#### PART 3 APPENDIX A TO APPENDIX H

## **APPENDIX A**

#### **GENERAL INFORMATION**

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#### 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)(l)	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	Арр Н
	identify areas within the facility where discharges could occur	Арр Н
	what the potential effects would be on the affected environment	Арр Н
(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)	<b>Discharge detection systems</b> Describe the procedures and equipment used to detect discharges	§ SPCC 5.1
(7)	Plan implementation	
(7)(l)	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	Арр К
	secondary containment	Арр К
	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	
0.20	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 s	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	Арр Н	
1.4.2	Vulnerability Analysis	Арр Н	
1.4.3	Analysis of the Potential for an Oil Spill	Арр Н	

# 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	Арр К
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 SPCCwhen 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 reviewimplement 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 ar	nd Countermeasures Plan
	must prepare a Planhave full approval of managementin 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 sectionis not practicableclearly explain in your Planand provide	§ SPCC 1.7
(d)(1)	A strong oil spill contingency plan following40 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 developwith 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 personaccountable for oil spill prevention	FWD - Management Approval Page
(f)(3)	Schedule and conduct spill prevention briefingshighlight and describe known spill dischargesor failures, malfunctioning components, and recently developed precautionary measures.	§ SPCC 3.1
(g)	Security (excluding oil production facilities)	
(g)(1)	Fully fencedand lock and/or guard entrance gateswhennot in production or is unattended.	§ SPCC 8.1
(g)(2)	Ensure that the master flow and drain valveshave 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 pipelineswhen 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 fractureevaluate the container for risk	§ SPCC 3.2
(j)	In additioninclude a complete discussion of conformance with applicable requirementsor any more stringent, with State rules, regulations	§ SPCC 1.6
(k)	The owner or operator of a facility with oil-filed operational equipmentmay choose to implement alternate requirementsin lieu of secondary containment	§ SPCC 1.7
112.8	Spill Prevention, Control, and Countermeasure Plan requirements for onshore facil facilities)	lities (excluding production
(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 spillinto 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 pumpsand 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 courseyou must inspect and drain uncontaminated retained stormwater, as provided inparagraphs (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)	Ifnot engineered as in paragraphs (b)(3), equip the final discharge of all ditches with a diversion system that wouldretain 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 d discharge into an open water course, lake, or pond, bypassing the in-plant treatme	
(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 drainageunder 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 additionfrequently 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 engineerin (and) provide at least one of the following devices:	g practice to avoid discharges
(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 includingseam, 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 containmentfor 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 coatingcathodically protect. If a section of buried line is exposedcarefully 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 connectionand 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 appurtenancesalso 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	the second s
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, <i>unless</i> 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, <i>unless</i> 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, <i>unless</i> 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:	Section 3.0 (Rescue); Figure 3.1 Appendix C
	(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.	
(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

§ 154.1030	DESCRIPTION OF GUIDELINE ITEM	SECTION
General respons	e 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	Арр А
(f)	be consistent with the NCP and ACP	Entire Plan, Acknowledgement Page

§ 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	Арр А	
(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	

§ 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 controlPublic InformationSafety LiaisonOperationsPlanningLogisticsFinance.	§ 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 operationfirst 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 dischargethis 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 describe	ed
(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 regulationsmay be substituted for distances	N/A
(b)(4)(iii)(C)	Based on historicalCOTP may require the additional fish and wildlife and sensitive environments	N/A
(b)(5)	Disposal plandescribe any actions to be taken or procedures to be used to ensure that all recovered oil and oil contaminated debris	App F

§ 154.1035	DESCRIPTION OF GUIDELINE ITEM	SECTION(S)
(c)	Training and exercises. To be divided into the following subsections:	
(c)(1)	Training proceduresmust 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)	Appendicesmust include appendices described	1
(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

§ 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 handlesGroup I through Group IV petroleum oils		
(a)(1)	criteria in Table 1identification of appropriate equipment	App C & G	
(a)(2)	resources must be evaluatedincluding, 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 resourcesaverage 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	

§ 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	Арр С
(d)(3)(ii)	In higher volume port areas within 6 hours	
(d)(3)(iii)	In all other locations, within 12 hours	Арр С
(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 oilhandled, 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 cap waters of 6 feet or less depth.	pable of operating in
(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

§ 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
(I)	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
(I)(1)	Except as required in paragraph (I)(2) shoreline clean-up response resources required must be determined as described in Appendix C of this part.	§ 5.4, App C, G
(I)(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, 1998facility 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.	Арр 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)(l)	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, m	ust 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.	Арр К

#### 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	<b>REGULATION MET BY</b>
(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	<b>REGULATION MET BY</b>
	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	<b>REGULATION MET BY</b>
	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	<b>REGULATION MET BY</b>
(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	<b>REGULATION MET BY</b>
(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
(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.	Plan of PMPL.

# 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:

ltem	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.	
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 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:

ltem	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

ltem	Article	Description	Location in Plan
1	4.2	Policy Statement	Forward Section
2	4.3	Program Coordinator	Арр В
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	Арр В
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	
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

ltem	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

ltem	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

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### **APPENDIX B**

### **RESPONSE TEAM** JOB DESCRIPTIONS & RESPONSIBILITIES

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Glossary of terms		

## PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES

#### A. President

<u>Role:</u> 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. Operations Manager / Quebec Area Manager

<u>Role:</u> 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

<u>Role:</u> 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

<u>Role:</u> 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. Operations Manager

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

<u>Role:</u> 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

<u>Role:</u> 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

<u>Role:</u> 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

<u>Role:</u> 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

<u>Role:</u> 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

<u>Role:</u> 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

<u>Role:</u> 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

<u>Role:</u> 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)

<u>Role:</u> 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

<u>Role:</u> 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.

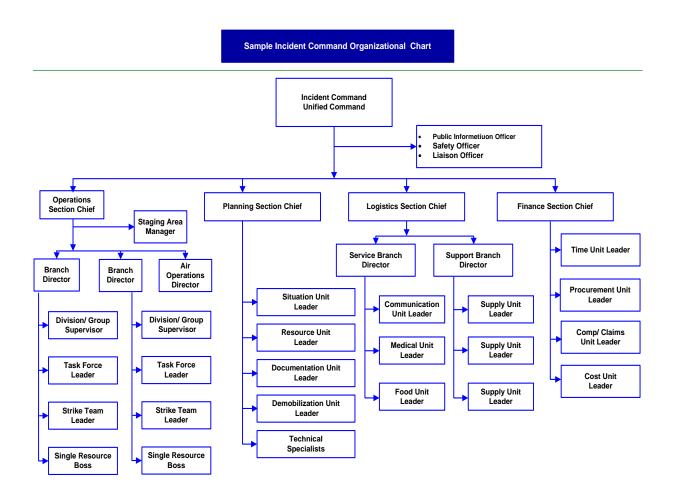
### B. Activation

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**



### **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.

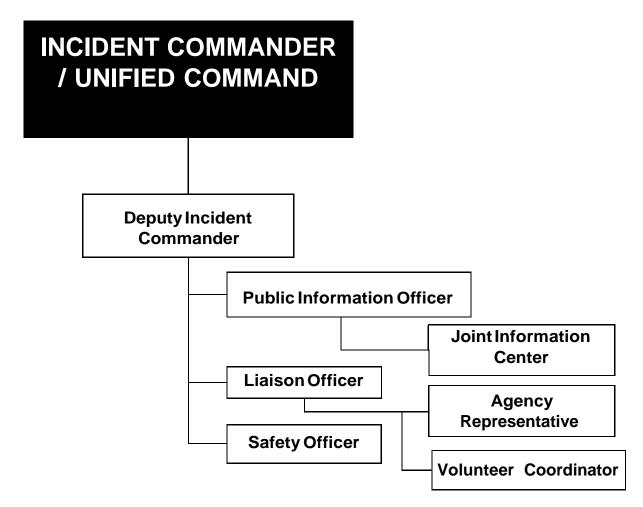
#### COMMAND AND GENERAL STAFF, BRANCH DIRECTORS, UNIT LEADERS, DIVISION/GROUP SUPERVISORS, MANAGERS, AND TEAM LEADERS

- 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 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:
  - Establish a process for PMPL representatives in communicating to their key audiences and/or responding to inquiries or concerns from audiences;

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

- o Ensure that PMPL representatives convey consistent messages to all audiences;
- Provide uniform background materials (i.e., fact sheets) for dissemination to audiences; and
- 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.

#### 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.

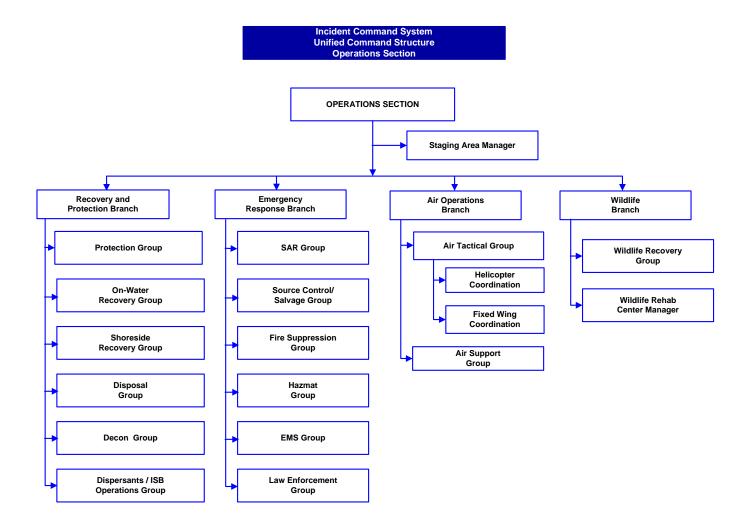
#### **REGULATORY LEGAL OFFICER (RLO)**

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**



#### 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.

#### 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.

#### 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.

#### 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.

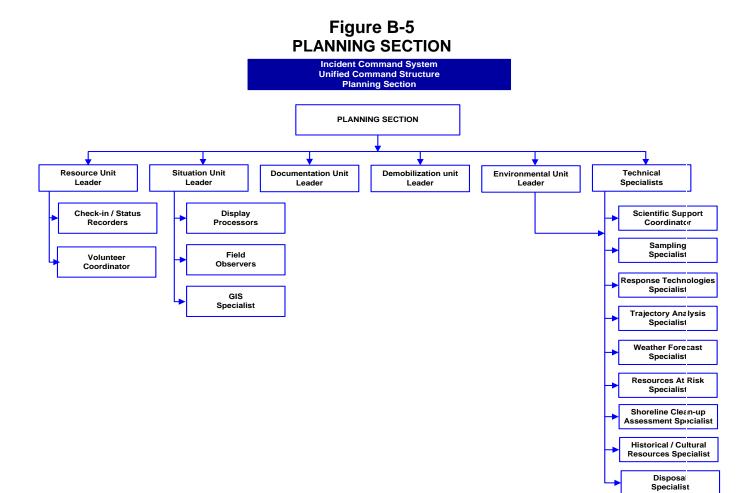
#### SECURITY / LAW ENFORCEMENT GROUP SUPERVISOR (SECM) (USCG IHM Pg. 9-12)

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.



