1)	*A strong oil spill contingency plan following...40 CFR 109.*	Entire Plan (ICP)
(d)(2)	A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.	Foreword
(e)	*Inspections and records*	
	...in accordance with written procedures that you or the certifying engineer develop…with the SPCC Plan for a period of three years.	§ SPCC 3.2
(f)	*Personnel, training and spill prevention procedures*	
(f)(1)	...train your oil-handling personnel in the operation and maintenance of equipment to prevent the discharges...	§ SPCC 3.1
(f)(2)	Designate a person…accountable for oil spill prevention...	FWD - Management Approval Page
(f)(3)	Schedule and conduct spill prevention briefings...highlight and describe known spill discharges…or failures, malfunctioning components, and recently developed precautionary measures.	§ SPCC 3.1
(g)	*Security (excluding oil production facilities)*	
(g)(1)	Fully fenced…and lock and/or guard entrance gates...when…not in production or is unattended.	§ SPCC 8.1
(g)(2)	Ensure that the master flow and drain valves…have adequate security measures so that they remain in the closed position when in non-operating status…	§ SPCC 8.2
(g)(3)	Lock the starter control on each oil pump in the "off" position and locate at a site accessible only to authorized personnel when the pump is in non-operating status…	§ SPCC 8.3
(g)(4)	Securely cap or blank flange loading/unloading connections of oil pipelines…when not in service or standby service for an extended time.	§ SPCC 8.4
(g)(5)(i) & (ii)	Provide facility lighting commensurate with the type and location of the facility that assist in the: (i) Discovery of spills occurring during hours of darkness...(ii) Prevention of spills occurring through acts of vandalism.	§ SPCC 8.5
(h)	*Facility tank car and tank truck loading/unloading rack*	
(h)(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… …design any containment system to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.	§ SPCC 7.2

U.S. EPA - SPCC
40 CFR § 112.3,5,7,8
CROSS REFERENCE (Cont'd)

40 CFR § 112	BRIEF DESCRIPTION	SECTION
(h)(2)	Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle brake to prevent vehicular departure before complete disconnect of flexible or fixed oil transfer lines.	§ SPCC 7.3
(h)(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 should be closely examined for leakage, and if necessary, that they are tightened, adjusted, or replaced to prevent liquid leakage while in transit.	§ SPCC 7.4
(i)	If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture…evaluate the container for risk…	§ SPCC 3.2
(j)	In addition...include a complete discussion of conformance with applicable requirements…or any more stringent, with State rules, regulations...	§ SPCC 1.6
(k)	The owner or operator of a facility with oil-filed operational equipment…may choose to implement alternate requirements…in lieu of secondary containment…	§ SPCC 1.7
112.8	Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities)	
(a)	Meet the general requirements for the Plan listed under § 112.7, and…	See 112.7 preceding
(b)(1)	Restrain drainage from diked storage areas by valves or other positive means to prevent a spill...into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. You may empty diked areas by pumps or ejectors; however you must be manually activate these pumps…and inspect the condition of the accumulation before starting...	§ SPCC 4.1, 4.3
(b)(2)	Use valves of manual, open-and-closed design... If facility drainage drains directly into water course…you must inspect and drain uncontaminated retained stormwater, as provided in...paragraphs (c)(3)(ii)(iii), and (iv).	§ SPCC 4.1, 4.3
(b)(3)	Design facility drainage systems from undiked areas… 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.	§ SPCC 4.2
(b)(4)	If...not engineered as in paragraphs (b)(3), equip the final discharge of all ditches with a diversion system that would...retain the oil in the facility.	§ SPCC 4.4
(b)(5)	Where drainage waters are treated in more than one treatment unit… provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques are used, facility drainage systems engineer… to prevent a discharge as described in § 112.1(b) in case there is an equipment failure or human error...	§ SPCC 5.1; 9.0
(c)	*Bulk storage containers (onshore)*	
(c)(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...	§ SPCC 5.1
(c)(2)	Construct all bulk storage container installations so that you provide a secondary means of containment for the entire contents of the largest single container plus sufficient freeboard to allow for precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil.	§ SPCC 5.1; 9.0
(c)(3)	Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent discharge into an open water course, lake, or pond, bypassing the in-plant treatment system unless you:	
(c)(3)(i)	Normally keep the bypass valve sealed closed.	§ SPCC 4.1, 4.3
(c)(3)(ii)	Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b).	§ SPCC 4.1, 4.3
(c)(3)(iii)	Open the bypass valve and reseal it following drainage…under responsible supervision.	§ SPCC 4.1, 4.3
(c)(3)(iv)	Keep adequate records of such events.	§ SPCC 3.2, 4.3; App. B
(c)(4)	Protect any completely buried metallic storage tank installed on or after January 10,1974 from corrosion by coatings or cathodic protection…	§ SPCC 5.2
(c)(5)	Not use partially buried metallic tanks for the storage of oil unless the buried section of the tank is adequately coated…	§ SPCC 5.2

U.S. EPA - SPCC
40 CFR § 112.3,5,7,8
CROSS REFERENCE (Cont'd)

40 CFR § 112	BRIEF DESCRIPTION	SECTION
(c)(6)	Test each aboveground container for integrity testing on a regular schedule. Keep comparison records… In addition…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 the purposes of this paragraph.	§ SPCC 3.2
(c)(7)	Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines...	§ SPCC 5.4
(c)(8)	Engineer or update each container installation in accordance with good engineering practice to avoid discharges (and) provide at least one of the following devices:	
(c)(8)(i)	High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities, an aud ble air vent may suffice.	§ SPCC 5.1
(c)(8)(ii)	High liquid level pump cutoff devices set to stop flow at a predetermined container content level.	§ SPCC 5.1
(c)(8)(iii)	Direct audible or code signal communication between the container gauger and the pumping station.	§ SPCC 5.1
(c)(8)(iv)	A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges.	§ SPCC 5.1
(c)(8)(v)	You must regularly test liquid level sensing devices to ensure proper operation.	§ SPCC 3.2.1
(c)(9)	Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge…	§ SPCC 4.4
(c)(10)	Promptly correct visible discharges which result in a loss of oil from container including…seam, gaskets, piping, pumps, valves…	§ SPCC 5.1
(c)(11)	Position or locate mobile or portable oil storage container to prevent a discharge as described in § 112.1(b)…furnish a secondary means of containment...for the largest single compartment or container with sufficient freeboard…	§ SPCC 5.3
(d)	*Facility transfer operations, pumping, and facility process*	
(d)(1)	Provide buried piping… installed or replaced on or after August 16, 2002, with a protective wrapping and coating…cathodically protect. If a section of buried line is exposed...carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated...	§ SPCC 6.1
(d)(2)	Cap or blank-flange the Facility connection…and mark it as to origin when piping is not in service, or in standby service for an extended time.	§ SPCC 6.3, 8.4
(d)(3)	Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.	§ SPCC 3.2
(d)(4)	Regularly inspect all aboveground valves, piping, and appurtenances. …also conduct integrity and leak testing on buried piping at the time of installation, modification, construction, relocation, or replacement.	§ SPCC 3.2
(d)(5)	Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.	§ SPCC 6.4

U.S. EPA 40 CFR Part 264
CROSS REFERENCE

§ 264	BRIEF DESCRIPTION	SECTION
Subpart D	***Contingency Plan and Emergency Procedures***	
264.51	**Purpose and implementation of contingency plan**	
(a)	Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.	Entire plan
(b)	(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.	ERAP Notification 2.0 Figure 2.1
264.52	**Content of contingency plan.**	See below
(a)	The contingency plan must describe the actions facility personnel must take to comply with §§264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.	ERAP - Initial Response Actions Figures 3.1, 3.2, App. D
(b)	If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part. The owner or operator may develop one contingency plan which meets all regulatory requirements.	Entire plan / SPCC plan
(c)	The plan must descr be arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to §264.37.	ERAP Figure 2.8; Appendix N Agency Correspondence
(d)	The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §264.55), and this list must be kept up to date.	Figure 2.6
(e)	The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.	Appendix C
264.52(f)	The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).	Appendix D
264.53(b)	A copy of the contingency plan and all revisions to the plan must be: (a) Maintained at the facility; and (b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.	Distribution List
264.55	**Emergency coordinator.** At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures.	Figure 2.6
Subpart C	Preparedness and Prevention	
264.32	Required Equipment: All facilities must be equipped with the following, *unless* it can be demonstrated to the Regional Administrator that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:	See below
(a)	An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;	Figure 2.3 & 2.4; Appendix C; Appendix D
(b)	A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;	Appendix C; Appendix D

U.S. EPA 40 CFR Part 264
CROSS REFERENCE (Cont'd)

§ 264	BRIEF DESCRIPTION	SECTION
(c)	Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and	Appendix C
(d)	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.	Appendix C; Section 7 Drainage and Hydrant Diagrams
264.34	**Access to communications or alarm system.**	See below
(a)	Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, *unless* the Regional Administrator has ruled that such a device is not required under §264.32.	Figure 2.3 & 2.4; Appendix C; Appendix D
(b)	If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, *unless* the Regional Administrator has ruled that such a device is not required under §264.32.	Figure 2.3 & 2.4; Appendix C Appendix D
264.33	All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.	Appendix C
264.37(a)	The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations: (1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes; (2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority; (3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and (4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.	Section 3.0 (Rescue); Figure 3.1 Appendix C
(b)	Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.	Agency Correspondence

U.S. COAST GUARD 33 CFR 154
Final Rule - February 29, 1996
CROSS REFERENCE

§ 154.1030	DESCRIPTION OF GUIDELINE ITEM	SECTION
General response plan contents.		
(a)	The plan must be written in English.	Entire Plan
(b)	A response plan must be divided into sections	Entire Plan
(b)(1)	Introduction and plan contents.	§1.1
(b)(2)	Emergency response action plan:	Separate Document
(b)(2)(i)	Notification procedures.	ERAP, § 2.2 to 2.14
(b)(2)(ii)	Facility's spill mitigation procedures.	ERAP, § 2.0, 3.0, 4.0
(b)(2)(iii)	Facility's response activities.	ERAP, § 3.1, Fig 3.1 to 3.14
(b)(2)(iv)	Fish and wildlife and sensitive environments.	ERAP, § 6.0
(b)(2)(v)	Disposal plan.	App F
(b)(3)	Training and Exercises:	§ 4.5
(b)(3)(i)	Training procedures.	§ 4.5
(b)(3)(ii)	Exercise procedures.	§ 4.6
(b)(4)	Plan review and update procedures.	§1.3, 1.4
(b)(5)	Appendices.	Plan document
(b)(5)(i)	Facility-specific information.	§ 1.0, Fig 1.3, 1.5, 1.7
(b)(5)(ii)	List of contacts.	Fig 2.4 – 2.14
(b)(5)(iii)	Equipment lists and records.	§ 5.1, 5.2, App C
(b)(5)(iv)	Communications plan	§ 5.9
(b)(5)(v)	Site-specific safety and health plan.	§ 4.7, App K
(b)(5)(vi)	List of acronyms and definitions.	App L
(b)(5)(vii)	A geographic-specific appendix ... mobile facility operates.	N/A
(c)	... contained in § 154.1035, 154.1040, and 154.1041, as appropriate.	Appendix A-13
(d)	...information required in § 154.1035, 154.1040, and 154.1041...	Appendix A-13
(e)	... cross-reference ...	App A
(f)	... be consistent with the NCP and ACP ...	Entire Plan, Acknowledgement Page

U.S. COAST GUARD 33 CFR 154
Final Rule - February 29, 1996
CROSS REFERENCE (Cont'd)

§ 154.1035	DESCRIPTION OF GUIDELINE ITEM	SECTION(S)
Specific requirements for facilities that could reasonable be expected to cause significant and substantial harm to the environment.		
(a)	*Introduction and plan content.*	§1.0
(a)(1)	The facility's name, street address, city, county, state, ZIP code, facility telephone number, and tele-facsimile number, if so equipped...	Fig 1.7
(a)(2)	The facility's location ...	Fig 1.3, 1.5, 1.7
(a)(3)	... name, address, and procedures ... owner or operator ... 24-hour basis.	Fig 1.7
(a)(4)	A table of contents.	Foreword
(a)(5)	... cross index	App A
(a)(6)	A record of change(s) to record information and plan updates.	Foreword
(b)	*Emergency Response Action Plan...*	
(b)(1)	Notification procedures.	ERAP, § 2.1, 2.2, 2.3
(b)(1)(i)	... a prioritized list identifying the person(s) ... to be notified of a discharge or substantial threat of a discharge of oil ...	§ 2.1, 2.2, Fig 2.2 to 2.14, § 4.2, 4.3, Fig 4.1, 4.2, 4.3
(b)(1)(i)(A)	Facility response personnel, and spill management team, oil spill removal organizations, and the qualified individual(s) ...	§ 2.1, 2.2, Fig 2.3 to 2.14 § 4.2, 4.3, Fig 4.1, 4.2, 4.3
(b)(1)(i)(B)	Federal, State, or local agencies, as required.	§ 2.2, Fig 2.8
(b)(1)(ii)	... a form, ... which contains information to be provided in the initial and follow-up notifications to Federal, State, and local agencies ...	Fig 2.1
(b)(2)	Facility's spill mitigation procedures.	§ 3.1, Fig 3.1 to 3.14
(b)(2)(i)	..describe the volume(s) and oil groups..	§1.2, App G, H
(b)(2)(i)(A)...(D)	...discharges from the MTR facility ... non-transportation related...	§1.2, App G
(b)(2)(ii)	... must contain prioritized procedures for facility personnel to mitigate or prevent any discharge or substantial threat of a discharge of oil ...	§1.2, 2.1, 2.2, Fig 2.1, 2.2, § 3.0, Fig 3.1 to 3.14 App G
(b)(2)(ii)(A)...(G)	... Typical scenarios....	§1.2, 3.0, Fig 3.1 to 3.15 App G
(b)(2)(iii)	... a listing of equipment and the responsibilities of facility personnel to mitigate an average most probable discharge.	§ 3.0, Fig 3.1, § 5.1, 5.2, 5.3, 5.4, Fig 4.2, 4.3, App C, G
(b)(3)	Facility's response activities.	-----
(b)(3)(i)	... a description of the facility personnel's responsibilities ... pending the arrival of the qualified individual.	§ 3.1, Fig 3.1, 4.2, 4.3, 5.1
(b)(3)(ii)	... a description of the responsibilities and authority of the qualified individual and alternate as required in § 154.1026.	§ 4.2

U.S. COAST GUARD 33 CFR 154
Final Rule - February 29, 1996
CROSS REFERENCE (Cont'd)

§ 154.1035	DESCRIPTION OF GUIDELINE ITEM	SECTION(S)
(b)(3)(iii)	... describe the corporate organizational structure that will be used to manage the response actions, including ...	§ 4.3, 4.4
(b)(3)(iii)(A)..(H)	Command and control...Public Information...Safety... Liaison...Operations...Planning...Logistics...Finance.	§ 4.3, 4.4, Fig 4.3, App B
(b)(3)(iv)	... identify the oil spill removal organization(s) and the spill management team ...	§ 4.0, 5.0, App B, C
(b)(3)(iv)(A)	Be capable of providing the following response resources:	
(b)(3)(iv)(A)(1)	Equipment and supplies to meet...§154.1045, §154.1047 or...	§ 5.1, 5.2, 5.3, 5.4, Fig 4.1, 4.2. 4.3, App G, H, I
(b)(3)(iv)(A)(2)	Trained personnel necessary to continue operation...first 7 days of the response.	Fig 2.7
(b)(3)(iv)(B)	...job descriptions for each spill management team member...	App B
(b)(3)(v)	For mobile facilities ... the oil spill removal organization and the spill management team in the applicable geographic-specific appendix...	N/A
(b)(4)	Fish and wildlife and sensitive environments.	
(b)(4)(i)	...identify areas of economic importance and environmental sensitivity..	§ 6.0, Fig 6.1, 6.2, App H
(b)(4)(ii)	For a worst case discharge...this section must...	
(b)(4)(ii)(A)	List all fish and wildlife and sensitive environments identified in the ACP... ...	§ 6.3, Fig 6.1, 6.2, App H
(b)(4)(ii)(B)	Describe all the response actions ... to protect these fish and wildlife and sensitive environments...	§ 3.1, 6.0 Fig 3.1 to 3.15
(b)(4)(ii)(C)	Contain a map or chart showing the location of those fish and wildlife and sensitive environments ...	Fig 6.1, 6.2
(b)(4)(iii)	For a worst case discharge, ... identify appropriate equipment and required personnel to protect these areas...	§ 3.1, 4.2, 4.4, 5.0, 6.0, App C
(b)(4)(iii)(A)	Identify the appropriate equipment and required personnel to protect all fish and wildlife and sensitive environments ...	§ 2.0, 3.0, 4.0, 5.0, 6.0
(b)(4)(iii)(B)	Calculate the distances required by...by selecting one method described...	
(b)(4)(iii)(B)(1)	Distances calculated...	App G
(b)(4)(iii)(B)(2)	A spill trajectory or model may be substituted for distances...	N/A
(b)(4)(iii)(B)(3)	The procedures contained in the Environmental Protection Agency's regulations...may be substituted for distances...	N/A
(b)(4)(iii)(C)	Based on historical...COTP may require the additional fish and wildlife and sensitive environments	N/A
(b)(5)	Disposal plan ...describe any actions to be taken or procedures to be used to ensure that all recovered oil and oil contaminated debris ...	App F

U.S. COAST GUARD 33 CFR 154
Final Rule - February 29, 1996
CROSS REFERENCE (Cont'd)

§ 154.1035	DESCRIPTION OF GUIDELINE ITEM	SECTION(S)
(c)	*Training and exercises.* To be divided into the following subsections:	
(c)(1)	Training procedures. ..must describe the training procedures ..	§ 4.5
(c)(2)	Exercise procedures. ... must describe the exercise program ...	§ 4.6
(d)	*Plan review and update procedures.* ... address the procedures ...	§1.3, 1.4
(e)	*Appendices.* ...must include appendices described...	
(e)(1)	Facility-specific information.. ... principal characteristics ...	
(e)(1)(i)	There must be a physical description of the facility...	Fig 1.5, Fig. 1.7, App H
(e)(1)(ii)	...must identify the sizes, types, and number of vessels...	Fig 1.7, App H
(e)(1)(iii)	...must identify the first valve(s) ...inside the secondary containment...	Fig 1.6
(e)(1)(iv)	...must contain information on the oil(s) and hazardous material...	Fig 1.7 § 3.1, Fig 3.1to 3.16
(e)(1)(iv)(A)	The generic or chemical name	Fig 1.7 § 3.1, Fig 3.1to 3.16, App H
(e)(1)(iv)(B)	A description of the appearance and odor	§ 3.1, Fig 3.1to 3.16
(e)(1)(iv)(C)	The physical and chemical characteristics	§ 3.1, Fig 3.1to 3.16
(e)(1)(iv)(D)	The hazards involved in handling the oil(s) and hazardous...	§ 3.1, Fig 3.1to 3.16
(e)(1)(iv)(E)	A list of firefighting procedures and extinguishing agents...	§ 3.1, Fig 3.1to 3.16
(e)(1)(v)	The appendix may contain any other information which the facility owner or operator determines to be pertinent...	N/A
(e)(2)	List of contacts...	
(e)(2)(i)	The primary and alternate qualified individual(s) for the facility;	Fig 1.5, 2.6
(e)(2)(ii)	The contact(s) ... for activation of the response resources; and	Fig 1.5, 2.6, to 2.14
(e)(2)(iii)	Appropriate Federal, State, and local officials.	Fig 2.8 to 2.12
(e)(3)	Equipment list and records. ... must include ...	
(e)(3)(i)	...list of equipment ... average most probable	§ 5.1, 5.2, 5.5, App C
(e)(3)(ii)	...detailed listing of all the major equipment identified in the plan as belonging to an oil spill removal organization(s)...	§ 5.0, , App C

U.S. COAST GUARD 33 CFR 154
Final Rule - February 29, 1996
CROSS REFERENCE (Cont'd)

§ 154.1035	DESCRIPTION OF GUIDELINE ITEM	SECTION(S)
(e)(3)(iii)	It is not necessary to list response equipment from oil spill removal organization(s) ... classified by the Coast Guard ... When it is necessary ... the list must include for each piece of equipment	
(e)(3)(iii)(A)	The type, make, model, and year of manufacture ... of the equipment;	N/A
(e)(3)(iii)(B)	For oil recovery devices, the effective daily recovery rate ...	N/A
(e)(3)(iii)(C)	For containment boom, ...height and type of end connectors;	N/A
(e)(3)(iii)(D)	The spill scenario in which the equipment will be used ...	N/A
(e)(3)(iii)(E)	The total daily capacity for storage and disposal of recovered oil;	N/A
(e)(3)(iii)(F)	For communication equipment, the type and amount of equipment ...	N/A
(e)(3)(iii)(G)	Location of the equipment; and	N/A
(e)(3)(iii)(H)	The date of the last inspection by the oil spill removal organization(s).	N/A
(e)(4)	*Communications plan ...*	§ 2.0, 4.0, 5.9
(e)(5)	*Site-specific safety and health plan ...*	§ 4.7, App K
(e)(6)	*List of acronyms and definitions ...*	App L

§ 154.1045	DESCRIPTION OF GUIDELINE ITEM	SECTION
Response plan development and evaluation criteria for facilities that handle, store, or transport Group I through Group IV petroleum oils.		
(a)	...facility that handles...Group I through Group IV petroleum oils...	
(a)(1)	..criteria in Table 1 ...identification of appropriate equipment..	App C & G
(a)(2)	...resources must be evaluated...including, but not limited to -	App C & G
(a)(2)(i)...(v)	Ice conditions; Debris; ... other appropriate....	App C & G
(a)(3(i)..(ii)	The COTP may reclassify a specific body of water or location ...	N/A
(b)(1)...(3)	Response equipment must ---	App C, G
(c)	...identify response resources...average most probable discharge...	§ 5.0, App C, G
(c)(1)	1,000 feet of containment boom or two times the length of the largest vessel ... and the means of deploying and anchoring the boom ... within 1 hour of the detection of a spill;	§ 5.0, App C, G
(c)(2)	...recovery devices and oil storage capacity ... within 2 hours ...	§ 5.0, App C, G
(d)	... identify response resources ... maximum most probable discharge...	§ 5.0, App C, G

U.S. COAST GUARD 33 CFR 154
Final Rule - February 29, 1996
CROSS REFERENCE (Cont'd)

§ 154.1045	DESCRIPTION OF GUIDELINE ITEM	SECTION
(d)(1)	... include sufficient containment boom, oil recovery devices, and storage capacity for any recovery of up to the maximum most probable discharge planning volume...	App C, G
(d)(2)	... resources must be appropriate for each group of oil ...	§ 5.0, App C, G
(d)(3)	... must be positioned ... arrive ... scene of a discharge ...	
(d)(3)(i)	... within the specified times ...	App C
(d)(3)(ii)	In higher volume port areas ... within 6 hours ...	-----
(d)(3)(iii)	In all other locations, ... within 12 hours ...	App C
(d)(4)	... COTP may impose additional operational restrictions ...	N/A
(e)	... identify the response resources ... worst case discharge ...	§ 5.0, App C, G
(e)(1)	The location must be suitable to meet the response times identified..	§ 5.0, App C, G
(e)(2)	The response resources must be appropriate for ---	
(e)(2)(i)	The volume of the facility's worst case discharge;	App C, G
(e)(2)(ii)	Group(s) of oil...handled, stored or transported by the facility; and	App C, G
(e)(2)(iii)	The geographic area(s) in which the facility operates.	App C, G
(e)(3)	... sufficient boom, oil recovery devices, and storage capacity to recover the worst case discharge planning volumes.	§ 5.0, App C, G
(e)(4)	... quantity of response resources ... to respond ... to the worst case discharge to the maximum extent practicable.	§ 5.0, App C, G
(e)(5)	... The following percentages of the response equipment ... must be capable of operating in waters of 6 feet or less depth.	
(e)(5)(i)	Offshore - 10 percent.	N/A
(e)(5)(ii)	Nearshore/inland/Great Lakes/rivers and canals - 20 percent.	§ 5.0, App G
(e)(6)	... COTP may impose additional operational restrictions ...	N/A
(f)	Response equipment ... must be capable of arriving on scene within the times specified in this paragraph ...	§ 5.0, App C, G
(g)	... response equipment identified for Tier 1 plan credit must be capable of being mobilized and en route to the scene of a discharge within 2 hours of notification ...	§ 5.0, App C, G
(g)(1)	Either directly or through the qualified individual; and	§ 4.2, App C, G
(g)(2)	Within 30 minutes of a discovery ...	App C, G
(h)	Response resources identified for Tier 2 and Tier 3 plan credit must be capable of arriving on scene within the time specified ...	App C, G
(i)	... a facility that is located in any environment with year-round preapproval for use of dispersants, ... Group II or III persistent petroleum oils, may request a credit for up to 25 percent ...	N/A
(j)	... identify response resources with firefighting capability ...	Fig 2.5, 5.3, 5.6
(k)	... identify equipment and required personnel ... to protect fish and wildlife and sensitive environments.	§ 5.0, App C

U.S. COAST GUARD 33 CFR 154
Final Rule - February 29, 1996
CROSS REFERENCE (Cont'd)

§ 154.1045	DESCRIPTION OF GUIDELINE ITEM	SECTION
(k)(1)	... the identified response resources must include the quantities of boom sufficient to protect	§ 5.0, App C
(k)(2)	... resources and response methods ... must be consistent with the ... ACP in effect 6 months prior to initial plan submission or the annual plan review ...	§1.5, 3.1, 6.0, App C
(l)	The response plan for a facility that handles, stores, or transports Groups I through IV petroleum oils must identify an oil spill removal organization(s) with response resources that are available...	§ 5.4 App C
(l)(1)	Except as required in paragraph (l)(2) ... shoreline clean-up response resources required must be determined as described in Appendix C of this part.	§ 5.4, App C, G
(l)(2)	... resources and response methods ... must be consistent with the ... ACP in effect 6 months prior to initial plan submission or the annual plan review ...	§1.5, 3.1, 6.0, App C
(m)	Appendix C ... quantity of response resources ... for the maximum most probable discharge volume, and for each worst case discharge response tier.	App C, G
(m)(1)	Included in Appendix C of this part is a cap that recognizes the practical and technical limits of response capabilities ...	App G
(m)(2)	... Appendix C of this part lists the caps that will apply in ... February 18, 1998. ...facility whose estimated recovery capacity exceeds ... caps ... shall identify sources of additional equipment equal to twice the cap ... or the amount necessary to reach the calculated planning volume, whichever is lower.	App G
(n)(1)...(2)	The Coast Guard will initiate a review of cap increases and other requirements contained within this subpart ...	------

DOT/PHMSA 49 CFR Part 194
Final Rule - January 5, 1993
CROSS REFERENCE

§ 194.105	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	... determine the worst case discharge ... provide methodology, including calculations, used to arrive at the volume.	§ 1.2, App G
(b)	The worst case discharge is the largest volume, in barrels, of the following:	
(b)(1)	... maximum release time in hours, plus the maximum shutdown response time in hours, multiplied by the maximum flow rate expressed in barrels per hour, plus the largest line drainage volume after shutdown of the line section(s) ...	Fig 1.4, App G
(b)(2)	The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventative action taken.	Fig 1.4, App G
(b)(3)	If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels.	N/A

§ 194.107	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each response plan must plan for resources for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge.	§ 5.0, , App C, G
(b)	Each response plan must be written in English ...	Entire Plan
8	Each response plan must be consistent with the NCP and each applicable ACP. An operator must certify that it has reviewed the NCP and each applicable ACP and that the response plan is consistent with the existing NCP and each existing applicable ACP.	Ack & Plan Approval, § 1.5
(d)	Each response plan must include:	
(d)(1)	A core plan consisting of --	
(d)(1)(I)	An information summary as required in ' 194.113.	Fig 1.4
(d)(1)(ii)	Immediate notification procedures.	§ 3.0
(d)(1)(iii)	Spill detection and mitigation procedures.	§ 3.0, App I
(d)(1)(iv)	The name, address, and telephone number of the oil spill response organization, if appropriate.	Fig 2.14, Fig 4.2, 4.3. , App C
(d)(1)(v)	Response activities and response resources.	§ 3.0, Fig 5.1, App C
(d)(1)(vi)	Names and telephone numbers of Federal, state, and local agencies which the operator expects to have pollution control responsibilities or support.	Fig 2.8-2.12
(d)(1)(vii)	Training procedures.	§ 4.5
(d)(1)(viii)	Equipment testing.	§ 5.1, App C
(d)(1)(ix)	Drill types, schedules, and procedures.	§ 4.6
(d)(1)(x)	Plan review and update procedures.	§ 1.4
(d)(2)	An appendix for each response zone. Each response zone appendix must include the information required in paragraph (d)(1) (I) to (ix) of this section that is specific to the response zone and the worst case discharge calculations.	Fig 1.4, App G

DOT/PHMSA 49 CFR Part 194
Final Rule - January 5, 1993
CROSS REFERENCE (Cont'd)

§ 194.113	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	The information summary for the core plan, required by ' 194.107, must include:	
(a)(1)	The name and address of the operator.	Fig 1.4
(a)(2)	For each response zone which contains one or more line sections that meet the criteria for determining significant and substantial harm as described in ' 194.103, a listing and description of the response zones, including county(s) and state(s).	Fig 1.4, App G, H
(b)	The information summary for the response zone appendix, required in ' 194.107, must include:	
(b)(1)	The information summary for the core plan.	Fig 1.4
(b)(2)	The name and telephone number of the qualified individual available on a 24-hour basis.	Fig 1.4
(b)(3)	The description of the response zone, including county(s) and state(s), for those zones in which a worst case discharge could cause substantial harm to the environment.	Fig 1.4
(b)(4)	A list of line sections for each pipeline contained in the response zone, identified by milepost or survey station number, or other operator designation.	Fig 1.4
(b)(5)	The basis for the operator's determination of significant and substantial harm.	Fig 1.4
(b)(6)	The type of oil and volume of the worst case discharge.	Fig 1.4

§ 194.115	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each operator shall identify and ensure, by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.	§ 5.0, Fig 4.3, App C, G
(b)	An operator shall identify in the response plan the response resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge.	§ 5.0, Fig 4.3, App C, G

§ 194.117	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each operator shall conduct training to ensure that:	
(a)(1)	All personnel know --	
(a)(1)(I)	Their responsibilities under the response plan	§ 4.5, 4.6
(a)(1)(ii)	The name and address of, and the procedure for contacting, the operator on a 24-hour basis	§ 2.0, Fig. 1.4, Fig 2.3 to 2.7
(a)(1)(iii)	The name of, and procedures for contacting, the qualified individual on a 24-hour basis	§ 2.0, Fig 1.4, Fig. 2.3 to 2.7
(a)(2)	Reporting personnel know --	
(a)(2)(I)	The content of the information summary of the response plan.	Fig 1.4
(a)(2)(ii)	The toll-free telephone number of the National Response Center	Fig 2.8
(a)(2)(iii)	The notification process	§ 2.0
(a)(3)	Personnel engaged in response activities know --	
(a)(3)(I)	The characteristics and hazards of the oil discharged	App H, Fig 3.15, 3.16

DOT/PHMSA 49 CFR Part 194
Final Rule - January 5, 1993
CROSS REFERENCE (Cont'd)

§ 194.117	BRIEF DESCRIPTION	LOCATION in PLAN
(a)(3)(ii)	The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions.	§ 3.0, App H
(a)(3)(iii)	The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage	§ 3.0
(a)(3)(iv)	The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus	§ 1.4, 2.0, 3.0, App D
(b)	Each operator shall maintain a training record for each individual that has been trained as required by this section. These records must be maintained in the following manner as long as the individual is assigned duties under the response plan	
(b)(1)	Records for operator personnel must be maintained at the operator's headquarters	§ 4.5
(b)(2)	Records for personnel engaged in response, other than operator personnel, shall be maintained as determined by the operator.	§ 4.5
(c)	Nothing in this section relieves an operator from the responsibility to ensure that all response personnel are trained to meet the OSHA standards for emergency response operations in 29 CFR 1910.120 ...	§ 4.5

OSHA EMERGENCY ACTION PLANS
(29 CFR 1910.38(a)
CROSS REFERENCE

29 CFR	BRIEF DESCRIPTION	LOCATION
1910.38(a)	***Emergency action plan:***	
(1)	Scope and applicability	§1.0
(2)	Elements:	
(i)	Emergency escape procedures and emergency escape route assignments.	App D
(ii)	Procedures to be followed by employees who remain to operate critical terminal operations before they evacuate.	§ 3.0
(iii)	Procedures to account for all employees after emergency evacuation has been completed.	App D
(iv)	Rescue and medical duties for those employees who are to perform them.	§ 3.0, App K
(v)	The preferred means of reporting fires and other emergencies.	§ 2.0, 3.0
(vi)	Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.	§ 2.0
(3)	Alarm system	App D
(4)	Evacuation	App D
(5)	Training	§ 4.0
1910.165	***Employee alarm systems:***	
(b)	General requirements	App D
(b)(1)	Purpose of alarm system	App D
(b)(4)	Preferred means of reporting emergencies	§ 2.0, 3.0
(d)	Maintenance and testing	App D

OSHA HAZWOPER
(29 CFR 1910.120)
CROSS REFERENCE

29 CFR	BRIEF DESCRIPTION	LOCATION
1910.120(q)	***Emergency response to hazardous substance releases:***	
(1)	Emergency response plan	Entire Plan
(2)	Elements of an emergency response plan:	
(i)	Pre-emergency planning and coordination with outside parties	§ 2.0
(ii)	Personnel roles, lines of authority, training, and communication	§ 2.0, 4,0
(iii)	Emergency recognition and prevention	§ 3.0, App G, H; § SPCC 2.0
(iv)	Safe distances and places of refuge	App D
(v)	Site security and control	App I
(vi)	Evacuation routes and procedures	App D
(vii)	Decontamination procedures	§ 3.0, App K
(viii)	Emergency medical treatment and response procedures	§ 3.0
(ix)	Emergency alerting and response procedures	§ 2.0, 3.0
(x)	Critique of response and follow-up	App E
(xi)	PPE and emergency equipment	§ 3.0, App K
(xii)	Emergency response plan coordination and integration	§ 4.0
(3)	Procedures for handling emergency response:	
(i)	The senior emergency response official responding to an emergency shall become the individual in charge of a site-specific Incident Command System (ICS).	§ 4.0
(ii)	The individual in charge of the ICS shall identify, to the extent possible, all hazardous substances or conditions, present and shall address as appropriate site analysis, use of engineering controls, maximum exposure limits, hazardous substance handling procedures, and use of any new technologies.	§ 3.0, 4.0
(iii)	Implementation of appropriate emergency operations and use of PPE.	§ 3.0, App K
(iv)	Employees engaged in emergency response and exposed to hazardous substances presenting an inhalation hazard or potential inhalation hazard shall wear positive pressure self-contained breathing apparatus while engaged in emergency response.	§ 3.0, App K
(v)	The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations.	§ 3.0, 4.0, App K
(vi)	Backup personnel shall stand by with equipment ready to provide assistance or rescue.	§ 3.0, 4.0, App K
(vii)	The individual in charge of the ICS shall designate a safety official, who is knowledgeable in the operations being implemented at the emergency response site.	§ 3.0, 4.0
(viii)	When activities are judged by the safety official to be an IDLH condition and/or to involve an imminent danger condition, the safety official shall have authority to alter, suspend, or terminate those activities.	§ 3.0, App K
(ix)	After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures.	App K

OSHA HAZWOPER
(29 CFR 1910.120)
CROSS REFERENCE (Cont'd)

29 CFR	BRIEF DESCRIPTION	LOCATION
(x)	When deemed necessary for meeting the tasks at hand, approved self-contained compressed air breathing apparatus may be used with approved cylinders from other approved self-contained compressed air breathing apparatus provided that such cylinders are of the same capacity and pressure rating.	§ 3.0, App K
(4)	Skilled support personnel	§ 4.0
(5)	Specialist employees	§ 4.0
(6)	Training	§ 4.0
(7)	Trainers	§ 4.0
(8)	Refresher training	§ 4.0
(9)	Medical surveillance and consultation	§ 3.0, App K
(10)	Chemical protective clothing	§ 3.0, App K
(11)	Post-emergency response operations	§ 3.0, App K, E

Onshore Pipeline Regulations
(SOR 99/294)

Article 32	BRIEF DESCRIPTION	REGULATION MET BY
(1)	A company shall develop, regularly review and update as required, an emergency procedures manual.	These requirements are filled by the Integrated Contingency Plan.
(2)	A company shall submit the emergency procedures manual and any updates that are made to it to the National Energy Board.	