#### 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.

#### 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.

#### 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 technologe.

#### 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.

#### 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)

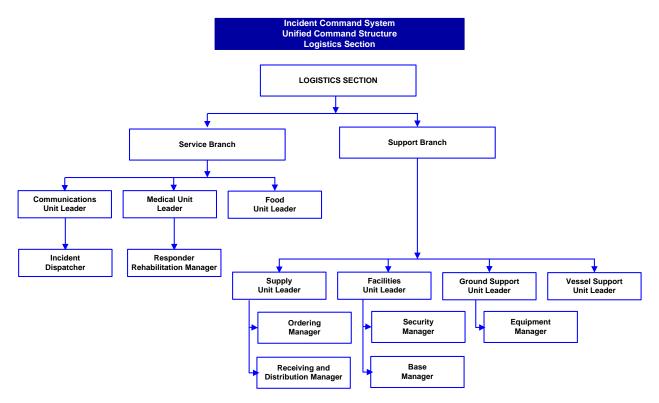
The Disposal (Waste Management) Specialist is responsible for providing the Planning Section Chief with a Disposal Plan that details the collection, sampling, monitoring, temporary storage, transportation, recycling and disposal of all anticipated response wastes.

#### **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



#### 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.

#### 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.

#### 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)

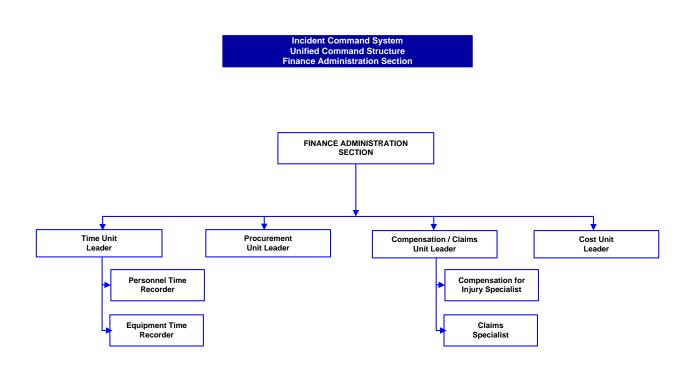
The Ground Support Unit Leader is primarily responsible for 1) support of service resources 2) coordination of transportation of personnel, supplies, food and equipment, 3) fueling, service, maintenance and repair of vehicles and other ground support equipment, and 4) implementing the Traffic Plan for 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



#### 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.

### 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.

### Canada Specific

### Canada Energy Regulator (CER)

The CER'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. CER Inspectors may attend the site to oversee a company's immediate response. The CER will require that all reasonable actions are taken to protect employees, the public, and the environment. Further, the CER 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 CER:

- Monitors, observes and assesses the overall effectiveness of the company's emergency response in terms of:
  - Emergency Management
  - o Safety
  - Security
  - o Environment
  - o 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 Canada Energy Regulator 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 CER regulations and identifies non-compliance
- Initiates enforcement actions as required
- Approves the restart of the pipeline



### 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.

# Quebec Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC)

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 de l'Environnement et de la Lutte contre les changements climatiques (MELCC). 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.

### **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**

### <u>MSRC</u>

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

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: <u>Air Resources, Waste Management</u>, and <u>Water</u>. Also, DES has units within the <u>Office of the Commissioner</u> 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, insitu 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).

**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.

**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.

**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.

**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 colocated 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.

**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.

**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.

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 nonemergency 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.

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# APPENDIX C RESPONSE RESOURCES

# COMPANY OWNED SPILL / EMERGENCY RESPONSE EQUIPMENT

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# FIRE RESPONSE EQUIPMENT

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# **U.S. - OIL SPILL RESPONSE CONTRACTORS**

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# CANADA – OIL SPILL RESPONSE CONTRACTORS

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### **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	LOCATION		
1	Boat	Boat w/outboard motor	Garage	
ST.	CESAIRE PUMP	STATION (Stored in the Fire Dep	ot. 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		
	MONTRE	AL 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

Dia.	Nomenclature		Montr	eal	Mainli	ne	South	Portland	
				Qty.	Loc.	Qty.	Loc.	Qty.	Loc.
	Plidco Smith	l Clamps							
10 in.	Pipe Size Pl	idco Smith/C	Clamps	1	Garage				
12 ¾ in.	Pipe Size Pl	idco Smith/C	Clamps)	1	Garage			1	Whse
16 in.	Pipe Size Pl	idco Smith/C	Clamps	1	Garage				
18 in.	Pipe Size Pl (18")	idco Smith/C	Clamps	1	Garage			1	Whse
22 in.	Pipe Size Pl (22")	idco Smith/C	Clamps	1	Garage	1	LS Whse		
24 in.	Pipe Size Pl (24")	idco Smith/C	Clamps	1	Garage	1	LS Whse	1	Whse
	Plide	co Split Slee	ves						
	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-P2B0002
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 Trade Assigned to Asked by Authorized by Remark	gm GMHELP LOUANN	GENERAL MAINTENANCE GENERAL MAINTENANCE HELP	Issued on Required date Priority Scheduled date	4/27/2006 6/2/2006 (2006 /22	(2006 /22)	
PS / HWPSCI	P (GENERAL MAI H (PUMP STATIO	NTENANCE / GENERAL MAINTENANCE HE NS AREA / high water pump station c) IS AREA / CHIEF PUMP STATION AREA /	Assigned to			
Equipment	HWER001	HW- EMERGENCY RESPO	ONSE BAOT			
Site# Sub-Site# Responsible Owner Chainage/Loc. Order Account# Specification	HW 0.0000	HIGHWATER	Model Manufacturer Serial number Group Sub-goup Last maintenance	PIGEON M ER EQIP 2,006/21	ARINE EMERGENCY EQUIPMENT	
[ ] REQ [ ] REV INSPECTION BOAT [ ] [ ] [ ] [ ] [ ] [ ]	CHECK INTE GREASE FIT CHECK ELEC	-MOTOR DIL (RECOMMENDE -AIR FILTER -SPARK PLUG IAL: -GIL PAN ATE EQUIPMENT DATA. GRITY OF ALL COMPONENTS. TING AS NEEDED. TRICAL PLUG WIRING AND LIGH E ASSEMBLY (PAINT, CORROSIO	TS.	ETC. ).		
	START MOTO OR VIBRATI CHECK AIR CHECK SPAR INSPECT FU CHECK FRAM CORROSION) CHANGE (IF I DRAIN ACCUMU Note., If pa an	R FOR A VERY SHORT TIME, CH ONS. FILTER, CLEAN OR CHANGE AS K PLUG, CLEAN OR CHANGE AS EL LINES AND TANK, DAIN BOT E CONDITION AND ASSEMBLY OF , CLEAN.	ECK FOR UNUSUAL NO NEEDED, TOM OF TANK, PARTS (PAINT, PPEARANCE, S OR WATER, tation of metallic Work order issued	LSES		
ETURN TO 3		the second s				
ETURN TO : [ ] MARI	SERVICE	IS LEFT IN OPERATING CONDI-	FION.			

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

	Preventive wor	rk order		061	737
NSPECTION/WINTERIZA [ ] CHECK INTEGRI [ ] PREPARE BOAT	TION TY OF ALL COMPONENTS FOR WINTER SEASON.	÷			
CTIONS TO BE TAKEN [ ] COMPLETE WORK SUPERVISOR.	ORDER, IDENTIFY ABNO	ORMALITIES, RETURN 1	ro		
etails :					
firm			Tin	18	
Emp	loyee	Date	Tim Reg	në OT	Completes
Emp	loyee	Date			Completes

# 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 pullbox #194.

#### OUTSIDE EQUIPMENT AVAILABILITY

- The following are Mobile Units from the South Portland Fire Department: 1<sup>st</sup> Alarm – 3 Engines (2 Foam Units) and 1 Ladder. 2<sup>nd</sup> Alarm – 3 Engines (1 Foam Unit) and 1 Ladder. 3<sup>rd</sup> Alarm – 2 Engines.
- City of Portland Fire Boat.
- U.Ś. Coast Guard Craft.

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

#### OUTSIDE EQUIPMENT AVAILABILITY

- The following are Mobile Units from the South Portland Fire Department: 1<sup>st</sup> Alarm – 3 Engines (2 Foam Units) and 1 Ladder. 2<sup>nd</sup> Alarm – 3 Engines (1 Foam Unit) and 1 Ladder. 3<sup>rd</sup> Alarm – 2 Engines.
- City of Portland Fire Boat.
- U.S. Coast Guard Craft.

### 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

# 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

### **RAYMOND PUMP STATION**

<b>SERIAL NO.</b> X831646	CLASS BC	MANUFACTURER Ansul	<b>LOCATION</b> #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

### 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

### SUTTON PUMP STATION

<u>SERIAL NO.</u>	<u>CLASS</u>	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.	МАКЕ ТҮРЕ		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	2 <sup>nd</sup> 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. CESA	IRE PUMP STATION			
	EX	TINGUISHERS			
Serial No.	MAKE	ТҮРЕ	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	ТҮРЕ	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 <sub>2</sub>	Control Room		
202033	Ansul	30lbs	Manifold 2 West Fence		
202034	Ansul	30lbs	Manifold 2 East Fence		
6074	Kidde	CO <sub>2</sub>	Manifold 2 Building		
430550	Ansul	BC	E& I Shop		
27863	York	CO2 15lbs	Terminal Electrical Sub room		
202028	Ansul	BC 30lbs	Terminal Garage		
		C 16	Integrated Contingency Plan		

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 <sub>2</sub>	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 HOSE NOZZLE						
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	Туре	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					
	Ansul	BC 20lbs	Tk 665					
				Trana				
	Ansul	BC 20lbs	NTF Launching	-				
	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					
	Ansul	ABC 10lbs	Spare					
23 (twenty-three) fire		McAvity (6)		North Tank Field				
	rijululi	Darling (16)						
		Century(1)		•				
		FIRE PROTECTION EQUIPEME	NT					
ТҮРЕ	OLIANITITY	NORTH TANK FIELD						
Foam Tank (Fixed installat	QUANTITY	DESCRIPTION Foam Concentration Tank (5200 US gallons),	LOCATION See MPLL drawing D-4248	INSPECTION FREQUENCY				
		Minimum Requirement 4,317 US Gallons /						
Foam	2	Tank AER-O-LITE™C6 1% AFFF Cold Foam	Foam Tank	Foam tests annually				
roan		1.04 Specific Gravity @ 770F(250C), 00F (-	r dani rank	roam tests annuary				
		18OC) To 120OF (49OC) Usable Temperature						
		Range.						
Hose	24	Size 5"x 50' (flexible)	Container, See MPLL drawing D-4248	Annual				
Adapter	16	Size 5" to 4" Storz For Fire Trucks	Container, See MPLL drawing D-4248	Annual				
Hose	5	2"x 100' (rigid)	Container, See MPLL drawing D-4248	Annual				
Hose	10	3"x 100' (flexible)	Container, See MPLL drawing D-4248	Annual				
Eductor	8	MODEL: JP-1500 1% C/W Metering Valve	Container, See MPLL drawing D-4248	Annual				
Pressure Regulating Valve		Williams Fire Hazard & Control, set-up 30psi	Container, See MPLL drawing D-4248	Annual				
Gate Valve Key	2	-	Container, See MPLL drawing D-4248	-				