Article 33	BRIEF DESCRIPTION	REGULATION MET BY
	A company shall establish and maintain liaison with the agencies that may be involved in an emergency response on the pipeline and shall consult with them in developing and up-dating the emergency procedures manual.	This requirement is filled by Section 1.4, Plan Review and Update Procedures, by the Training Section (Section 4.5), and by Section 4.6, Response Team Exercises.

Article 34	BRIEF DESCRIPTION	REGULATION MET BY
	A company shall take all reasonable steps to inform all persons who may be associated with an emergency response activity on the pipeline of the practices and procedures to be followed and make available to them the relevant information that is consistent with that which is specified in the emergency procedures manual.	This requirement is filled by MPL since the Company distributes a copy of its updated plan to external agencies which may be called upon during an emergency (Section 1.3). Also, all internal SMT personnel will have access to an emergency plan, will receive training regarding the Plan and will participate to ICP exercises (Section 4.5 and 4.6); the PMPL Public Awareness Program, Subject 5-2: "Emergency Officials."

Onshore Pipeline Regulations (cont'd)
(SOR 99/294)

Article 35	BRIEF DESCRIPTION	REGULATION MET BY
(x)	A company shall develop a continuing educational program for the police, fire departments, medical facilities, other appropriate organizations and agencies and the public residing adjacent to the pipeline to inform them of the location of the pipeline, potential emergency situations involving the pipeline and the safety procedures to be followed in the case of an emergency.	This requirement is filled by the PMPL Public Awareness Program, specifically Subject 5-2: "Emergency Officials." It is also supported when MPL invites external agencies during Emergency Response exercises.

Article 46 (2) (d)	BRIEF DESCRIPTION	REGULATION MET BY
(1)	A company shall develop and implement a training program for any employee of the company who is directly involved in the operation of the pipeline.	This requirement is met through section 4.5 (Training) of the Integrated Contingency Plan of PMPL.
(2)	The training program shall instruct the employee on *(d)* the emergency procedures set out in the manual developed under section 32 and the procedures for the operation of all emergency equipment that the employee could reasonably be expected to use.	

Onshore Pipeline Regulations (cont'd)
(SOR 99/294)
Cross Reference

Expected Elements – Emergency Response Programs – Onshore Pipeline Regulations, Sections 32-35

The document "expected elements for emergency response" is intended for use by CER auditors to determine if a company's emergency response program meets the CER's goals. The following table states the requirements set out in sections 32 to 35 of the OPR and which section in the Plan fulfills these requirements:

Item	Description	Location in Plan
1	Have an up-to-date emergency procedures manual.	Reviewed in 2019
2	Regularly review and update the emergency procedures manual.	Revision record
3	File the emergency procedure manual and all updates with the NEB.	Section 1.3
4	Establish and maintain liaison with all parties that may be involved in an emergency situation.	Section 2.0
5	Ensure these parties are aware of the practices and procedures to be followed in an emergency situation and that these procedures are consistent with those in the emergency procedures manual.	Section 4.5 & 4.6
6	Have a continuing education program for all appropriate agencies and organizations and the public adjacent to their pipeline to inform them of the location of the facilities, potential emergency situations and safety procedures to be followed.	Section 4.5
7	Stated emergency preparedness and response policy that recognized that emergency response is an integral part of a company's business performance.	Forward Section
8	A hazard analysis, risk determination or similar assessment undertaken to identify critical tasks/risks/hazards, evaluate their likelihood and severity, categorize the risks and identify preventive measures and required emergency response resources.	Appendix G
9	An appropriate training program for all staff and contractors who may be involved in an emergency response.	Section 4.5
10	A procedure to ensure that information from emergency response exercises and response activities from incidents are reviewed and incorporated into the emergency procedures manual and into staff training and continuing education programs.	Section 1.4 Sections 3.11, 3.12 Section 4.5 Appendix E
11	Description of applicable legislation and regulations that may influence or determine emergency response procedures.	Section 1.5 Appendix M

Onshore Pipeline Regulations (cont'd)
(SOR 99/294)
Cross Reference

This CER document also gives a list of what, at a minimum, an emergency procedures manual should include.

Description	Location in Plan
Introduction (How to use)	Sections 1.1 and 1.2
Definitions and Levels of Emergencies	Section 1.6
Description of Initial Responses to Incident Calls	Section 2.1 Sections 3.1 to 3.3
Corporate and Operational Chains of Command	Section 2.3 Figures 2.2, 2.3, 4.1, 4.2, 4.3
Internal and External Contact Lists	Section 2.0 Figures 2.4 to 2.15
Description of General and Site Specific Emergency	Section 3.1 to 3.9
Essential Personnel – Duties Checklist	Section 4.1 to 4.4, App B
Site-Specific Emergency Information (Control Points)	Section 7.2
Resident Lists (where applicable)	In Public Awareness Program
Environmental or Other Areas Requiring Special Consideration or Protection	Sections 6.1 to 6.3, 7.2
Detailed Product Information (e.g. MSDS sheets)	Figures 3.15, 3.16
Description and Location of Response Equipment	Appendix C
Internal and External Reporting Requirements	Sections 2.3 and 2.4
Area maps	Figure 6.1
Training Requirements	Section 4.5
Role of Government Departments	Section 4.9
Manual Updating Procedure and Schedule	Section 1.4
Forms	Appendix K

Onshore Pipeline Regulations (cont'd)

(SOR 99/294)

Cross Reference

The CER requires that a **Continuing Education Program** shall be implemented to inform appropriate agencies and the public residing adjacent to the pipeline of its location, potential emergency situations and safety procedures to be followed (section 35 of OPR). Companies should:

Item	Description	Location in Plan
1	Prepare a description of the continuing education program including its goals and objectives.	Section 4.5
2	Provide sound rationale for the boundaries of the hazards/safety/emergency zone selected and the agencies and persons included in the education program.	In Public Awareness Program
3	Document actions taken to deliver information contained within the education program to identified recipients.	Section 4.6
4	Have measures to confirm information has been received and knowledge acquired.	Section 4.6
5	Maintain up-to-date readily accessible lists of all persons potentially affected by an emergency situation	In Public Awareness Program

The information included in an education program should be clear, concise and understandable to persons not familiar with company operations and products.

Information should include:

Description
All potential hazardous products transported in the pipeline and/or stored at related facilities.
Identification of the risks posed by each product.
MSDS sheets and other physical properties of products applicable to an emergency response.
Plume dispersion information.
Methods and timing of communication.
Circumstances and procedures for sheltering and evacuation.
Other emergency procedures and practices for dealing with an emergency consistent with those specified in the emergency response manual.

Onshore Pipeline Regulations (cont'd)
(SOR 99/294)
Cross Reference

Guidelines for Filing Requirements of the CER

Item	Article	Description	Location in Plan
1	Part VII, 15(1)	Environmental Protection Procedures for: Adverse Climatic conditions Accident or Equipment Malfunctions Hydrocarbon Spill from the pipeline or any storage facility	Section 7.2, Appendix H
2	Part VII, 15(2)	Criteria for the Implementation of the Contingency Plan External Notification Procedures	Section 2.4

CAN/CSA-Z731-03 Emergency Planning for Industry
A National Standard of Canada
Cross Reference

Item	Article	Description	Location in Plan
1	4.2	Policy Statement	Forward Section
2	4.3	Program Coordinator	App B
3	4.4	Hazard Identification	Appendix H
	4.5	Emergency Response Plan (ERP) Development	Entire Plan
4	4.6	Legislative and Industry Codes of Practice	Figure 2.5, App B
5	4.7	Defined Roles and Responsibilities, Notification Procedures (internal and external)	Section 4.4 Figure 4.1, 4.2, 4.3 Sections 2.3 and 2.4
6	4.8	Resources (Internal, External, Personnel, Equipment)	Section 4.4 Figure 4.3 and Appendix C
	4.9	Emergency Response Procedures	Section 3.0
7	4.10	Mutual Aid Agreements	Section 5.0
8	4.11	Contact List: Internal External	 Section 2.3.1 Section 2.4.1
9	4.12	Communication Systems	Section 2.2 Section 5.9
10	4.13	Public Education and Information: Public Relations or Media Plan (designation of spokesperson, logbooks use, etc.) Sensitive Areas (populated areas which may be affected)	HKDP Sections 6.2, 7.2, Figure 6.1
11	5.2	Records and Record Retention	Section 4.5
12	5.3.2.2	Incident Command Centre	App B
13	5.3.2.3	Emergency Operations Centre Location Emergency Coordinating Centre Location	Section 3.1
14	5.4.2	Activation of the ERP	Section 1.0 Figure 2.1
15	5.4.3	Situational Assessment	Figure 1.2
16	5.4.4	Action Plan: Site Safety and Security Plan	Appendix K
17	5.4.5	Resource Mobilization	Section 2
18	5.4.6	Notification and Reporting	Section 2.3 Section 2.4 Figure 2.9, 2.13
19	45.4.7	Damage Assessment Procedure	Internal Procedures
20	5.4.8	Claims Management Procedure	Section 3.0
21	5.4.9	Public Communications	Figure 1.2 Section 5.9
22	5.4.10	Critical Incident Stress Management Program	Internal Procedures

23	5.4.11	End of the Emergency	Figure 1.2 Section 5.9
24	5.5	Review and Debriefing	App E
25	6.1	Training	Section 4.5
26	6.2	Equipment Inspection and Maintenance	Section 5.0
27	6.3	Exercises	Section 4.6
28	6.4	Distribution List Revision Record	Section 1.3 Forward Section
29	6.5	Updating	Section 1.4
30	6.6	Approval of the Plan by Senior Management	Forward Section
31	6.7	Audit	Internal Prodecures

Emergency measures planning to assure the safety of the workers - Detailed guide of an emergency plan for the industry

Planification des mesures d'urgence pour assurer la sécurité des travailleurs – Guide d'élaboration d'un plan de mesures d'urgence à l'intention de l'industrie.

Cross Reference

Item	Article	Description	Location in Plan
1	Section 1 #1	Policy	Forward Section
2	Section 1 #2	Emergency Coordinator	Section 4.4 Figure 4.3
3	Section 1 #4	Risk Evaluation	Appendix H
4	Section 1 #6	Organizational Structure, Flow Chart	Section 2.3 Figure 2.2, 2.3 Section 4.4 Figures 4.1, 4.2, 4.3
5	Section 1 #7	Resources	Appendix C
6	Section 1 #8	Mutual Aid Agreements Telephone lists	Section 2.4.1 Figure 2.9, 2.13, 2.15
7	Section 2 #1	Initiation of the Plan Alarms Response Actions	 Section 2.1 Section 3
8	Section 3 #1	Training Requirements	Section 4.5
9	Section 3 #2	Exercises	Section 4.6
10	Section 3 #4	Distribution Procedures	Section 1.3
11	Section 3 #5	Update Procedure	Section 1.4
12	Section 3 #6	Management Approval	Forward Section
13	Section 3 #7	Audit of the Plan	Section 1.4

Oil and Gas Occupational Safety and Health Regulations (SOR 87-612) Cross Reference

Item	Article	Description	Location in Plan
1	Part XVI, Article 16.4 (1)	The employer shall report, by the most rapid means of communication available to the employer, the date, time, location and nature of any accident, occupational disease or other hazardous occurrence to a safety officer and to the safety and health committee or the safety and health representative, if either exists, as soon as possible but not later than 24 hours after becoming aware of the occurrence.	Section 2.4 Figures 2.9, 2.13 Appendix K
2	Part XVI, Article 16.4 (2)	A written report of the accident, occupational disease or other hazardous occurrence referred to in subsection (1) shall be submitted by the employer within 14 days after the occurrence to the Minister.	Section 3.1 - 11, App K

This Page Intentionally Left Blank

APPENDIX B

RESPONSE TEAM
JOB DESCRIPTIONS & RESPONSIBILITIES

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES

A. President

Role: Provide overall direction, resources and authority for development of PMPL corporate response capabilities. Monitor and guide program development.

Planning responsibilities:

- Makes sure all responders have the appropriate authority to perform their duties during an emergency.
- Commits financial and staff resources sufficient for development, implementation and training pertaining to the ICP.

B. Directors of Operations / Quebec Area Manager

Role: Maintain PMPL response equipment and field response personnel preparedness, train and exercise field response personnel in safety and use of equipment.

Planning responsibilities:

- Knows OSHA / CSST regulations as well as any applicable federal, state and provincial laws and rules related to Safety and Health of the responders.
- Makes sure that the employees know how to use PPE and know the appropriate response procedures relative to the hazards encountered at PMPL facilities.
- Is knowledgeable with laws concerning pipeline operations.
- Knows the emergency response actions associated with the hazards identified at PMPL Facilities, along with the necessary safety measures to be taken during an emergency.
- Knows the location and operation procedures of emergency equipment.
- Ensures that members of the PMPL Operations Department understand emergency operations.
- Organizes field exercises with the members of the SMT Operations Section.

C. Treasurer

Role: Ensures financial, media and logistical support is in place for a spill response. Prearrange for tools and resources needed to handle cost tracking and claims management during an emergency.

Planning responsibilities:

- Ensures business services departments maintain preparedness in the respective areas of Logistics and Finance
- Oversees updating of Corporate Communications manual.
- Develops and maintains lines of communication with governmental agencies.
- Is knowledgeable about the various insurance programs of PMPL and others that might be of use.
- Knows the financial procedures of the company and ensures that these procedures allow for sufficient flexibility during emergency situations.

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES (cont'd)

D. Engineering Manager

Role: Provide technical expertise in development of the ICP and during response activities.

Planning responsibilities:

- Knows the design of the pipeline and dynamics of pipeline operations.
- Supports drawing and map development for the ICP.
- Trains engineers on hydraulic isolation of pipeline.
- Train and exercise the Planning section of the SMT.
- Is knowledgeable of the ecological effect of oil spills and of the most effective mitigation measures in case of contamination of sites.

E. Manager of Health, Safety and Environmental

Role: Maintain the PMPL Integrated Contingency Plan. Maintain preparedness of SMT.

Planning responsibilities:

- Ensures that the emergency response plan is in compliance with company requirements and legislative requirements.
- Identifies internal responders as well as their substitutes for the SMT.
- Develops and implements annual spill exercise training programs.
- Evaluates the performance of the SMT after exercises.
- Keeps an up-to-date list of relevant government agency contacts in the ICP.
- Maintains an up-to-date register of specialists in oil containment and recovery in the ICP
- After a major emergency, reviews the reports regarding the emergency response in order to identify any aspects of the facility's operations, which may need improvement. Oversees the follow up investigation.

F. Human Resources Advisor and Procurement Specialist

Role: Prearrange for procurement of equipment, personnel and supplies needed during an emergency. Provide tools and systems for resource tracking during an emergency.

Planning responsibilities:

- Knows which external resources can supply material during an emergency.
- Maintains up-to-date contractual arrangements for specialists, oil containment and recovery contractors, licensed disposal/storage sites and licensed waste haulers.
- Maintains contractual arrangements for security personnel as needed for spill response operations.
- Maintains pre-arrangements for access to medical care during spill activities

G. Corporate Controller/Executive Assistant

Role: Aids in the release of news to the press, radio, television, and public interest groups. Handles all public affairs with the spokesperson.

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES (cont'd)

Corporate Controller/Executive Assistant (Continued)

Planning responsibilities:

- Develops and maintains lines of communication with governmental agencies.
- Conducts public relations workshops for response team members.
- Ensures listing available of major media who will be informed of an incident related to PMPL's activities.

H. Engineer I

Role: Preplans anticipated communications needs and ensures availability, coordination and compatibility during an emergency.

Planning responsibilities:

- Knowledgeable in communication equipment.
- Provides training to internal responders for using communications equipment.
- Monitors developments in communication techniques and equipment.

I. Pipeline Controller

Role: Receives emergency telephone calls and is responsible for initiating the Initial Communication Plan

Planning responsibilities:

- Knows the correct communication strategy for any type of emergency situations.
- Keeps an up-to-date telephone list of internal key response personnel.
- Knows the appropriate actions relative to pipeline operations in case of an emergency.

J. First Operational Responders - Field

Role: Members of the First Operational Response Team (FORT) and the Operations Section of the SMT. These trained personnel are the first responders to any type of incident at the facility: pipeline leak/break, tank leak/break, injured employee, fire, rescue, etc. For purposes of this manual, they are considered as first responders to an incident whenever the SMT is referenced as responding.

Planning responsibilities:

- Know the alert procedures in case of an emergency and where the emergency equipment is located.
- Know the initial response procedures associated with the pre-identified hazards.
- Are familiar with the PPE to be used during an emergency.
- Receive the training relative to emergency response operations.
- Participate in exercises.
- Know how to select and operate equipment for the particular conditions of a spill.

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES (cont'd)

K. Spill Management Team Personnel

Role: Spill management in respective assigned roles.

Planning responsibilities:

- Know the responsibilities and required actions for their assigned role.
- Know the alert procedures in case of an emergency and initial actions to be taken.
- Know the ICS structure and use of the NIMS forms.
- Participate in exercises.

PMPL INITIAL RESPONSE RESPONSIBILITIES

A. First Contact Awareness

Role: Any employee who witnesses an unusual situation which cannot be corrected routinely, must alert the controller and **within his competences and abilities**, take safe measures to control the situation until the arrival of the Spill Management Team (SMT).

Response Responsibilities:

- If possible and safe, makes a quick initial assessment of the hazards and of the potential risks to health, safety, environment, equipment, and property.

1. The situation can be corrected safely:

- Immediately calls the Controller and informs him of the emergency situation.
- Corrects the situation and immediately notifies the Controller to inform him of the termination of the emergency situation.

2. The situation cannot be corrected safely:

- Immediately calls the Controller.
- Prevents people from entering the affected area.
- Stays at a safe location until the arrival of assistance, in order to forward information to the SMT.

Stays on-site until he receives the authorization to leave by the Operations Section Chief, unless his safety is at risk.

B. Controller

Role: Receives emergency telephone calls and is responsible for initiating the Initial Communication Plan

Response responsibilities:

- Receives emergency calls.
- Helps provide information to identify the location of the leak.
- Minimizes the amount of drainage (main line pressure) from the leak's location.
- Activates the automatic main line block valves, if necessary.
- Completes the emergency checklist.

May be of assistance to the SMT by making necessary phone calls.

C. First Operational Responders

Role: Under the supervision of the Incident Commander (first PMPL person on scene is the IC until relieved), the Operation Section members of the SMT are the first operational responders to any type of incident at the facility: pipeline leak/break, tank leak/break, injured employee, fire, rescue, etc.

Response responsibilities:

- Upon hearing an alarm/report of an incident, report to the scene and look to IC or OSC for further instructions. If first person on scene, assume the role of IC until relieved.
- Use the appropriate PPE for the type of emergency.

PMPL INITIAL RESPONSE RESPONSIBILITIES (cont'd)

C. First Operational Responders (cont'd)

- Are responsible for the initial response: secure the personnel and limit the damages until the arrival of specialized resources (ex.: firefighters, hazardous material recovery contractors, etc.).
- If required, help secure the perimeter and keep unauthorized people out of the area.

D. Spill Management Team (SMT)

Role: Provide direction and support for the field response organization. Mobilized for larger events. Various roles and responsibilities defined by the SMT structure may also be activated in the field for smaller events.

Response responsibilities:

- Provide overall response direction and interfaces with agencies in Unified command.
- Provide documentation of the event and develop plans for subsequent operations periods.
- Obtain needed resources for continued operational response activities.
- Track costs and claims for response effort.

E. PMPL Management

Role: Direction, approvals and SMT support as needed during an emergency, particularly for smaller events when the SMT is not fully mobilized.

Response responsibilities:

- Act as IC if required by situation.
- Offers an administrative support by mobilizing other SMT sections as needed.
- Authorizes expenses related to the emergency; authorizes the transfer of employees for assistance during the emergency, etc.
- Keeps the Board of Directors informed of the progress made during the Emergency Operations.

INCIDENT COMMAND SYSTEM

ICS SYSTEM INTRODUCTION

A. General

This Section identifies the classifications, responsibilities and lines of authority for The Company's Spill Management Team. The Spill Management Team organization chart is located in Figure 4.3. Sections 2.0 and 4.0 of this Plan identify trained Company employees within the emergency response organization and the various methods of contacting these individuals. This complement (supplemented where appropriate with contract resources) should be sufficient to provide continuous operations during the first 7 days of an oil spill response.

At all emergency response operations involving an uncontrolled release of a hazardous substance, a site-specific Incident Command System (ICS) will be established at the emergency site and a Company supervisor / manager will be the person in charge (Incident Commander (IC)) of the PMPL ICS. The ICS is a system whereby all Company, contractor and local community emergency response and other facilities, equipment, personnel, procedures, and communications are coordinated and controlled through a unified command system. Typically the unified command system will be directed by the Company's IC and the senior official of each response team outside the Company to effectively accomplish agreed upon objectives at the scene of an emergency. There is a function within the Company's organization which coincides with the major roles in a typical ICS structure.

The Company's Spill Management Team organization is designed to fulfill the various necessary Company functions within the overall ICS in a manner which most effectively uses the skills and experience of Company personnel to address the specific issues of each incident which arises. The Spill Management Team assignments also designate who is responsible for the emergency preparedness pre-planning activities required for each function. The Company's Spill Management Team organization has been structured to meet special emergency concerns such as minimum response time and needed on-scene equipment, materials, manpower and expertise to effectively and decisively manage an incident that has the potential to cause injury to life or damage to property and the environment. The Incident Commander (with assistance from the appropriate PMPL managers) is responsible for assigning staff to the various roles in the ICS organization.

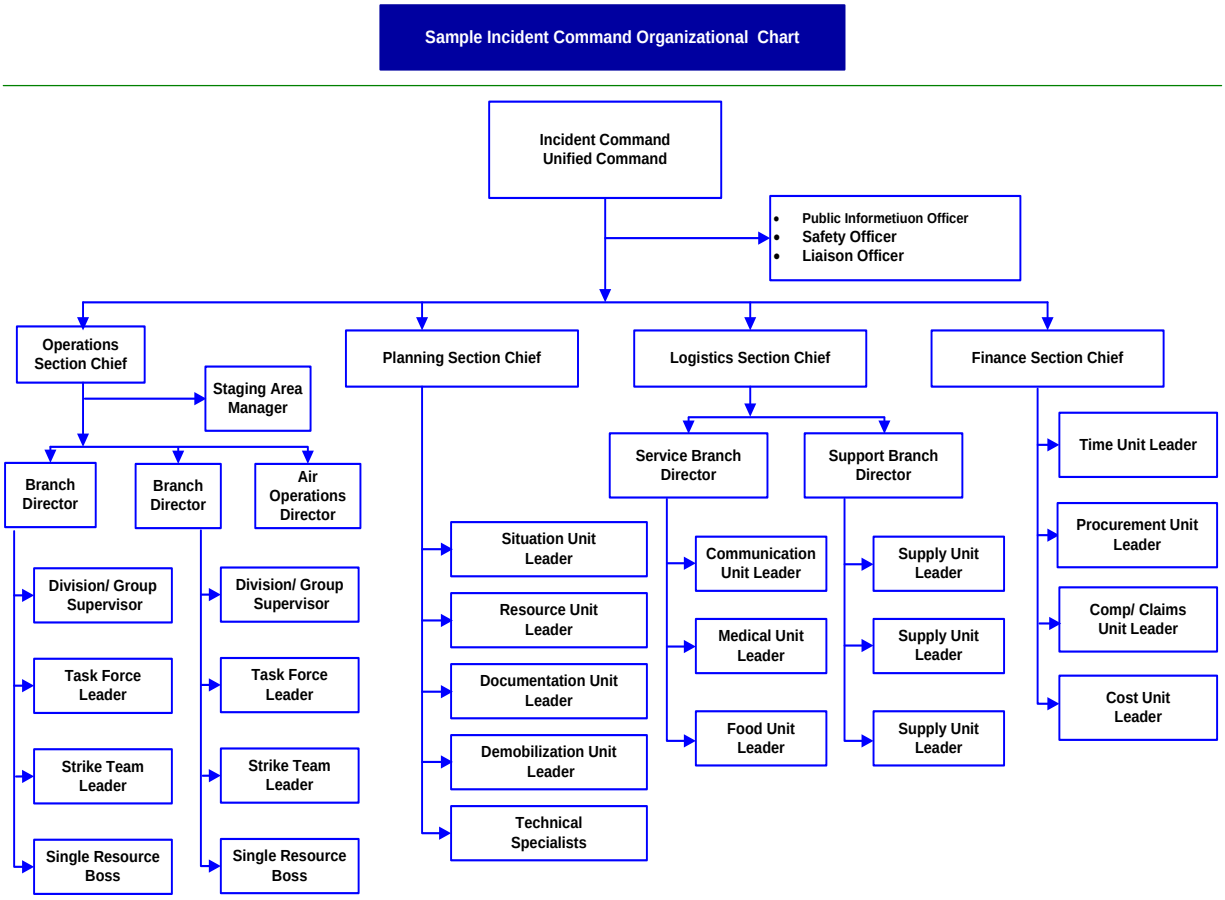
B. Activation

The pre-designated PMPL Qualified Individuals (QIs) are empowered with full authority to activate and contract with required Oil Spill Response Organizations (**OSROs**); activate personnel and equipment maintained by the Company; act as liaison with the Federal On-Scene Coordinator (FOSC); and obligate any funds required to carry out all required or directed oil spill response activities.

The QI shall establish and maintain a singular point of communication during the early hours of a response, which other key onsite responders can contact so that the appropriate magnitude of the response can be confirmed. Upon arrival onsite, the senior Company responder is also temporarily empowered to act as a QI until a more senior Company responder or the designated Company IC (also a QI) arrives at the site.

Figure B-1

Standard Incident Command System



INCIDENT COMMAND SYSTEM (cont'd)

ICS SYSTEM INTRODUCTION

C. ICS System Overview

This appendix is intended to be a guidance document in forming a response management system for oil spills. This is based on the USCG Incident Management Handbook (IMH). This system is consistent with the National Contingency Plan (NCP) and the National Incident Management System (NIMS) Incident Command System (ICS) which is the predominant public domain response management system in use in North America.

This system provides for maximum flexibility in varied situations, but specific training is required for effective implementation. The IMH is intended to be a tool to supplement that training rather than a stand alone document. By reading the general instructions, the common unit leader responsibilities, the position descriptions and checklists responders will be guided in their duties within the ICS.

The prior diagram provides an outline of a sample ICS modular response (NIMS) organization for pre-event planning and non-oil spill emergencies. Subsequent diagrams in this section provide Oil Spill Specific section organizations from the USCG Incident Management Handbook (IMH).

However, an actual organization will be event specific. Not all positions need be filled. The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary.

During the initial response, the first person on-scene serves as the Incident Commander (IC) until relieved. The IC and subsequently the Operations Section Chief will assign PMPL Clean-up unit leaders (PMPL SMT Figure 4.3) to the necessary roles as outlined in the following Job Descriptions. Similarly, the IC and other ICS section chiefs will do the same for their respective sections as the SMT is mobilized.

Personnel with specialized skills (technical specialists), not specifically identified within the ICS, have the flexibility to integrate anywhere within the organization to meet the needs of the Incident Commander. This feature allows the greatest compatibility with other existing response management systems.

Figure B-2
ICS COMMON REPONSIBILITIES

A. Receive assignment from your agency, which includes the following information:
   1. Job assignment (e.g., designation or position).
   2. Brief overview of type and magnitude of incident.
   3. Resource order number and request number and/or travel orders (TONO
   4. Travel instructions including reporting location and reporting time.
   5. Communication instructions (e.g., radio frequency).

B. Prior to departure.
   1. Monitor incident related information from the media, if available.
   2. Assess personal Go-Kit and equipment readiness (e.g., medications, money, computer, and medical record) - consider attributes of the incident and climate of location.
   3. Inform others as to where you are going and how to contact you.
   4. Review the IMH, applicable job aid(s), standard operating procedures (SOPs), regional and local plans, and other relevant documentation.
   5. Bring a hard copy of your position-specific PQS.
   6. Take advantage of travel time to rest prior to arrival.

C. Upon arrival at the incident.
   1. Check in at the designated location, which may be found at the following locations:
      a. Incident Command Post (ICP).
      b. Incident Base.
      c. Staging Areas.
      d. Helibases.
   2. Assisting or Cooperating Agency Representatives (AREPs) - report to the Liaison Officer (LOFR) at the ICP after checking in.
   3. Direct on-scene assignment check in. Note: If you are instructed to report directly to an assignment, check in with the Division/Group Supervisor (DIVS) or the Operations Section Chief (OSC).

D. Upon arrival at assignment.
   1. Receive briefing from immediate supervisor.
   2. Acquire work materials.
   3. Abide by organizational code of ethics.
   4. Participate in IMT meetings as appropriate.
   5. Comply with all safety practices and procedures, and report unsafe conditions to your immediate supervisor and the Safety Officer (SOFR).
   6. If relieving someone, obtain a briefing from that person.
   7. Understand assigned communication methods and procedures for area of responsibility (AOR).
   8. Support the collection and reporting of situational information.
   9. Review and adhere to the information management plan, if developed.
   10. Use clear text and ICS terminology in all radio communications – no codes.
   11. Complete forms and reports required of assigned position.
   12. Ensure proper disposition of incident documentation as directed by the Documentation Unit.
   13. Ensure equipment is operational prior to each work period.
   14. Report signs and symptoms of extended incident stress, injury, fatigue, or illness for yourself or coworkers to your supervisor.
   15. Brief shift replacement on operation status.

E. Upon notice of demobilization.
   1. Respond to demobilization orders.

2. Brief subordinates regarding demobilization.
3. Prepare personal belongings for demobilization.
4. Return all assigned equipment.
5. Receive the Incident Personnel Performance Rating Form (ICS 225-CG) from your supervisor.
6. Participate in after action activities – to include sharing lessons learned.
7. Complete demobilization check-out process before returning to home unit.
8. Notify the Demobilization Unit Leader (DMOB) and home unit of your safe return.