# **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 AREA	S	ММ	W1	W2	W3
RIVER CANAL					
PROTECT BOOM (F EDRC (BBLS/DAY) TSC (BBLS) RESPONSE TIME (F FAC	·	4000 1200 2400 6	25000 1875 3750 12	25000 3750 7500 30	25000 7500 15000 54
170	OTHER	12	24	36	60
VESSEL	HVP OTHER	12 24	12 24	36 48	60 72
GREAT LAKES					
PROTECT BOOM (F EDRC (BBLS/DAY) TSC (BBLS) RESPONSE TIME (F	-	6000 1200 2400	30000 6250 12500	30000 12500 25000	30000 25000 50000
FAC	HVP	6	12	36	60
VESSEL	HVP	12	18	42	66
INLAND					
PROTECT BOOM (F EDRC (BBLS/DAY) TSC (BBLS) RESPONSE TIME (F	·	6000 2400 2400	30000 12500 25000	30000 25000 50000	30000 50000 100000
FAC	HVP OTHER	6 12	12 24	30 36	54 60
VESSEL	HVP OTHER	12 24	12 24	36 48	60 72

# FIGURE C-2 (Cont'd.)

OPERATING AREAS	S	ММ	W1	W2	W3
NEAR SHORE					
PROTECT BOOM (F EDRC (BBLS/DAY) TSC (BBLS) RESPONSE TIME (F	·	8000 1200 2400	30000 12500 25000	30000 25000 50000	30000 50000 100000
FAC	HVP OTHER	6 12	12 24	30 36	54 60
VESSEL	HVP OTHER	12 24	12 24	36 48	60 72
OFFSHORE					
PROTECT BOOM (F EDRC (BBLS/DAY) TSC (BBLS) RESPONSE TIME (F FAC	IRS) HVP	8000 1200 2400 6	15000 12500 25000 12	15000 25000 25000 30	15000 50000 25000 54
VESSEL	OTHER HVP OTHER	12 12 24	24 12 24	36 36 48	60 60 72
OPEN OCEAN					
PROTECT BOOM (F EDRC (BBLS/DAY) TSC (BBLS) RESPONSE TIME (F FAC	·	0 1250 2400 6 12	0 12500 25000 12 24	0 25000 50000 30 36	0 50000 100000 54 60
VESSEL	HVP OTHER	12 24	12 24	36 48	60 72
FAC = Facility			EDRC = Effective E	aily Recovery Capa	acity
VSL = Tank Vessel HVP = Facility high-	volume ports		TSC = Temporary S BBLS = Barrels	Storage Capacity	
M= Maximum Most W1= Worst Case Dia W2= Worst Case Dia W3= Worst Case Dia	scharge Tier 1 scharge Tier 2	-	HRS= Hours		

# **FIGURE C-3**

# **EXTERNAL RESPONSE RESOURCES**

### Portland Captain of the Port (COTP) Zone

USCG Classified Oil Spill Response Organization (OSRO)								
	Ocastra et	Facility Cla		lassific				
OSRO Name	Contract Number	Environment Type	MM	W1	W2	W3	NFO	Shoreline Cleanup
Marine Spill Response	Service	Rivers/Canals	~	~	~	~	~	yes
Corporation	Agreement in place	Inland	>	>	>	>	>	yes
Clean Harbors Environmental	Service	Rivers/Canals	~	~	~	~		yes
Clean Harbors Environmental	Agreement in place	Inland	~	>	~	>		,00

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



April 17, 1998

For More Information.	Contact:	
Don Toenshoff, Ir.	(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.



April 30, 1998

For More Information	Conta	et:
Don Teenshoff, Jr.	(703)	326-5610
Doug O'Donayan	(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.



### and the second second second second

# 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.

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### 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.

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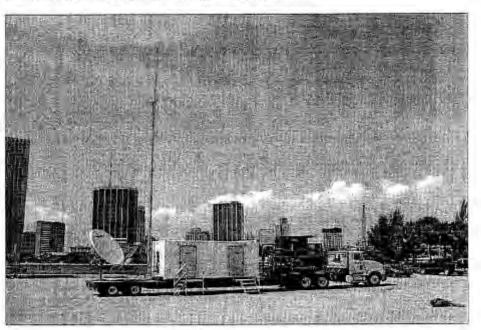
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#### Components

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

Number of Operators Required: 5-10 depending on operations



# MSRC COMMUNICATIONS

		<b>WAREHOUSE</b>	
<u>Qty</u>	UNIT	<b>CHANNELS</b>	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
		<u>ME Responder</u>	:
		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	
		<u>MSRC-620</u>	
		MSRC-1-16	
1	Marine VHF Radio	all	} in galley
		MSRC-1-16	, <u>y</u> c

### **CCB Heritage Vessels**

		<u>Saddleback</u>
		All
1	Motorola M1225	MSRC 1-4
		<u>Katahdin</u>
		All
1	Motorola M1225	MSRC 1-4
		<u>Crocker</u>
		All
1	Motorola M1225	MSRC 1-4
		<u>Cadillac</u>
		All
1	Motorola M1225	MSRC 1-4
		<u>Agamenticus</u>
		All
1	Motorola M1225	MSRC 1-4

Integrated Contingency Plan

# **MSRC Frequency Assignments**

<u>MSKC Heque</u>	<b>TICY</b>	ASSIGI	ments		
Channel ID	Ch #	RX	ТХ	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 WF-1 TRANSREC 350 SEAWOOLF <u>SPECIAL BOOMS</u> VIKOMA 3 WEIR BOOM FIOCS 800 NORWEGIAN OIL TRAWL

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

PUMPS DESMI DOP-250 EUREKA CCN-150

VESSELS OSRV 32' SUPPORT BOAT 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 Trawi). 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 a 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 DOF-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.

#### Ouantity - 2 Systems

Location - Regional Response Center

Specifications -		BBLS/HR = 630 BBLS/HR = 126 rox. 420 lbs. (dry skimmer) 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
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Packaging - Per system

Type Aluminum Skimmer Pallet Hydraulic Power Pack Type II Type III Control Stand Job Box Large Wire basket - Hydraulic Hose Large Wire Basket - Hose Floats/Line Small Wire Basket - 6" Layflat		Weight 550 4622 518 750 1350 470 850	Dimensions 7' x 7' 7" x 1' 6' 5" x 3' x 6' 2' x 2.5' x 3.8' 2.6' x 5 x 3.2' 4' x 3.4' x 3.10' 4' x 3.4' x 3.10' 4' x 3.4' x 2.6'	Deck Area 54 sq. ft. 19.5 sq. ft. 5 sq. ft. 13 sq. ft 13.6 sq. ft. 13.6 sq. ft. 13.6 sq. ft.	
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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 "I" 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 Derated 80% Weight = app: Hydraulic Oil	BBLS/HR = 430 BBLS/HR = 86 rox. 1,300 lbs. (dry skimmer) 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 s	system			

Type	Otv	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 sg, 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. fc.
Small Wire Basket - 6" Layflat	1	850	4' x 3.4' x 2.6'	13.6 sq. ft.
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Total System Weight- 10,649 lbs

Total System Required Deck Area- 167.41 sq. ft.

Handling- The WP-I 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 SETMMER

Description - The GT-185 is a stationary weir skimmer that can be hauled by two people. A three pontoor floating system provides seaworthiness in open ocean conditions, but it is also capable of skimming in shillow water. This type of skimmer is very effective in the latter stages of clean-up where pockets of oil remain is 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 intermate the provide state.

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)

Derated 80% BBLS/HR = 57 Weight = approx. 330 lbs. (dry skimmer) Hydraulic Oil Type - Shell Tellus T46	Length = 7.5 ft. Width = 6.2 ft. Height = 2.8 ft. Deck area = 47 sa ft.
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Packaging-Per system

Type Aluminum Skimmer Pallet Hydraulic Power Pack Type III Type I Control Stand Job Box Large Wire basket - Hydraulic Hose Large Wire Basket - Hose Floats/Line	Orv 1 1 1 1 1	Weight 500 3900 295 750 1200 470	Dimensions 6.4' x 8' x 1' 5.6' x 3' x 6' 2' x 2.5' x 3.8' 2.6' x 5 x 3.2' 4' x 3.4' x 3.10' 4' x 3.4' x 3.10'	<u>Deck Arsa</u> 51.2 sq. ft. 16.8 sq. ft. 5 sq. ft. 13 sq. ft. 13.6 sq. ft. 13.6 sq. ft.	
Small Wire Basket - 6" Layflat	ī	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 Derated 80% BBLS/HR Weight = approx. 2090 lbs Hydraulic Oil Type - Shell	= 126 . (drv skimmer)	Draft = 35 in. Length = 8.9 ft. Width = 8.2 ft. Height = 8.0 ft. Deck Area = 73 sp. ft.
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Packaging - Per system

Small Wire Basket - 6" Layflat 1 850 4' x 3.4' x 2.6' 13.6 sq. ft.	Type Aluminum Skimmer Pallet Hydraulic Power Pack Type I Type II Control Stand Job Box Large Wire basket - Hydraulic Hose Large Wire Basket - Hose Floats/Line Small Wire Basket - 6" Layflat	0tv 1 1 1 1 1 1	Weight.(lbs) 750 5000 352 750 1920 470 850	Dimensions 9.1' x 7.10' x 1 7.25' x 3' x 6' 2' x 2.5' x 3.8' 2.6' x 5 x 3.2' 4' x 3.4' x 3.10' 4' x 3.4' x 3.10' 4' x 3.4' x 2.6'	Deck Area 64.61 sq. ft. 21.75 sq. ft. 5 sq. ft. 13 sq. ft. 13.6 sq. ft. 13.6 sq. ft. 13.6 sq. ft.
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Total System Weight - 12,182 Ibs

Total System Required Deck Area - 145.16 sg. 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 cap 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 Derated 80%	BBLS/HR = 800 BBLS/HR = 160	Dimensions:	Draft = 4 in. Length = 12.5 ft.
	Weight = app Hydraulic Oil	rox. 5,000 lbs. (complete sk Type - Shell Tellus T46	id mounted system)	Width = $7.5$ ft. Height = $8.0$ ft
D. L. L. D.				Deck area = 94 so ft.

Packaging-Per system

Type	Otv	Weight (lbs)	Dimensions	Deck Area
Job Box	1	750	2.6' x 5 x 3.2'	13 so. 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" Lavflat	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.
Sinell Wire Basket - Heads/Floats	1	390	4' x 3,4' x 2.6'	13.6 sg.

Total System Weight - 8,190 lbs

Total System Required Deck Area - 161.4 sq. ft.

REFERENCES The AADDVAC DOG ALLOW TAKEN AND A TOTAL AND

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 - I System

Location - Regional Response Center

Specifications -	Rated Derated 80% Weight = app Hydraulic Oil	BBLS/HR BBLS/HR tox. 2,464 lb Type - Shell	= 38.5 xs.	Dimensions:	Length = $8.9$ ft. Width = $10.2$ ft. Height = $10.8$ ft
Packaging -Per syst	em				Deck area = 91 sq. ft.
Aluminum Skimmer P	allet	Otv.	Weight	Dimensions	Deck Area

Aluminum Skimmer Pallet Hydraulic Power Pack Type II Vikoms Control Stand Job Box	0 <u>tv</u> 1 1	Weight 900 4622 320	Dimensions 10.8 x 8' x 1' 6.5' x 3' x 6' 4.6' x 1.7' x 3'	<u>Deck Area</u> 86.4 sq. ft. 19.5 sq. ft. 7.82 sq. ft.	
Large Wire basket - Vendor Hose	I	750 600	2.6' x 5 x 3.2' 4' x 3.4' x 3.10'	13 sq. ft. 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 Small Wire Basket - Hydraulic Hose	1	850 770	4" x 3.4" x 2.6" 4" x 3.4" x 2.6"	13.6 sq. ft. 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.

Portland Montreal Pipe Line System

### TRANSREC 350 OIL RECOVERY SYSTEM

Description - The Transrec 350 is a high capacity skimming system designed to handle most cils 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 = 220 Derated 80% BBLS/HR = 440 Weight = approx. 30,800 lbs. Hydraulic Oil Type - Shell Tellus		Draft = 48 in. Length = 17.4 ft. Width = 13.8 ft. Height = 17.4 ft. Deck area = 240 sq ft.
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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 Transree 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.

Integrated Contingency Plan

# 23-44 SEA SENTRY II OIL CONTAINMENT BOOM

Description - The 23-44 Sea Sentry II is a heavy duty offshore oil containment beom manufactured by Engineered Fabrics Corporation. It is deployed from a real 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 plats.

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

OSRV System	Oty	Weight	Dimensions	Deck Area
Hydraulic Boom Reel w/Boom	1	8,800	8' x 9.10' x 8'	72.8 sq fi
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 Sys	stem Required Deck	Area - 235.44 sq. ft.
Reel System	<u>Oty</u>	Weight	Dimensions	Deck Ares
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	Ibs	Total Sys	tem Required Deck	Area - 235.44 sg. ft.
<u>Non-Reel System</u>	<u>Otv</u>	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 Syst	tem 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" armation 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 scas. 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'), Narragansen (2000'), Delaware Bay (1000'), Baltimore (2000'), and Norfolk (1000')

Specifications -

Dimensions: Freeboard = 8 in. Draft = 16 in. Booin 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

Open Top ISO Container System Slickbar MK-7 Plastic Basket - Support Equipment		<u>Weight</u> 5,250 6,000 560	Dimensions 20' x 8' x 8.6' 1000 feet 3.8' x 4.1' x 5'	<u>Deck Area</u> 160 sq. fr. N/A 15,58 sq. fr.
Total System Weight - 11,810	he	Total Day		and and the

## 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

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 skin are particularly effective

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:	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) -

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

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 abrations 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 battier 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 skimtners located in the boom. The boom is deployed in a "I or V" formation alongside of the OSRV or VOSS vessal. It concentrates and collects large quantities of oil in the boom's apex, and recovers the oil through the three (3) skimtners 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
 Dimensions:
 Draft = 1.4 ft.

 Derated 80%
 BBLS/HR = 232
 Length = 1320 ft.

 Weight = approx. 13,700 fbs. (total system)
 Width = 1.02 ft.

 Hydraulic Oil Type - Shell Tellus T46
 Width = 1.02 ft.

 Hydraulic Hose Size = 1"
 Discharge Hose Size = 6" camlock

Packaging - Per system (Port or Starboard)

Boom Roller Hydraulic Power Pack Type I Vikoma Control Stand Transfer Pump Water Pump/Buoy Job Box Large Wire basket - Hydraulic Hose Large Wire basket - Air Fan Small Wire basket - 6" Layflat Small Wire basket - Tube/St By fan	1         660         Attach           1         5000         7.25'           1         260         4.6' x           1         3,000         7' x 3.           1         500         Towed           1         500         Towed           1         500         4' x 3.           1         1480         4' x 3.           1         560         4' x 3.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Vikoma Control Stand Transfer Pump Water Pump/Buoy Job Box Large Wire basket - Hydraulic Hose Large Wire basket - Air Fan Small Wire basket - 6" Layflar	1         260         4.6' x           I         3,000         7' x 3.           I         500         Towed           1         750         2.6' x           1         1480         4" x 3.           1         560         4' x 3.	1.7' x 3' 7,8 3' x 7' 23, 1 in water N// 5' x 3.2' 13 4' x 3,10' 13, 4' x 3,10' 13,

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 Transree 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 "T" 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 - E	F I I	Draft = 5-8 ft. .ength = 15 f Vidth = 8 ft. leight = 8.5 f Deck area = 1	t. T	Weight = approx, 19	800 lbs. (total system)
Packaging - Per system	n				
Type Boom Real Job Box	2	DIX I I	Weight 19,800 800	Dimensions 15' x 8' x 8.5'' 5' x 2.6' x 5'	Deck Area 120 sq. ft 13 sq. ft
Total System Weight	- 20,600 15	s	Total Sys	tem Required Deck	Area - 133 sq. ft
******					*************

Handling- The (FIOCS) - 800 Norwegian Oil Trawl on board the OSRV will work in conjunction with the Transree 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 Transree 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

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

Specifications -Rated BBLS/HR = 1,500 - 3,500 Weight = approx. 175 lbs. (dry pump) Hydraulic Oil Type - Shell Tellus T46 Hydraulic Hose Size = 1" Dimensions: Draft = 2 in. Length = 2.2 ft. Width = 1.02 ft. Deck area = 2.2 sq ft. Discharge Hose Size = 6" camlock

Packaging - Per system

Type Hydraulic Power Pack Type I Large Wire basket - 6" Layflat Large Wire basket - Hydraulic Hose	Otv 1 1 1 1	<u>Weight</u> 5000 875 700	Dimensions 7.25' x 3' x 6' 4' x 3.4' x 3.10' 4' x 3.4' x 3.10'	Deck Area 21.75 sq ft 13.6 sq. ft 13.6 sq. ft
and a second			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and a state was

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)

	Rated BBLS/HR = 400 - 1200 Weight = approx. 160 lbs. (dry pump) Hydraulic Oil Type - Shell Tellus T45 Hydraulic hose size = 1" & 3/8" drain line Discharge hose size = 6" camlock	Dimensions:	$\begin{array}{l} Draft=2 \mbox{ in.}\\ Length=2 \mbox{ ft.}\\ Width=1.2 \mbox{ ft.}\\ Deck \mbox{ area}=2.4 \mbox{ sq. ft.} \end{array}$
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Packaging - Per system

<u>Туре</u>	Otv	Weight	Dimensions	<u>Deck Area</u>
Hydraulic Power Pack Туре 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	5	Total Syst	tem Required Deck	

# 

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-I 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 pomp 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
A. S. C. S.	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	
Туре I	5000	7.25' x 3' x 6'	21.75 sq ft.	
Туре II	4622	6.5' x 3' x 6'	19.55 sq ft.	
Туре II	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.

NE RESPONSE EQUIPMENT FACISHEETS

### 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 towad 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:

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

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

#### Packaging

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

Fiat

Handling - The TSB can be deployed directly into the water by a vessel or from a platform by a orane. 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	Pronelled Unit	Non-Propelled	
Length Beam Depth (mld) Draft, light Draft, operational Weight (dry)	47'10" 16' 3'10" 1'1"mean 2'8" mean 18,000 lbs	47'10" 16' 3'10" 0'11" mean 2'10" mean 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	OTY	Weight	Dimensions
Two Pontoons per trailer	4	49,000	48' x 8.6' x 13.5'
Thrustmaster and support	1	30,000	48' x 8.5' x 13.2'
Equipment			

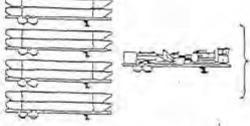
Handling - The shallow barges are to only be used within one mile of shore. Each shuttle barge is composed of two identical pontoon sections which are joined together by means of a locking mechanism. Pontoons may not operate independently

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

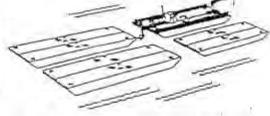
MSRC Shuttle Barge System (SBS) For Shallow Water Response

HSPC's Shuttle Barge System (SBS) Is designed to provide a clean-up capability in shaflow water. Each receptor barge has a 420 barrel capacity. MSRC will preparition 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, boots, booms and ancillary equipment.

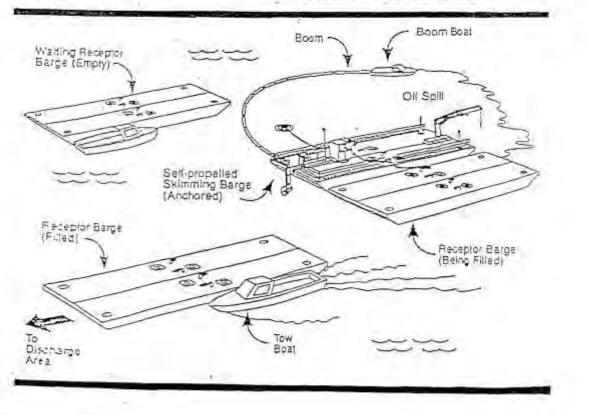
and to only



Pre-loaded father railen with a complete SBS can be mit-red uprescripted over highways to the split site, then af -coaded.



Egn((E) poniocos are assembled in the water to form four (4) barges. (Che skimming barge with equipment and propulsion mator; 3 empty receptor barges.)