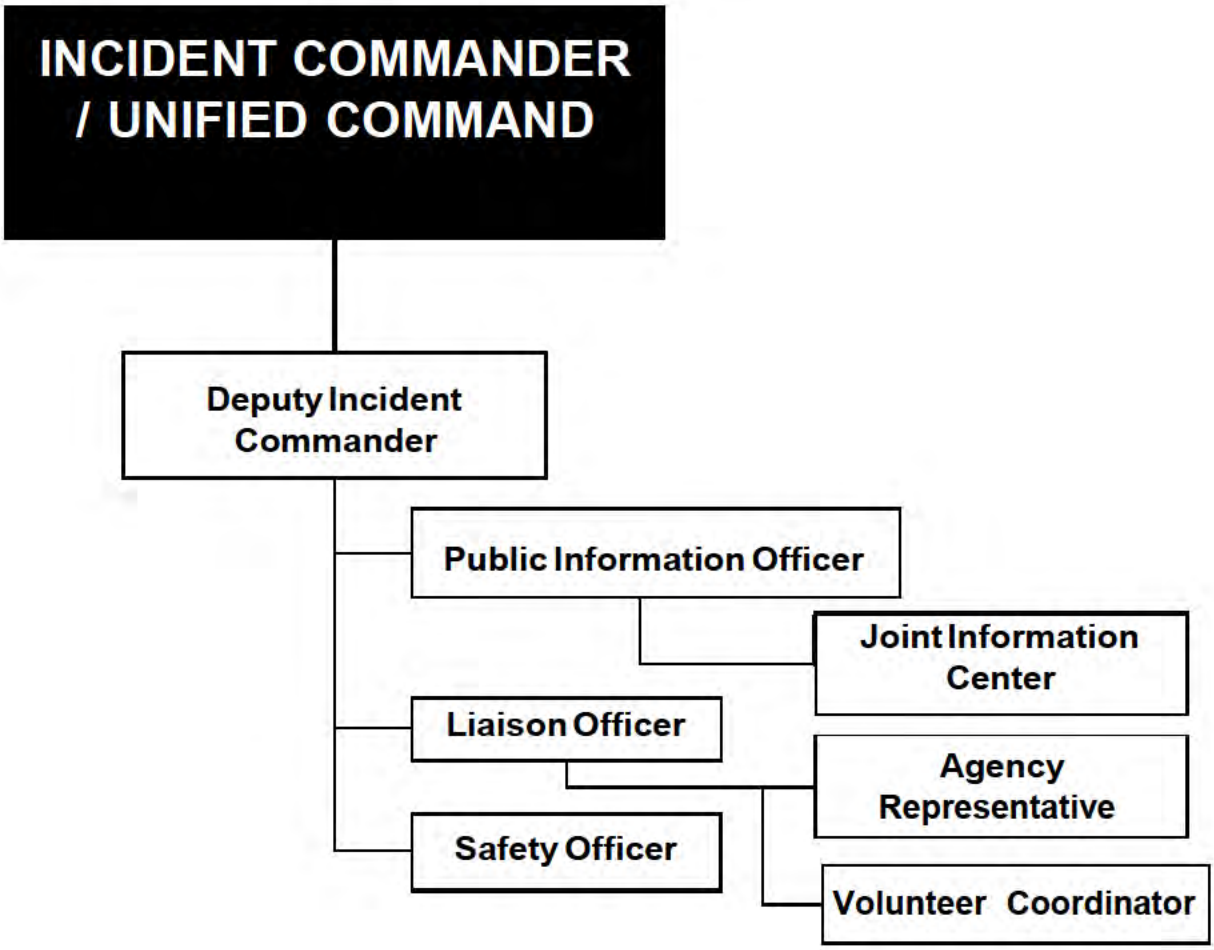
COMMAND AND GENERAL STAFF, BRANCH DIRECTORS, UNIT LEADERS, DIVISION/GROUP SUPERVISORS, MANAGERS, AND TEAM LEADERS

A. Upon check-in, receive briefing from Incident Commander (IC), Section Chief, Unit Leader, or Branch Director as appropriate.
B. Determine status of unit activities.
C. Determine resource needs.
D. Order additional unit staff as appropriate.
E. Confirm dispatch and estimated time of arrival of staff and supplies.
F. Assign duties to and supervise staff.
G. Maintain accountability for assigned personnel with regard to exact location(s), personal safety, and welfare at all times, especially when working in or around incident response operations.
H. Supervise demobilization of unit, including storage of supplies.
I. Provide the Supply Unit Leader (SPUL) with a list of supplies to be replenished.
J. Maintain unit records, including a Unit Log (ICS 214-CG).
K. Maintain a personal log of actions, decisions, and events if desired.
L. Complete ICS 225-CG for subordinates before demobilization.

Figure B-3

COMMAND STAFF

ORGANIZATION CHART



INCIDENT COMMAND SYSTEM (cont'd)

INCIDENT COMMANDER (IC) (USCG IHM Pg. 6-2)
The IC's responsibility is the overall management of the incident. On many incidents, the command activity is carried out by a single IC. The IC is selected based on qualifications and experience.

The IC may have Deputy IC's. The Deputy IC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. When span of control becomes an issue for the IC, a Deputy IC/Chief of Staff may be assigned to manage the Command Staff.

Incident Commanders for oil discharges will, whenever possible and practical, be organized under the Unified Command Structure which includes, but is not limited to:
- The predesignated Federal On-Scene Coordinator (FOSC).
- The predesignated State Incident Commander (State IC).
- The representative of the Responsible Party (RP).

The Unified Command is responsible for the overall management of the incident. The Unified Command directs incident activities including the development and implementation of strategic decisions and approves the ordering and releasing of resources. The Unified Command may assign Deputy Incident Commanders to assist in carrying out Incident Command responsibilities.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the IC are;
- ♦ Ensures the Deputy Incident Commander and Section Chiefs have the resources and support to mount and sustains response operations.
- ♦ Decides if an evacuation is necessary.
- ♦ Is the spokesperson for the company as directed by the PAIO.
- ♦ Calls for the termination of the emergency.

DEPUTY INCIDENT COMMANDER (DIC) (USCG IHM Pg. 6-2)
Supports the IC, conducts meetings as requested by the IC, and oversees and coordinates the activities of the command center / manages the command staff as requested by the IC.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the DIC are;
- ♦ Maintains close contact with the Section Chiefs.
- ♦ Assists in the call out of appropriate members of the Response Team, internal and external, if requested.
- ♦ At the end of the response, supports Safety Officer to investigate, report, and record all occupational incidents and develops remedial actions to avoid future incidents.

PUBLIC AFFAIRS / INFORMATION OFFICER (PIO) (USCG IHM Pg. 6-3)
The PAIO is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. The PAIO may use media consultants for assistance as necessary.
In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the PAIO are;
- ♦ To use the PMPL Communication Manual to assist PMPL representatives in their communication with key audiences. It was specifically developed to accomplish the following:
    - o Establish a process for PMPL representatives in communicating to their key audiences and/or responding to inquiries or concerns from audiences;

INCIDENT COMMAND SYSTEM (cont'd)

PUBLIC AFFAIRS / INFORMATION OFFICER (PAIO) (USCG IHM Pg. 6-3) cont'd

- o Ensure that PMPL representatives convey consistent messages to all audiences;
- o Provide uniform background materials (i.e., fact sheets) for dissemination to audiences; and
- o Assist in establishing a comprehensive database of presentations, meetings and other communications conducted by PMPL representatives.

- ♦ Formulates and releases information about an incident to the news media and obtains approval from the IC/DIC
- ♦ Ensures that media concerns are clearly and accurately identified and addressed during emergency response operations.
- ♦ Prepares press releases in collaboration with the Regulatory/Legal Advisor.
- ♦ Briefs the spokesperson before any press releases or press conferences.
- ♦ Monitors media coverage of the incident.
- ♦ Establishes lines of communication with local press, radio, TV, national and international media, relevant public pressure groups, concerned public bodies, and concerned citizens groups, if required.
- ♦ Organizes media tours of the incident.

LIAISON OFFICER (LNO) (USCG IHM Pg. 6-4)
Incidents that are multi-jurisdictional, or have several agencies involved, may require the establishment of the Liaison Officer position on the Command Staff. The LNO is the primary contact for agency representatives.

AGENCY REPRESENTATIVES (AREP) (USCG IHM Pg. 6-7)
In many incidents involving multiple jurisdictions, an agency or jurisdiction will send a representative to assist in coordination efforts.

An Agency Representative is an individual assigned to an incident from an assisting or cooperating agency who has been delegated authority to make decisions on matters affecting that agency's participation at the incident. Agency Representatives report to the Liaison Officer, or to the Incident Commander in the absence of the Liaison Officer.

SAFETY OFFICER (SOFR) (USCG IHM Pg. 6-8)
The SOFR function is to develop and recommend measures for assuring personnel safety and to assess and/or anticipate hazardous and unsafe situations. The Safety Officer will correct unsafe acts or conditions through the regular line of authority, although the Safety Officer may exercise emergency authority to stop or prevent unsafe acts when immediate action is required. The Safety Officer maintains awareness of active and developing situations, ensures the preparation and implementation of the Site Safety Plan, and includes safety messages in each Incident Action Plan.

Only one primary SOFR will be assigned for each incident. The SOFR may have assistants, as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities, such as air operations, hazardous materials, etc. In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the SOFR are;

- ♦ Attends command and planning meetings.
- ♦ Is well versed in safe operation practices and pertinent legislation.
- ♦ Makes sure all responders are safe during the response.
- ♦ Directs and is primary contact for Safety Specialists dispatched to the response site.

INCIDENT COMMAND SYSTEM (cont'd)

SAFETY OFFICER (SOFR) (USCG IHM Pg. 6-8) cont'd

- Identifies potential safety problems at the spill site and communicates the information to the field responders and the Management Team
- Ensures that appropriate personal protective equipment is available for field workers.
- Seeks out expertise on the occupational health and safety practices to be followed in all clean-up operations.
- Ensures first aid services are available to adequately handle injuries/illnesses in the field.
- Obtains medical aid and transportation for injured and ill emergency response personnel.
- Maintains medical reports and records about the emergency operations.
- Investigates, reports, and records all occupational incidents, and develop remedial actions to avoid future occurrences.
- In collaboration with the Operations Section Chief, implements a permit to work system and manages the system.

REGULATORY LEGAL OFFICER (RLO)

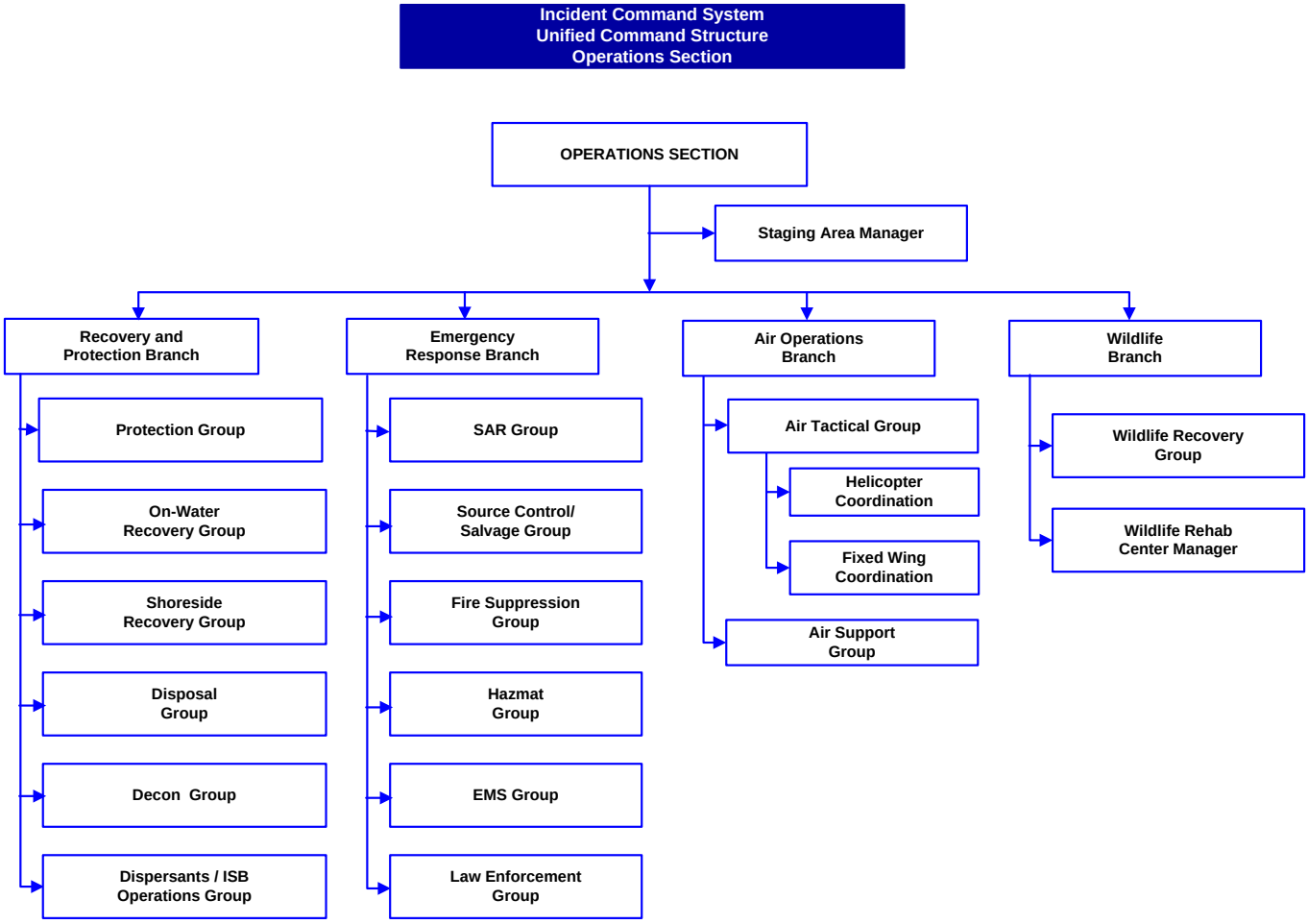
The RLO assesses the company's potential liability for the effects of the emergency and any actions associated with emergency intervention. As a person knowledgeable of laws concerning pipeline operations, the RLO will act in an advisory capacity during an oil spill response.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the RLO are;

- Advises the Incident Commander on the legal aspects of oil spill control, containment and recovery operations and general emergency response.
- Advises the Financial/Accounting Advisor as to the legitimacy of claims, contracts, etc.
- Acts as the legal government liaison.
- Reviews, in collaboration with the Public Affairs Information Officer, all press release, and reports provided to government agencies.
- Prepares updated information releases, in collaboration with the Public Affairs Specialist.
- Assists the Operations Section Chief and the Environmental Specialist in obtaining regulatory approvals/permits during emergency and rehabilitation operations.
- Ensures that all appropriate measures are taken to preserve evidence and appropriate sampling that may be required for future legal considerations.

Figure B-4

OPERATIONS SECTION



INCIDENT COMMAND SYSTEM (cont'd)

OPERATIONS SECTION CHIEF (OSC) (USCG IHM Pg. 7-2)

The Operations Section Chief is responsible for the management of all tactical operations directly applicable to the primary mission. The Operations Chief activates and supervises elements in accordance with the Incident Action Plan and directs its execution. The OSC also activates and executes the Site Safety Plan; directs the preparation of unit operational plans, requests or releases resources, monitors operational progress and makes expedient changes to the Incident Action Plans as necessary, and reports such to the Incident Commander.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the OSC are;

- Ensures the safety of all personnel in collaboration with the Safety Officer (e.g. use of PPE, etc.).
- Keeps the Incident Commander informed of the progress of the operations by providing frequent situation status reports.
- Conducts Tactical Operations Planning Meetings.
- Delegates responsibilities to the Clean-Up Unit Leaders/ Contractors and the Pipeline Repair Unit.
- Identifies future requirements of his staff and arranges for more equipment and/or personnel as required.
- Manages all field operations directly related to the evacuation of personnel and people.
- Coordinates containment and cleanup of any spilled or emitted material.
- Ensures Field Command Posts are set up as needed.
- Evaluates, in collaboration with the Clean-up Unit Leaders/ Contractors, the amount of oil to be removed and methods to be employed to recover the oil.
- Ensures that response personnel are aware of and follow company policies and appropriate government agency directives.
- Implements a permit-to-work system, in liaison with the Safety Officer.

CLEAN-UP UNIT LEADER (CLUL)

PMPL has designated individuals in the SMT as Clean-up unit leaders in the Operations Section (See Figure 4.3). These individuals are trained in oil spill response and are assigned to the following positions in the ICS as needed based on the situation. The roles requiring specialist skills may be filled by contractors or consultants.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the CLUL are;

- Assists the Operations Section Chief in the development of Tactical Operations Plans.
- Works with the Logistics Section Chief to identify aircraft, boats, vehicles and manpower support and carry out clean-up operations.
- Assesses the amount of oil to be removed and methods to be used for containment and recovery of oil.
- Recommends the best methods to be used to contain and recover the oil and means for temporary storage of oil and oily wastes debris.
- Oversees the recovery.
- Gives training sessions related to clean-up operations to all field personnel.
- Attends Operations Sections Chief's meetings.

CLEAN-UP UNIT CONTRACTORS (CLUC)

Provide equipment and technical expertise for operation of the equipment, including knowledge of capabilities and applicability to proposed response strategies. Assist OSC and PSC in determining equipment availability and applicability during both the emergency and project phases of the response.

INCIDENT COMMAND SYSTEM (cont'd)

CLEAN-UP UNIT CONTRACTORS (CLUC) cont'd
In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the CLUC are:

- Provides technical guidance on methods for using the equipment and coordinating repair and maintenance efforts to keep equipment operating at highest efficiency.
- Is the contracted expert in the operations, application, and use of spill containment and recovery equipment.
- Knows the equipment, in terms of logistics and communication systems required during an emergency.
- Oversees the replenishment and cleaning of the emergency equipment after an emergency.

HYDRAULIC ISOLATION SPECIALIST
Provides technical expertise and information during the emergency phase of the response to evaluate the pipeline condition and volumes post incident. Suggests strategies to minimize release of oil from the line. Supports the PRUL in determining and implementing mitigation strategies.

PIPELINE REPAIR UNIT LEADER (PRUL)
PMPL has designated individuals in the SMT as PRULs in the Operations Section (See Figure 4.3).
PMPL Specific Responsibilities for the PRUL are;

- Under the supervision of the Operations Section Chief, the Pipeline Repair Unit is responsible for all aspects of locating the source of the leak or break and taking steps to repair the defect.
- Works in collaboration with the Operations and Planning Section Chiefs in order to isolate, excavate and repair the defect.
- Ensures that pipeline repairs are completed in accordance with applicable codes and industry standards.
- Coordinates contractor work forces to accomplish the pipeline repairs.
- If external resources are needed, works in collaboration with the Logistics Section Chief in order to obtain personnel, equipment, etc.

STAGING AREA MANAGER (STAM) (USCG IHM Pg. 7-8)
Under the Operations Section Chief, the Staging Area Manager is responsible for managing all activities within the designated staging areas.

BRANCH DIRECTOR (OPBD) (USCG IHM Pg. 7-4)
The Branch Directors, when activated, are under the direction of the Operations Section Chief, and are responsible for the implementation of the portion of the Incident Action Plan appropriate to the Branches.

DIVISION/GROUP SUPERVISOR (DIVS) (USCG IHM Pg. 7-5)
The Division and/or Group Supervisor reports to the Operations Section Chief or Branch Director when activated. The supervisor is responsible for the implementation of the assigned portion of the Incident Action Plan, assignment of resources within the division/group, and reporting on progress of control operations and status of resources within the division/group.

INCIDENT COMMAND SYSTEM (cont'd)

STRIKE TEAM/TASK FORCE LEADER (USCG IHM Pg. 7-6)
The Strike Team/Task Force Leader reports to an OPBD or DIVS and is responsible for performing tactical assignments assigned to the Strike Team or Task Force. The leader reports work progress, resources status and other important information to a division/group supervisor, and maintains work records on assigned personnel.

SINGLE TACTICAL RESOURCE (USCG IHM Pg. 7-7)
The person in charge of a single tactical resource will carry the unit designation of the resource.

AIR OPERATIONS BRANCH DIRECTOR (AOBD) (USCG IHM Pg. 7-9)
AOBD is ground-based and is primarily responsible for preparing the Air Operations Summary Worksheet (ICS 220-CG), the air operations portion of the IAP and for providing logistical support to incident aircraft. The Air Operations Summary Worksheet (ICS-220-CG) may or may not be completed depending on the needs of the incident. The AOBD will ensure that the Incident Action Plan will reflect agency restrictions that have an impact on the operational capability or utilization of resources such as night flying or hours per pilot. After the IAP is approved, the AOBD is responsible for overseeing the tactical and logistical assignments of the Air Operations Branch. In coordination with the Logistics Section, the AOBD is responsible for providing logistical support to aircraft operating on the incident.

AIR TACTICAL GROUP SUPERVISOR (USCG IHM Pg. 7-10)
The ATGS is primarily responsible for tactical operations of craft and aircrews. This includes: 1) providing fuel and other supplies; 2) providing maintenance and repair of aircraft; 3) Keeping records of aircraft activity, and 4) providing enforcement of safety regulations. The ATGS reports to the AOBD.

The Air Tactical Group Supervisor is primarily responsible for the coordination and scheduling of aircraft operations intended to locate, observe, track, survey, support dispersant applications or other deliverable response application techniques, or to report on the incident situation when fixed and/or rotary-wing aircraft are airborne at an incident. These coordination activities are performed by the Air Tactical Group Supervisor while airborne. The Air Tactical Group Supervisor reports to the Air Operations Branch Director.

AIR SUPPORT GROUP SUPERVISOR
The Air Support Group Supervisor is primarily responsible for supporting and managing helibase and helispot operations and maintaining liaison with fixed-wing air bases. This includes providing: 1) fuel and other supplies, 2) maintenance and repair of helicopters, 3) keeping records of helicopter activity, and 4) providing enforcement of safety regulations. These major functions are performed at helibases and helispots. Helicopters, during landing and takeoff and while on the ground, are under the control of the Air Support Group's Helibase or Helispot Managers. The Air Support Group Supervisor reports to the Air Operations Branch Director.

RECOVERY AND PROTECTION BRANCH DIRECTOR (USCG IHM Pg. 19-14)
The Recovery and Protection Branch Director is responsible for overseeing and implementing the protection, containment and cleanup activities established in the Incident Action Plan. The Recovery and Protection Branch Director reports to the Operations Section Chief.

INCIDENT COMMAND SYSTEM (cont'd)

PROTECTION GROUP SUPERVISOR (USCG IHM Pg. 19-14)
Under the Recovery and Protection Branch Director, the Protection Group Supervisor is responsible for the deployment of containment, diversion and sorbent boom in designated locations. Depending on the size of the incident, the Protection Group may be further divided into teams, task forces and single resources.

ON WATER RECOVERY GROUP SUPERVISOR (USCG IHM Pg. 19-14)
Under the Recovery and Protection Branch Director, the On-Water Recovery Group Supervisor is responsible for managing on water recovery operations in compliance with the Incident Action Plan. The Group may be further divided into teams, task forces and single resources.

SHORESIDE RECOVERY GROUP SUPERVISOR (USCG IHM Pg. 19-16)
Under the Recovery and Protection Branch Director, the Shoreside Recovery Group Supervisor is responsible for managing shoreside cleanup operations in compliance with the Incident Action Plan. The group may be further divided into Strike Teams, Task Forces and single resources.

DISPOSAL GROUP SUPERVISOR (USCG IHM Pg. 19-16)
Under the Recovery and Protection Branch Director, the Supervisor of the Disposal Group is responsible for coordinating the on site activities of personnel engaged in collecting, storing, transporting and disposing of waste materials. Depending on the size and location of the spill, the disposal groups may be further divided into teams, task forces and single resources.

DECONTAMINATION GROUP SUPERVISOR (USCG IHM Pg. 19-16)
Under the Recovery and Protection Branch Director, the Decontamination Group Supervisor is responsible for decontamination of personnel and response equipment in compliance with approved statutes.

EMERGENCY RESPONSE BRANCH DIRECTOR (USCG IHM Pg. 19-17)
The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment and stabilize the situation.

SEARCH AND RESCUE (SAR) GROUP (USCG IHM Pg. 18-13)
Under the direction of the Emergency Response Branch Director, the SAR Group Supervisor is responsible for prioritization and coordination of all Search and Rescue missions directly related to a specific incident.

SOURCE CONTROL / SALVAGE GROUP SUPERVISOR (USCG IHM Pg. 19-17)
Under the direction of the Emergency Response Branch Director, the Salvage Group Supervisor is responsible for coordinating and directing all source control / salvage activities related to the incident.

FIRE SUPPRESSION GROUP SUPERVISOR (USCG IHM Pg. 21-8)
The Fire Suppression Group Supervisor is responsible for coordinating and directing all firefighting activities related to the incident. This role is typically performed by the Local or Municipal Fire Department and coordinated by the senior PMPL person on-scene.

HAZARDOUS MATERIALS GROUP SUPERVISOR (USCG IHM Pg. 20-20)
Under the direction of the Emergency Response Branch Director, the HAZMAT Group Supervisor is responsible for coordinating and directing all hazardous materials activities related to the incident.

INCIDENT COMMAND SYSTEM (cont'd)

SECURITY / LAW ENFORCEMENT GROUP SUPERVISOR (SECM) (USCG IHM Pg. 9-12)

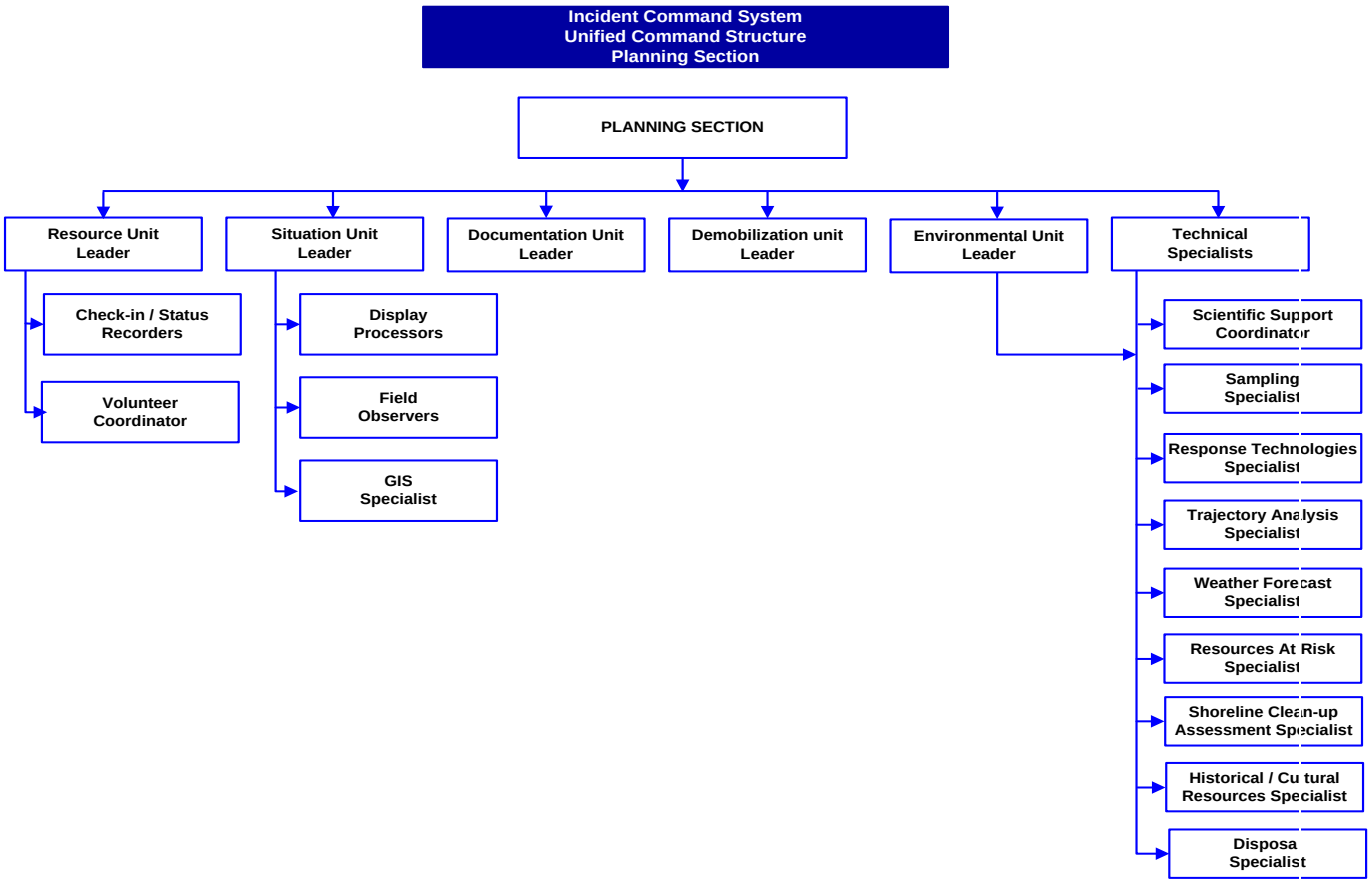
Under the direction of the Emergency Response Branch Director, the Security / Law Enforcement Group Supervisor is responsible for coordinating and directing all law enforcement activities related to the incident, which may include, but is not limited to isolating the incident, crowd control, traffic control, evacuations, beach closures and/or perimeter security. In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the SECM are;

- Ensures that company equipment is adequately protected, as well as ensuring that the general public is not allowed to interfere with the emergency operations
- Ensures roadways and driveways are kept clear for the emergency vehicles.
- Plans and directs surveillance operations.
- Issues pre-prepared security passes.
- Establishes access control and security patrols as necessary.
- Maintains liaison with police force.
- Investigates any security incidents.
- Attends Operations Section Chief's meetings.

WILDLIFE BRANCH DIRECTOR (USCG IHM Pg. 19-17)

The Wildlife Branch Director is responsible for minimizing wildlife losses during spill responses; coordinating early aerial and ground reconnaissance of the wildlife at the spill site and reporting results to the Situation Unit Leader; employing wildlife hazing measures as authorized in the Incident Action Plan; and recovering and rehabilitating impacted wildlife. A central wildlife processing center should be identified and maintained for: evidence tagging, transportation, veterinary services, treatment and rehabilitation storage and other support needs. The activities of private wildlife care groups, including those employed by the responsible party, will be overseen and coordinated by the Wildlife Branch Director.

Figure B-5
PLANNING SECTION



INCIDENT COMMAND SYSTEM (cont'd)

PLANNING SECTION CHIEF (PSC) (USCG IHM Pg. 8-2)

The Planning Section Chief, a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to 1) understand the current situation, 2) predict the probable course of incident events, and 3) prepare alternative strategies for the incident.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the PSC are;

- Gathers the information necessary to produce/review the Incident Action Plans.
- Coordinates the collection, evaluation, dissemination and use of information about the current and forecasted condition of the situation and on the status of the resources assigned to the response operation, in order to produce/review the Incident Action Plans.
- Analyzes the dynamics of pipeline operation to help determine the origin of the leak.
- Coordinates the documentation of the event (incident control operations and response operations).
- Works in collaboration with Product Movement Manager/Controller to locate the leak and recommends ways to minimize the quantity of oil that escapes the pipeline.

RESOURCE UNIT LEADER (RESL) (USCG IHM Pg. 8-3)

The Resource Unit Leader (RESTAT) is responsible for maintaining the status of all resources (primary and support) of an incident. RESTAT achieves this through development and maintenance of a master list of all resources, including check-in, status, current location, etc. This unit is also responsible for preparing parts of the Incident Action Plan (ICS 203, 204 & 207) and compiling the entire plan in conjunction with other members of the ICS, (e.g., Situation Unit, Operations, Logistics) and determining the availability of resources.

CHECK-IN RECORDER(USCG IHM Pg. 8-4)

Check-in recorders are needed at each check-in location to ensure that all resources assigned to an incident are accounted for. Reports to the RESL

VOLUNTEER COORDINATOR

The Volunteer Coordinator is responsible for managing and overseeing all aspects of volunteer participation, including recruitment, induction and deployment. The Volunteer Coordinator is part of the Planning Section and reports to the Resources Unit Leader. Coordination of Volunteers may also be assigned to the LNO by the IC.

SITUATION UNIT LEADER (SITL) (USCG IHM Pg. 8-4)

The Situation Unit Leader is responsible for the collection and evaluation of information about the current and possible future status of the spill and the spill response operations. This responsibility includes the compilation of information regarding the type and amount of oil spilled, the amount of oil recovered, the oil's current location and anticipated trajectory, and impacts on natural resources. This responsibility includes providing information to the GIS Specialist(s) for the creation of maps to depict the current and possible future situation and the preparation of reports for the Planning Section Chief.

DISPLAY PROCESSOR (DPRO) (USCG IHM Pg. 8-5)

The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs and infrared data. Reports to the SUL.

INCIDENT COMMAND SYSTEM (cont'd)

FIELD OBSERVER (FOBS) (USCG IHM Pg. 8-6)
The Field Observer is responsible for collecting situation information from personal observations at the incident and for providing this information to the Situation Unit Leader. Reports to the SUL.

DOCUMENTATION UNIT LEADER (DOCL) (USCG IHM Pg. 8-7)
The Documentation Unit Leader is responsible for the maintenance of accurate, up-to-date incident files. Examples of incident documentation include: Incident Action Plan, incident reports, communication logs, injury claims, situation status reports, etc. Thorough documentation is critical to post-incident analysis. Some of these documents may originate in other sections. This unit shall ensure each section is maintaining and providing appropriate documents. Incident files will be stored for legal, analytical and historical purposes. The Documentation Unit also provides duplication and copying services.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the DOCL are;

- Records all events of the response and clean-up efforts along with the time they occur and maintains any photographical record of the events.
- Files all documents.
- Collects logbooks of all the responders and writes a final report for documentation purposes.
- Attempts to collect the names and affiliations of all persons involved in the operations as well as visitors to the spill site.
- Maintains and stores accurate and complete incident files for legal, analytical, and historical purposes.
- Provides Unit Leaders and Section Chiefs with copies of approved Incident Action Plans.
- Prepares final reports concerning the incident to the attention of the IC.

DEMOBILIZATION UNIT LEADER (DMOB) (USCG IHM Pg. 8-8)
The Demobilization Unit Leader is responsible for developing the Incident Demobilization Plan, and assisting Sections/Units in ensuring that an orderly, safe and cost effective demobilization of personnel and equipment is accomplished from the incident.

ENVIRONMENTAL UNIT LEADER (ENVL) (USCG IHM Pg. 8-9)
The ENVL is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting. The ENVL prepares environmental data for the Situation Unit. Technical Specialists frequently assigned to the Environmental Unit may include the Scientific Support Coordinator and Sampling, Response Technologies, Trajectory Analysis, Weather Forecast, Resources at Risk, Shoreline Cleanup Assessment, Historical/ Cultural Resources, and Disposal Technical Specialists.
In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the ENVL are;

- Analyses the damages or risks that may have an impact on public health and safety, on water, air, or soil quality and recommends appropriate mitigation measures in order to minimize damages and rehabilitate an impacted site. Attends planning and ICS meetings.
- Directs resources at Risk and Shoreline Clean-up Assessment team missions.
- Prepares environmental guidelines and informs the field personnel of those guidelines in order to minimize the damages to the environment.
- Is the environmental liaison with external governmental agencies.
- Determines, in collaboration with the Regulatory/Legal Advisor, which permits and approvals are required for response and mitigation operations.
- Determines, in collaboration with company management and governmental agencies, priorities for site clean up.

INCIDENT COMMAND SYSTEM (cont'd)

ENVIRONMENTAL UNIT LEADER (ENVL) (USCG IHM Pg. 8-9) cont'd

- In collaboration with governmental agencies, establishes temporary waste storage areas, in order to minimize the damages to the environment.
- Is in charge of the soil/groundwater characterization study, if needed.
- Coordinates efforts for the capture, cleaning, and rehabilitation of oiled wildlife.

TECHNICAL SPECIALISTS (THSP) (USCG IHM Pg. 8-12)
Technical Specialists are advisors with special skills needed to support the incident. Technical Specialists may be assigned anywhere in the ICS organization. If necessary, Technical Specialists may be formed into a separate unit. The Planning Section will maintain a list of available specialists and will assign them where needed.

The following are example position descriptions for Technical Specialists that might be utilized during an oil spill response:

SCIENTIFIC SUPPORT COORDINATOR SPECIALIST (USCG IHM Pg. 19-19)
The Scientific Support Coordinator (SSC), in accordance with the National Contingency Plan, will provide the Federal On Scene Coordinator (FOSC) scientific advice with regard to the best course of action during a spill response. The SSC will obtain a consensus from the Federal Natural Resource Trustee Agencies and provide spill trajectory analysis data, information on the resources at risk, weather information, tidal and current information, etc. The SSC will be the point of contact for the Scientific Support Team from National Oceanic and Atmospheric Administration's (NOAA) Hazardous Material Response and Assessment Division.

SAMPLING SPECIALIST (USCG IHM Pg. 19-20)
The Sampling Specialist is responsible for providing a sampling plan for the coordinated collection, documentation, storage, transportation and submittal to appropriate laboratories for analysis or storage.

RESPONSE TECHNOLOGIES SPECIALIST (USCG IHM Pg. 19-21)
The Response Technologies Specialist is responsible for evaluating the opportunities to use various response technologies, including mechanical containment and recovery, dispersant or other chemical countermeasures, in-situ burning, and bioremediation. The specialist will conduct the consultation and planning required by deploying a specific response technology, and by articulating the environmental tradeoffs of using or not using a specific response technique.

TRAJECTORY ANALYSIS SPECIALIST (USCG IHM Pg. 19-22)
The Trajectory Analysis Specialist is responsible for providing the Unified Command projections and estimates of the movement and behavior of the spill. The specialist will combine visual observations, remote sensing information and computer modeling, as well as observed and predicted tidal, current and weather data to form these analyses. Additionally, the specialist is responsible for interfacing with local experts (weather service, academia, researchers, etc.) in formulating these analyses. Trajectory maps, over flight maps, tides and current data, and weather forecasts will be supplied by the specialist to the Situation Unit for dissemination throughout the Command Post.

INCIDENT COMMAND SYSTEM (cont'd)

RESOURCES AT RISK (RAR) TECHNICAL SPECIALIST (USCG IHM Pg. 19-23)
The Resources at Risk Technical Specialist is responsible for the identification of resources thought to be at risk from exposure to the spilled oil through the analysis of known and anticipated oil movement and the location of natural, cultural and economic resources. The Resources at Risk Technical Specialist considers the importance of the resources and the relative risks to develop a priority list for protection.

SHORELINE CLEAN-UP ASSESSMENT TECHNICAL SPECIALIST (USCG IHM Pg. 19-24)
The Shoreline Cleanup Assessment Technical Specialist is responsible for providing appropriate cleanup recommendations as to the types of the various shorelines and the degree to which they have been impacted. This technical specialist will recommend the need for, and the numbers of, Shoreline Cleanup Assessment Teams (SCATs) and will be responsible for making cleanup recommendations to the Environmental Unit Leader. Additionally, this specialist will recommend cleanup endpoints that address the question of **"How clean** is **clean?"**

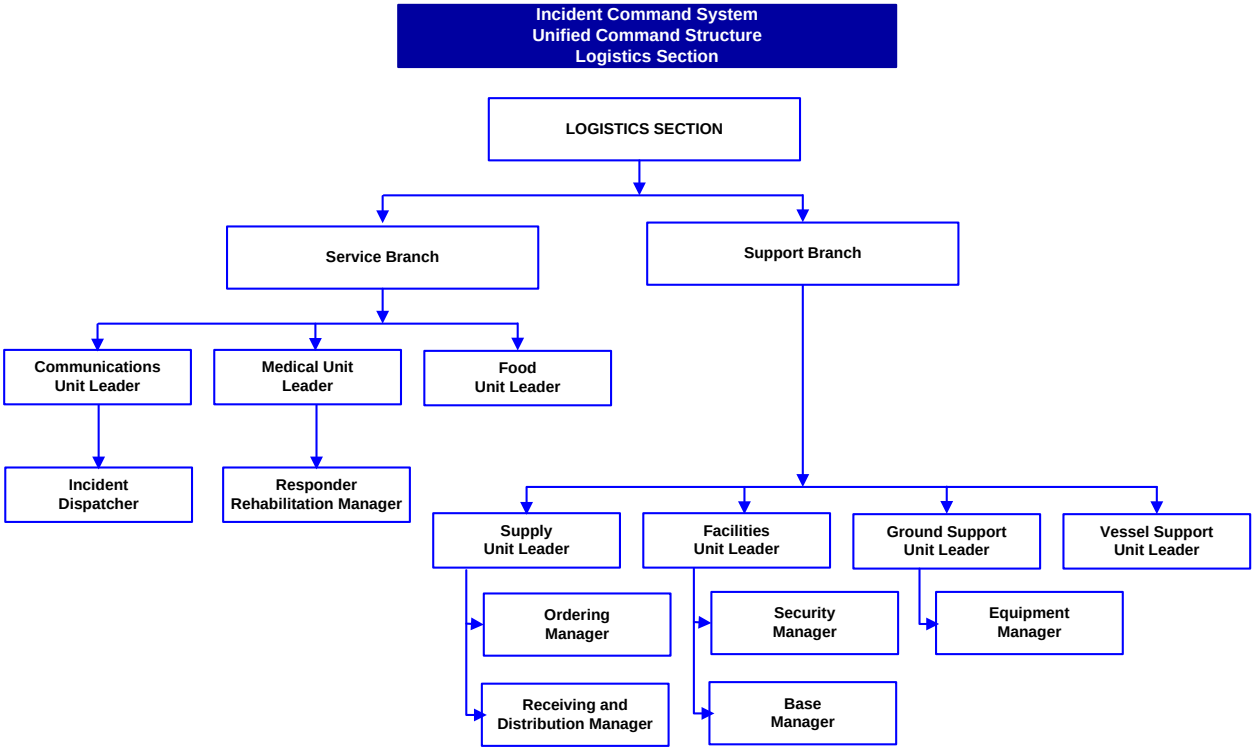
HISTORICAL CULTURAL RESOURCES (USCG IHM Pg. 19-26)
The Historical/Cultural Resources Technical Specialist is responsible for identifying and resolving issues related to any historical or cultural sites that are threatened or impacted. The Specialist must understand and be able to implement a "Programmatic Agreement on Protection of Historic Properties" (Consult NRT's document "Programmatic Agreement on the Protection of Historic Properties During Emergency Response under the NCF for guidance) as well as consulting with State Historic Preservation Officers (SHPO), land management agencies, appropriate native tribes and organizations, and other concerned parties. The technical specialist must identify historical/cultural sites and develop strategies for protection and cleanup of those sites in order to minimize damage.

DISPOSAL (WASTE MANAGEMENT) SPECIALIST (USCG IHM Pg. 19-26)
The Disposal (Waste Management) Specialist is responsible for providing the Planning Section Chief with a Disposal Plan that details the collection, sampling, monitoring, temporary storage, transportation, recycling and disposal of all anticipated response wastes.

GEOGRAPHIC INFORMATION SYSTEM (GIS) SPECIALIST
The GIS Specialist is responsible for gathering and compiling updated spill information and providing various map products to the incident. The GIS team will work with the Situation Unit and the information management officer to ensure accurate and rapid dissemination of oil spill information to the ICS.

Figure B-6

LOGISTICS SECTION



INCIDENT COMMAND SYSTEM (cont'd)

LOGISTICS SECTION CHIEF (LSC) (USCG IHM Pg. 9-2)

The Logistics Section Chief, a member of the General Staff, is responsible for providing facilities, services and material in support of the incident. The Logistics Section Chief participates in development and implementation of the Incident Action Plan and activates and supervises Branches and Units within the Logistics Section.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the LSC are;

- Oversees procurement, and personnel requirements for the response team. Is responsible for locating, purchasing, and expediting all materials and services required by the response team to clean up the spill. In collaboration with the Operations & Planning Section Chiefs, is responsible for locating, purchasing, and expediting all materials and services required by the response team to clean up the spill.
- Provides local transportation for workers, aircraft for surveillance and personnel transfer, trucks, and other vehicles.
- Oversees that adequate coordination sites, food, shelter, protective clothing, security, communications, sanitary and first aid facilities are available for all personnel.
- Sets-up decontamination area, where oil or oily wastes are being handled.
- Works in collaboration with the Clean-up unit Leaders and the Environmental Unit Leader to estimate storage capacity for recovered oil and oily wastes.
- Ensures maps are available to personnel making surveillance.
- Issues purchase order numbers and forms to authorized internal and external responders.
- Periodically collects and reviews time reports from contractors and consultants.
- Prepares cost analyses for the Finance/Accounting Advisor periodically and weekly reports of expenses.
- As required, assists with preparation of contracts and purchase orders, and with expediting material receipts (including customs clearance if needed).

SERVICE BRANCH DIRECTOR (SVBD) (USCG IHM Pg. 9-3)

The Service Branch Director, when activated, is under the supervision of the Logistics Section Chief, and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical and Food Units.

COMMUNICATIONS UNIT LEADER (COML) (USCG IHM Pg. 9-4)

The Communications Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.

In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the COML are;

- Is a specialist in the type of radio communications equipment needed during an emergency.
- Establishes, operates and maintains an effective communications network at the emergency site.
- Ensures that a proper number of communication channels are available.
- Obtains necessary clearance from agencies with jurisdiction over radio and telephone communications.
- Makes sure that emergency personnel are properly trained for the use of the communications system.
- Assigns radio frequencies to all responders.
- Prepares Communications Plans.

INCIDENT COMMAND SYSTEM (cont'd)

MEDICAL UNIT LEADER (MEDL) (USCG IHM Pg. 9-6)
The Medical Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for the development of the Medical Emergency Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparation of reports and records. The Medical Unit may also assist Operations in supplying medical care and assistance to civilian casualties at the incident, but is not intended to provide medical services to the public.

FOOD UNIT LEADER (FDUL) (USCG IHM Pg. 9-8)
The Food Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is responsible for determining feeding requirements at all incident facilities; menu planning; determining cooking facilities required; food preparation; serving; providing potable water; and general maintenance of the food service areas.

INFORMATION TECHNOLOGY UNIT LEADER
The Information Technology Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is responsible for developing plans for the effective use of incident information technology equipment and facilities; installing and testing information technology equipment; distribution of information technology equipment to incident response personnel; and the maintenance and repair of information technology equipment.

SUPPORT BRANCH DIRECTOR (SUBD) (USCG IHM Pg. 9-8)
The Support Branch Director, when activated, is under the direction of the Logistics Section Chief, and is responsible for development and implementation of logistics plans in support of the Incident Action Plan, including providing personnel, equipment, facilities and supplies to support incident operations. The Support Branch Director supervises the operation of the Supply, Facilities, Ground Support and Vessel Support Units.

SUPPLY UNIT LEADER (SPUL) (USCG IHM Pg.9-9)
The Supply Unit Leader is primarily responsible for ordering personnel, equipment and supplies; receiving, and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.

ORDERING MANAGER (ORDM) (USCG IHM Pg. 9-10)
The Ordering Manager is responsible for placing all orders for supplies and equipment for the incident. The Ordering Manager reports to the Supply Unit Leader.

RECEIVING AND DISTRIBUTION MANAGER (RCDM) (USCG IHM Pg. 9-10)
The Receiving and Distribution Manager is responsible for receipt and distribution of all supplies and equipment (other than primary resources) and the service and repair of tools and equipment. The Receiving and Distribution Manager reports to the Supply Unit Leader.

FACILITIES UNIT LEADER (FACL) (USCG IHM Pg. 9-11)
The Facilities Unit Leader is primarily responsible for the layout and activation of incident facilities (e.g. Base, Camp(s) and Incident Command Post). The Facilities Unit provides sleeping and sanitation facilities for incident personnel and manages base and camp operations. Each facility (base or camp) is assigned a manager who reports to the Facilities Unit Leader and is responsible for managing the operation of the facility. The basic functions or activities of the Base and Camp Manager are to provide security service and general maintenance. The Facility Unit Leader reports to the Support Branch Director.

INCIDENT COMMAND SYSTEM (cont'd)

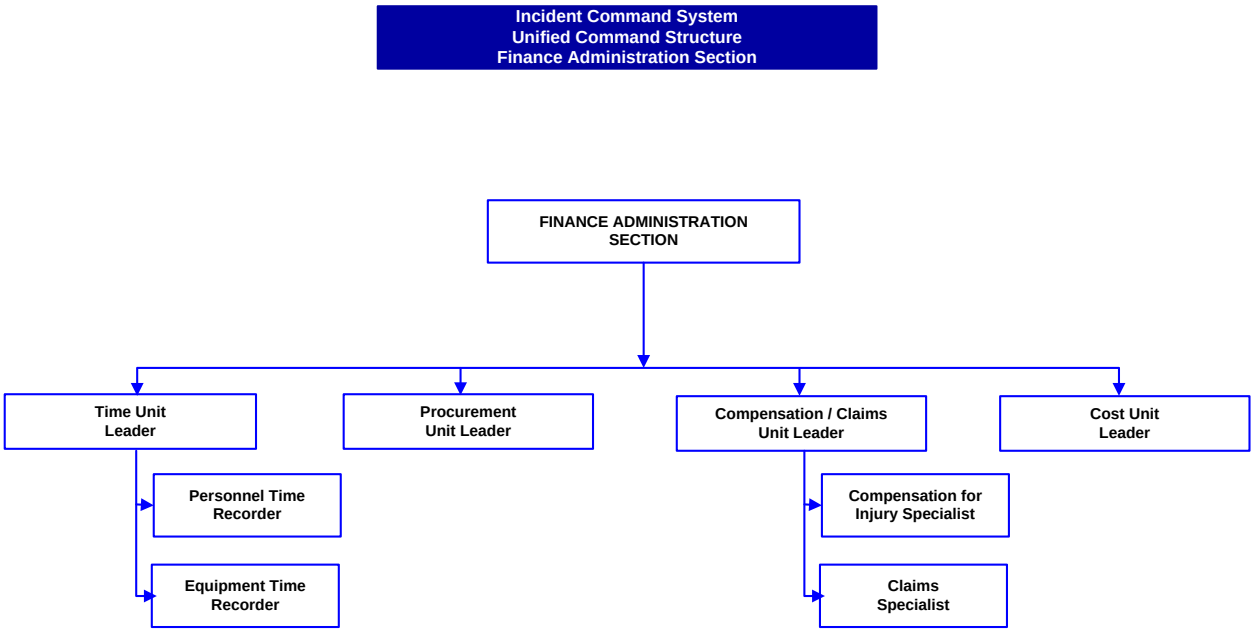
SECURITY MANAGER (SECM) (USCG IHM Pg. 9-12)
The Security Manager is responsible for providing safeguards needed to protect personnel and property from loss or damage.

GROUND SUPPORT UNIT LEADER (GSUL) (USCG IHM Pg. 9-14)
The Ground Support Unit Leader is primarily responsible for 1) support of service resources 2) coordination of transportation of personnel, supplies, food and equipment, 3) fueling, service, maintenance and repair of vehicles and other ground support equipment, and 4) implementing the Traffic Plan for the incident.

VESSEL SUPPORT UNIT LEADER (VESS) (USCG IHM Pg. 9-15)
The Vessel Support Unit Leader is responsible for implementing the Vessel Routing Plan for the incident and coordinating transportation on the water and between shore resources. Since most vessels will be supported by their own infrastructure, the Vessel Support Unit may be requested to arrange fueling, maintenance and repair of vessels on a case by case basis.

Figure B-7

FINANCE/ADMINISTRATION SECTION



INCIDENT COMMAND SYSTEM (cont'd)

FINANCE/ADMINISTRATION SECTION CHIEF (FSC) (USCG IHM Pg. 10-1)
The Finance/Administration Section Chief, a member of the General Staff, is responsible for all financial and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section.
In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the FSC are;

- Supervises the purchases made during emergency operations.
- Coordinates activities between PMPL and its insurers and interacts with other respondent parties and their insurers.
- Collects all cost data, performs cost effectiveness analyses, and develops cost estimates and cost saving recommendations.
- Arranges for claims handling and authorizes settlements with claimants in collaboration with the Regulatory/Legal Advisor.
- Prepares cost summaries for the Logistics Section Chief.
- Makes daily cost control analyses for each sector of activities associated with the emergency operations and gives a report to the Deputy Incident Commander.
- Prepares reports on injuries/deaths resulting from the incident or emergency response operations.
- Follows the status of hospitalized personnel and prepares administrative paperwork on all injuries or deaths.

TIME UNIT LEADER (TIME) (USCG IHM Pg. 10-3)
The Time Unit Leader is responsible for equipment and personnel time recording.

EQUIPMENT TIME RECORDER (EQTR) (USCG IHM Pg. 10-4)
Under Supervision of the Time Unit Leader, the Equipment Time Recorder is responsible for overseeing the recording of time for all equipment assigned to an incident.

PERSONNEL TIME RECORDER (PTRC) (USCG IHM Pg. 10-5)
The Personnel Time Recorder reports to the Time Unit Leader and records personnel information.

PROCUREMENT UNIT LEADER (PROC) (USCG IHM Pg. 10-5)
The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts.

COMPENSATION/CLAIMS UNIT LEADER (COMP) (USCG IHM Pg. 10-6)
The Compensation/Claims Unit Leader is responsible for the overall management and direction of all Compensation for Injury Specialist and Claims Specialists assigned to the incident.

COST UNIT LEADER (COST) (USCG IHM Pg. 10-9)
The Cost Unit Leader is responsible for collecting all cost data, performing cost effectiveness analyses and for providing cost estimates and cost saving recommendations for the incident.

ORGANIZATIONAL GUIDES

MODULAR DEVELOPMENT

A series of examples of Modular Development are included to illustrate one method of expanding the Incident Organization at an oil spill incident. The examples shown are not meant to be restrictive, nor imply that these are the only ways to build an ICS organizational structure from an initial response to a multi-branch organization.

INITIAL RESPONSE

Initial Response resources are managed by the Incident Commander who will handle all Command and General Staff responsibilities. A Unified Command is established.

REINFORCED RESPONSE

The Unified Command has established a Protection Group and a Recovery Group to manage on water activities and a shoreline division to manage land based resources. A Safety Officer and Information Officer have been assigned.

MULTIDIVISION/GROUP ORGANIZATION

The Unified Command has assigned all command staff positions and established a number of divisions and groups as well as an Operations Section Chief and Planning Section Chief. Some Logistic Units are established.

MULTI-BRANCH ORGANIZATION

The Incident Commanders have established all Command and General Staff positions and have established four branches.

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES

General
Many external resources may be of assistance during emergency operations, in order to protect the employees, the surrounding community, the environment, and the Facility itself.
These major external resources are:

Municipal and Provincial/ State Police
Police Departments are responsible for the safety of all citizens; including evacuation as necessary.

Municipal Fire Departments
The firefighters of any municipality are the professional responders with the capability of extinguishing any type of fire.

The Fire Chief is responsible for the coordination of all fire related operations. He will make sure that (1) the fire is under control, and (2) that the population and the surrounding area are protected and safe. If needed, he may call for additional assistance (fire departments of neighbouring municipalities). In the event where the incident is not confined to the property, the emergency response plan of the Municipality where the incident is occurring will have priority over PMPL's Plan. On PMPL's property, the Operations Section Chief must work in close collaboration with the fire department and he will inform the Fire Chief, in collaboration with the Environmental Specialist, of the hazards associated with the products present at the Facility, possible hazards from the installation, etc.

Municipalities
Cities and municipalities are responsible for the safety of all citizens and for the protection of all municipal infrastructures on their territories (parks, roads, sewer systems, etc.). In case of an emergency, the Incident Commander will oversee, if necessary, that the Municipality's Chief of the Fire Department, the municipal authorities are being informed of the situation. For Quebec, the municipality usually through its Fire Department, will establish a command post in the area of the incident (could be the Town Hall) and they will ask representatives from the company to join together with other concerned agencies.

Specialized and General Contractors
Many companies are specialized in emergency operations. Their staff is trained for the use of containment and recovery equipment, and in the rehabilitation of contaminated sites. Other contractors may be of help during emergency operations for the repair of critical equipment and machinery or during excavation operations. Non-exhaustive lists of possible contractors are presented in Section 2.0.

During a response operation, the contractor's director of operations will report as directed by the Operations Section Chief so as to coordinate operations in line with priorities set by the Unified Command.

The hired clean-up contractor will be responsible for setting up temporary centres, in accordance with actual legislation, to store recovered residues and debris (including obtaining the necessary permits) until such time as they can be transported to a more long-term storage site or until permits involved for their recycling or disposal can be obtained.

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

Canada Specific

National Energy Board (NEB)

The NEB's top priority in any emergency is to make sure that people are safe and secure, and that property and the environment are protected. Any time there is a serious incident. NEB Inspectors may attend the site to oversee a company's immediate response. The NEB will require that all reasonable actions are taken to protect employees, the public, and the environment. Further, the NEB will verify that the regulated company conducts adequate and appropriate clean-up and remediation of any environmental effects caused by the incident.

As lead regulatory agency, the NEB:

- Monitors, observes and assesses the overall effectiveness of the company's emergency response in terms of:
  - Emergency Management
  - Safety
  - Security
  - Environment
  - Integrity of operations and facilities: and
  - Energy Supply
- Investigates the event, either in cooperation with the Transportation Safety Board of Canada, under Canada Labor Code, or as per the *National Energy Board Act or Canada Oil & Gas Operations Act* (whichever is applicable).
- Inspects the pipeline or facility
- Examines the integrity of the pipeline or facility
- Requires appropriate repair methods are being used
- Requires appropriate environmental remediation of contaminated areas is conducted
- Coordinates stakeholder and Aboriginal community feedback regarding environment clean-up and remediation
- Confirms that a company is following its Emergency Procedures Manuals(s), commitments, plans, procedures, and NEB regulations and identifies non-compliance
- Initiates enforcement actions as required
- Approves the restart of the pipeline

(b) (7)(F)

[redacted]

ECRC

ECRC, Eastern Canada Response Corporation Ltd., is a response organization certified for oil spills of up to 10,000 tonnes. It is certified according to the regulations for the R.O., Canadian Shipping Act. It can provide equipment, personnel and operational management for the containment, recovery and clean up of oil spilled on water, including preventative measures taken with respect there to.

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

Quebec Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC)

From Article 21 of the *Loi sur la qualité de l'environnement* (L.R.Q., chapter Q-2, 1998), the company shall notify the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC). The Ministry may oversee the cleaning operations or make an order relative to the restoration of the natural environment. The representatives of the Ministry may be of assistance for the choice and application of appropriate mitigation measures.

Environment Canada

Environment Canada's mandate is to preserve and enhance the quality of the natural environment, including water, air and soil quality; conserve Canada's renewable resources, including migratory birds and other no-domestic flora and fauna; conserve and protect Canada's water resources; carry out meteorology; enforce the rules made by the Canada - United States International Joint Commission relating to boundary waters; and coordinate environmental policies and programs for the federal government.

The goal of the renewed Canadian Environmental Protection Act (CEPA, 2000) is to contribute to sustainable development through pollution prevention and to protect the environment, human life and health from the risks associated with toxic substances. CEPA also recognises the contribution of pollution prevention and the management and control of toxic substances and hazardous waste to reducing threats to Canada's ecosystems and biological diversity.

During an emergency, Environment Canada may be of assistance for information gathering concerning sensible areas, response techniques, protection of fauna and flora, management of wastes, etc.

Transportation Safety Board

The TSB is an independent agency created by an Act of Parliament (the Canadian Transportation Accident Investigation and Safety Board), which came into force on March 29, 1990. Its role is to advance transportation safety through the investigation of transportation occurrences in the marine, pipeline, rail and aviation modes.

The Canadian Transportation Investigation and Safety Board Act provides the legal framework governing the TSB's activities. Basically, the TSB has a mandate to advance safety in the marine, pipeline, rail, and aviation modes of transportation by:

- conducting independent investigations, including, when necessary, public inquiries, into selected transportation occurrences in order to make findings as to their causes and contributing factors;
- identifying safety deficiencies as evidenced by transportation occurrences;
- making recommendations designed to eliminate or reduce any such safety deficiencies;
- reporting publicly on its investigations and on the findings in relation thereto.

Ministry of Fisheries and Oceans

From article 38(4) of the Fisheries Act, any person who deposits a deleterious substance, or owns a deleterious substance which goes in water frequented by fish, and where damage or a danger of damaging fish habitat exists, shall report such occurrence to an inspector or such other person or authority as is prescribed by the regulations.

Canadian Wildlife Service and the Ministère du resources naturalles, et de la fauna

When oil spills occur in coastal habitats they can have devastating effects on seabirds. Along the St. Lawrence River, where many species have their nesting grounds, petroleum product pollution poses a constant threat to seabird populations. The CWS gathers data on the numbers and distribution of birds on the breeding grounds and at sea, and maps the most critical sites.

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

CANUTEC
The Canadian Transport Emergency Centre of the Department of Transport, CANUTEC, can provide immediate advice and recommend actions to be taken, and those to avoid, in dangerous goods emergencies. Their services include:

- chemical, physical and toxicological properties and incompatibilities of the dangerous goods;
- health hazards and first aid;
- fire, explosion, spill or leak hazards;
- remedial actions for the protection of life, property and the environment;
- evacuation distances;
- personal protective clothing and decontamination.

US Specific

MSRC
MSRC is an independent, non-profit, national spill response company dedicated to rapid response. MSRC's capabilities include a large inventory of vessels, equipment, and trained personnel, complemented by a large contractor workforce in numerous locations in the continental U.S., Hawaii, and the Caribbean. MSRC also provides dedicated access to alternative response technologies such as in situ burn kits and aerial and vessel dispersant spraying.

United States Coast Guard
The USCG is responsible for responding to all oil spills at sea, as well as creating regulations to prevent those spills. The Sector Northern New England Response Department's primary role is responding to and mitigating maritime incidents within Sector Northern New England's area of responsibility. The Response Department combines the traditional functions of a Group Operations Department with the Environmental Protection and Port Security functions of the

Marine Safety Program.

Response personnel liaise with other federal, state, and local agencies to ensure any oil spills or hazardous material releases are properly mitigated whenever an incident occurs, or threatens to occur.

Environmental Protection Agency
The EPA monitors, directs or conducts inland oil Spill response for EPA regulated facilities and Pipeline / Transportation Spills. EPA also supports the USCG during spills to the marine environment and can provide specialized support through the Environmental Response Team (SMT). EPA reviews and approves facility Response plans and conduct exercises. EPA convenes Area Committee meetings and exercises the Area Contingency Plans.

Pipeline and Hazardous Material Safety Administration
PHMSA oversees the safety, security, and environmental protection of pipelines through analysis of data, damage prevention, education and training, enforcement of regulations and standards, research and development, grants for states pipeline safety programs, and emergency planning and response to accidents. The pipeline safety program is responsible for a national regulatory program to protect the public against the risks to life and property in the transportation of natural gas, petroleum and other hazardous materials by pipeline. The enactment of the Oil Pollution Act of 1990 also expanded the role of the pipeline safety program

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

in environmental protection and resulted in a new emphasis on spill prevention and containment of oil and hazardous substances from pipelines. Oil spill response activities are managed by the EPA as noted above and PHMSA would focus on the incident investigation and causations for improvement to pipeline safety.

State of Maine Department of Environmental Protection

In the event of an oil spill to coastal waters, the DEP will represent the governor in all direct abatement, clean-up and resource protection activities in coordination with federal, industry and other state's response teams. The State of Maine DEP is a State Trustee of natural resources under the Oil Pollution Act of 1990 for all natural resources other than those overseen by the Department of Marine Resources, the Department of Inland Fisheries and Wildlife and the Department of Conservation. The DEP will direct the other State Trustees of Natural Resources in the development of plans for the restoration, rehabilitation, or replacement of natural resources, and will oversee disbursements of any funds for clean-up.

State of New Hampshire Department of Environmental Services

Formed in January 1987 by state statute RSA 21-O, DES was legislatively created through the consolidation and reorganization of four previously separate agencies: the Air Resources Agency, the Office of Waste Management, the Water Supply and Pollution Control Commission, and the Water Resources Board. Each of these groups is now represented within the department's three divisions: Air Resources, Waste Management, and Water. Also, DES has units within the Office of the Commissioner whose roles are to coordinate such activities as agency-wide planning, enforcement, permitting, public information, laboratory services, geologic services, information resources, and financial and personnel management.

State of Vermont Department of Environmental Conservation

The Waste Management Division of the Vermont DEC oversees the use, treatment and handling of hazardous and solid wastes. The Division performs emergency response for hazardous materials spills, issues permits for federal and state programs regulating hazardous wastes, solid wastes, and underground storage tanks, and manages cleanup at hazardous sites under state and federal authorities, including the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA, also known as Superfund).

US Fish and Wildlife Service

The US Fish and Wildlife Service's Oil Spill program is to emphasize early planning ad cooperation at the local, regional, and national level in an effort to minimize the injury to fish, wildlife and sensitive environments from oil spills. During a spill event US Fish and Wildlife assist State and other federal officials in spill response. Service personnel participate as members of an integrated response team, responding to chemical and oil spills in al six New England States. On major spills, Service personnel work in tow primary areas; spill response and damage assessment. Response activities include identification of sensitive areas, recovery of oiled wildlife for cleaning and rehabilitation, shoreline assessments, and sample collections. During and after response, the Service, A along with other agencies called trustees, will perform a damage assessment. They identify the natural resources injured, determine the extent of the injuries, and plan and carry out natural resource restoration activities.

GLOSSARY OF TERMS

This glossary contains definitions of terms frequently used in ICS documentation.

AGENCY REPRESENTATIVE - Individual assigned to an incident from an assisting or cooperating agency that has been delegated full authority to make decisions on all matters affecting their agency's participation at the incident. Agency Representatives report to the Liaison Officer.

AIR OPERATIONS BRANCH DIRECTOR - The person primarily responsible for preparing and implementing the air operations portion of the Incident Action Plan. Also responsible for providing logistical support to helicopters operating on the incident.

ALLOCATED RESOURCES - Resources dispatched to an incident.

ALTERNATIVE RESPONSE TECHNOLOGIES (ART) - Response methods or techniques other than mechanical containment or recovery. ART may include use of chemical dispersants, in-situ burning, bioremediation or other alternatives. Application of ART must be authorized and directed by the OSC.

ASSIGNED RESOURCES - Resources checked-in and assigned work tasks on an incident.

ASSIGNMENTS - Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan.

ASSISTANT - Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications and responsibility subordinate to the primary positions. Assistants may also be used to supervise unit activities at camps.

ASSISTING AGENCY - An agency directly contributing tactical or service resources to another agency.

AVAILABLE RESOURCES - Incident-based resources which are immediately available for assignment.

BASE - That location at which the primary logistics functions are coordinated and administered. (Incident name or other designator will be added to the term "Base") The Incident Command Post may be co-located with the base. There is only one base per incident.

BRANCH - That organizational level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section.

CACHE - A pre-determined complement of tools, equipment and/or supplies stored in a designated location, and available for incident use.

CAMP - A geographical site, within the general incident area, separate from the base, equipped and staffed to provide sleeping areas, food, water and sanitary services to incident personnel.

CHECK-IN - The process whereby resources first report to an incident. Check-in locations include: Incident Command Post (Resources Unit), Incident Base, Camps, Staging Areas, Helibases, Helispots and Division Supervisors (for direct line assignments).

GLOSSARY OF TERMS (cont'd)

CHIEF - The ICS title for individuals responsible for command of functional sections: Operations, Planning, Logistics and Finance.

CLEAR TEXT - The use of plain English in radio communications transmissions. No Ten Codes or agency specific codes are used when using Clear Text.

COMMAND - The act of directing, ordering and/or controlling resources by virtue of explicit legal, agency or delegated authority. May also refer to the Incident Commander/Unified Command.

COMMAND POST - See Incident Command Post.

COMMAND STAFF - The Command Staff consists of the Information Officer, Safety Officer and Liaison Officer, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.

COMMUNICATION UNIT - A vehicle (trailer or mobile van) used to provide the major part of an incident Communication Center.

COOPERATING AGENCY - An agency supplying assistance other than direct tactical or support functions or resources to the incident control effort (e.g., Red Cross, telephone company, etc.).

COST UNIT - Functional unit within the Finance Section responsible for tracking costs, analyzing cost data, making cost estimates and recommending cost-saving measures.