Integrated Contingency Plan



OFF SHORE RESPONSE VESSEL (OSRV)

### **CHARACTERISTICS**

LENGTH OVER ALL (MILD)	208	8'-0"
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	4,0	00 BBLS.
POWER PLANT	MAINS:	2- CAT 3512 1500 BHP
	BOW THRUSTER	2: 1- CAT 3408
	GENSETS:	3- CAT 3406

SUSTAINED SPEED

12 KNOTS

AUXILIARY EQUIPMENT:

- 2 DECK CRANES, 100% AFT DECK COVERAGE CAPACITY:201@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 AL	L (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	12.1	VDC
TOW GEAR	1- DOUBLE POST BIT AFT/ 10	000 LB. WORKING LOAD
		(SAFETY FACTOR=4)

Integrated Contingency Plan

# **12 POWER PACK**

Model	STULTZ 12K AD1
Туре	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 Type Hydraulic output Transfer Pump output Dimensions Weight Quantity Location Shipping STULTZ 30K LPA3 Diesel/Hydraulic – Transfer pump 6.5 gpm @ 1000 psi 333 gpm 60" L x 36" W x 34"H 1050# 1 MSRC warehouse, 14 Union Wharf 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 **Beam** 10'4" Length 30' **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	
	minum barges is designed for the temporary on-water sto covered oil in 2 separate tanks. Each tank is fitted with 1 1 m coils.	
	Handling/Operation	
Towing speed is 8	3 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	
	arge is designed for the temporary on-water storage of 200 n 2 separate tanks.	) barrels
	Handling/Operation	
Towing speed is 7	7 knots when empty and 5 knots when fully loaded.	[
rowing speed is /	KHOIS WHEN EMPLY AND S KHOIS WHEN IUNY IDAUEU.	

# ALUMINUM STORAGE BARGES, cont.





# **DESMI 250 SKIMMER**

EDRC Pump	2112 bbls/day
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
<b>A</b>	
Quantity	Component
<b>Quantity</b> 1	<b>Component</b> Desmi 250 Skimmer
<b>Quantity</b> 1 1	-
Quantity 1 1 1	Desmi 250 Skimmer
Quantity 1 1 1 100'	Desmi 250 Skimmer Integrated Desmi DS250 Archimedes screw pump

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 Type Hydraulic output Dimensions Weight Quantity Hoses Location Shipping

Diesel America Diesel/Hydraulic 10 gpm @ 1500 psi 36" L x 24" W x 34"H 350# 2 6 x 25' x 3/8" custom hydraulic hoses MSRC warehouse, 14 Union Wharf, Portland, ME 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 Pump capacity Dimension Weight Shipping Location	211.4 bbls/day-light oil 288 bbls/day-medium oil 480 bbls/day-heavy oil 100 gpm 3'1"'L X 7'7"'W X 1'6"'H 90# Portable Dry stored @ MSRC warehouse 14 Union Wharf, Portland, ME
<b>Quantity</b> 1 1 4 1	<b>Component</b> Oleophilic drum Diesel power pack w/ attached air compressor 50' x 2 1/2" suction/discharge hoses 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.





Integrated Contingency Plan

## **HERITAGE BOOM**

STORED LOCATION	SIZE	LENGTH	l 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 Portland, ME	27"	1000'	Pallet #3 MSRC Trailer # 31	

1950 **8'700** 

## KATAHDIN/CROCKER

Location	Moored on Union Wharf, Por	tland, ME	
Length	35'6"	<b>Beam</b> 12'6"	<b>Draft</b> 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 Pump capacity Dimension Weight Shipping Location	1357 bbls/day-per side-Total 2,714 440 gpm each DOP 250 3'1"'L X 7'7"'W X 1'6"'H 1100# total KATAHDIN 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

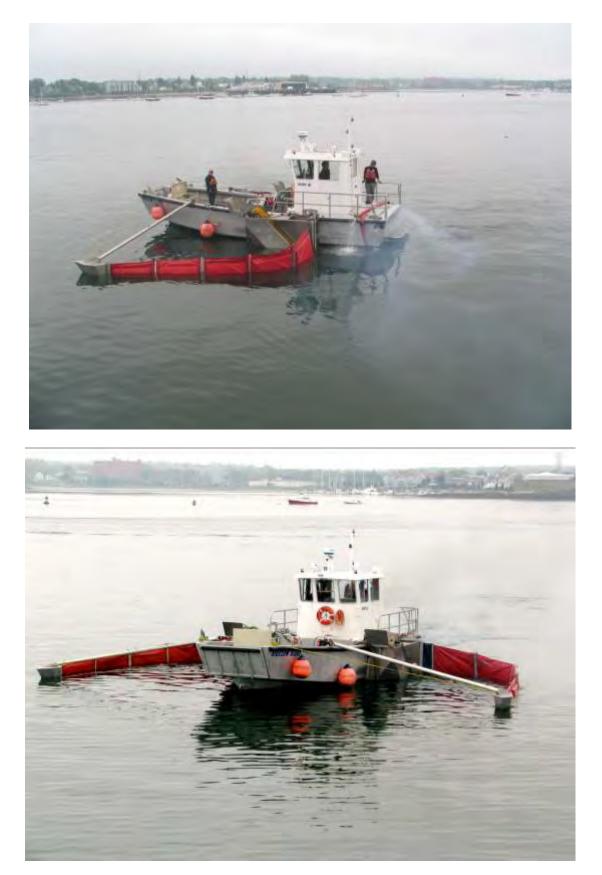
#### Description

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.



Integrated Contingency Plan

## **RO-CLEAN OIL MOP 260**

EDRC Pump capacity Dimension Weight TSC Shipping Location	362 bbls/day 53 gpm 5'9"l x 2'8"w x 4' h 1022# 106 gallons Portable Dry stored @ MSRC warehouse 14 Union Wharf, Portland, ME
Quantity 1 2 Operators Required	<b>Component</b> Oleophilic Rope Mop diesel direct drive engine integrated in unit floating rope guides

#### 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.**



Integrated Contingency Plan

## 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 Ca	terpillar	diesel with dry ex	khaust	
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



## **SKIM-PAK 1800 WEIR SKIMMER**

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



Portland Montreal Pipe Line System

Integrated Contingency Plan

## **UNIVERSAL POWER PAK**

Model	STULTZ UNIVERSAL 4BT3, 9-P
Туре	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 @ MSF	RC warehouse
	14 Union Wharf,	Portland, ME
Quantity	Сотрог	nent
1 each	Oleophilic disc skimmer	
1 each	Diesel/Hydraulic power pak w/diaphram transfer pump	
1 each	Job bo	х
2 sets of 4	50' x 3/8" hydr	aulic hoses
2 x 50'	4" suction hose	3" suction hose
2 x 50'	4" layflat discharge hose	3" layflat discharge hose
Onevetere		
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 Pump capacity Dimensions Weight Location	2,290 bbls/day 334 gpm 7'4" L X 4.5' W X 2.9' H 734# 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.



#### CLEAN HARBORS ENVIRONMENTAL SERVICES Letter of Commitment to Respond Equipment and Resources



17 Main Streer South Portland, ME 04106 207.799.8111 Fax 207.799.0349 www.cleanharbors.com

August 29, 2012

Nick Payeur Portland Pipeline Corporation 30 Hill Street P.O Box 2590 South Portland, ME 04106

Dear Nick:

Pursuant to our conversation, I am writing this letter to inform you that Clean Harbors Environmental Services, Inc. will provide emergency response services. Clean Harbors is one of the Nations leading environmental service companies, along with being recognized as New England's premier emergency response contractor.

Our Bangor and South Portland, Maine locations are staffed with expert emergency response personnel, including Health and Safety professionals, Field Chemists and Engineers. These two locations ensure an expeditious response time for incidents throughout the State of Maine. Both locations are thoroughly equipped for incidents requiring EPA Personal Protection Levels "D" through "B". Level "A" can be obtained through our Weymouth, MA. office.

Our local resources in South Portland, Maine can respond to an emergency in the Portland area within 2 hours. For other support we can have resources from our Bangor office in 3-4 hours as well as our Weymouth, MA and Bow, N.H. offices within 4 hours.

Emergency services will be provided at the request of, or under the direction of, an authorized representative, on a time and material basis in accordance with our prevailing rates.

Our 24-hour emergency response phone number is 207-799-8111 or 1-800-OIL-TANK We appreciate your business and look forward to servicing you in the future. Should you have any further questions please feel free to call.

Sincerely,

- a. 2mg

Matthew A. Quinn General Manager

"People and Technology Creating a Better Environment"

SOUTH PORTLAND, ME SERVICE 17 Main Street South Portland, ME 04106	CENTER	43.64 N 70.29 W	24-Hr. # 24-Hr. # Fax #		800.	645.	8111 8265 0349
(b) (6)		EPA / Federal ID	)#:				N/A
Personnel Authorized to release equipment	t / materials / ma	noower etc:		_			
<b>(6)</b>							
40-Hour OSHA Trained Personnel:							
Supervisor Foreman Field Techniclan Equipment Operator Site Safety Officer	6 6 12 11 1						
Equipment List						-	_
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units		-		-
(1) Vessels & Marine Support Equipment		Capacity / Size / Rey Peatures	# of Units	A	T	Ρ	D
Power Workboat, Workskiff	South Portland	21', 115HP, V329	1	~	Y		
Power Workboat, Pointer	South Portland		1	Y	Y	N	N
Jon Boat w/ Motor, Alumaline	South Portland	12, 9.9 HP, ME 107CH, V201	1	_	Y		N
Jon Boat w/ Motor	South Portland	12, 5 HP, SEAP7313M84G	1	Y	Y	N	N
Power Workboat, Trailboss	South Portland		1	Y	Y	N	N
Power Workboat, Monarch	South Portland	22', 150 HP, ME 102ML, V107	1	Y	Y	N	N
Power Workboat, Alumaline	South Portland	21', 130 HP, ME 2228Z, V201	1	Y	Y	N	N
(2) Motor Vehicles & Vacuum Equipment							
Vacuum Truck Straight	South Portland	3,000 gal.					
Vacuum Split Trailers	South Portland		2	Y	Y	N	N
Vacuum Trailer	South Portland		1	Y	Y	N	N
High Powered Vacuum Loader, Cusco	South Portland	3,000 gal / 10 cu. vd.	3	Y	Y	N	N
Vacuum Skid	South Portland	3,000 gal	1 1	Y	Y	N	N
Vacuum Skid	South Portland	300 gal	1	Y	Y	_	N
Box Trailer	South Portland	40'	2	Y	Y	N	N
Box Truck	South Portland	10 wheel	1	Y	Y	N	N
Crew Cab Pickup	South Portland	F250	9	Y	Y	N	N
Frac Tanks	South Portland	20,000 gal	4	Y	Y	N	N
Drop Deck Trailer	South Portland	Roll Off Capable	1	Y	Y	N	N
Roll Off Trailer	South Portland	17 Yards	1	Y	Y	N	N
Tag along Trailer	South Portland		1 1	Y	Y	N	N
Spill Trailer	South Portland		1	Y	Y	N	N
10 Wheel Dump Truck	South Portland	10 yards	1 1	Y	Y	N	N
Roll Off Truck	South Portland	15 Yards	1 1	Ý	Y	N	N
3 Wheel Dump Truck	South Portland	6 Yards	1	Y	Y	N	N