DEPUTY - A fully qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior and therefore must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff and Branch Directors.

DEMOBILIZATION UNIT - Functional unit within the Planning Section responsible for assuring orderly, safe and efficient demobilization of incident resources.

DIRECTOR - The ICS title for individuals responsible for supervision of a Branch.

DISPATCH - The implementation of a command decision to move resources from one place to another.

DISPATCH CENTER - A facility from which resources are directly assigned to an incident.

DIVISION - That organization level having responsibility for operation within a defined geographic area or with functional responsibility. The Division level is organizationally between the Task Force/Team and the Branch. (See also "Group")

DOCUMENTATION UNIT - Functional unit within the Planning Section responsible for collecting, recording and safeguarding all documents relevant to the incident.

EMERGENCY MEDICAL TECHNICIAN (EMT) - A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine.

GLOSSARY OF TERMS (cont'd)

EMERGENCY OPERATIONS CENTER (EOC) - A pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency.

FACILITIES UNIT - Functional unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.

FIELD OPERATIONS GUIDE (FOG) - A pocket-size manual of instructions on the application of the Incident Command System.

FINANCE SECTION - The Section responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit.

FOOD UNIT - Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.

FUNCTION - In ICS, function refers to the five major activities in the ICS, i.e., Command, Operations, Planning, Logistics and Finance. The term function is also used when describing the activity involved, e.g., "the planning function."

GENERAL STAFF - The group of incident management personnel comprised of: Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance Section Chief.

GEOGRAPHIC INFORMATION SYSTEM (GIS) - An electronic information system which provides a geo-referenced data base to support management decision making.

GROUND SUPPORT UNIT - Functional unit within the Support Branch of the Logistics Section responsible for fueling, maintaining and repairing vehicles, and the ground transportation of personnel and supplies.

GROUP - Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. (See Division.) Groups are located between Branches (when activated) and Resources in the Operations Section.

HEALTH AND SAFETY PLAN (HASP) - Site specific document required by State and Federal OSHA regulations and specified in the Area Contingency Plan. The HASP shall at minimum address, include or contain the following elements: 1) health and safety hazard analysis for each site task or operation, 2) comprehensive operations work plan, 3) personnel training requirements, 4) PPE selection criteria, 5) site specific occupational medical monitoring requirements, 6) air monitoring plan, 7) site control measures, 8) confined space entry procedures (if needed), 9) pre-entry briefings (tailgate meetings, initial and as needed), 10) pre-operations commencement, 11) health and safety conference for all incident participants and 12) quality assurance of HASP effectiveness.

GLOSSARY OF TERMS (cont'd)

HELIBASE - A location within the general incident area for parking, fueling, maintenance and loading of helicopters.

HELISPOT - A location where a helicopter can take off and land. Some helispots may be used for temporary loading.

INCIDENT ACTION PLAN (IAP) - The Incident Action Plan, which is initially prepared at the first meeting, contains general control objectives reflecting the overall incident strategy and specific action plans for the next operational period. When complete, the Incident Action Plans will have a number of attachments.

INCIDENT AREA - Legal geographical area of the incident to include affected area and traffic route to corresponding storage and disposal sites.

INCIDENT BASE - See BASE.

INCIDENT COMMANDER (IC) - The individual responsible for the management of all incident operations.

INCIDENT COMMAND POST (ICP) - That location at which the primary command functions are executed and are usually co-located with the incident base.

INCIDENT COMMAND SYSTEM (ICS) - A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

INCIDENT COMMUNICATION CENTER - The location of the Communications Unit and the Message Center.

INCIDENT OBJECTIVES - Statements of guidance and direction necessary for the selection of appropriate strategies and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

INCIDENT SITUATION DISPLAY - The Situation Unit is responsible for maintaining a display of status boards which communicate critical incident information vital to establishing an effective command and control environment.

INFORMATION OFFICER (IO) - A member of the Command Staff responsible for interfacing with the public and media or with other agencies requiring information on the incident. There is only one Information Officer per incident. The Information Officer may have assistants.

INITIAL ACTION - The actions taken by resources which are the first to arrive at an incident.

INITIAL RESPONSE - Resources initially committed to an incident.

GLOSSARY OF TERMS (cont'd)

JOINT INFORMATION CENTER (JIC) - A facility established within or near the Incident Command Post where the Information Officer and staff can coordinate and provide information on the incident to the public, media and other agencies. The JIC is normally staffed with representation from the FOSC, State IC and RP.

JURISDICTION - The range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, state or federal boundary lines), or functional (e.g., police department, health department, etc.). (See Multi-Jurisdiction).

JURISDICTIONAL AGENCY - The agency having jurisdiction and responsibility for a specific geographical area or a mandated function.

LANDING ZONE - See Helispot.

LEADER - The ICS title for an individual responsible for a Task Force/Strike Team or functional Unit.

LIAISON OFFICER (LO) - A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies.

LOGISTICS SECTION - The Section responsible for providing facilities, services and materials for the incident.

MANAGERS - Individuals within ICS organizational units that are assigned specific managerial responsibilities (e.g., Staging Area Manager or Camp Manager).

MEDICAL UNIT - Functional unit within the Service Branch of the Logistics Section responsible for the development of the Medical Emergency Plan, and for providing emergency medical treatment for personnel.

MESSAGE CENTER - The message center is part of the Communications Center and co-located with it. The Center receives, records and routes information about resources reporting to the incident, resource status and administration and tactical traffic.

MULTI-AGENCY COORDINATION GROUP (MAC) - Cohesive group of all affected agencies established to aid in the overall response, facilitate briefings and share issues during a response.

MULTI-AGENCY COORDINATION SYSTEM (MACS) - The combination of facilities, equipment, personnel, procedures and communications integrated into a common system with responsibility for coordination of assisting agency resources and support to agency emergency operations.

MULTI-AGENCY COORDINATION GROUP COORDINATOR - Serves as facilitator to organize and accomplish goals of the MAC Group.

MULTI-AGENCY INCIDENT - An incident where one or more agencies assist a jurisdictional agency or agencies. May be single or Unified Command.

GLOSSARY OF TERMS (cont'd)

MULTI-JURISDICTION INCIDENT - An incident requiring action from multiple agencies that have a statutory responsibility for incident mitigation. In ICS, these incidents will be managed under Unified Command.

NOAA WEATHER STATION - A mobile weather data collection and forecasting facility (including personnel) provided by the National Oceanic and Atmospheric Administration which can be utilized within the incident area.

NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA) - The process of identifying and quantifying the resource impacts and evaluating the value of impacted resources for the purpose of restoration.

OFFICER - The ICS title for the personnel responsible for the Command Staff positions of Safety, Liaison and Information.

ON-SCENE COORDINATOR (OSC) - The predesignated Federal On-Scene Coordinator operating under the authority of the National Contingency Plan (NCP).

OPERATIONAL PERIOD - The period of time scheduled for execution of a given set of operation actions as specified in the Incident Action Plan. Operational Periods can be various lengths, usually not over 24 hours.

OPERATIONS SECTION - Responsible for all operations directly applicable to the primary mission. Directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plan as necessary and reports such to the Incident Commander. Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch and Wildlife Branch.

OUT-OF-SERVICE RESOURCES - Resources assigned to an incident but unable to respond for mechanical, rest or personnel reasons.

PLANNING MEETING - A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning.

PLANNING SECTION - Responsible for the collection, evaluation and dissemination of tactical information related to the incident, and for the preparation and documentation of Action Plans. The section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Documentation and Demobilization Units, as well as Technical Specialists.

POLREP - Pollution report.

PROCUREMENT UNIT - Functional unit within the Finance Section responsible for financial matters involving vendor contracts.

QUALIFIED INDIVIDUAL (Q.I.) - The person authorized by the responsible party to act on their behalf, authorize expenditures and obligate organization's resources.

RADIO CACHE - A cache may consist of a number of portable radios, a base station and in some cases a repeater stored in a predetermined location for dispatch to incidents.

GLOSSERY OF TERMS (cont'd)

RECORDERS - Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics and Finance Units.

REGIONAL RESPONSE TEAM (RRT) - The Federal response organization, consisting of representatives from selected Federal and State agencies, which acts as a regional body responsible for planning and preparedness before an oil spill occurs and for providing advice to the OSC in the event of a major or substantial spill.

REPORTING LOCATION - Any one of six facilities/locations where incident assigned resources may check-in. The locations are: Incident Command Post-Resources Unit, Base, Camp, Staging Area, Helibase or Division Supervisor for direct line assignments. (Check-in at one location only)

RESOURCES - All personnel and major items of equipment available or potentially available, for assignment to incident tasks on which status is maintained.

RESOURCES UNIT - Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resource needs.

R.P. - Responsible Party

SAFETY OFFICER (SO) - A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety. The Safety Officer may have assistants.

SECTION - That organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics, Finance. The Section level is organizationally between Branch and Incident Commander.

SERVICE BRANCH - A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical and Food Units.

SINGLE RESOURCE - An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

SITE SAFETY PLAN - Legal document required by OSHA before entry into site, prepared by Safety Officer.

SITUATION UNIT - Functional unit within the Planning Section responsible for the collection, organization and analysis of incident status information, and for analysis of the situation as it progresses. Reports to the Planning Section Chief.

SPAN OF CONTROL - The supervisory ratio of from three-to-seven individuals, with five-to-one being established as optimum.

STAGING AREA - That location where incident personnel and equipment are assigned awaiting tactical assignment.

STATE I.C. - State Incident Commander.

GLOSSERY OF TERMS (cont'd)

STRATEGY - The general plan or direction selected to accomplish incident objectives.

SUPERVISOR - The ICS title for individuals responsible for command of a Division or Group.

SUPPLY UNIT - Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.

SUPPORT BRANCH - A Branch within the Logistics Section responsible for providing personnel, equipment and supplies to support incident operations. Includes the Supply, Facilities and Transportation Units.

SUPPORTING MATERIALS - Refers to the several attachments that may be included with an Incident Action Plan (e.g., communication plan, map, safety plan, traffic plan and medical plan).

TACTICAL DIRECTION - Direction given by the Operations Section Chief which includes the tactics appropriate for the selected strategy, the selection and assignment of resources, tactics implementation and performance monitoring for each operational period.

TASK FORCE - A group of resources with common communications and a leader assembled for a specific mission.

TECHNICAL SPECIALISTS - Personnel with special skills that can be used anywhere within the ICS organization.

TEAM - Specified combinations of the same kind and type of resources, with common communications and a leader.

TEMPORARY FLIGHT RESTRICTIONS (TFR)- Temporary airspace restrictions for non-emergency aircraft in the incident area. TFR's are established by the FAA to ensure aircraft safety and are normally limited to a five-nautical-mile radius and 2000 feet in altitude.

TIME UNIT - Functional unit within the Finance Section responsible for recording time for incident personnel and hired equipment.

UNIFIED COMMAND (UC) - In ICS, Unified Command is a unified team effort which allows all agencies with responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies. This is accomplished without losing or abdicating agency authority, responsibility or accountability.

UNIT - That organizational element having functional responsibility for a specific incident planning, logistic or finance activity.

VESSEL SUPPORT UNIT - Functional unit within the Support Branch of the Logistics Section responsible for implementing the Vessel Routing Plan and coordinating transportation on the water and between shore resources.

VOLUNTEER - Any individual accepted to perform services by the Lead Agency which has the authority to accept volunteer services. A volunteer is subject to the provisions of the authorizing statute.

This Page Intentionally Left Blank

APPENDIX C

RESPONSE RESOURCES

COMPANY OWNED SPILL / EMERGENCY RESPONSE EQUIPMENT

FIRE RESPONSE EQUIPMENT

U.S. - OIL SPILL RESPONSE CONTRACTORS

CANADA – OIL SPILL RESPONSE CONTRACTORS

Response Equipment Tests and Deployment

PMPL primarily relies on its contracted oil spill response and removal resources to satisfy response requirements. PMPL maintains boom and radios for response support in South Portland and the Montreal East terminal and also maintains response trailers and equipment at the mainline stations.

In the U.S., Qualified OSRO's maintain equipment checklists per regulatory requirements. In both the U.S. and Canada, PMPL inspects its response equipment annually. This includes starting and running engine driven equipment such as skimmers. Boom is inspected for condition. This is managed by work orders generated by the maintenance management software system (See the CMMS listing in Appendix C). The detailed inspections and tests are recorded on preventive work orders (See sample in Appendix C). The radios referenced in the equipment lists are used daily as part of the operations and their functionality is verified each day.

In the U.S., OSRO's conduct exercises and deploy equipment per regulatory requirements as evidenced in an annual written certification.. In both the U.S. and Canada, PMPL conducts scheduled, planned and documented response exercises for company owned response equipment and personnel at a minimum annual frequency (See PREP exercise program record chart in Appendix K for U.S. exercises). During the exercises, a representative sample of the equipment is tested, deployed and operated as part of the exercise. This is documented in the exercise reports generated from each exercise.

COMPANY OWNED RESPONSE EQUIPMENT

SOUTH PORTLAND MARINE TERMINAL

QUANTITY	TYPE	MAKE/MODEL/EQUIPT. DESIGN	LOCATION
3,358 ft.	Active Spill Boom	24-inch	Pier #2
2,200 ft.	Spill Globe Boom	24-inch	Pier #2
4	VHF Radios	Motorola Handheld –Op-Freq. 153.0900	Pier #2 Guardhouse

SOUTH PORTLAND PUMP STATION

QUANTITY	TYPE	MAKE/MODEL/EQUIPT. DESIGN	LOCATION
1	Vacuum Truck (1973 GMC DOT Specification MC307)	60-bbl capacity (Thompson tank), heavy duty, diesel engine, 30 gpm recovery rate.	Tank Farm at Hill Street/Tank Farm use only - Warehouse
9	VHF Radios	Motorola Handheld –Op.Freq. 153.0900	Control Center
1	Boat	21' RW Tuff Boat w/135hp Honda and 9.9 hp Honda Engine	Fire Barn
1	20 gal HazMat Spill Kit	Oil-Dri (6)- HazMat socks; (5) HazMat pillows; (20) universal bonded pads; (1) light stick; (3) disposable bags; ERG Book; 20 gallon over pack drum	SP Lab

COMPANY OWNED RESPONSE EQUIPMENT			
RAYMOND PUMP STATION			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPT. DESIGN**	**LOCATION**
1	Boat	16' Acme boat w/ 40 HP Yamaha and shoreline trailer	Garage
1	Boom	280' Uniroyal sealboom 17" wide	Garage

NORTH WATERFORD PUMP STATION (Shop)			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boom	220' Uniroyal sealboom 17" wide	Shop
2	Boom Sea Serpent	Absorbent boom sea serpent, 50' lengths each	Shop

SHELBURNE PUMP STATION (Equipment Trailer)			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boom	1,000' of 14 inch Globe Boom	Garage
1	Storage Tank	3,000 Gallon Portable Storage Tank	Garage
5	Tank Liners	Tank liners for portable tank	Garage
1	Trailer	Wells Cargo Emergency Response Trailer	Yard

LANCASTER PUMP STATION (Equipment Trailer)			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boom	160' Slick Bar Boom (yellow type)	Warehouse
1	Boom	90' Slick Bar Boom	Warehouse
1	Skimmer	Vikoma disk skimmer with diesel driver and pump (543 bpd de-rated recovery rate)	Warehouse
1	Boat	Lund Boat 12' Flat Bottom w/ Johnson 9.9 HP outboard motor	Warehouse
LANCASTER PUMP STATION			
1	Boat	16' Acme Boat w/ 40 HP Yamaha	Warehouse
1	Boom	290' Uniroyal Boom	Warehouse

COMPANY OWNED RESPONSE EQUIPMENT

SUTTON PUMP STATION

QUANTITY	TYPE	MAKE/MODEL/EQUIPMENT DESIGN	LOCATION
1	Trailer	Pollution Trailer	Garage
1	Boat	Lund boat 12' Flat Bottom w/ Johnson 9.9 outboard motor	Garage
1	Skimmer & Pump	Kebab Model #T-12 FIT Vikoma Skimmer & Pump	Garage

HIGHWATER PUMP STATION (In Boat)

QUANTITY	TYPE	MAKE/MODEL/EQUIPMENT DESIGN	LOCATION
1	Boat	Fiberglass boat w/outboard motor	Motor Room
1	Boom	100' Slickbar Boom	Motor Room
1	Boom	100' Fast water boom	Motor Room

ST. CESAIRE PUMP STATION

QUANTITY	TYPE	MAKE/MODEL/EQUIPMENT DESIGN	LOCATION
1	Boat	Boat w/outboard motor	Garage

ST. CESAIRE PUMP STATION (Stored in the Fire Dept. Garage)

QUANTITY	TYPE	MAKE/MODEL/EQUIPMENTDESIGN	LOCATION
1	Boat	Boat w/outboard motor	Garage
1	Boom	450' Bennett Boom	Trailer

MONTREAL TERMINAL (In Garage)

QUANTITY	TYPE	MAKE/MODEL/EQUIPMENT DESIGN	LOCATION
1	Boat	Boat w/ outboard motor	Garage
1	Trailer	Small Equipment Trailer	Garage

MONTREAL PUMP STATION (In Trailer)

1	Boom	500' Bennett Boom	Trailer
1	Skimmer	Disc Air Operated	Trailer
1	Storage Tank	3000 Gallon portable tank	Trailer
1	Wash down pump	Gas operated wash down pump	Trailer

MONTREAL PUMP STATION (In Boat)

1	Boom	400' Bennett Boom	Trailer

COMPANY OWNED PIPELINE REPAIR EQUIPMENT								
Dia.	**Nomenclature**			**Montreal**		**Mainline**		**South Portland**	
				Qty.	Loc.	Qty.	Loc.	Qty.	Loc.
	Plidco Smith Clamps								
10 in.	Pipe Size Plidco Smith/Clamps			1	Garage				
12 ¾ in.	Pipe Size Plidco Smith/Clamps)			1	Garage			1	Whse
16 in.	Pipe Size Plidco Smith/Clamps			1	Garage				
18 in.	Pipe Size Plidco Smith/Clamps (18")			1	Garage			1	Whse
22 in.	Pipe Size Plidco Smith/Clamps (22")			1	Garage	1	LS Whse		
24 in.	Pipe Size Plidco Smith/Clamps (24")			1	Garage	1	LS Whse	1	Whse
	Plidco Split Sleeves								
	Pipe Size	Overall Length	Inside Length Between Packing						
10 in.	10"	10"	5-1/2"	1	Garage				
12 in.	12"	10-1/2"	5-1/2"	1	Garage				
16 in.	16"	14"	8"	1	Garage				
18 in.	18"	14"	8"	1	Garage	1	LS Whse	2	Whse
18 in.	18"	13-3/4"	8"	1	Garage				
20 in.	20"	24"	18"	1	Garage				
22 in.	22"	14"	8"	1	Garage				
22 in.	22"	30 "	24"			1	LS Whse		
24 in.	24"	14"	8"	1	Garage				
24 in.	24"	24"	17-1/2"	1	Garage	1	LS Whse		
24 in	24''	14''	8''					2	Whse
24 in	24''	32''	24''					2	Whse
30 in	30''	26''	18''	1	Garage			1	Whse
34 in.	34"	24"	18"	1	Garage				
36 in	36''	26''	18''					1	Whse
42 in	42''	26''	18''					1	Whse

- PR = Pump Room

Figure C- 1

Emergency Response Equipment Inspection List & Work Orders

South Portland	SP - TANK FARM, 500' OF 18" BOOM	SP-TFBO001
South Portland	SP - TANK FARM, 500' OF 6" BOOM	SP-TFBO002
South Portland	SP - PIER 2 3,358' OF IN SERVICE 24" ABB BOOM	SP-P2BO001
South Portland	SP - PIER 2 2,200' OF 24" GLOBE BOOM (CONNEX BOX)	SP-P2BO002
South Portland	TRUCK GMC 9500 VACUUM TANK	SP-VHVH001
South Portland	SP-135 HP HONDA OUTBOARD ENGINE-4 CYLINDER	SP-ERENG001
South Portland	SP- 9.9 h.p. HONDA OUTBOARD ENGINE-2 CYLINDER	SP-ERENG002
South Portland	SP-21' RW TUFF BOAT TRAILER-RESPONSE EQUIPMENT	SP-ERTR001
South Portland	SP-21' RW TUFF BOAT-RESPONSE EQUIPMENT	SP-VHVH008
Raymond	RY - 280' Uniroyal sealboom 17" wide	RY-ERBM001
Raymond	RY - EMERGENCY RESPONSE BOAT ACME	RY-VHVH001
North Waterford	NW - 220' Uniroyal sealboom 17" wide	NW-ERBM001
North Waterford	NW - (2) 50' lengths "SEA SERPENT" absorbent boom	NW-ERBM002
North Waterford	NW - EMERGENCY RESPONSE BOAT STEURY	NW-VHVH002
Shelburne	SH - 1,000' of "GLOBE" boom	SH-ERBM003
Shelburne	SH - 3,000 gallon portable storage tank	SH-ERST001
Shelburne	SH - (5) Tank liners for 3,000 gallon portable storage tank	SH-ERST002
Shelburne	SH - EMERGENCY RESPONSE TRAILER (WELLS CARGO)	SH-ERTR001
Lancaster	LS - 290' Uniroyal Boom	LS-ERBM001
Lancaster	LS - 160' Slick Bar Boom (yellow)	LS-ERBM004
Lancaster	LS - 90' Slick Bar Boom	LS-ERBM004A
Lancaster	LS- VIKOMA DISK SKIMMER WITH DIESEL DRIVER AND PUMP	LS-ERSK001
Lancaster	LS - EMERGENCY RESPONSE BOAT ACME	LS-VHVH005
Lancaster	LS - EMERGENCY RESPONSE BOAT CRESTLINER	LS-VHVH006
Sutton	SU-90' Slick Bar Boom (previous # LS-ERBM004A)	SU-ERBM004
Sutton	SU - VIKOMA SKIMMER , KEBAB MODEL # T-12 FIT AND PUMP	SU-ERSK001
Sutton	SU - EMERGENCY RESPONSE BOAT	SU-VHVH002
Sutton	SU - EMERGENCY RESPONSE TRAILER " HIGHLAND SHORELINE"	SU-VHVH001
Highwater	HW- EMERGENCY RESPONSE BOAT	HWER001
Highwater	HW - EMERGENCY RESPONSE BOAT TRAILER	HWER002
Highwater	HW- GAS OPERATED FLUSHING , WASH DOWN PUMP	HWER003
Highwater	HW - GORMAN RUPP 3" DIAPHRAM PUMP	HWER004
St. Cesaire	SC- EMERGENCY RESPONSE BOAT	SCER001
St. Cesaire	SC- EMERGENCY RESPONSE (SINGLE AXLE) EQUIPMENT TRAILER	SCER004
St. Cesaire	SC- 200' SLICKER OIL RECOVERY BOOM	SCER005
St. Cesaire	SC- GAS OPERATED FLUSHING , WASH DOWN PUMP	SCER006
St. Cesaire	SC- SPATE PUMP - DIESEL OPERATED	SCER007
St. Cesaire	SC - GORMAN RUPP 3" DIAPHRAM PUMP	SCER008
St. Cesaire	SC - CHAIN SAW (GAS POWERED)	SCER009
St. Cesaire	SC - GENERATOR 120/240 V - 16.5 AMPS	SCER010
St. Cesaire	SC- EMERGENCY RESPONSE BOAT TRAILOR	SCER002
Montreal	MT - ROW BOAT 14'	MTER001
Montreal	MT - 14' BOAT TRAILER	MTER002
Montreal	MT- EMERGENCY RESPONSE (SINGLE AXLE) EQUIPMENT TRAILER	MTER003
Montreal	MT- 500' BENNET OIL RECOVERY BOOM	MTER004
Montreal	MT -2 / GORMAN RUPP 3" DIAPHRAM PUMP(S) 2	MTER005

Figure C- 1 (Cont'd)
Sample Preventive Work Order

Preventive work order — 061737

Shop	GM	GENERAL MAINTENANCE	Issued on	4/27/2006	
Trade	GMHELP	GENERAL MAINTENANCE HELP	Required date	6/2/2006	(2006 /22)
Assigned to			Priority		
Asked by			Scheduled date	(2006 /22)	
Authorized by	LOUANN				
Remark					

Others Shop / Trade — **Assigned to**

GM / GMHELP (GENERAL MAINTENANCE / GENERAL MAINTENANCE HELP)
PS / HWPSCH (PUMP STATIONS AREA / high water pump station c)
PS / PSCHEF (PUMP STATIONS AREA / CHIEF PUMP STATION AREA)

Equipment	HWER001	HW- EMERGENCY RESPONSE BAOT			
Site #	HW	HIGHWATER	Model		
Sub-Site #			Manufacturer	PIGEON MARINE	
Responsible			Serial number		
Owner			Group	ER	EMERGENCY
Chainage/Loc.			Sub-goup	EQIP	EQUIPMENT
Order	0.0000		Last maintenance	2,006 / 21	
Account #					
Specification					

Task **MA2118** **BOAT (SEMIANNUAL INSPECTION)**

---------- SPRING INSPECTION ----------

PREPARATION
- [ ] REQUIRED TOOLS: -GREASE GUN: NLGI GRADE #2
- [ ] REQUIRED PARTS: -MOTOR OIL (RECOMMENDED BY MANUFACTURER)
  -AIR FILTER
  -SPARK PLUG
- [ ] REQUIRED MATERIAL: -OIL PAN
- [ ] REVIEW AND UPDATE EQUIPMENT DATA.

INSPECTION

BOAT
- [ ] CHECK INTEGRITY OF ALL COMPONENTS.
- [ ] GREASE FITTING AS NEEDED.
- [ ] CHECK ELECTRICAL PLUG WIRING AND LIGHTS.
- [ ] CHECK FRAME ASSEMBLY (PAINT, CORROSION, WELDED JOINTS, ETC.).

MOTOR
- [ ] START MOTOR FOR A VERY SHORT TIME, CHECK FOR UNUSUAL NOISES OR VIBRATIONS.
- [ ] CHECK AIR FILTER, CLEAN OR CHANGE AS NEEDED.
- [ ] CHECK SPARK PLUG, CLEAN OR CHANGE AS NEEDED.
- [ ] INSPECT FUEL LINES AND TANK, DAIN BOTTOM OF TANK.
- [ ] CHECK FRAME CONDITION AND ASSEMBLY OF PARTS (PAINT, CORROSION), CLEAN.

OIL CHANGE (IF REQUIRED)
- [ ] DRAIN OIL INTO CLEAN PAN, CHECK APPEARANCE, ACCUMULATION OF METALLIC PARTICLES OR WATER.

Note.. If there is excessive concentration of metallic particles or deposits, have a work order issued for an internal inspection or oil analysis.

- [ ] ADJUST OIL LEVEL: _____ GALS

RETURN TO SERVICE
- [ ] MAKE SURE UNIT IS LEFT IN OPERATING CONDITION.

---------- FALL INSPECTION ----------

Figure C- 1 (Cont'd)
Sample Preventive Work Order

Preventive work order	061737

INSPECTION/WINTERIZATION
[ ] CHECK INTEGRITY OF ALL COMPONENTS.
[ ] PREPARE BOAT FOR WINTER SEASON.

ACTIONS TO BE TAKEN
[ ] COMPLETE WORK ORDER, IDENTIFY ABNORMALITIES, RETURN TO SUPERVISOR.

Details :

Employee	Date	Time		Completed
		Reg	OT	

Cause | Action | Downtime

FIRE PROTECTION EQUIPMENT

PIER 1 and PIER 2

PIER NO. 2

- 10-in dry fire line with 2-1/2-in hose outlets adapted for introduction of liquid foam by two (2) Fire Departments pumpers simultaneously.
- Two (2) foam monitors on unloading platform with 1,100-gallon foam supply pressured by 7-stage, 1,000 GPM, 190 psi deep well salt water pump.
- Five (5) 30-lb. Dry powder extinguishers with B/C rating.
- Separate South Portland City Fire alarm pull box #1541.
- Five (5) lengths 2-1/2-in fire hose on unloading platform.

PIER NO. 1

- 6-in fresh water line with 2-1/2-in hose outlets adapted to allow introduction of liquid foam at pier head by Fire Department pumper.
- Six (6) 30-lb. Dry powder extinguishers with B/C rating.
- Separate South Portland City Fire alarm pulllbox #194.

OUTSIDE EQUIPMENT AVAILABILITY

- The following are Mobile Units from the South Portland Fire Department:
  1st Alarm – 3 Engines (2 Foam Units) and 1 Ladder.
  2nd Alarm – 3 Engines (1 Foam Unit) and 1 Ladder.
  3rd Alarm – 2 Engines.

- City of Portland Fire Boat.
- U.S. Coast Guard Craft.

TANK FARM

TYPE	QUANTITY	DESCRIPTION	LOCATION	INSPECTION FREQUENCY
Foam Trailer	1	1000 Gal. 3% AFFF	Fire Barn	Equipment inspection and foam tests annually
Foam Trailer	1	875 Gal. AFFF		
Foam Totes	3	330 Gal. AFFF		
SCBA	2	Scott Air Packs	Operations Building	Monthly
Fire Retardant Coveralls	2 Pair		Operations Building	Monthly
Fire Extinguishers	50	H_2O / Dry	Throughout facility	Monthly
Fire Hydrants	33	Static Pressure 70-90 psi	See PPLC drawing D-2998	Annual

OUTSIDE EQUIPMENT AVAILABILITY

- The following are Mobile Units from the South Portland Fire Department:
  1st Alarm – 3 Engines (2 Foam Units) and 1 Ladder.
  2nd Alarm – 3 Engines (1 Foam Unit) and 1 Ladder.
  3rd Alarm – 2 Engines.

- City of Portland Fire Boat.
- U.S. Coast Guard Craft.