Equipment List Cont.							
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	Р	D
(3) Pumps and Pressure Equipment	-			-			
Wilden Diaphragm Pump	South Portland	2*	2	Y	Y	N	b.
Wilden Diaphragm Pump	South Portland	2* Chemical	1	Y	Y	N	N
Wilden Diaphragm Pump	South Portland	3*	1	Y	Y	N	N
Adaps Hydraulic Pump	South Portland	4"	3	Ý	Y	N	N
Bowle Pump (Hydraulic)	South Portland	3*	1	Y	Y	N	N
Hotsy on Trailer	South Portland	2,500 PSI	3	Y	Y	N	N
Lamor Hydraulic Pump	South Portland	3"	1	Y	Y	N	N
(4) Oil Spill Containment Booms		Υ		_			
Oil Containment Boom	South Portland	Global 14", In Water	2000	Y	Y		N
Oil Containment Boom	South Portland	American Marine 24", In Water at Sprague	2500	Y	Y	N	N
Oil Containment Boom	South Portland	Global 14", In Water	3400	Y	Y	N	
Oil Containment Boom	South Portland	American Marine 18, In Van	19500	Y	Y		N
Oil Containment Boom	South Portland	Giobal 24", In Water	19500	Y	Y	N	YN
(5) Environmental Monitoring Equipment							- 1011
HNU Meter	South Portland	P101					
MSA Gas Indicator	South Portland	Miniguard II	1 4	Y	Y	N	N
4-Gas/Passport Meter	South Portland	LEL, O2, Hyd. Sulf.	2	Y	Y	N	N
(6) Recovery Equipment					_	_	
Portable Tanks	South Portland	400 gallon Poly	2	Y	Y	N	N
Sea Slug Towable Fuel Bladder	South Portland	Model #FCB-43E, 4300 gallons	1	Y	Y	N	N
Disc Skimmer, Elastec	South Portland	ORD, 3*, 50 GPM, 204195, S200		Y	Y	N	Y
Drum Skimmer, Crucial	South Portland	TDS118, 3*, 35 GPM, TDS11899336, 5214	1	Y	Y	N	Y
(7) Beach or Earth Cleaning and Excavatir	a Faulament		-	_	_		
Excavator, CAT	South Portland	235 Track	1	Y	Y	N	N
Backhoe, CAT	South Portland	436	1 1	Y	Y	N	N
Bobcat	South Portland	843, Skidsteer	1	Y	Y	N	N
(8) Generators / Compressors / Light Tow	ers				_		
Sullair Portable Compressor	South Portland	185 CFM; Diesel	3	Y	Y	N	N
Generator	South Portland	120 watt	3	Y	Y	N	N
9) Health and Safety Equipment					_		
CSE Entry Gear	South Portland	Tripod, DBI	2	Y	Y	hi	N
Coppus Blower	South Portland		2	Y	Y	N	N
Coppus Blower	South Portland	Electric	2	Y	Y	N	N
Supplied Air packs	South Portland	Scott	6	Y	Y	N	N
Breathing Air Tanks	South Portland	1	20	Y	Y	N	N

Equipment List Cont.							
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	т	P	D
(10) Communications				-	-		-
Portable marine radios	South Portland		7	Y	Y	N	N
Base Marine Radio	South Portland		1	Y	Y	N	N
2-way Mobile Radios	South Portland	Nextel	27	Ŷ	Y	N	N
Company Base Radio	South Portland	Nextel	1	Y	Y	N	N
(11) Miscellaneous			-	-	-	_	_
Emergency Response Subcontractors					_		
Portiand Tugboat & Ship Docking Co.,	Inc. Contact:			Ser	vices	Prov	ideo
P.O. Box 15049	(b) (6)			T	ug Bo	at Ser	vice
Portland, Maine 04112						0.042.01	10.74
(207) 774-2902							
(207) 773-5659							
Winslow Tugs	Contact:			Ser	vices	Prov	idea
26 Andrews Avenue	(b) (6)			T	ua Bo	at Ser	vice
Falmouth, Maine 04105 (207) 780-8847							
General Marine Constructers	Contact:			Ser	vices	Prov	ideo
Deaks Wharf Portland, ME 04101	(b) (6)			Ba	rge ar	nd tug	boa
(207) 772-5354							
Industrial Welding & Machine, Inc.	Contact:			Ser	vices	Prov	ideo
430 Commercial Street - P.O. Box 1004					Weld	ing se	rvic
Portland, Maine 04104						100	
(207) 773-8482							
(207) 767-3561 Nights and Holidays							
National Response Corp	Contact:			Ser	vices	Provi	ideo
P.O. Box 7210	(b) (6)		B	arge	skimm	ner Se	rvio
Portland, Maine 04112				1			
(207) 767-7112							
Marine Spill Response Corp.	Contact:			Ser	vices	Provi	ided
14 Union Wharf	(b) (6)		Large		002074	0.363	1222
Portland, Maine 04101 (207) 780-8801			and the t				

BANGOR, ME SERVICE CENTER 40B Carey Circle Hampden, ME 04444		44.78 N 68.81 W	24-Hr # 24-Hr # Fax #		207.262.950 800.645.826 207.262.956			
b) (6)			EPA / Federal ID #	ŧ				N/A
Personnel Authorized to release equipment.	/ materials / mar	npower, et	te:					
b) (6)								
40-Hour OSHA Trained Personnel:						-		
Supervisor	2							-
Foreman	5							
Equipment Operator Field Technician	5							
Equipment List Rem Description / Manufacturer	Location		Capacity / Size / Key Features	# of Units	A	Ţ	P	D
(1) Vessels & Marine Support Equipment					-			
Utility Workboat, Pointer	Bangor		21', 8' Beam, 2' Draft, ME1408V, V124 (PVT20784D787)	1	Y	Y	N	.N.
utility Workboat, Pointer	Searsport	175 HP	the second se	1	Y	Y	N.	N
Jon Bosts	Bangor	16 ft (3	14 ft (1) V390, V372, V379, V391	4	Ŷ	Y	N	N
(2) Motor Vehicles & Vacuum Equipment					-	_	-	
Stake Body / Utility Truck	Bangor	6 wheel 5253		1	Y	Y	N	N
Crew Cab Pickup	Bangor	4x4 890	21, 8652, 8779	3	Υ.	Y	N	N
Dump truck 1 ton	Bangor	4x4 3yr	d dump ch5412 5412	1	Y	Ý	N	N
Crew Cab Pickup	Bangor	3/4 Tor	6771, 6644, 6903	3	Y	Y	N	N
Pressvac, High Power Vacuum Truck	Bangor	250 GPM, 3000 Gal Capacity 4185		1	Y	Y	N	N
Vacuum Trailer	Bangor	5,000 0	Sal Capacity 333	1	Y	Y	N	N
Tractor power unit	Bangor	Tanden	n 1497	1	Y	Y	N	N
Tractor power unit	Bangor	Tanden	8	1	Y	Y	N	N
Vacuum Truck	Bangor	3,000 \$	Sal Capacity 4109	1	Y	Y	N	N
(3) Pumps and Pressure Equipment	240.020					-		
Hotsy Pressure Washer	Bangor	3,000 P	5i - trailer mounted	1	Y	Y	N.	N
Wilden Diaphragm Pump	Bangor	2" OI		5	Y	Y	N	N
Wilden Diaphragm Pump	Bangor	3" O8		1	Y.	Y	N	N
Air Driven Drum Pump	Bangor	2" Ar D	riven	2	Y	Y	N	N
Hotsy Pressure Washer	Bangor	3000 pt	61	2	Y	Y	N.	N
(4) Oil Spill Containment Booms	and the second second							
Oil Containment Boom	Bangor		man 18" (10ft trailer)	1000	Y	Ŷ	N	Ŷ
Oil Containment Boom	Bangor	14*		500	Y	Y	N	Y.
(5) Environmental Monitoring Equipment		+ +			-	_	-	_
Drager Pump	Bangor	with Mix	scelaneous Tubes	1	Y	Y	N	N
Passport 5 gas meter	Bangor			3	Y	Y	N	N
					-			-
(6) Recovery Equipment		-		-				1000
Portable Tanks	Bangor		Iona Stainless Steel	2	Y	Y	N	N
Portable Tanks	Bangor		Ion Poly tote	2	Y	Y	N	N
Skid Mount Vacuum Unit	Bangor	1000 ga	Allon CH213	1	Y	Y	N.	N

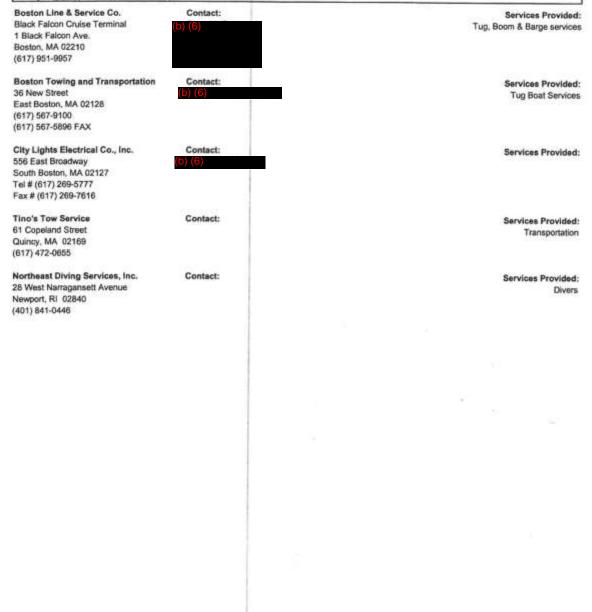
	-	-			
quipment List Cont.					la ser a se
tem Description / Manufacturer	Location	-	Capacity / Size / Key Festures	# of Units	ATPO
7) Beach or Earth Cleaning and Excavat					
and the second	and the second sec	_			
8) Generators / Compressors / Light To-	wers	Discol	185 cfm	1	YYNN
Sullair Compressor Generator	Bangor Bangor		2500 watt	1	YYNN
Light Towers	Bangor		4' high	1	YYNN
and a state of	- Andrew Constant				
(9) Health and Safety Equipment		_			
Portable Eye Wash Unit	Bangor	-		1	Y Y N N
Scott Supplied Air System	Bangor	-		3 2	Y Y N N Y Y N N
Scott Pak Rogiss & Tripod	Bangor Bangor	-		2	Y Y N N
Rogiss & Tripod Safety Hamess	Bangor	-		12	Y Y N N
DBI & Tripod	Bangor			2	YYNN
(10) Communications					
Cellular Phones	Bangor	-		11	YYNN
Marine Base Station	Searsport	+		1	YYNN
(ff) Missellandous	-	+			
(11) Miscellaneous		-			
Emergency Response Subcontractors		2012 2			
Subcontractor Name	Contact:				Services Provide
Address 1					
Address 2					
Phone #					
and the second sec	2.53				6 8 STS.
Subcontractor Name	Contact:				Services Provider
Address 1 Address 2					
Phone #					
Subcontractor Name	Contact:				Services Provider
Address 1					
Address 2 Phone #					
Phone #					
Subcontractor Name	Contact:				Services Provider
Address 1	1220120000	- 1			
Address 2					
Phone #					
		- 1			
		-			
		1			

BOSTON, MA AREA SERVICE CENTER 609 Pleasant Street Weymouth, MA 02189		42.19 N 70.93 W	24-Hr. # 24-Hr. # Fax #		781.803.4 800.645.8 781.803.4		
(6) (6)		EPA / Federal ID	#:				N/A
Personnel Authorized to release equipment	t / materials / ma	inpower, etc:			_		
) (6)							
40-Hour OSHA Trained Personnel:					_		_
						_	-
Supervisor	10						
Foreman	20						
Equipment Operator	23						
Field Technician	25						
Equipment List				_			_
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	т	P	D
(1) Vessels & Marine Support Equipment							
Power Workboat, Hanko	Weymouth	24', 150HP, RI 0303 CH, V303	1	Y	Y	N	N
Power Workboat, Carolina Skiff	Weymouth	21', 88HP, MS 2027 B, V158	1	Y	Y	N	N
Power Workboat, Minncraft	Weymouth	16', 25HP, MS 9181 KB, V156	1	Y	Y	N	N
Power Workboat, Sylvan	Weymouth	14', 9.9HP, MS 7121 AA, V206	2	Y	Ŷ	N	N
Power Workboat, Seasquirt	Weymouth	18', 25HP, MS 5383 AC, V161	1	Y	Y	N	N
Workboat, Star Craft	Weymouth	14', No Motor, MS 6455 AP, V155	2	Y	Y	N	N
(2) Motor Vehicles & Vacuum Equipment					-24	0.0-0	200
Vacuum Tractor Trailers	Weymouth	4,000/5,000/6,000 gals	8	Y	Y	N.	N
High Powered Vacuum Truck/Cusco	Weymouth		6	Y	Y	N	N
Cyclone Vactor/Guzzier	Weymouth		4	Y	Y	N	N
Vactor (Jet Rodder)	Weymouth		2	Y	Y	N	N
Vacuum Trucks S.S.	Weymouth	3,000 & 3,500 gals	5	Y	Y	N	N
Box Truck- Prime Mover	Weymouth	81 International	1	Y	Y	N	N
Straight Box Trucks	Weymouth	Ford	1	Y	Y	N	N
Frac Tanks	Weymouth	22,500 gallons	6	Y	Y	N	N
Rack Truck	Weymouth	5151, 5142, 552	3	Y	Y	N	N
10 Wheel Dump Truck	Weymouth	5252	1	Y	Y	N	Ň
6 Wheel Dump Truck	Weymouth	5403	1	Y	Y	N	N
Trailer (Lowboy)	Weymouth	50 TON	1	Y	Y	N	N
Crew Cab Pickup	Weymouth	Various Models	27	Y	Y	N	N
Roll-off frames	Weymouth	463, 4131	4	Y	Ý	N	N

Equipment List Cont.							
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	т	P	D
(3) Pumps and Pressure Equipment							
Wilden Diaphragm Pump	Weymouth	M-15 3*	3	Y	Y	N	N
Wilden Diaphragm Pump	Weymouth	M-8 2*	2	Y	Y	N	N
Wilden Diaphragm Pump	Weymouth	1 1/4 "Poly	1	Y	Y	N	N
Wilden Diaphragm Pump	Weymouth	1 1/2 * M-4	1	Y	Y	N	N
Wilden Diaphragm Pump	Weymouth	1 1/4 " M-2	0	Y	Y	N	N
Wilden Diaphragm Pump	Weymouth	2" Champ Poly (chemical)	2	Y	Y	N	N
6" Double Stage Hyd Super Pump	Weymouth	6*	1	Y	Y	N	N
Lutz Electric Barrel Pump	Weymouth	17	3	Y	Y	N	N
Drum Vacuums	Weymouth		4	Y	Y	N	N
Van Hotsy	Weymouth	3000 psi Hot Water	2	Y	Y	N	N
Hot water Hotsy	Weymouth	3000 psi, trailer mounted	1	Y.	Y	N	N
Hot water Hotsy	Weymouth	3000 psi, portable, skid mount	2	Y	Y	N	N
Cold Water Pressure Washer	Weymouth	2000 psi, electric, portable	5	Y	Y	N	N
Warren Rupp	Weymouth	1" SA1A/SB1A	2	Y	Y	N	N
Teel Pump	Weymouth	5H 2" Trash Pump	3	Y	Y	N	N
Vactor Hose	Weymouth		1,000	Y	Y	N	N
Discharge Hose	Weymouth	6*	150	Y	Y	N	N
Discharge Hose	Weymouth	4"	500'	Y	Y	N	N
Teel Pump	Weymouth	3.	3	Y	γ	N	N
(4) Oil Spill Containment Booms							
Oil Containment Boom	Weymouth	American Marine 18*	2800	Y	Y	N	Y
Oil Containment Boom	Weymouth	Slickbar 18'	3000	Y	Y	N	Y
(5) Environmental Monitoring Equipment			-	-	-	-	-
MSA Gas Indicator	Weymouth	Sirius 5 Gas	7	Y	Y	N	N
MSA Gas Indicator	Weymouth	Passport Quad	3	Y	Y	N	N
Draeger Pump	Weymouth	Accuru	5	Y	Y	N	N
MSA PIDs	Weymouth	Passport PIDs	3	Y	Y	N	N
(6) Recovery Equipment				-	-		
Skidmount Vacuum Unit	Weymouth	1000 gal	1	Y	Y	N	N
Slurp Skimmer, SkimPac	Weymouth	Static, 4200 Model, 2*, S229	1	Y	Y	N	Y
Drum Skimmer, Elastec	Weymouth	Air, TDS118, 3*, 35 GPM, S233	1	Y	Y	N	Y
Recovery Tank	Weymouth	1000 gal	1	Y	Y	N	N
Nilfisk Mercury Vacuum	Weymouth		2	Y	Y	N	Y
HEPA Filter Vacuum	Weymouth	-	3	Y	Y	N	N
HEPA Filter Vactor	Weymouth		1	Y	Y	N	N
(7) Beach or Earth Cleaning and Excavating	Equipment		-	-			_
Bobcat	Weymouth	Backhoe/Sweeper /Pavement Breaker	2	Y	Y	N	N
Backhoe	Weymouth	436 Cat	1	Y	Ŷ	N	N
Cat Excavator	Weymouth	Cat 315 Track	1	Ý	Ŷ	N	N
Bobcat Mini Excavator	Weymouth	337 Mini	1	Ŷ	Ŷ	N	N

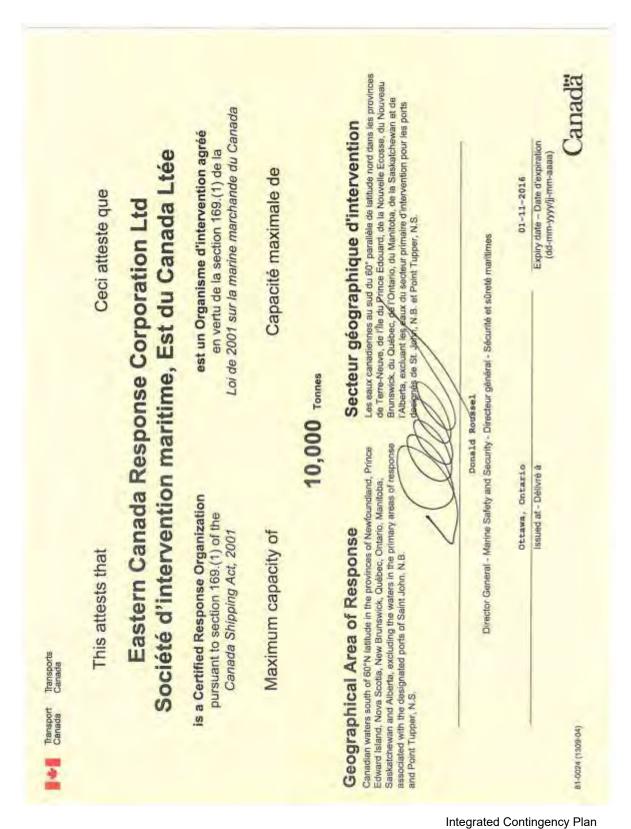
Equipment List Cont.							
Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
(8) Generators / Compressors / Light Toy				_	_	_	
Sullair Portable Compressor	Weymouth	185 Diesel	5	Y	Y	N	N
Winco Generator	Waymouth	K4800/A	3	Y	Y	N	N
Coppus Blower	Weymouth	4" Pneumatic	3	Y	Y	N	N
Coppus Blower	Weymouth	8" Pneumatic	1	Y	- Y.	N	N
Coppus Blower	Weymouth	10" Pneumatic	1	Y	Y	N	N
Coppus Fan	Weymouth	RF-20	2	Y	Y	N	N
(9) Health and Safety Equipment						_	
MSA S.C.B.A.	Weymouth	1 Hour/4500	10	Y	Y	N	N
Spare Air Cylinders	Weymouth	4500 PSI (1 HR)	8	Y	Y	N	N
MSA SAR	Weymouth	Pressure Demand	4	Y	Y	N	N
MSA Escape Units	Weymouth	5 Minutes	7	Y	×	N	N
Encapsulating Suits	Weymouth	First Responder	0	Y	Y	N	N
Encapsulating Suits	Weymouth	Butyl	0	Y	Y	N	N
Mustang Suits	Weymouth	Foul Weather PFD	6	Y	Y	N	N
Flame Retardant Suits	Weymouth		0	Y	Y	N	N
Breathing Air Hose	Weymouth		600'	Y	Y	N	N
Hydraulic Hose	Weymouth		650'	Y	Y	N	N
Personal Floatation Devices	Weymouth		40	Y	Y	N	N
PFD Survival Suits	Weymouth		6	Y	Y	N	N
(10) Communications			-	-	-	_	_
Nextel 2-Way Portable Radio/Phones	Weymouth		80	Y	Y	N	N
Nextel Base Station	Weymouth		1	Y	Y	N	N
Marine Radios	Weymouth	Portable	3	¥	Y	N	N
(11) Miscellaneous			-	-		-	_
Leroi Jackhammer	Weymouth	30 / 60 / 90 lbs.	3	Y	Y	N	N
Stihl Chain Saw	Weymouth		1	Y	Y	N	N
Amida Light Stand	Weymouth	50600	2	Y	Y	N	N
Amida Towable Light Tower	Waymouth	GS-82	2	Y	Y	N	N
Lincoln Welder	Weymouth		1	Y	Y	N	N
Forklift	Weymouth	5 Ton	2	Y	Y	N	N

#### Emergency Response Subcontractors



#### **US – OTHER OIL SPILL RESPONSE SERVICES**

Non OSRO classified contractors are listed in Section 2.0. These include waste disposal and transport companies, wildlife experts, vac truck operators/renters, etc. Additional resources should be located through the yellow pages located in local phone books or the internet.