EQUIPMENT FOR FIRE FIGHTING

SOUTH PORTLAND PUMP STATION

SERIAL NO.	CLASS	MANUFACTURER	LOCATION
G628639	BC	ANSUL	18" Booster Bldg
J-15564	BC	AMEREX	18" Booster Bldg
J-15565	BC	AMEREX	18" Pumproom
J-15471	BC	AMEREX	18" Pumproom
J-15483	BC	AMEREX	24" Pumproom
J-15472	BC	AMEREX	24" Pumproom
ET956560	BC	GENERAL	Boiler House
ET956552	BC	GENERAL	Boiler House
ET956545	BC	GENERAL	Boiler House
J-15568	BC	AMEREX	Control Bldg
J-15496	BC	AMEREX	Control Bldg
J-15567	BC	AMEREX	Garage
Am442639	BC	ANSUL	Garage
AmJ-643858	ABC	AMEREX	Office North
W463047	BC	AMEREX	Operations Office
Am612110	ABC	SENTRY	Office South
Am442649	BC	ANSUL	Hallway
Am442657	BC	ANSUL	Vacuum Truck Room
J-15481	BC	AMEREX	Vacuum Truck Room
NW234020	BC	GENERAL	Vacuum Truck Room
G628899	BC	ANSUL	Weld Shop Bay Door
R858337	BC	ANSUL	Weld Shop
R858332	BC	ANSUL	Shop Area
J-15566	BC	AMEREX	Electrical Shop
S804248	BC	ANSUL	Warehouse
R858324	BC	ANSUL	Unit 7 Control

EQUIPMENT FOR FIRE FIGHTING

SOUTH PORTLAND PUMP STATION (Cont'd)

SERIAL NO.	CLASS	MANUFACTURER	LOCATION
R858350	BC	ANSUL	Corrosion Room
W672245	BC	GENERAL	Laboratory
AC-41381	BC	AMEREX	Laboratory
B-565415	BC	AMEREX	Yard Maintenance
W762239	BC	GENERAL	Gauger Office
W762246	BC	GENERAL	Controllers Office
W762243	BC	GENERAL	Computer Room
W762235	BC	GENERAL	Computer Room
ST-183018	ABC	AMEREX	Spare #3 High Perf.
SY-900491	ABC	AMEREX	Spare 2.5#
Y595738	BC	ANSUL	Spare 30# Ansul
s-207684	A	BADGER	Spare 2.5 gal h2o
ZS-878526	ABC	BUCKEYE	THawz All
W762252	BC	GENERAL	T-1 Control Bldg
K725382	BC	ANSUL	T-1 Control Bldg
W762238	BC	GENERAL	T-1 Control Bldg
W762249	BC	GENERAL	T-2 Control Bldg
K725564	BC	GENERAL	T-2 Control Bldg
W762240	BC	GENERAL	T-2 Control Bldg
XT-059815	BC	KIDDE	Boat
AP-513671	ABC	KIDDE	Gen. Trailer

EQUIPMENT FOR FIRE FIGHTING

RAYMOND PUMP STATION

SERIAL NO.	CLASS	MANUFACTURER	LOCATION
X831646	BC	Ansul	#5 & #6 Units
X 831587	BC	Ansul	#5 & #6 Units
X831599	BC	Ansul	#5 & #6 Units
A82583	BC	Ansul	Work Room
M23617	BC	Kiddie	Control Room
10545	BC	Ansul	Garage
A99653	BC	Ansul	Pumproom
600566	BC	Ansul	Boat
A-185916	BC	Ansul	Office

EQUIPMENT FOR FIRE FIGHTING

NORTH WATERFORD PUMP STATION

SERIAL NO.	CLASS	MANUFACTURER	LOCATION
HP973040	BC	Ansul	Office
HP973039	BC	Ansul	Workshop
HP973037	BC	Ansul	Workshop
M474244	BC	Ansul	Workshop
HP973043	BC	Kiddie	18” Pumproom
HP973044	BC	Ansul	18” Pumproom
AH636047	BC	Ansul	18” Pumproom
HP973042	BC	Ansul	#5 & #6 Units
HP973047	BC	Ansul	#5 & #6 Units
HP973049	BC	Ansul	24” Strainer
M474312	BC	Ansul	Control Room
277718	BC	C-O-Two	Control Room
P823353	BC	Norris	Control Room
CA731966	BC	Ansul	Steury Boat
CA731968	BC	Ansul	Company Vehicle

EQUIPMENT FOR FIRE FIGHTING

SHELBURNE PUMP STATION

SERIAL NO.	CLASS	MANUFACTURER	LOCATION
HP973045	BC	Ansul	Office
HP973048	BC	Ansul	SHOP
HP973038	BC	Ansul	#5 & #6 Units
HP973051	BC	Ansul	#5 & #6 Units
HP973041	BC	Kiddie	Pumproom
HP973046	BC	Ansul	Pumproom
M474299		Ansul	Pumproom
731940	BC	Ansul	Control Room
105455	BC	Ansul	Boat
F144013	BC	Ansul	Office
F144014	BC	Ansul	Pollution Trailer Office

EQUIPMENT FOR FIRE FIGHTING

LANCASTER PUMP STATION

SERIAL NO.	CLASS	MANUFACTURER	LOCATION
HP973022	BC	Ansul	Office Building
HP973023	BC	Ansul	Work Room
HP973024	BC	Ansul	Work Room
HP973025	BC	Ansul	18" Pumproom
HP973026	BC	Kiddie	18" Pumproom
HP973027	BC	Ansul	24" Units
HP973028	BC	Ansul	24" Units
HP973029	BC	Ansul	24" Units
F277635	BC	C-O-Two	Control Room
M474316	BC	C-O-Two	Control Room
CA731931	BC	Ansul	Boat
A2681	3A2015	Nitrogen BT	Garage
AH636068	BC	Ansul	Work Room
CA731944	BC	Ansul	Truck

EQUIPMENT FOR FIRE FIGHTING

SUTTON PUMP STATION

SERIAL NO.	CLASS	MANUFACTURER	LOCATION
HP973030	BC	Ansul	Office
HP973031	BC	Ansul	Workroom
HP973032	BC	Ansul	#5 & #6 Units
HP973033	BC	Ansul	#5 & #6 Units
HP973034	BC	Ansul	#5 & #6 Units
HP973035	BC	Ansul	Pumproom
HP973036	BC	Ansul	Pumproom
107281	BC	Ansul	Work Room
474249	BC	Ansul C-O-Two	Control Room
CA731946	BC	Ansul	Equipment Trailer
15337	3A2015	DDacco Nitrogen BT	Workroom
U500764*	BC	Buckeye	Soft Start Building

EQUIPMENT FOR FIRE FIGHTING

HIGHWATER PUMP STATION

Serial No.	MAKE	TYPE	LOCATION
34542	Ansul	BC 20lbs	Control Building
968829	Ansul Sentry	Co2 10lbs	Control Building
820500	Ansul	BC 30lbs	Storage Room
805235	Ansul	BC 30lbs	Storage Room
1510	Ansul	BC 30lbs	Motor Room
1507	Ansul	BC 30lbs	2nd Floor Motor Room
970918	Ansul	BC 5lbs	Boat
805240	Ansul	BC 30lbs	Work Room
805239	Ansul	BC 30lbs	Work Room
805242	Ansul	BC 30lbs	Work Room
805139	Ansul	BC 30lbs	Pump Room
805138	Ansul	BC 30lbs	Pump Room
34553	Ansul	BC 20lbs	Pump Room
1502	Ansul	BC 30lbs	Pump 24
968855	Ansul Sentry	Co2 10lbs	24 Control Building
61648	Ansul Sentry	Co2 10lbs	24 Control Building

EQUIPMENT FOR FIRE FIGHTING			
ST. CESAIRE PUMP STATION			
EXTINGUISHERS			
Serial No.	**MAKE**	**TYPE**	**LOCATION**
8055133	Ansul	BC 30lbs	Work Room
252242	Ansul	ABC 20lbs	Spare
900074	Ansul Sentry	Co2 10lbs	Control Room
748209	Ansul	BC 20lbs	Office
748225	Ansul	BC 20lbs	Garage
2470	Ansul	BC 5lbs	Boat
34563	Ansul	BC 20lbs	Hydro Meter Building
788731	Ansul	BC 5lbs	Small Garage
805246	Ansul	BC 30lbs	Pump Room
805137	Ansul	BC 30lbs	Pump Room
344469	Ansul	BC 20lbs	Pump 24
126882	Flag	Co2	24 Control Building

EQUIPMENT FOR FIRE FIGHTING

MONTREAL EAST AREA

EXTINGUISHERS

Serial No.	MAKE	TYPE	Location
106165	Ansul	BC 20lbs	Vehicle Unit – Terminal Supervisor
1840	Ansul	BC 20lbs	Vehicle Unit – Terminal Maintenance
853186	Ansul	BC 20lbs	Pump Room West Wall
359967	Ansul	BC 20lbs	Pump Room East Wall
202030	Ansul	BC 30lbs	Terminal Building South Wall
360047	Ansul	30lbs	Terminal Motor Room
444465	Ansul	BC 20lbs	Terminal Supervisor Office
202029	Ansul	BC 5lbs	Terminal Lunch Room
27062DL	Pyrene/RS	CO_2	Control Room
202033	Ansul	30lbs	Manifold 2 West Fence
202034	Ansul	30lbs	Manifold 2 East Fence
6074	Kidde	CO_2	Manifold 2 Building
430550	Ansul	BC	E& I Shop
27863	York	CO2 15lbs	Terminal Electrical Sub room
202028	Ansul	BC 30lbs	Terminal Garage
42849	Ansul	20lbs	Storage / Inventory Building
970106	Ansul	BC 20lbs	Storage / Inventory Building
00840584	Ansul	BC 20lbs	Vehicle Unit Terminal Maintenace
16442	Ansul	BC 30lbs	Meter Building
164034	Ansul	BC 20lbs	Meter Building
989	Ansul	BC 20lbs	Meter Building
411055	Ansul	BC 20 lbs	Incoming Manifold
713090	Ansul	BC 20lbs	Incoming Manifold
A1815990	Ansul	BC 5lbs	Vehicle Unit Maintenace Technicien
227700	Ansul	ABC 10lbs	Main Office
KB4823	Pyrene	CO_2	Main Office Basement
251622	Ansul	BC 10lbs	Main Office Basement
853176	Ansul	BC	Terminal Laboratory
2649	Ansul	BC 20lbs	24" Sampling Building
68244675	Ansul	BC 20lbs	Manifold 1 Trap
68244676	Ansul	BC 20lbs	Manifold 1 Trap
187555	Ansul	30lbs	Office Garage

MONTREAL EAST AREA

FIRE HYDRANTS

N°	MAKE	LOCATION	INTEGRATED NOZZLE	HOSE
315	McAvity	Yard East Fence	No	No
316	McAvity	Yard South Fence	No	No
317	McAvity	Delivery Manifold	No	No
319	Darling	Terminal West Fence	No	No
321	Darling	Parking Lot	Yes	No
322	Darling	Incoming Manifold	Yes	No

NORTH TANK FIELD

FIRE HYDRANTS AND EXTINGUISHERS

NO.	MAKE	Type	Location
2656	Ansul	BC 20lbs	Tk 660
3859	Ansul	BC 20lbs	Tk 661
2643	Ansul	BC 20lbs	Tk 662
3869	Ansul	BC 20lbs	Tk 663
2638	Ansul	BC 20lbs	Tk 664
2845	Ansul	BC 20lbs	Tk 665
68244673	Ansul	BC 20lbs	NTF Launching Traps
68244674	Ansul	BC 20lbs	NTF Launching Traps
678399	General	CO2	Sub 44
410050	General	CO2	Sub 44
27062	Pyrene	CO2	Sub 40
868049	Ansul	CO2	Sub 40
AV2328	Ansul	BC5lbs	Spare
202032	Ansul	BC5lbs	Spare
M251689	Ansul	ABC 10lbs	Spare

23 (twenty-three) fire Hydrants — McAvity (6), Darling (16), Century(1) — North Tank Field

US – OIL SPILL RESPONSE CONTRACTORS

FIGURE C-2

USCG OSRO CLASSIFICATIONS

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities. Response capabilities are rated MM, W1, W2 or W3 as described below.

SPECIFIC CLASSIFICATION STANDARDS BY OPERATING AREAS

OPERATING AREAS		MM	W1	W2	W3
RIVER CANAL					
PROTECT BOOM (FEET)		4000	25000	25000	25000
EDRC (BBLS/DAY)		1200	1875	3750	7500
TSC (BBLS)		2400	3750	7500	15000
RESPONSE TIME (HRS)					
FAC	HVP	6	12	30	54
	OTHER	12	24	36	60
VESSEL	HVP	12	12	36	60
	OTHER	24	24	48	72
GREAT LAKES					
PROTECT BOOM (FEET)		6000	30000	30000	30000
EDRC (BBLS/DAY)		1200	6250	12500	25000
TSC (BBLS)		2400	12500	25000	50000
RESPONSE TIME (HRS)					
FAC	HVP	6	12	36	60
VESSEL	HVP	12	18	42	66
INLAND					
PROTECT BOOM (FEET)		6000	30000	30000	30000
EDRC (BBLS/DAY)		2400	12500	25000	50000
TSC (BBLS)		2400	25000	50000	100000
RESPONSE TIME (HRS)					
FAC	HVP	6	12	30	54
	OTHER	12	24	36	60
VESSEL	HVP	12	12	36	60
	OTHER	24	24	48	72

FIGURE C-2 (Cont'd.)

OPERATING AREAS		MM	W1	W2	W3
NEAR SHORE					
PROTECT BOOM (FEET)		8000	30000	30000	30000
EDRC (BBLS/DAY)		1200	12500	25000	50000
TSC (BBLS)		2400	25000	50000	100000
RESPONSE TIME (HRS)					
FAC	HVP	6	12	30	54
	OTHER	12	24	36	60
VESSEL	HVP	12	12	36	60
	OTHER	24	24	48	72
OFFSHORE					
PROTECT BOOM (FEET)		8000	15000	15000	15000
EDRC (BBLS/DAY)		1200	12500	25000	50000
TSC (BBLS)		2400	25000	25000	25000
RESPONSE TIME (HRS)					
FAC	HVP	6	12	30	54
	OTHER	12	24	36	60
VESSEL	HVP	12	12	36	60
	OTHER	24	24	48	72
OPEN OCEAN					
PROTECT BOOM (FEET)		0	0	0	0
EDRC (BBLS/DAY)		1250	12500	25000	50000
TSC (BBLS)		2400	25000	50000	100000
RESPONSE TIME (HRS)					
FAC	HVP	6	12	30	54
	OTHER	12	24	36	60
VESSEL	HVP	12	12	36	60
	OTHER	24	24	48	72

FAC = Facility
VSL = Tank
Vessel
HVP = Facility high-volume ports

EDRC = Effective Daily Recovery Capacity

TSC = Temporary Storage Capacity
BBLS = Barrels

M= Maximum Most Probable Discharge
W1= Worst Case Discharge Tier 1
W2= Worst Case Discharge Tier 2
W3= Worst Case Discharge Tier 3

HRS= Hours

FIGURE C-3

EXTERNAL RESPONSE RESOURCES

Portland Captain of the Port (COTP) Zone

USCG Classified Oil Spill Response Organization (OSRO)								
OSRO Name	Contract Number	Environment Type	Facility Classification Level					Shoreline Cleanup
			MM	W1	W2	W3	NFO	
Marine Spill Response Corporation	Service Agreement in place	Rivers/Canals	✔	✔	✔	✔	✔	**yes**
		Inland	✔	✔	✔	✔	✔	
Clean Harbors Environmental	Service Agreement in place	Rivers/Canals	✔	✔	✔	✔		**yes**
		Inland	✔	✔	✔	✔		

Note: USCG Classification letters are provided in Appendix C and telephone numbers are provided in Figure 2.8.

Marine Spill Response Corporation
220 Spring Street, Suite 500
Herndon, VA 20170
Phone: 703.326.5600
customer.service@msrc.org
www.msrc.org

December 20, 2019

Dear Customer,

The National Preparedness for Response Exercise Program (NPREP) Guidelines requires plan holders to ensure that Equipment Deployment Exercise requirements are met on an annual basis.

This letter provides documentation that the Marine Spill Response Corporation (MSRC) has completed the NPREP Equipment Deployment Exercise requirements during calendar year 2019. For purposes of Equipment Deployment Exercises under NPREP, each MSRC Region is considered a separate Oil Spill Removal Organization (OSRO).

Each Region has deployed the NPREP required amounts of MSRC capability that are referenced in MSRC's Major Equipment List (MEL) and referenced in customer response plans. These deployments are conducted in each of the operating environments listed in NPREP (River and Canals, Inland, and Ocean), as appropriate.

The types of resources MSRC will routinely deploy in training include the following: Boom; skimming and other collection or recovery systems; aerial dispersant systems; in-situ burn boom; and aerial observation & remote sensing.

Each Region has conducted extensive personnel training consistent with the requirements of various federal and state regulations, including aerial observation.

MSRC maintains its equipment according to a detailed preventative and corrective maintenance schedule that is tracked and monitored through an electronic management operating system.

Documentation and records of the specific information relating to MSRC Equipment Deployment Exercises and Equipment Maintenance records are maintained in each MSRC Region. Information as to when each MSRC Region satisfied its equipment deployment requirements is available on the MSRC website (www.msrc.org) in the Customer Access section. (b) (7)(F) [redacted]

This letter serves as documentation for the 2020 calendar year. MSRC will provide a new letter in December 2020 for the 2021 calendar year. Please feel free to contact the MSRC Regions directly, or me at (703) 304-9688 or Karaer@msrc.org for additional information.

Kind Regards,

Customer Relationship Manager

MSRC
Marine Spill Response Corporation

April 17, 1998

For More Information Contact:
Don Toenshoff, Jr. (703) 326-5610
Doug O'Donovan (703) 326-5611
Judith Roos (703) 326-5617

MSRC Technical Information Bulletin 98-01

Dispersant Coverage for MPA Customers

Dear Customer:

MSRC has expanded its services and now offers dispersant coverage to MPA customers. MSRC has reached contractual agreement, through 1998, with Marine Industry Resources-Gulf (MIRG) to provide dispersant "hardware" services utilizing Airborne Support, Inc. (ASI). ASI owns and operates three fixed wing dispersant application aircraft, two DC-3's and one DC-4. The dispersant payload for the DC-3 is 1,000 gallons, the DC-4 is 2,000 gallons.

In addition to these aircraft and their support crews, MSRC has access to MIRG's dispersant stockpile, which currently is 16,000 gallons of Corexit 9527, based in Houma, LA and MSRC's 25,000 gallons of Corexit 9527, based in Edison, NJ, as well as access to an ADDS Pack jointly owned by MIRG and Clean Caribbean Cooperative (CCC). The dispersant payload for the ADDS Pack is 5,000 gallons. As with other MSRC services, customers can request this service through MSRC's Service Agreement.

To support MPA customers, ASI will cascade to both the East and West coasts, including the U.S. Caribbean and Hawaii. However, due to ASI's Houma, LA location, current coverage will be most effective in the Gulf of Mexico area. Through the use of C-130s of opportunity, ADDS Pack coverage will be made available throughout the Western hemisphere to the same extent it is made available to MIRG.

As noted above this contract is essentially for "hardware" services. At present, "software" services will remain the responsibility of the customer. Typical software requirements include:

- Preparation of a dispersant plan
- Obtaining government approvals
- Obtaining Surveillance Aircraft
- Obtaining Spotter Aircraft and Spotters. This is essential to timely, accurate and economical dispersant application.

MSRC will assist its customer or its customer's Spill Management Team with these and other "software" requirements as practicable.

To provide future one stop shopping for both dispersant hardware and software services, MIRG has conceptual plans to expand its dispersant program. MIRG will be actively seeking other subscribers to help support and expand this increased capability. Additional subscribers may provide the funding necessary to contract for additional dispersant application aircraft, including aircraft located in other areas of the country. MPA has authorized additional funding to support this expansion of services, but the funding is contingent upon MIRG obtaining matching funds from other sources.

If you have any questions about MSRC's new dispersant capabilities, please contact Doug O'Donovan at (703) 326-5611.

MSRC
Marine Spill Response Corporation

April 30, 1998

For More Information Contact:
Don Toenshoff, Jr. (703) 326-5610
Doug O'Donovan (703) 326-5611
Judith Roos (703) 326-5617

MSRC Technical Information Bulletin 98-02

Response Equipment Airlift Contingency Transportation (REACT) Package

Dear Customer:

MSRC is offering a new equipment fly-away service to MPA customers. MSRC's Response Equipment Airlift Contingency Transportation (REACT) Package is designed to assist customers in their efforts to mobilize and deploy vessel of opportunity skimming systems (VOSS), boom, and towable storage bladders (TSB) to areas that have experienced a significant spill incident and require additional equipment. The combination of containment, skimming and temporary storage equipment offers a customer a response system designed to be quickly placed into service with the assistance of Vessels of Opportunity and other auxiliary equipment at the affected location. The REACT Package also contains a communications kit that can help support remote staging sites and other areas away from a main communication facility. Although primarily focused on supporting MSRC's customers in their international response operations and other operations remote from the continental United States, the REACT Package is an extension of MSRC's cascade concept and may be used by customers domestically as well.

Upon a customer's request for the REACT Package, the component equipment systems are trucked to the closest of the following major transportation hub airports: Newark, Miami, Houston, Los Angeles or San Francisco. Using MSRC's air service contractor, Kitty Hawk Inc. of Dallas, Texas, the individual components of the REACT Package are then airlifted from these five major transportation hubs and consolidated at a point of departure airport on the coast nearest the spill incident, e.g., Miami for a Caribbean incident, Los Angeles for an incident in the Pacific, etc. The standard REACT Package includes approximately 60,000 bbls of derated effective daily recovery capacity, 13,000 feet of boom and 7,000 bbls of temporary storage and has been designed to fill out the cubic capacity and weight restrictions of a Boeing 747 aircraft. If 747 aircraft are not available, or the destination airport cannot accommodate this large aircraft, multiple smaller aircraft may be sourced and used. Additionally, MSRC is also prepared to customize the package and assist the customer in arranging transportation for lesser or greater amounts of response equipment on other available aircraft, if so requested by the customer. Whether requesting a standard REACT Package or a customized package of equipment, MSRC's goal is to have the REACT Package airborne within 24 hours. Actual times will depend on availability of aircraft and trucking contractors, weather conditions, and other factors.

In identifying MSRC equipment for the REACT Package, MSRC selected equipment from multiple MSRC locations on all three coasts to reduce the overall local response impact in any single area and to maintain MSRC's OSRO classification throughout the MSRC Operational Area. MSRC will keep the Coast Guard's local Federal-On-Scene-Coordinator advised of the movement of local response assets, as required. Although MSRC's owned and dedicated equipment is identified in the REACT Package it is anticipated that the Package will be augmented with equipment owned by MSRC's *STARs* participants.

The REACT Package (including any requested personnel) is available as part of a customer's Service Agreement with MSRC. If the REACT Package is requested for use internationally, or in other areas outside MSRC's Operational Area, the customer may need to execute an Addendum to its Service Agreement to address the customer's responsibility for customs and other such matters.

MSRC
Marine Spill Response Corporation

August 20, 1999

MSRC Technical Information Bulletin 99-02

Infrared Imaging Services for MSRC Customers

Dear Customer:

MSRC has expanded its services and now offers infrared imaging coverage to its customers. MSRC has reached an arrangement with Infrared Testing, Inc. of Chicago, IL to provide this service. Infrared imaging has successfully been utilized to detect spilled oil at night and in reduced visibility, offering the possibility of round the clock emergency response operations.

ITI is based out of Chicago with representatives in Long Beach, CA; Washington, DC; Dallas, TX; Charlotte, NC and Monterrey, Mexico. ITI maintains a team of thermographers (infrared technicians) around the United States who may be mobilized to assist MSRC and its customers. These thermographers are estimated to arrive on-scene within 12-hours of notification. They are equipped with ITI 2000 Infrared Camera Systems. The ITI 2000 System is a portable, hand held unit capable of detecting temperature differentials within a range of –30 to +1375 degrees Centigrade. These systems are capable of being deployed off of MSRC's 16 dedicated oil spill response vessels or other marine platforms.

According to Terry Maglioli, President of ITI, "Our daily business of providing Infrared inspections of electrical & mechanical systems offers the ability to provide trained, experienced thermographers to MSRC in the event of a spill response. Additionally, we constantly update and upgrade our equipment as the field of thermography advances, providing MSRC and its customers access to the newest technology available."

Benefits associated with infrared imaging services under this contract for MSRC customers include: no capital costs or maintenance and repair costs associated with the equipment; no costs for personnel training; no costs associated with upgrading equipment due to rapid technological changes; and no initial charges.

If you have any questions about MSRC's new infrared imaging services, please contact Judith Roos at (703) 326-5617 or Doug O'Donovan at (703) 326-5611.

MSRC's Major Equipment- Atlantic Region

Location		Skimmers	Effective Daily Recovery Capacity BBL/Day		Boom	Storage, SBS, Small Boats
Portland, ME						
Maine Responder- IDLED 2016	1	Transrec 350	10,567	2,640	ft. 67" Curtain PI	1 - 4,000 barrel OSRV Storage
MSRC 620				660	ft. 67" Curtain PI	1 - 62,000 barrel offshore barge
30 FT. KVICHAK	1	Marco 1	3,588			1- 24 bbl onboard
Al. Storage Barge 3	1	Komara K-30	905	50	ft. 27" Curtain IF	1- 200 bbl onboard
Crocker Responder				1,000	ft. 27" Curtain IF	
Katahdin Responder				1,000	ft. 27" Curtain IF	
	1	Desmi 250	2,112	3,760	ft. 18" Curtain IF	1 - Shallow Water Barge (self propelled/400 bbl)
	1	Elastec Drum	288	2,700	ft. 19" Curtain IF	2 - 10 bbl Fastanks 920 bbl)
	1	GT-185 w Adapter	1,371	1,000	ft. 24" Tidal Seal	2 - 100 bbl Towable Storage Barges (200 bbl)
	1	Komara K-12	362	3,500	ft. 27" Curtain IF	1 - 50 bbl Fastank
	2	Lori side collector	2,714	3,630	ft. 67" Curtain PI	1 - 500 bbl towable storage bladder
Portland Wearhouse	1	Ro-Clean OM 260	362			2 - 55 bbl Fastanks (110 bbl)
	1	Sea Devil	2,290			1 - Lancer TSB (162 bbl)
	1	Skim-Pack 1800	2,054			**67,666 bbl Storage**
	1	Stress I	15,840			
	1	WP-1	3,017			1- 32' Munson Support Boat
						1- Level C X-Band radar Oil Dectection and Thermal Infrared Camera System
				990	gal. Corexit 9500	1- Fast Advancing Encounter System
						1- Workboat (Cadillac)
						1-Workboat- Agamenticus
Site Totals:	**14**	**Skimmers**	**45,470**	**19,940**	**Feet of Boom**	1,000 ft Fire-resistant Boom
Everett, MA						
	1	Desmi Ocean	3,017	1,320	ft. 67" Curtain PI	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Queensboro	905	1,000	ft. 24" Tidal Seal	1 - Shallow Water Push Boat (28' Munson)
				1,060	ft. 18" Curtain IF	
Providence, RI						
	1	GT-185 w Adapter	1,371	2,960	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
				1,000	ft. 24" Tidal Seal	1 - Shallow Water Push Boat (28' Munson)
Perth Amboy, NJ						
New Jersey Responder	1	Transrec 350	10,567	2,640	ft. 67" Curtain PI	1 - 4,000 barrel OSRV Storage
MSRC 520				660	ft. 67" Curtain PI	1 - 52,000 barrel offshore barge
						1- 32' Munson Support Boat
						1- Level C X-Band radar Oil Dectection and Thermal Infrared Camera System
						1- Fast Advancing Encounter System
Edison, NJ						
30 FT. KVICHAK	1	Marco 1	3,588			1- 24 bbl onboard
30 FT. KVICHAK	1	Marco 1	3,588			1- 24 bbl onboard
	1	AardVac	3,840	60	ft. 18" Curtain IF	1 - Shallow Water Barges (self propelled/400 bbl)
	1	Crucial Disc 56/30	5,671	1,800	ft. 24" Tidal Seal	3 - 10 bbl Fastanks (30 bbl)
	1	Desmi Ocean	3,017	990	ft. 27" Curtain PI	2 - 500 bbl towable storage bladders (1000 bbl)
	1	GT-185 w Adapter	1,371	990	ft. 50" Curtain PI	9 - 55 bbl Fastank (495 bbl)
	2	Manta Ray	1,096	8,140	ft. 67" Curtain PI	**1,973 bbl storage**
Edison Warehouse	1	Skim-Pak	548			
	1	Stress I	15,840			1- Emergency Communication Package
						1- Level A- Aerial Optical and Thermal Infrared Imaging System
	1	Walosep W4	3,017			1- Fast Advancing Encounter System
Site Totals	**11**	**Skimmers**	**41,576**	**11,980**	**Feet of Boom**	

Bayonne, NJ						
	1	GT-185 w Adapter	1,371	60	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
Chesapeake City, MD						
Delaware Responder	1	Transrec 350	10,567	2,640	ft. 64" Curtain PI	1 - 4,000 barrel OSRV Storage
MSRC 401				660	ft. 64" Curtain PI	1 - 40,000 barrel offshore barge
	2	GT-185 w Adapter	2,742	1,220	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Manta Ray	548	1,000	ft. 24" Tidal Seal	1 - Shallow Water Barges (self propelled/400 bbl)
Chesapeake City	1	Stress I	15,840	3,520	ft. 67" Curtain PI	1 - Shallow Water Push Boats (28' Munson)
Warehouse	1	Walosep W4	3,017			**44,800 bbl Storage**
						13,035 gal. Corexit 9500
Site Totals	**5**	**Skimmers**	**32,714**	**9,040**	**ft. of Boom**	
Baltimore, MD						
	1	GT-185 w Adapter	1,371	2,060	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
						1 - Shallow Water Push Boat (28' Munson)
Salisbury, MD						
				330	gal. Corexit 9500	1 - Dispersant Aircraft King Air BE-90
Slaughter Beach, DE						
				330	gal. Corexit 9500	
Norfolk, VA						
MSRC Relentless	2	LORI Brush Pack	5,000			50 bbl Onboard storage
Virginia Beach, VA						
MSRC 680	2	Crucial Disc 88/30	22,244	2,640	ft. 67" Curtain PI	1 - 68,000 barrel offshore barge
	1	AardVAC	3,840	2,020	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
Virginia Beach	2	GT-185 w Adapter	2,742	3,000	ft. 24" Tidal Seal	1 - Shallow Water Barges (self propelled/400 bbl)
Warehouse				3,520	ft. 67" Curtain PI	2 - 10 bbl Fastanks (20 bbl)
Site totals:	**5**	**Skimmers**	**28,826**	**11,180**	**feet of boom**	1- 100 bbl towable storage (100 bbl)
						1 - 500 bbl towable storage bladder
						2 - 55 bbl Fastank (110 bbl)
						69,530 bbl Storage
						1 - Shallow Water Push Boat (28' Munson)
Wando, SC						
	1	GT-185 w Adapter	1,371	50	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
						1 - Shallow Water Push Boat (28' Munson)
Savannah, GA						
MSRC 350	1	Transrec 350	10,567	1,320	ft. 67" Curtain PI	1 - 35,000 barrel offshore barge
MSRC Express	2	Crucial Belt	21,500			1- 249 bbl onboard storage
30 FT. KVICHAK	1	Marco 1	3,588			1- 24 bbl onboard
	1	GT-185 w Adapter	1,371	8,140	ft. 67" Curtain PI	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Skim-Pak	548	1,000	ft. 24"Tidal Seal	1 - 10 bbl Fastanks (10 bbl)
Savannah Warehouse	1	Stress I	15,840	2,060	ft. 18" Curtain IF	1 - 3,000 bbl towable storage bladder
	1	Walosep W4	3,017			6 - 500 bbl towable storage bladders
						1 - 55 bbl Fastank
Site Totals:	**8**	**Skimmers**	**56,431**	**12,520**	**feet of boom**	**41,738 bbl Storage**
						6,930 gal. Corexit 9500
						1- Fast Advancing Encounter System

Jacksonville, FL	1	GT-185 w Adapter	1,371	60	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
San Juan, Puerto Rico **MSRC Brisa Rapida**	2	LORI Brush Pack	5,000			1 - 50 barrel onboard Storage
Carolina, Puerto Rico						1- Dispersant Aircraft King Air BE-90
Cantano, Puerto Rico	1	Queensboro	905	50	ft. 18" Curtain IF	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Stress II	3,017	4,000	ft. 24" Fence	1- 100 bbl towable storage (100 bbl)
						1 - Shallow Water Push Boat (28' Munson)
				3,300	gal. Corexit 9500	
				900	gal. Corexit 9527	
Penuelas, Puerto Rico	1	Desmi Ocean	3,017	150	ft. 18" Curtain IF	
	1	Foilex 200	1,989	10,000	ft. 24" Fence	2 - Shallow Water Barges (non-self propelled/400 bbl)
	3	Queensboro	2,715	11,550	ft. 67" Curtain PI	1- Shallow Water Barges (self propelled/400 bbl)
Site Totals:	**5**	**Skimmers**	**7,721**	**21,700**	**feet of boom**	2 - Shallow Water Push Boat (28' Munson)
						1- Fast Advancing Encounter System
Ponce, Puerto Rico **MSRC 381**	2	Stress I	31,680	660	ft. 67" Curtain PI	1 - 38,000 bbl Onboard Storage
Total Equipment	66	Skimmers	279,684	103,940	Feet	2 - Responder Class OSRVs with a total of 8,000 bbls storage 1 - Smaller OSRVs 2 - FRV's with a total of 50 bbls storage each 6 - Offshore Barges with 295,000 bbls storage 12 - Shallow Water Barges (non-self propelled) (5,200 bbls storage) 5 - Shallow Water Barges (self propelled) (2,800 bbls storage) 12 - Towable Storage Barges (non-self propelled) (5,200 bbls storage) 12 - Shallow Water Push Boats 24 - Towable Storage Bladders (11,200 bbls storage) 3 - Work Boats 23 - Fastanks (900 bbls) 85,670 ft Ocean Boom 10,725 Gallons Corexit 9500 Dispersant 900 Gallons Corexit 9527 Dispersant

This Page Intentionally Left Blank

Place holder for cascade excel spread sheet

This Page Intentionally Left Blank

Place holder for cascade excel spread sheet

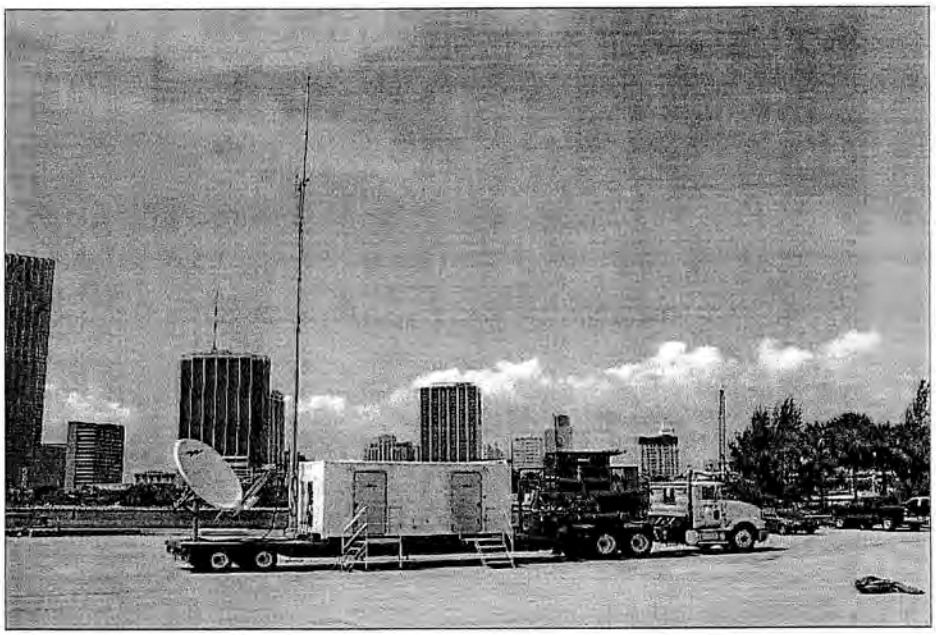
MOBILE COMMUNICATIONS SUITE

The Mobile Communications Suite (MCS) is designed to be a fully self-supporting communication system that can be towed to a location and setup for full operation within approximately 4-6 hours of arrival. The system is designed to provide emergency communications support until local resources can be obtained to provide telephone and radio support for extended emergencies. Long distance telephone trunks are provided by the satellite system for an added cost.

Components

1	Telephone System		
50	Telephones	1	UHF Business Band Base Station
1	Telephone/Radio Interface	2	UHF Business Band Repeaters
1	HF SSB Marine Base Station	40	Handheld Radios
2	VHF Marine Base Station	1	KuBand Satellite System
1	VHF Aviation Base Station	1	20' ISO Container
2	VHF Business Band Base Station	1	30KVA Generator
4	VHF Business Band Repeaters	1	48' Trailer

Number of Operators Required: 5-10 depending on operations



MSRC COMMUNICATIONS

WAREHOUSE

Qty	UNIT	CHANNELS	COMMENTS
6	Handheld Motorola PR1500	MSRC- 1-32	each w/ spare battery & charger
2	Marine VHF	All	1 in conferenc room, 1 in office
2	Motorola MaxTrac	MSRC-1-16	1 in conferenc room, 1 in office

ME Responder

On Bridge

1	Single Side Band Radio	all	
1	Motorola Response Radio	MSRC-1-4	
2	Marine VHF Radios	all	
1	Aviation Radio	all	

RHIBS

2	Marine VHF Radios	all	one on each RHIB

COMM"S ROOM

1	Aviation Radio	all	
1	VHF	all	
1	Single Side Band Radio	all	
6	Handheld Motorola PR1500	MSRC-1-32	each w/ spare battery - 6 bank charger in comm's room
2	Motorola Response Radios	MSRC-1-4	
2	Satellite Phones(Irdium)	Sat Voice 480-458-9555	011-88162211453431
	Fax	480-345-4340	
1	Fleet voice	011 870 761145214	
1	Sat Voice	888 872 1556	

Munson Support Boat 1-1

2	Marine VHF Radios	all	
1	Motorola MaxTrax Radio	MSRC-1-16	

MSRC-620

MSRC-1-16

1	Marine VHF Radio	all MSRC-1-16	} in galley

CCB Heritage Vessels

Saddleback

All

1	Motorola M1225	MSRC 1-4

Katahdin

All

1	Motorola M1225	MSRC 1-4

Crocker

All

1	Motorola M1225	MSRC 1-4

Cadillac

All

1	Motorola M1225	MSRC 1-4

Agamenticus

All

1	Motorola M1225	MSRC 1-4

MSRC Frequency Assignments

Channel ID	Ch #	RX	TX	RX TPL	TX TPL
SPILL RESPONSE	1	150.9800	150.9800	103.5	103.5
SPILL RESPONSE REPEATER	2	150.9800	154.5850	103.5	103.5
SPILL RESPONSE	3	159.4800	159.4800	103.5	103.5
SPILL RESPONSE REPEATER	4	159.4800	158.4450	103.5	103.5
MARINE CHANNEL 68	**5**	***156.4250***	***156.4250***	***CS***	***CS***
MARINE CHANNEL 6	6	156.3000	156.3000	CS	CS
MARINE CHANNEL 7	7	156.3500	156.3500	CS	CS
MARINE CHANNEL 8	8	156.4000	156.4000	CS	CS
MARINE CHANNEL 77	**9**	***156.8750***	***156.8750***	***CS***	***CS***
MARINE CHANNEL 10	10	156.5000	156.5000	CS	CS
MARINE CHANNEL 11	11	156.5500	156.5500	CS	CS
MARINE CHANNEL 12	12	156.6000	156.6000	CS	CS
MARINE CHANNEL 13	13	156.6500	156.6500	CS	CS
MARINE CHANNEL 14	14	156.7000	156.7000	CS	CS
MARINE CHANNEL 78	**15**	***156.9250***	***156.9250***	***CS***	***CS***
MARINE CHANNEL 16	16	156.8000	156.8000	CS	CS
SPILL RESPONSE	17	454.0000	454.0000	103.5	103.5
SPILL RESPONSE REPEATER	18	454.0000	459.0000	103.5	103.5
MARINE CHANNEL 19A	19	156.9500	156.9500	CS	CS
MARINE CHANNEL 65A	20	156.2750	156.2750	CS	CS
MARINE CHANNEL 68	21	156.4250	156.4250	CS	CS
MARINE CHANNEL 69	22	156.4750	156.4750	CS	CS
MARINE CHANNEL 71	23	156.5750	156.5750	CS	CS
MARINE CHANNEL 78A	24	156.9250	156.9250	CS	CS
MARINE CHANNEL 79A	25	156.9750	156.9750	CS	CS
MARINE CHANNEL 80A	26	157.0250	157.0250	CS	CS
MARINE CHANNEL 81A	27	157.0750	157.0750	CS	CS
MARINE CHANNEL 82A	28	157.1250	157.1250	CS	CS
MARINE CHANNEL 83A	29	157.1750	157.1750	CS	CS
MARINE CHANNEL 88A	30	157.4250	157.4250	CS	CS
SPILL RESPONSE (STA)	31	157.6800	157.6800	103.5	103.5
SPILL RESPONSE REPEATER (STA)	32	157.6800	152.2700	103.5	103.5

MSRC REGION 1 RESPONSE EQUIPMENT FACTSHEETS

The following equipment has been identified as part of the MSRC Region 1 response equipment inventory. This document contains an equipment factsheet for each piece of response equipment.

SKIMMERS
DESMI OCEAN
AARDVAC 800
WALOSEP W-4
GT-185
WP-1
TRANSREC 350
SEAWOOLF

PUMPS
DESMI DOP-250
EUREKA CCN-150

VESSELS
OSRV
32' SUPPORT BOAT

SPECIAL BOOMS
VIKOMA 3 WEIR BOOM
FIOCS 800 NORWEGIAN OIL TRAWL

BOOMS
ENGINEERED FABRICS 2344 SEA SENTRY II
MARK 7-24" SLICKBAR
TEXAS INTERTIDAL BOOM

HYDRAULIC POWER UNITS
TYPE I, TYPE II, TYPE III

STORAGE FACILITIES
SHUTTLE BARGE SYSTEM
TOWABLE STORAGE BLADDERS

Each piece of response equipment is identified and described in the following format:

LOGISTICAL CONCERNS

Description - Brief system description.
Quantity - Represents number of units for MSRC Region 1.
Location - Identifies response equipment locations within Region 1.
Specifications - Includes pump capacity, weight, draft and dimensions.
Packaging - Lists system containerization requirements, quantity needed, weight, and dimensions.
Total System Weight - Represents total weight of all system components and associated containers.
Total System Required Deck Space - Represents required square foot area to stow the equipment.

==========

OPERATIONAL CONCERNS

Handling - Describes system handling requirements, specifically addresses the needs for crane hoisting.
Operation - Summarizes operational characteristics and employment techniques for different systems.

**NOTE: The data found in this report was compiled from numerous sources including manufacturers data, World Catalog of Oil Spill Response Products, and physically weighing and measuring the system components.

ACRONYMS:

OSRV - Oil Spill Response Vessel. MSRC's 210' long response vessels, similar in design to offshore supply ships. Specifications of the OSRV are located towards the end of this text.
VOSS - Vessel of Opportunity Skimming System. An independently functional unit of oil skimming machinery that can be loaded aboard any vessel that can support the equipment.
HPU - Hydraulic Power Unit (power pack). Details can be found in the following text.
FIOCS - Fully Integrated Oil Containment System (Norwegian Oil Trawl). A boom system used exclusively on board the OSRV. Details can be found in the following text.
SBS - Shuttle Barge System. The SBSs will support portable skimmers, boom handling equipment and pumps in shallow water areas.
TSB - Towable Storage Bladder. MSRC will have TSBs for use in receiving oil directly from skimmers, as well as temporary storage and transfer of recovered oil.

DESMI OCEAN SKIMMER

Description - The DESMI Ocean Skimmer is a weir lip, open sea skimmer. It is designed to cope with debris contaminated oil and emulsions of medium to high viscosities. The surface hopper leads directly into the suction of a Desmi DOP-250 pump. In operation, vertical adjustments of the weir lip to the oil/water interface are pneumatically controlled from a free-standing control station. An adapter may be attached to the hopper for light oil. The DOP-250 pump may be removed from the floatation frame for use in conventional pumping roles.

Quantity - 2 Systems

Location - Regional Response Center

Specifications - Rated BBLS/HR = 630
Derated 80% BBLS/HR = 126
Weight = approx. 420 lbs. (dry skimmer)
Hydraulic Oil Type - Shell Tellus T46

Dimensions: Draft = 40 in.
Length = 6.6 ft.
Width = 7.4 ft.
Height = 3.6 ft.
Deck area = 48 sq. ft.

Packaging - Per system

Type	Qty	Weight	Dimensions	Deck Area
Aluminum Skimmer Pallet	1	550	7' x 7' 7" x 1'	54 sq. ft.
Hydraulic Power Pack Type II	1	4622	6' 5" x 3' x 6'	19.5 sq. ft.
Type III Control Stand	1	518	2' x 2.5' x 3.8'	5 sq. ft.
Job Box	1	750	2.6' x 5 x 3.2'	13 sq. ft.
Large Wire basket - Hydraulic Hose	1	1350	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire Basket - Hose Floats/Line	1	470	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire Basket - 6" Layflat	1	850	4' x 3.4' x 2.6'	13.6 sq. ft.

Total System Weight - 9530 lbs

Total System Required Deck Area - 132.3 sq. ft.

==========

Handling- Use of this skimmer as part of a VOSS system will require the vessel to have a deck crane to deploy and retrieve the unit.

Operation - The Desmi Ocean Skimmer is most effectively used in conjunction with a "J" or "V" boom configuration, but it can also be used from the shoreline at the collection point.

WP-1 SKIMMER

Description- The WP-1 is a rotating drum skimmer which separates water from oil as it operates. It skims oils of all viscosities and is most effective skimming very heavy oils which many conventional skimmers cannot handle. The skimmer components include the drum separator (skimming unit), the DOP-250 pump, the pontoons, and a baffle plate.

Quantity - 1 System

Location - Portland, Maine

Specifications-

Rated BBLS/HR = 430
Derated 80% BBLS/HR = 86
Weight = approx. 1,300 lbs. (dry skimmer)
Hydraulic Oil Type - Shell Tellus T46

Dimensions:
Draft = 20 in.
Length = 8.2 ft.
Width = 9.6 ft.
Height = 4.3 ft.
Deck area = 79 sq ft.

Packaging - Per system

Type	Qty	Weight (lbs)	Dimensions	Deck Area
Aluminum Skimmer Pallet	1	650	10.10' x 8.6' x 1	86.86 sq. ft.
Hydraulic Power Pack Type I	1	5000	7.25' x 3' x 6'	21.75 sq. ft.
Type IV Control Stand	1	309	2' x 2.5' x 3.8'	5 sq. ft.
Job Box	1	750	2.6' x 5 x 3.2'	13 sq. ft.
Large Wire basket - Hydraulic Hose	1	1320	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire Basket - Hose Floats/Line	1	470	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire Basket - 6" Layflat	1	850	4' x 3.4' x 2.6'	13.6 sq. ft.

Total System Weight- 10,649 lbs **Total System Required Deck Area- 167.41 sq. ft.**

==========

Handling- The WP-1 is a relatively large skimmer which measures 8.2 ft long by 9.6 ft wide and weighs approximately 1,300 lbs. Because the skimmer requires two complete 1" hydraulic circuits (one for the rotating drum and one for the screw pump), this skimming unit will require the largest hydraulic power pack MSRC will carry. The deployment vessel for this system will require adequate deck space area and hoisting capabilities to safely handle this equipment.

Operation - This skimmer works very effectively with heavy oils and debris. It separates water from oil as it skims, which reduces the need for decanting and decreases the amount of excess water recovered with the oil.

GT-185 STATIONARY WEIR SKIMMER

Description - The GT-185 is a stationary weir skimmer that can be hauled by two people. A three pontoon floating system provides seaworthiness in open ocean conditions, but it is also capable of skimming in shallow water. This type of skimmer is very effective in the latter stages of clean-up where pockets of oil remain in shallow water areas that larger skimmers cannot effectively operate in.

The skimmer has a large suction opening that allows heavy oil to enter into the hopper. An Archimedean screw pump is fitted with multiple cutter heads for handling debris. A light/medium oil adapter can be used to increase skimming efficiency when working with light oils.

Quantity - 8 Systems

Location - Regional Response Center (2), Portland (1), Boston (2), Delaware Bay (1), Baltimore (1), Norfolk (1)

Specifications -

Rated BBLS/HR = 285
Derated 80% BBLS/HR = 57
Weight = approx. 330 lbs. (dry skimmer)
Hydraulic Oil Type - Shell Tellus T46

Dimensions:
Draft = 18 in.
Length = 7.5 ft.
Width = 6.2 ft.
Height = 2.8 ft.
Deck area = 47 sq ft.

Packaging-Per system

Type	Qty	Weight	Dimensions	Deck Area
Aluminum Skimmer Pallet	1	500	6.4' x 8' x 1'	51.2 sq. ft.
Hydraulic Power Pack Type III	1	3900	5.6' x 3' x 6'	16.8 sq. ft.
Type I Control Stand	1	295	2' x 2.5' x 3.8'	5 sq. ft.
Job Box	1	750	2.6' x 5 x 3.2'	13 sq. ft.
Large Wire basket - Hydraulic Hose	1	1200	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire Basket - Hose Floats/Line	1	470	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire Basket - 6" Layflat	1	850	4' x 3.4' x 2.6'	13.6 sq. ft.

Total System Weight - 7795 lbs **Total System Required Deck Area - 126.8 sq ft.**

==========

Handling- This skimmer is well suited for use on smaller VOSS vessels because its relative low weight would not require heavy hoisting capabilities at sea. The heaviest portion of the VOSS skimming system would be the power pack which could be loaded on board with a shore side crane.

Operation - The GT-185 can be deployed from docks or vessels. It is a versatile skimmer because of its relative light weight, its capability to handle all types of oil, and its ability to operate off shore and in shallow water.

WALOSEP W-4 SKIMMER

Description - The Walosep W-4 Skimmer is primarily used for light to medium weight oils. It can operate off shore in 5-7 foot seas and in shallow water over three feet deep. The W-4 skimmer uses a centrifugal vortex principle created by turning rotor blades which draws the oil to the skimmer. The design of the skimmer reduces the amount of water recovered to a minimum even when the skimmer is encountering relatively thin layers of oil.

Quantity - 2 Systems

Location - Regional Response Center and Delaware Bay

Specifications -
Rated BBLS/HR = 630
Derated 80% BBLS/HR = 126
Weight = approx. 2090 lbs. (dry skimmer)
Hydraulic Oil Type - Shell Tellus T46

Dimensions:
Draft = 35 in.
Length = 8.9 ft.
Width = 8.2 ft.
Height = 8.0 ft.
Deck Area = 73 sq. ft.

Packaging - Per system

Type	Qty	Weight (lbs)	Dimensions	Deck Area
Aluminum Skimmer Pallet	1	750	9.1' x 7.10' x 1	64.61 sq. ft.
Hydraulic Power Pack Type I	1	5000	7.25' x 3' x 6'	21.75 sq. ft.
Type II Control Stand	1	352	2' x 2.5' x 3.8'	5 sq. ft.
Job Box	1	750	2.6' x 5 x 3.2'	13 sq. ft.
Large Wire basket - Hydraulic Hose	1	1920	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire Basket - Hose Floats/Line	1	470	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire Basket - 6" Layflat	1	850	4' x 3.4' x 2.6'	13.6 sq. ft.

Total System Weight - 12,182 lbs

Total System Required Deck Area - 145.16 sq. ft.

==========

Handling-The W-4 requires 7 hydraulic hoses (2-1" hoses for the DOP-250 pump, 2- 1" hoses for the rotor, 2-3/8" hoses for the stator, and 1-3/8" hose for the case drain). The VOSS vessel that this system is deployed on will need to have adequate hoisting capability and the capacity to safely stow all of the system components on board.

Operation -The W-4 skimmer is best suited for medium to light weight oils.

AARDVAC 800 VACUUM SKIMMER

Description- The AARDVAC 800 is a self-contained, high capacity suction skimming system for beach and shoreline areas. This skid mounted vacuum system can be loaded onto a flatbed truck for mobility, or located on a beach or pier. The suction manifold allows up to three skimmer heads to operate at the same time. These skimmer heads are interchangeable to accommodate the weight of oil being recovered. The unit can simultaneously skim oil from the water and transfer the recovered oil to a separate storage tank.

Quantity - 2 Systems

Location - Regional Response Center and Norfolk, Virginia

Specifications-

Rated BBLS/HR = 800
Derated 80% BBLS/HR = 160
Weight = approx. 5,000 lbs. (complete skid mounted system)
Hydraulic Oil Type - Shell Tellus T46

Dimensions:
Draft = 4 in.
Length = 12.5 ft.
Width = 7.5 ft.
Height = 8.0 ft
Deck area = 94 sq ft.

Packaging-Per system

Type	Qty	Weight (lbs)	Dimensions	Deck Area
Job Box	1	750	2.6' x 5 x 3.2'	13 sq. ft.
Large Wire basket - Suction Hose	1	600	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire Basket -Suction Hose	1	600	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire Basket - 6" Layflat	1	850	4' x 3.4' x 2.6'	13.6 sq. ft.
Small Wire Basket - Heads/Floats	1	390	4' x 3.4' x 2.6'	13.6 sq. ft.

Total System Weight - 8,190 lbs **Total System Required Deck Area - 161.4 sq. ft.**

==========

Handling - The AARDVAC 800 skimmer is designed for beach or shoreline collection/recovery point operations. It is not likely to be used offshore as a VOSS, but the AARDVAC system could become a valuable tool in shallow water spills when it is worked off a barge type platform.

Operation - The AARDVAC skimming system will require the operator to be proficient in diesel engine operations in addition to having knowledge of vacuum skimming and transfer pump procedures.

SEAWOOLF SKIMMER

Description - The Seawoolf is a low capacity skimmer that is used primarily to recover debris laden oil. It is capable of skimming very heavy oil, including oil that is emulsified or "weathered." The unit draws surface floating oil, tar, and contaminated debris into a clamshell type bucket through two double vertical disk banks. A Desmi DOP-250 Pump with a weir lip inside the bucket provide normal skimming capability. When the debris inside the bucket builds up, the unit is hoisted from the water and the clamshell dumps the debris into an open barge along side the vessel or operating platform.

Quantity - 1 System

Location - Regional Response Center

Specifications - Rated BBLS/HR = 193
Derated 80% BBLS/HR = 38.5
Weight = approx. 2,464 lbs.
Hydraulic Oil Type - Shell Tellus T46

Dimensions: Draft = 51 in.
Length = 8.9 ft.
Width = 10.2 ft.
Height = 10.8 ft
Deck area = 91 sq. ft.

Packaging -Per system

Type	Qty	Weight	Dimensions	Deck Area
Aluminum Skimmer Pallet	1	900	10.8 x 8' x 1'	86.4 sq. ft.
Hydraulic Power Pack Type II	1	4622	6.5' x 3' x 6'	19.5 sq. ft.
Vikoma Control Stand	1	320	4.6' x 1.7' x 3'	7.82 sq. ft.
Job Box	1	750	2.6' x 5 x 3.2'	13 sq. ft.
Large Wire basket - Vendor Hose	1	600	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire Basket - Hose Floats/Line	1	470	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire Basket - 6" Layflat	1	850	4' x 3.4' x 2.6'	13.6 sq. ft.
Small Wire Basket - Hydraulic Hose	1	770	4' x 3.4' x 2.6'	13.6 sq. ft.

Total System Weight - 11,746 lbs

Total System Required Deck Area - 181.2 sq ft.

==========

Handling - The Seawoolf is a relatively large, heavy skimmer that will require an on board crane capable of hoisting the skimmer full of oil laden debris, and spotting the unit over a collection barge along side to dump the clamshell.

Operation - The Sea Woolf skimmer is usually used late in the spill clean up when viscous, emulsified, and debris laden oil cannot be recovered with conventional skimming systems.

TRANSREC 350 OIL RECOVERY SYSTEM

Description - The Transrec 350 is a high capacity skimming system designed to handle most oils and recovery conditions. MSRC's Off Shore Response Vessels (OSRV's) were designed with the Transrec 350 positioned aft on the starboard quarter for maximum skimming efficiency when used in conjunction with the (FIOCS) 800 Norwegian Oil Trawl. The Transrec system consists of a skimming head, a telescoping crane, and a hose reel. The skimming head is connected to the hose reel through a hose trunk that contains both the hydraulic and discharge hoses. Three types of skimmer heads are available to be used with the Transrec 350, a weir lip, a disc, and a belt skimming head.

Quantity - 4 Systems

Location - Installed on board the New Jersey Responder, Maine Responder, Delaware Responder and Virginia Responder.

Specifications-

Rated BBLS/HR = 2200
Derated 80% BBLS/HR = 440
Weight = approx. 30,800 lbs.
Hydraulic Oil Type - Shell Tellus T46

Dimensions:
Draft = 48 in.
Length = 17.4 ft.
Width = 13.8 ft.
Height = 17.4 ft.
Deck area = 240 sq ft.

Total System Weight- 30,800 lbs **Total System Required Deck Area- 240 sq ft.**

==========

Handling- Because the skimmer is permanently mounted on board the OSRV's, this skimmer will only be used in areas where the OSRV can operate. The skimmer's hydraulic power is supplied by the OSRV's central hydraulic system.

Operation - The Transrec 350 will require at least 2 men for skimming operations, one equipment operator and one tankerman to monitor tank levels and operate the oily water separator. Transfer operations may require a third man to be present.

During Transrec operations, the skimmer will discharge to the OSRV's storage tanks where the recovered oil and water mixture can be decanted and then purified by the on board oily water separators. The separated oil will then be discharged to a barge on station for transport to a shore side collection facility.

23-44 SEA SENTRY II OIL CONTAINMENT BOOM

Description - The 23-44 Sea Sentry II ia a heavy duty offshore oil containment boom manufactured by Engineered Fabrics Corporation. It is deployed from a reel or pallet to provide offshore spill containment in heavy wind and wave conditions. The freeboard/inflation chamber above the water line has a height of 23 inches and the draft/skirt below the water line has a depth of 44 inches. A chain is attached to the bottom of the skirt for ballast and tensile strength.

Quantity - 30,360 Feet

Location - Regional Response Center (6600'), Portland (6600'), Boston (1320'), Narragansett (2640'), Delaware Bay (6600') and Norfolk (6600').

Specifications - Dimensions: Freeboard = 23 in.
Draft = 44 in.
Boom section length = 110 ft.
Individual Air chamber length = 15 ft.
Weight = 8.5 lbs/ft or 935 lbs. per 110' section w/o connection plate.

Packaging - Per Boom system (660 feet of boom per reel or pallet)

OSRV System	Qty	Weight	Dimensions	Deck Area
Hydraulic Boom Reel w/Boom	1	8,800	8' x 9.10' x 8'	72.8 sq ft.
Pallet w/ Boom	3	19,500	8.7' x 7.6' x 3.6	132.24 sq ft.
Large Wire Basket - Support	1	600	4' x 3.4' x 3.10'	13.6 sq ft.

Total System Weight - 32,800 lbs **Total System Required Deck Area - 235.44 sq. ft.**

Reel System	Qty	Weight	Dimensions	Deck Area
Hydraulic Boom Reel w/Boom	1	8,800	8' x 9.10' x 8'	72.8 sq ft.
Pallet w/ Boom	2	13,000	8.7' x 7.6' x 3.6	132.24 sq ft.
Hydraulic Power Pack Type III	1	3,900	5.6' x 3' x 6'	16.8 sq ft.
Large Wire Basket - Support	1	600	4' x 3.4' x 3.10'	13.6 sq ft.

Total System Weight - 26,300 lbs **Total System Required Deck Area - 235.44 sq. ft.**

Non-Reel System	Qty	Weight	Dimensions	Deck Area
Pallet w/ Boom	2	13,000	8.7' x 7.6' x 3.6	132.24 sq ft.
Large Wire Basket - Support	1	600	4' x 3.4' x 3.10'	13.6 sq ft.

Total System Weight - 19,000 lbs **Total System Required Deck Area - 145.84 sq. ft.**

==========

Handling - Precautions should be taken to not over-inflate the air chambers since they have a maximum pressure rating of 1.5 psig. This boom requires a tow vessel with at least a 5000 lb. bollard pull capability at a tow speed of 0.75 - 1 knots. Vessel deployment of this offshore boom will require that the working deck of the VOSS vessels meet two criterion: the vessel must have adequate deck space and deck load capacity to safely stow the equipment and it must also have enough deck space to inflate at least one air chamber (15 feet) before that chamber goes over the side.

Operation - The Sea Sentry 23-44 Boom is likely to be used with two vessels towing the boom in a "J" formation in conjunction with a skimmer in the boom's apex. In this scenario, the VOSS vessel will require substantial open deck space to stow the boom and skimmer equipment and still have enough deck space to deploy the gear.

SLICKBAR MARK 7 - 24" HEAVY DUTY BOOM

Description - The Mark 7 boom is a rigid floatation type boom which is very durable, stores compactly, and is easily deployed from a container. This boom contains oil by providing a barrier in shore line areas with moderate to heavy seas. The boom has an overall width of 24 inches: a freeboard of 8 inches and a draft of 16 inches.

Quantity - 12,000 Feet

Location - Regional Response Center (2000'), Portland (2000'), Boston (2000'), Narragansett (2000'), Delaware Bay (1000'), Baltimore (2000'), and Norfolk (1000')

Specifications - Dimensions:
Freeboard = 8 in.
Draft = 16 in.
Boom section length = 100 ft.
Individual Poly flotation length = 10.5 in x 24 in
Weight = 6 lbs/ft or 600 lbs. per 100' section w/ connection plate
Type connector plate = Mark 3 meets ASTM F-962 standards

Packaging - 1000 Feet of Slickbar MK-7 per system

Type	Qty	Weight	Dimensions	Deck Area
Open Top ISO Container	1	5,250	20' x 8' x 8.6'	160 sq. ft.
System Slickbar MK-7	1	6,000	1000 feet	N/A
Plastic Basket - Support Equipment	1	560	3.8' x 4.1' x 5'	15.58 sq. ft.

Total System Weight - 11,810 lbs **Total System Required Deck Area - 175.58 sq ft.**

==========

Handling - This medium weight boom was selected by MSRC for deployment from storage containers by either VOSS vessels or from beach locations. The weight of the boom allows it to be stowed manually with two to three people minimum. The relatively compact size of the containers makes them transportable to the site by truck, boat or air.

Operation - The strength and flexibility of the Mark 7 gives it the ability to follow wave contours, making it the ideal boom to use in exposed shore line waters where its high freeboard and deep skirt are particularly effective against severe wave action.

The Mark 7 boom can be connected to other types of boom, such as the Intertidal boom. This configuration establishes a complete boom system to provide protective coverage around environmentally sensitive areas or marinas.

TEXAS BOOM / INTER-TIDAL STXB-26 (modified) BOOM

Description - The Inter-Tidal STXB-26 Boom is designed to provide spill containment in the most difficult an sensitive areas to protect: shallow tidal waters on sandy shorelines and coastal marsh lands. The inter-tidal boom is comprised of an air filled chamber on the top, coupled with large twin water chambers on the bottom. At high tide the boom floats like a standard containment boom. At low tide, the weight of the water in the bottom chambers forms a seal between the boom and the exposed tidal flat or beach contours. This dike effect prevents the spilled oil from spreading across the inter tidal zone.

Quantity - 8,000 Feet

Location - Regional Response Center (2000'), Portland (1000'), Boston (1000'), Narragansett (500'), Delaware Bay (1500') and Norfolk (1000')

Specifications - Dimensions:
Freeboard = 10 in.
Draft = 16 in.
Boom section length = 100 ft.
Individual Air chamber size = 50 ft. x 10 in.
Individual Water chamber size = 50 ft. x 16 in.
Weight = 154 lbs. per 50 ft. bagged section/ 3,100 lbs per system
Type connector plate = ASTM F-962 Quick Clip w/pin

Packaging - Per Boom system (1,000 ft Boom per system, 50 ft Boom per bag = 20 bags)

Type	Qty	Weight	Dimensions	Deck Area
Closed Top ISO Container	1	5,560	20' x 8' x 8.6'	160 sq. ft.
System of Texas Boom	1	3,100	1,000'	N/A
Plastic Basket - Support	1	560	3.8' x 4.1' x 5'	15.58 sq. ft.

Total System Weight - 9,222 lbs **Total System Required Deck Area - 175.58 sq ft.**

==========

Handling - This light weight Inter-tidal boom is designed for repeated emergency operations. When not in use the boom rolls up and fits into a cylindrical bag with rope straps for easy handling. Extreme care must be taken when positioning the boom because heavy abrasions will cause failures of the air and water chambers.

Operation - Intertidal boom must be positioned with the air chamber inflated and the water chambers empty, because once the water chambers are filled, the boom cannot be moved unless it's floating. Water chambers are filled by cascading water through jumper hoses between adjacent water chambers on abutting sections of boom. It is recommended to cascade a maximum of 3 boom sections at a time, because the water pressure will build up and exceed the manufacturers safe limit of 4 psi in the lower chambers. The Intertidal boom is not a rapid deployment type boom and is best deployed at low tide to provide maximum protection. The deployment process is extremely time consuming; adequate preparation time is a must. In a complete shore barrier boom system, the intertidal boom might be used in conjunction with the Slickbar Mark-7 boom to cover tidal flats and open water areas.

VIKOMA 3-WEIR BOOM

Description - The Vikoma 3-Weir boom is a transportable skimming system with three (3) weir skimmers located in the boom . The boom is deployed in a "J or V" formation alongside of the OSRV or VOSS vessel. It concentrates and collects large quantities of oil in the boom's apex, and recovers the oil through the three (3) skimmers installed within the boom at the oil/water interface. The Vikoma 3-weir boom is capable of recovering up to 1,158 barrels per hour.

Quantity - 2 Systems

Location - Regional Response Center

Specifications -

Rated BBLS/HR = 1,158
Derated 80% BBLS/HR = 232
Weight = approx. 13,700 lbs. (total system)
Hydraulic Oil Type - Shell Tellus T46
Hydraulic Hose Size = 1"
Discharge Hose Size = 6" camlock

Dimensions: Draft = 1.4 ft.
Length = 1320 ft.
Width = 1.02 ft.

Packaging - Per system (Port or Starboard)

Type	Qty	Weight	Dimensions	Deck Area
Boom Reel	1	18,000	12.6' x 9' x 8.10'	113.4 sq. ft.
Boom Roller	1	660	Attaches to reel	N/A
Hydraulic Power Pack Type I	1	5000	7.25' x 3' x 6'	21.75 sq ft.
Vikoma Control Stand	1	260	4.6' x 1.7' x 3'	7.82 sq. ft.
Transfer Pump	1	3,000	7' x 3.3' x 7'	23.1 sq.ft.
Water Pump/Buoy	1	500	Towed in water	N/A
Job Box	1	750	2.6' x 5' x 3.2'	13 sq. ft.
Large Wire basket - Hydraulic Hose	1	1480	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire basket - Air Fan	1	560	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire basket - 6" Layflat	1	850	4' x 3.4' x 3.10'	13.6 sq. ft.
Small Wire basket - Tube/St By fan	1	580	4' x 3.4' x 3.10'	13.6 sq. ft.

Total System Weight - 31,640 lbs **Total System Required Deck Area - 233.47 sq. ft.**

==========

Handling - The Three Weir boom system and support equipment will require considerable deck space and deck load capacity on board the VOSS Vessel. The equipment will most likely be loaded with a shore side crane. The 3-weir boom will be used on VOSS vessels or as a back-up system to the (FIOCS)- 800 Norwegian Oil Trawl and Transrec 350 on the OSRV.

Operation - Operation of the 3 Weir Boom over-the-side of the OSRV or a VOSS vessel will require the coordinated effort of 2 vessels. The mother ship holds the "J" formation and the support boat tows the leading edge of the sweep boom. In addition to the 2 vessels, the 3-weir boom will also require close attention on the deck of the mother ship to tend the blower for the boom and the hydraulic power pack. Loss of blower air pressure will sink this boom. Back-up systems include a battery powered air pump and a spare HPU.

(FIOCS) 800 NORWEGIAN OIL TRAWL

Description - The Fully Integrated Oil Containment Systems (FIOCS) 800 Norwegian Oil Trawl is a boom containment system with bottom netting across a "V" shaped apex. Oil layers can build up to a thickness of 1-2 feet to provide optimal skimming conditions for the Transrec 350 skimmer. This boom system will only be used aboard MSRC's Off Spill Response Vessels.

Quantity - 4 Systems

Location - New Jersey Responder, Maine Responder, Delaware Responder and Virginia Responder

Specifications - Dimensions: Draft = 5-8 ft.
Length = 15 ft.
Width = 8 ft.
Height = 8.5 ft
Deck area = 120 sq ft

Weight = approx. 19,800 lbs. (total system)

Packaging - Per system

Type	Qty	Weight	Dimensions	Deck Area
Boom Reel	1	19,800	15' x 8' x 8.5''	120 sq. ft
Job Box	1	800	5' x 2.6' x 5'	13 sq. ft.

Total System Weight - 20,600 lbs

Total System Required Deck Area - 133 sq. ft

==========

Handling- The (FIOCS) - 800 Norwegian Oil Trawl on board the OSRV will work in conjunction with the Transrec 350 skimmer. The Oil Trawl has 3 integral components which make up the system: the 110m trawl with bottom nets, the 95m of guide boom with a tow bridle, and the cross bridle outrigger.

Operation - The Norwegian Oil Trawl, when used in conjunction with the Transrec 350, will provide MSRC with its maximum recovery production system. This evolution will require the OSRV's support boat to work in coordination with the OSRV for deployment and operation of this boom. Manning requirements for the 800 Norwegian Oil Trawl will include several equipment operators on board the OSRV to handle the boom deployment and two operators aboard the support boat.

EUREKA CCN-150 OFF LOADING PUMP

Description - The Eureka CCN-150 is a portable high capacity, light weight pump typically used for emergency off loading or lightering of cargo tanks. The capacity of the pump ranges from 1,500 to 3,500 barrels per hour depending on the viscosity of the product being pumped. The Eureka CCN-150 Pump is not recommended for the pumping of heavy or weathered oil. The pump is designed to be an extremely compact and narrow unit so that it may pass through the 12.5" Butterworth plates of tankers for transferring cargo.

Quantity - 5 Pumps

Location - Regional Response Center (2), Portland (1), Boston (1), Delaware Bay (1) and Virginia (1)

Specifications -

Rated BBLS/HR = 1,500 - 3,500
Weight = approx. 175 lbs. (dry pump)
Hydraulic Oil Type - Shell Tellus T46
Hydraulic Hose Size = 1"
Discharge Hose Size = 6" camlock

Dimensions:
Draft = 2 in.
Length = 2.2 ft.
Width = 1.02 ft.
Deck area = 2.2 sq ft.

Packaging - Per system

Type	Qty	Weight	Dimensions	Deck Area
Hydraulic Power Pack Type I	1	5000	7.25' x 3' x 6'	21.75 sq ft.
Large Wire basket - 6" Layflat	1	875	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire basket - Hydraulic Hose	1	700	4' x 3.4' x 3.10'	13.6 sq. ft.

Total System Weight - 6,575 lbs

Total System Required Deck Area - 48.95 sq ft.

==========

Handling - Use of this pump will be dictated by conditions present at a given spill incident. Although MSRC at the present time does not plan on providing lightering services, these pumps may be necessary for emergency purposes. The Eureka CCN-150 can also be used in the discharge line to overcome head pressure when pumping up a steep embankment or over a distance in excess of 150 feet.

Operation - The operator of the CCN-150 pump must be thoroughly familiar with the hydraulic operating pressures and limits of this pump to prevent inadvertent damage to it. Extreme care must be taken to ensure that the pump is not operated in reverse, as this may result in damaged hydraulic seals.

DESMI DOP 250 PUMP

Description - The DESMI DOP 250 pump is a general purpose, positive displacement, Archimedes screw pump with a capacity of 400-1200 barrels per hour while pumping oils of viscosities up to 1,000,000 centistokes The DOP 250 pump will be used in skimming systems and in transfer operations.

Quantity - 18 Pumps

Location - Regional Response Center (5), Portland (1), Boston (3), Delaware Bay (4) and Norfolk (5)

Specifications -

Rated BBLS/HR = 400 - 1200
Weight = approx. 160 lbs. (dry pump)
Hydraulic Oil Type - Shell Tellus T46
Hydraulic hose size = 1" & 3/8" drain line
Discharge hose size = 6" camlock

Dimensions:
Draft = 2 in.
Length = 2 ft.
Width = 1.2 ft.
Deck area = 2.4 sq. ft.

Packaging - Per system

Type	Qty	Weight	Dimensions	Deck Area
Hydraulic Power Pack Type II	1	4622	6.5' x 3' x 6'	19.5 sq. ft.
Large Wire basket - 6" Layflat	1	875	4' x 3.4' x 3.10'	13.6 sq. ft.
Large Wire basket - Hydraulic Hose	1	700	4' x 3.4' x 3.10'	13.6 sq. ft.

Total System Weight- 6,197 lbs

Total System Required Deck Area - 46.7 sq ft.

==========

Handling - The DOP 250 pump is relatively small and light weight, two men can easily carry and deploy it. This pump is used with several of the skimmers in the MSRC inventory, but it is also a versatile pump on its own. The minimum diameter opening required to lower this pump into a tank is 23 inches.

Operation - As with all hydraulic powered equipment, it is essential for the operator to know all the operating pressures and limits to prevent damage to the equipment. This pump also has a 3/8" hydraulic case drain line which must be used to prevent damage to the hydraulic seals. The DOP 250 pump is a component part of the following MSRC skimmers: the Desmi Ocean Skimmer, the Walosep W-4, and the WP-1 skimmer. A DOP-250 Pump on a Desmi Ocean Skimmer can be changed out in 15-30 minutes.

PORTABLE HYDRAULIC POWER UNITS
TYPES I, II, III

Description - Virtually all of MSRC's oil recovery equipment uses hydraulic power for their deployment and operation. All HPU's are independent, self contained power sources consisting of the hydraulic pump and hydraulic system, the diesel engine, the hydraulic reservoir, the heat exchanger, the fuel tank, and the frame/weather enclosure. MSRC's portable hydraulic power units come in three sizes or types, but all have the same major components. All of MSRC's HPU diesel engines are manufactured by John Deere.

Quantity -

Type I	15
Type II	16
Type III	11

Location - Regional Response Center (20), Portland (4), Boston (5), Delaware Bay (7), Baltimore (1) and Norfolk (7)

Specifications -

	Weight	Dimensions	Deck Area
Type I	5000	7.25' x 3' x 6'	21.75 sq ft.
Type II	4622	6.5' x 3' x 6'	19.55 sq ft.
Type III	3900	5.75' x 3' x 5.75'	16.8 sq. ft.

Handling - All three sizes of MSRC's HPU's are of similar design with common interchangeable parts. Three sizes have been purchased relative to the power required to drive the different systems or combinations of systems. All power units will have forklift slots and hoisting points built into the skid frames to facilitate handling and hoisting.

Operation - All responders will become thoroughly familiar with the operations of each type of hydraulic power unit and the various response equipment that they can power. As with all hydraulically powered equipment, pressure limits and manufacturers guidelines should be closely followed.

MSRC TOWABLE STORAGE BLADDERS

Description - MSRC's Towable Storage Bladders (TSB), are intended for use as storage and transportation containers for recovered oil during spill operations. The TSB is a cylindrical shaped rubberized fabric container. During skimming operations, skimmer system pumps transfer the recovered oil/water/debris mixture either directly or indirectly (via tanks or separator systems) to the TSB towed close astern of the support vessel. Recovered oil is offloaded from the Towable Storage Bladder by DOP 250 Pump.

Quantity - 4 Towable Storage Bladders

Location - Regional Response Center

Specifications - Dimensions:

Flat
Length - 65'
Width - 14'
Weight (dry) - 4400 LBS

Loaded
Length - 65'
Width - 10'
Max Draft - 5' 9"
Storage Capacity - 500 BBLS

Packaging

Type	Qty	Weight	Dimensions
TSB with Pallet	1	5000	8.7' x 7.5' x 4'
Support Basket	1	600	4' x 3.4' x 3.8'

Handling - The TSB can be deployed directly into the water by a vessel or from a platform by a crane. A crane with at least a 5 ton capacity may be necessary when recovering. When working with the TSB strict adherence to load and operating limits must be followed.

Operation - MSRC plans to use Towable Storage Bladders in conjunction with OSRV, VOSS, and OSRB operations. A TSB tender vessel will be needed to assist on TSB operations.

SHUTTLE BARGE SYSTEM

Description - The MSRC Shuttle Barge System (SBS) is intended to provide storage for recovered product in shallow water. Two pontoons locked together make up one shuttle barge. A Shuttle Barge System consists of 4 barges: 1 barge has Thrustmaster, power pack and crane aboard in order to deploy a skimmer. The other three barges are used for storage and each of these can hold 428 barrels of recovered product.

Quantity - 2 Shuttle Barge Systems

Location - Regional Response Center and Norfolk, Virginia.

Characteristics	Propelled Unit	Non-Propelled
Length	47'10"	47'10"
Beam	16'	16'
Depth (mld)	3'10"	3'10"
Draft, light	1'1"mean	0'11" mean
Draft, operational	2'8" mean	2'10" mean
Weight (dry)	18,000 lbs	18,000 lbs

Auxiliary Equipment

Thrustmaster

Power Plant	3208 Caterpillar
Weight	11,000 pounds

Crane

Maximum Lift

690 lbs	with grapple
2400 lbs	with jib
3125 lbs	without jib

Packaging - Per System

Type	Qty	Weight	Dimensions
Two Pontoons per trailer	4	49,000	48' x 8.6' x 13.5'
Thrustmaster and support Equipment	1	30,000	48' x 8.5' x 13.2'

==========

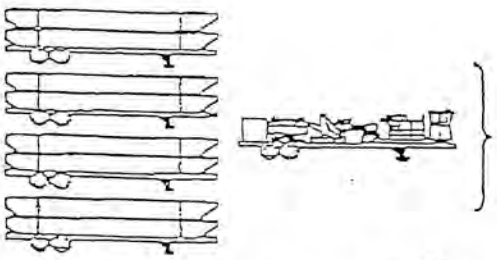
Handling - The shallow barges are to only be used within one mile of shore. Each shuttle barge is composed of two identical pontoon sections which are joined together by means of a locking mechanism. Pontoons may not operate independently

Operation - The Shuttle Barge System will be an integral part of MSRC's shallow water response.

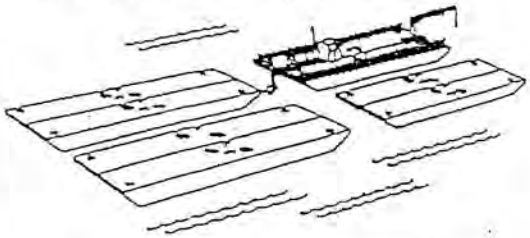
MSRC Shuttle Barge System *(SBS)* For Shallow Water Response

MSRC's Shuttle Barge System *(SBS)* is designed to provide a clean-up capability in shallow water. Each receptor barge has a 420 barrel capacity.

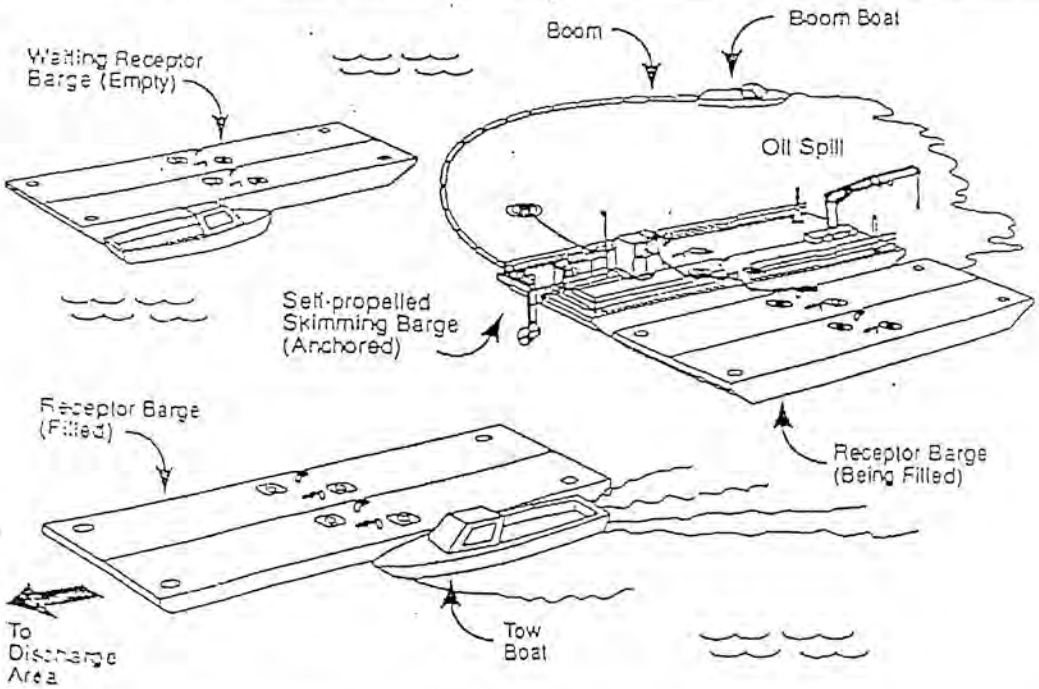
MSRC will preposition 17 Shuttle Barge Systems along the coastal United States, as well as Hawaii and the Virgin Islands. Each site will have a complete *SBS* with barges, boats, booms and ancillary equipment.



Pre-loaded flatbed trailers with a complete *SBS* can be moved unrestricted over highways to the spill site, then off-loaded.



Eight (8) pontoons are assembled in the water to form four (4) barges. (One skimming barge with equipment and propulsion motor; 3 empty receptor barges.)



MARINE SPILL RESPONSE CORPORATION

OFF SHORE RESPONSE VESSEL (OSRV)

CHARACTERISTICS

LENGTH OVER ALL (MLD)		208'-6"
BEAM (MLD)		44'-0"
DEPTH (MLD)		17'-0"
DESIGN DRAFT		13'-0"
FREEBOARD @ DESIGN DRAFT		4'-0"
QUARTERS		38 PERSONS
FUEL CAPACITY		83,000 GALS.
FRESH WATER CAPACITY		20,200 GALS.
RECOVERED OIL CAPACITY		4,000 BBLS.
POWER PLANT	MAINS:	2- CAT 3512 1500 BHP
	BOW THRUSTER:	1- CAT 3408
	GENSETS:	3- CAT 3406
SUSTAINED SPEED		12 KNOTS

AUXILIARY EQUIPMENT:

2 - DECK CRANES, 100% AFT DECK COVERAGE CAPACITY:20T@10'/2.5T@60'

2 - 32' SUPPORT BOATS-STERN LAUNCHED

2 - 18' RHIBs* SEARCH AND RESCUE BOATS- DAVIT LAUNCHED

1 - HELICOPTER LANDING PAD

1 - TRANSREC 350 SKIMMER-STERN MOUNTED

* RHIB- RIGID HULL INFLATABLE BOAT

OSRV 32' SUPPORT BOAT

CHARACTERISTICS

LENGTH OVER ALL (MLD)	32'-0"	
BEAM (MLD)	12'-0"	
DEPTH (MLD)	6'-7"	
DRAFT	5'-0"	
CREW	2	
FUEL CAPACITY	2 TANKS @ 200 GALS.	400 GALS.
POWER PLANT	MAINS:	2- CAT 3208 TA
BOLLARD PULL		10,000 LB. MINIMUM
ELECTRICAL	12 VDC	
TOW GEAR	1- DOUBLE POST BIT AFT / 10,000 LB. WORKING LOAD (SAFETY FACTOR=4)	

12 POWER PACK

Model	STULTZ 12K AD1
Type	Diesel/Hydraulic – Transfer pump
Hydraulic output	4.17 gpm @ 1000 psi
Transfer Pump output	77 gpm
Dimensions	41" L x 24" W x 32"H
Weight	435#
Quantity	1
Location	MSRC warehouse, 14 Union Wharf
Shipping	Mounted in steel frame on wheels

Description

The 12 K Power Pack supplies the hydraulic power to drive the Vikoma 12 K Skimmer. It also houses the suction pump for transferring recovered oil via a 3" discharge line.

30K POWER PACK

Model	STULTZ 30K LPA3
Type	Diesel/Hydraulic – Transfer pump
Hydraulic output	6.5 gpm @ 1000 psi
Transfer Pump output	333 gpm
Dimensions	60" L x 36" W x 34"H
Weight	1050#
Quantity	1
Location	MSRC warehouse, 14 Union Wharf
Shipping	Mounted in steel frame

Description

The 30 K Power Pack supplies the hydraulic power to drive the Vikoma 30 K Skimmer. It also houses the suction pump for transferring recovered oil via a 4" discharge line.

AGAMENTICUS/CADILLAC

Location	Dry stored on trailers at Portland Pipeline, S.Portland, ME
Length	30' **Beam** 10'4" **Draft** 31"
Displacement	9,000 lbs.
Engine	Twin turbo-charged 200 H.P. Volvo diesel engines
Operating Range	6 hours at cruising speed; 12 hours at idle
Cruising speed	24 knots
Fuel Capacity	85 gallons at 95%

Description

The AGAMENTICUS and CADILLAC are 30' aluminum boats designed for rapid response. They each have 464 cu.ft. of open deck and a heated pilot house. They are currently stored on trailers, ready for over the road transport.

Deck Equipment & accessories

◆800# lifting davit; ◆4' bow door; ◆2'6" port side door; ◆6" towing bitt

Standard complement of marine electronics; including GPS, RADAR, depth sounder & marine radios

ALUMINUM STORAGE BARGES

ASB 1 & 2		
Capacity	100 bbls each	
Dimension	32'L X 8'W X 8'H	
Weight	4,000#	
Location	Dry stored at 55 Union Wharf	
	Portland, Maine	
Quantity	**Components**	
4	4" fill/discharge removable vent	
1 each	Job Box with running lights, ratchet binders, tie up lines, tank vents, manifold with two 4" ball valves to use when filling the barges. Stage in the warehouse on the shelf.	
1	Lifting bridle	
	Description	
Each of these aluminum barges is designed for the temporary on-water storage of 100 barrels of recovered oil in 2 separate tanks. Each tank is fitted with 1 1/2" schedule 80 steam coils.		
	Handling / Operation	
Towing speed is 8 knots when empty, 5 knots fully loaded.		

ASB 3		
Capacity	200 bbls	
Dimension	36'L X 12'W X 4' depth	
Weight	8,000#	
Location	Made up to SADDLEBACK berthed at PPLC Pier 1	
	South Portland, Maine	
Quantity	**Components**	
4	4 " fill/discharge removable vent	
1	Job Box with running lights, ratchet binders, tie up lines, tank vents, manifold with two 4" ball valves to use when filling the barges. Stage on the Saddleback	
1	Lifting bridle	
This aluminum barge is designed for the temporary on-water storage of 200 barrels of recovered oil in 2 separate tanks.		
	Handling / Operation	
Towing speed is 7 knots when empty and 5 knots when fully loaded.		

ALUMINUM STORAGE BARGES, cont.

DESMI 250 SKIMMER

EDRC	2112 bbls/day
Pump Capacity	310 gpm
Dimension	6.5'L X 5.7'W X 2.5'H
Weight	375#
Container	Staged on board the SADDLEBACK, berthed at PPLC Pier 1, South Portland

Quantity	**Component**
1	Desmi 250 Skimmer
1	Integrated Desmi DS250 Archimedes screw pump
1	Hydraulic Power Pak – 26 gpm
100'	Layflat 4" Discharge hose
2	Hydraulic hose 50' x 3/8"
4	Hydraulic hose 50' x 1"
1	Tool kit

Description

The DESMI 250 Skimming system is a high volume weir skimmer for use in light oil as well as heavy oil and debris. The DESMI 250 can be deployed from a response vessel or from a pier or shore in relatively shallow water.

Handling / Operation

The vertical weir lip of the DESMI 250 is controlled pneumatically from the hydraulic/pneumatic power pack. The skimmer pump can be dismantled easily from the float system and used in a wide range of emergency and auxiliary pumping operations.

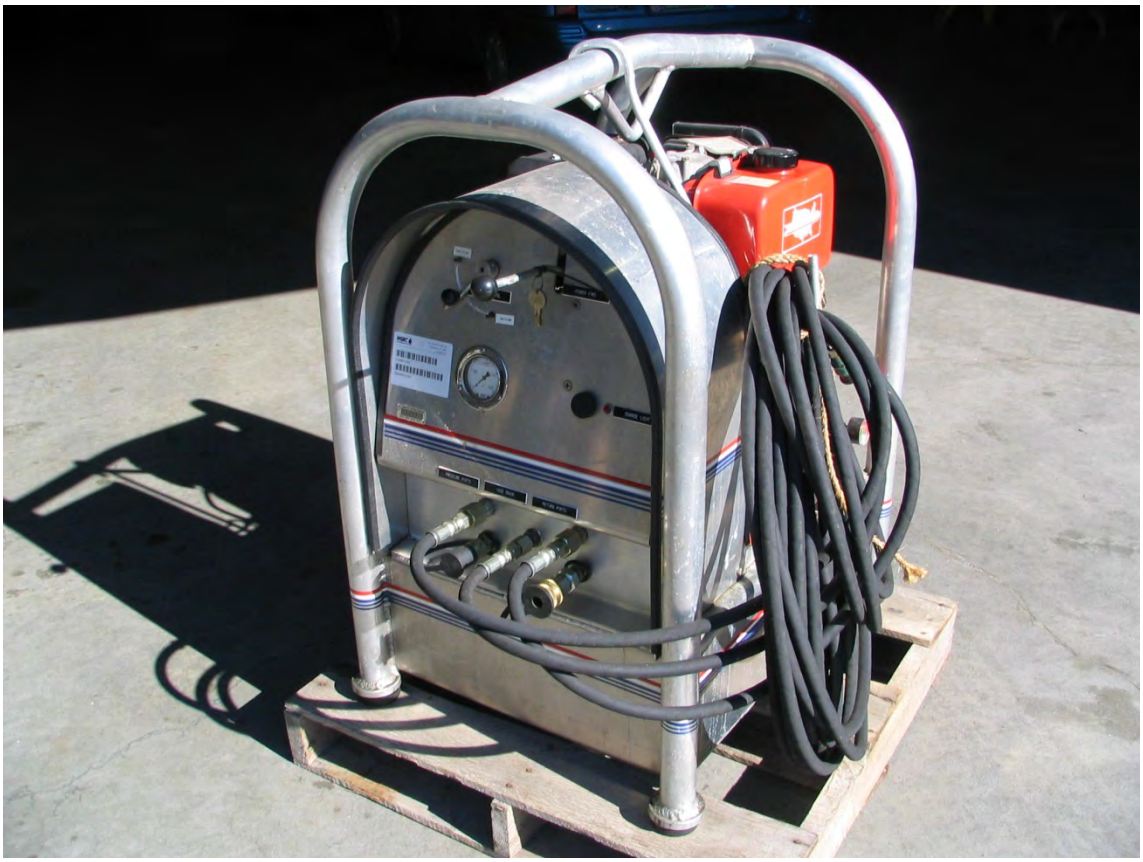
DESMI 250 SKIMMER, cont.

DIESEL AMERICA POWER PAK

Model	Diesel America
Type	Diesel/Hydraulic
Hydraulic output	10 gpm @ 1500 psi
Dimensions	36" L x 24" W x 34"H
Weight	350#
Quantity	2
Hoses	6 x 25' x 3/8" custom hydraulic hoses
Location	MSRC warehouse, 14 Union Wharf, Portland, ME
Shipping	Mounted in marine aluminum roll cage frame

Description

Two Diesel America Power Packs supply the hydraulic power to drive the LORI Skimmer brushes and Desmi DPO 250 offloading pump.



ELASTIC TDS 136 DRUM SKIMMER

EDRC	211.4 bbls/day-light oil 288 bbls/day-medium oil 480 bbls/day-heavy oil
Pump capacity	100 gpm
Dimension	3'1"'L X 7'7"'W X 1'6"'H
Weight	90#
Shipping	Portable
Location	Dry stored @ MSRC warehouse 14 Union Wharf, Portland, ME

Quantity	**Component**
1	Oleophilic drum
1	Diesel power pack w/ attached air compressor
4	50' x 2 1/2" suction/discharge hoses
1	Job box

Operators Required	1

Description

The ELASTEC TDS 136 self-bouyant drums rotate on the water surface collecting oil onto the drums. Wipers scrape oil into troughs housed in the aluminum frame. A suction hose transfers the recovered oil to a temporary storage device.

Handling / Operation

The ELASTEC TDS 136 is a highly efficient oleophilic drum which rotates in the oiled water. The ELASTEC skimmer is effective in a wide rage of oils and can be deployed for a response vessel, a pier, or from shore.

ELASTIC TDS 136 DRUM SKIMMER, cont.

HERITAGE BOOM

STORED LOCATION	SIZE	LENGTH	Comments	TOTALS
PPLC Pier 2 Marine Terminal	27"	1600'	ISO box #1-202342	
S.Portland, ME	19"	3200'	ISO box #2 202326	
				4800'
Pre-loaded on 35' Response boats moored at Union Wharf, Portland, ME				
CROCKER	27"	950'	pallet #2 on foredeck	
KATAHDIN	27"	1000'	pallet #1 on foredeck	
				1950
MAINE RESPONDER parking area	27"	950'	Pallet #4 ISO #5/201744	
55 Union Wharf	27"	1000'	Pallet #3 MSRC Trailer # 31	
Portland, ME				
				1950
				8'700

KATAHDIN/CROCKER

Location	Moored on Union Wharf, Portland, ME				
Length	35'6"	**Beam**	12'6"	**Draft**	2'6"
Displacement	9,900 lbs.				
Engine	Twin turbo-charged 200 H.P. Volvo diesel engines				
Operating Range	12 hours at cruising speed; 40 hours at idle				
Cruising speed	24 knots				
Fuel Capacity	237 gallons at 95%				

Description

The KATAHDIN and CROCKER are aluminum 35 foot Winninghoff OSRVs designed for rapid response. They each have 828 cu.ft. open deck space – currently outfitted with 2000' of 27" harbor boom on pallets and ready for immediate deployment.

Deck Equipment & accessories

◆1000# lifting davit; ◆ 6' bow door; ◆ 3'9" port side door; ◆ 6" towing bitt

Standard complement of marine electronics; including GPS, RADAR, depth sounder & marine radios

LSC LORI SIDE COLLECTOR

EDRC	1357 bbls/day-per side-Total 2,714
Pump capacity	440 gpm each DOP 250
Dimension	3'1"'L X 7'7"'W X 1'6"'H
Weight	1100# total
Shipping	KATAHDIN
Location	Dry stored @ MSRC warehouse 14 Union Wharf, Portland, ME

Quantity	**Component**
2	Lori Side Collector w/DOP 250 pumps
2	boom arms
2	50' boom sections stowed on pallets
2	diesel/hydraulic power packs w/ custom hoses
2	50' x 4" lay flat discharge hose w/ reducers
1	job box

Operators Required	4

Description

The LORI SIDE Collector System includes three bristle brush units, a side collector box, jib arm with float, collection boom and a Desmi DOP 250 off-loading pump. The side booms sweep oil into the collector boxes where recovered product is directed through a hydraulically operated Lori bristle aggregate which separates oil and debris from the water. Brush chains lift the recovered material to a receiving sump which feeds the collecting station by gravity.

Handling/Operation

The LORI LSC Side Collector system is a removable side mounted system specifically adapted to the KATAHDIN. When not is use the system is removed from the vessel and stored in the warehouse.

LSC LORI SIDE COLLECTOR, cont.

RO-CLEAN OIL MOP 260

EDRC	362 bbls/day
Pump capacity	53 gpm
Dimension	5'9"l x 2'8"w x 4' h
Weight	1022#
TSC	106 gallons
Shipping	Portable
Location	Dry stored @ MSRC warehouse 14 Union Wharf, Portland, ME

Quantity	**Component**
1	Oleophilic Rope Mop
1	diesel direct drive engine integrated in unit
2	floating rope guides

Operators Required	1

Description

The OM 260 utilizes oleophilic rope mops in continuous loops which float on the surface, oil adheres to the mops and then is removed by passing through a wringer/drive roller system. The recovered oil drops into a holding sump for removal by transfer pump or vac truck. The OM 260 can work effectively in debris laden conditions, floating ice, shallow water and fast current.

Handling / Operation

The OM 260 Rope Mop, while useful when recovering lighter oils, is most effective recovering heavy oil. It can be deployed from a pier, the shore, or a response vessel.

RO-CLEAN OIL MOP 260, cont.

SADDLEBACK

Location	Berthed at Portland Pipeline Pier 1, S.Portland, ME				
Length	46 '	**Beam**	20'	**Draft**	4'6"
Displacement	30 tons				
Engine	Single turbo-charged 325 Caterpillar diesel with dry exhaust				
Operating Range	12 hours at cruising speed; 60 hours at idle				
Cruising speed	7 knots				
Fuel Capacity	380 gallons at 95%				

Description

The SADDLEBACK is a highly versatile, self-propelled, steel work barge. It is currently fitted with the Desmi 250 Skimming system and A-TSB-3, ready for rapid response to a tland Harbor oil spill. The Saddleback has 2,500 cu.ft. of open deck space, 6,500 lbs of ard pull from a 4' towing bitt and a 10' x 12' pilot house.

Deck Equipment & accessories

- Boom arm attachment w/float, rigging & 50' x 27" boom
- Sea Crane–hydraulically operated; 5300# capacity at 10'extension
- Central hydraulic system with 28 gpm output @ 2,500 psi

Standard complement of marine electronics; including GPS, RADAR, depth sounder & marine radios

SKIM-PAK 1800 WEIR SKIMMER

EDRC	2,054 bbls/day
Pump capacity	328 gpm
Dimension	3'6"L X 2'1"W X 1'1"H
Weight	28#
Shipping	Portable
Location	Dry stored @ MSRC warehouse 14 Union Wharf, Portland, ME

Quantity	**Component**
1	Skimmer head
1	3" centrifugal diesel trash pump
50'	4" lay flat discharge hose
50'	3" non-flexible suction hose
1	control wand

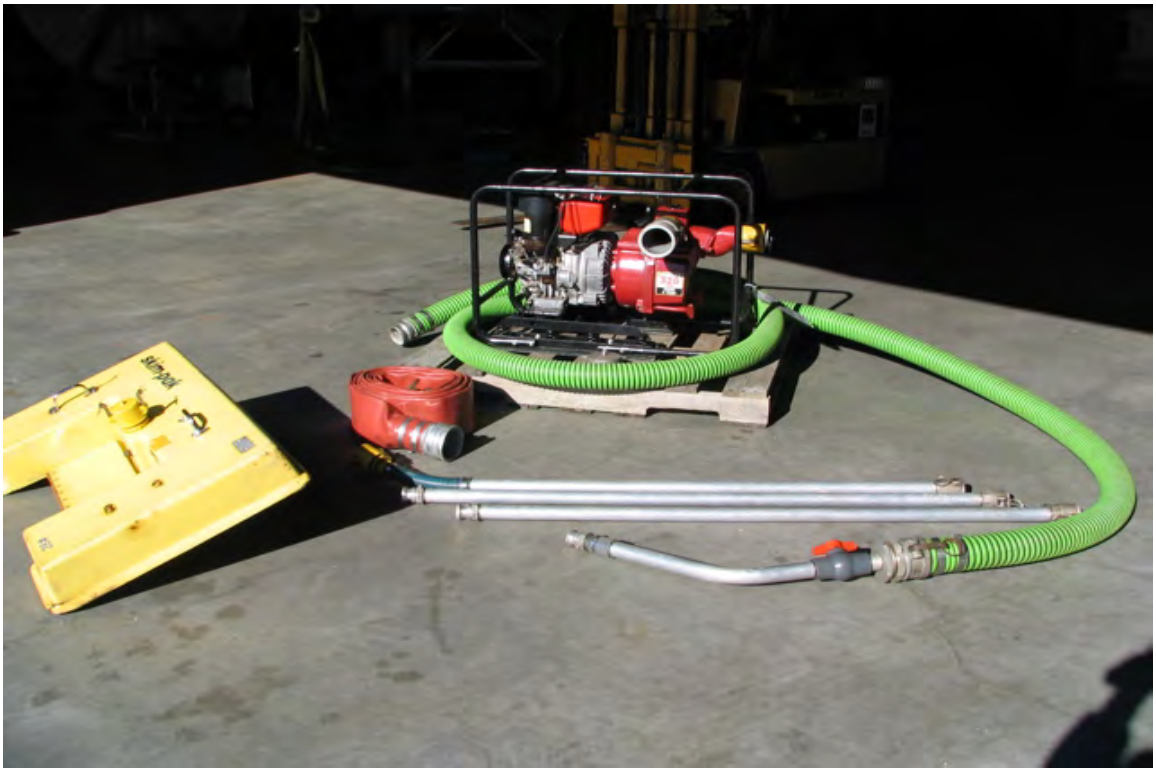
Operators Required	1

Description

The SKIM-PAK operates by allowing liquid to flow over a floating inlet gate. The gate performs as a weir and causes a flow of the surface liquids.

Handling / Operation

The SKIM-PAK 18000 is a high volume skimmer with limited wave tolerance for use in tanks, ponds, harbors, and vacuum trucks. The SKIM-PAK can be deployed from a response vessel, a dock or from shore.



UNIVERSAL POWER PAK

Model	STULTZ UNIVERSAL 4BT3, 9-P
Type	Diesel/Hydraulic/Compressed Air
Hydraulic output	42 gpm @ 2500 psi
Air Compressor	9.5 cfm
Dimensions	6' L x 4'6" W x 4'6"H
Weight	4430#
Quantity	2
Location	MSRC warehouse, 14 Union Wharf
Shipping	Mounted in a steel frame on wheeled dolly

Description

The Universal Power Pack supplies the hydraulic power to drive the Desmi and Sea Devil Skimmers. It also houses an air compressor for adjusting the weir. This power pack is designed for simultaneous operation of 4 pieces of response equipment.

VIKOMA KOMARA SKIMMERS

	30K	12K
EDRC	905 bbls/day	362 bbls/day
Pump capacity	396 gpm	77 gpm
Dimensions	4'6" diameter X 2'2"H	4' diameter X 1'6"H
Weight	220#	123#
Shipping	Portable	Portable
Location	Dry stored @ MSRC warehouse 14 Union Wharf, Portland, ME	

Quantity	**Component**	
1 each	Oleophilic disc skimmer	
1 each	Diesel/Hydraulic power pak w/diaphram transfer pump	
1 each	Job box	
2 sets of 4	50' x 3/8" hydraulic hoses	
2 x 50'	4" suction hose	3" suction hose
2 x 50'	4" layflat discharge hose	3" layflat discharge hose

Operators Required 2

Description

The VIKOMA Skimmers incorporate 36 pick-up discs rotating within a floating head. Hydraulic drive is supplied by a diesel power pack which houses the suction pump for transferring recovered oil. Oil adhering to the rotating discs is scraped off into the oil collection sump and pumped to a recovery tank. All fluid floating oil of any viscosity will adhere to the rotating discs.

Handling / Operation

The KOMARA 30K and 12K are portable oil skimmers which can be deployed from a response vessel, a dock or from shore.

VIKOMA KOMARA 12K & 30K
SKIMMERS/ POWER PACKS

VIKOMA SEA DEVIL

EDRC	2,290 bbls/day
Pump capacity	334 gpm
Dimensions	7'4" L X 4.5' W X 2.9' H
Weight	734#
Location	Pre-staged on board MSRC 620 barge berthed at PPLC Pier 1, S,Portland, ME

Quantity	**Components**
1	Sea Devil disc/weir skimmer head
1	Diesel/Hydraulic power pak
1	Integrated Desmi DS250 Archimedes screw pump
1	Sea Devil Control Stand
5	50' x 3/8" hydraulic hoses
1	4" x 50' hard discharge hose

Operators Required	2

Description

The Sea Devil has two banks of 21 hydraulically driven, star shaped discs that claw heavy oil into the center of the skimmer. The recovered oil is transferred to temporary storage by a vertical Archimedes screw pump. The Sea Devil's disc banks are hinge-mounted to allow large floating debris to pass through the skimmer without impeding oil recovery.

Handling / Operation

The Sea Devil is a high volume skimmer designed for use in recovering debris laden heavy oil. It can be deployed from a response vessel into a boom configuration, or from a pier or shore in relatively shallow water.

VIKOMA SEA DEVIL, cont.