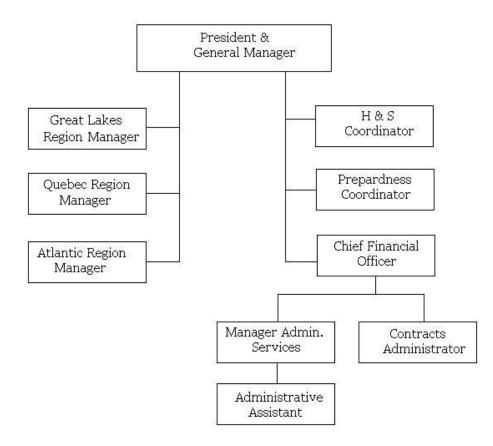


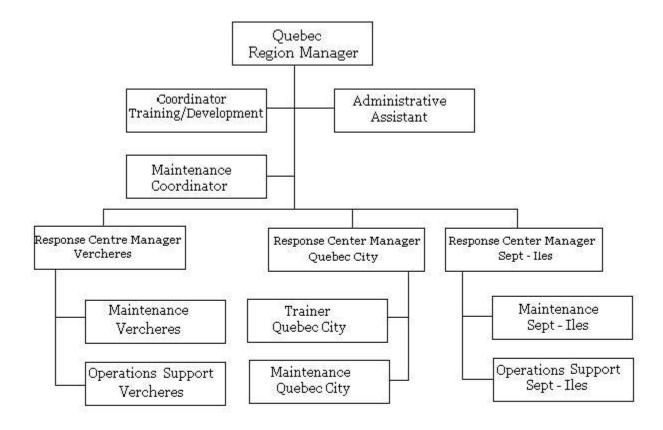
# CANADA - OIL SPILL RESPONSE CONTRACTORS

Eastern Canada Response Corporation (ECRC)

Portland Montreal Pipe Line System 2016

### Eastern Canada Response Corporation Organization Chart





### Eastern Canada Response Organization Chart Quebec Region

## BARGE BASQUES



#### Inventory

	Great Lakes	Quebec	Atlantic	Total
Total		1	+	1

### Application

Used as a primary and/or secondary storage unit during oil water recovery operation. It can also be used as a working platform for recovery operations using a NOFI Vee Sweep system in conjunction with a GT-185 skimmer. It can also serve as a simple deck working platform to carry material and equipment, supporting shoreline cleanup operations.

### Description

The Basques is a single-hull steel barge. It has ten storage compartments for the oily water, allowing for natural decanting of water, with a total storage capacity of 2,600. It is a dedicated response vessel fitted with two diesel generators, one crane and a deck winch (for NOFI 600 cross-bridle). The barge is configured for sweep and recovery operation using a NOFI Vee Sweep and GT-185 skimmer.

### **Operating data**

#### Ancillaries

GT-185 skimmer

NOFI 600 Vee Sweep system

Storage Capacity: Towing speed: 2,600 m<sup>3</sup> (16,300 bbls) up to 12 knots

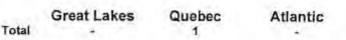
### **Technical data**

Length:	66.5 m (218 ft)
Breadth:	13.0 m (43 ft)
Depth:	4.3 m (14 ft)

## BARGE DOVER LIGHT



#### Inventory



## Total

## Application

Used as a primary and/or secondary storage unit during oil recovery operation. It can also be used as a working platform for recovery operations using NOFI Vee Sweep boom in conjunction with a GT-185 skimmer. It can also serve as a simple deck working platform to carry material and equipment, supporting shoreline cleanup operations.

## Description

The Dover Light is a single-hull steel barge. It has four storage compartments for the oily water, allowing for natural decanting of water, with a total storage capacity of 1,600m<sup>3</sup>. Two compartments are equipped with heating colls. It is a dedicated response vessel fitted with one diesel generator, one crane, one winch, one anchoring system, two cargo pumps and one cargo heating system.

### **Operating data**

Storage capacity: 1,600 m<sup>3</sup> (10,000 bbls) Towing speed: up to 12 knots

#### **Technical data**

Length:	38.8 m (128 ft)
Beam:	15.1 m (50 ft)
Draught:	3.6 m (12 ft)

## 50 TON STORAGE BARGE





#### Inventory

and the second	Great Lakes	Quebec	Atlantic	Total
50 tons (pontoons)	and the second sec	12		12
50 tons	æ	100	9	9
Total		12	9	21

### Application

Used to store recovered liquid and solid materials during on water recovery or shoreline cleanup operations. They can be used as platform to support shoreline clean up operations. Some units, mounted with a power pack and hiab crane, are equipped with a skimmer unit (LORI or Libra). All units are road transportable.

### Description

Built in aluminium, the barges have eight compartments, for a total storage capacity of 50 m<sup>3</sup>. Units in Quebec region are equipped with pontoons, giving a working area of 6 m x 12 m (20 ft x 40 ft).

### **Operating data**

Towing speed: Liquid storage capacity: Road transportable

#### Ancillaries

For some units: Power pack Skimmer

## Technical data

 With pontoons

 Length:
 12.2 m (40 ft)

 Width:
 6.1 m (20 ft)

 Draught:
 0.9 m (3 ft 10 in)

<u>No pontoons</u> 10.9 m (35 ft 9 in) 3.5 m (11 ft 6 in) 2 m (6 ft 7 in)

up to 8 knots

50 m3 ( 310 bbis )

## BARGE ORLEANS



Inventory

	Great Lakes	Quebec	Atlantic	Total
Total	100 C	1		1

#### Application

Used as a primary and/or secondary storage unit during oil recovery operation. It can also be used as a working platform for recovery operations using a NOFI Vee Sweep system, in conjunction with a GT-185 skimmer. It can also serve as a simple deck working platform to carry material and equipment, supporting shoreline cleanup operations.

### Description

The Orleans is a single-hull steel barge. It has eight storage compartments for the oily water, allowing for natural decanting of water, with a total storage capacity of 2,100m<sup>3</sup>. It also has fore and afterward trim compartments. It is a dedicated response vessel fitted with two diesel generators, one crane and a deck winch (for NOFI 600 cross-bridle). The barge is configured for sweep and recovery operation using a NOFI Vee Sweep and GT-185 skimmer.

#### **Operating data**

#### Ancillaries

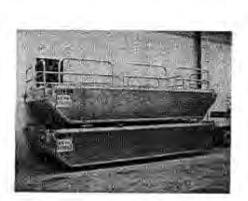
Storage Capacity: Towing speed:

y: 2,100 m<sup>3</sup> (13,200 bbis) up to 12 knots NOFI 600 Vee Sweep system GT-185 skimmer

#### **Technical data**

Length:	65.5 m (215 ft)
Breadth:	12.8 m (42 ft)
Depth:	3.1 m (10 ft)

## SHORELINE DECK BARGE





#### Inventory

	Greats Lakes	Quebec	Atlantic	Total
20 x 60		1		1
10 x 25	~	2	2	2
10 x 20	*	+	4	4
Total	÷	3	4	7

#### Application

Used as a working platform during shoreline and dock face clean-up operation. Can be used to store equipment and material on deck.

#### Description

Built in steel or heavy grade aluminium to allow usage at close proximity of shoreline and in tidal zone areas.

#### **Operating data**

Towing speed: up to 8 knots

### **Technical data**

	10 x 20	10 x 25	20 x 60
Length;	6.1 m (20 ft)	7.6 m (25 ft)	18.2 m (60 ft)
Width:	3.1 m (10 ft)	3.1 m (10 ft)	3.1 m (10 ft)
Draught:	1m (3ft)	1m(3ft)	1m(3ft)

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## PATROL BOAT 49FT



#### Inventory

	Great Lakes	Quebec	Atlantic	Total
49 ft patrol	and the second sec	2	strug-line .	2

### Application

Used to assist in boom deployment and towing operations, for the transportation of equipment and responders and as a support vessel for surveillance and safety activities. Can be used in unsheltered water.

### Description

This vessel is built of aluminium and is equipped with two 350 HP diesel engines. It can carry a crew of six. An open flat deck provides a working area of 28 sq metres (300 sq ft) at the rear of the vessel.

#### **Operating data**

Speed: Run Time: up to 17.5 knots 12 hrs at 2,800 rpm

#### **Technical data**

Class: Length: Draft: Beam: Gross tonnage Engines: Home-Trade voyage, class III 15 m (49 ft) 0.9 m (3 ft) 5.5 m (17 ft) 17 tons 2 x 350 HP at 2800 rpm

#### Ancillaries

Radar Electronic charts GPS Depth sounder Radios

Safety equipment Survival suits Life rafts Misc. Equipment

Fresh water tank Grey water tank Ballast tank

## PATROL BOATS 21 - 24FT





#### Inventory

	Great Lakes	Quebec	Atlantic	Total
24 ft cabin	-	2	0.000	2
24 ft open		2	2	2
21 ft open	2	2	1.	2
Total	-	6	14 C	6

### Application

Used to assist in boom deployment and towing operations, for the transportation of equipment and responders and as a support vessel for surveillance and safety activities.

### Description

All vessels are built of aluminium and equipped with outboard gasoline motors, 115 HP or 135 HP,

### **Operating data**

Ancillaries

Depth sounder Radios

GPS

Speed: up to 30 knots Run Time: 6 hrs

#### **Technical data**

	21 ft open	24 ft open	24 ft cabin
Length:	6.4 m (21 ft)	7 m (24 ft)	7 m (24 ft)
Beam:	2.5 m (8 ft)	2.5 m (8 ft)	2.5 m (8 ft)
Draft:	0.2 m (8 in)	0.3 m (1 ft)	0.3 m (1 ft)
Engine:	1 x 135 HP	2 x 115 HP	2 x 135 HP

# **RIGID HULL INFLATABLES**





#### Inventory

	Great Lakes	Quebec	Atlantic	Total
Hurricane 590			2	2
Zodiac Mark IV			2	2
Sillinger 425UM		6		6
Sillinger 525UM		4	2	6
Sillinger 570UM	3	1		4
Total	3	11	6	20

# Application

Inflatable boats provide versatility in response operations for both transportation and active duty in sheltered water operations.

# Description

Rigid hull inflatable boats equipped with outboard motor (15 to 70 HP): molded fibreglass, plastic or metal hulls (including floor) with a fabric air filled flotation collar that makes up the bow and sides of the boat. The rigid hull provides stability for operation of the boat in most sea conditions. The flotation collar supplies buoyancy (with reserve), stability and absorbs wave energy to soften the ride in rough conditions.

### **Operating data**

### Ancillaries

Speed:

up to 30 knots

VHF radio Some equipped with radar

### Technical data

	Hurricane	Zodiak Mark IV	Sillinger 425UM	Sillinger 525UM	Sillinger 570UM
Langth:	5.9 m (21 ft)	5.3 m (17ft 5 in)	4.3 m (14 ft)	5.3 m (18 ft)	5.7 m (19 ft)
Width:	1.7 m (8 ft)	2.1 m (7 ft)	1.8 m (6 ft)	2.2 m (7 ft)	2.4 m (7ft 10 in)
Draft:	40 cm (16 in)	40 cm (16 in)	30 cm (12 in)	35 cm (14 in)	40 cm (16 in)

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Integrated Contingency Plan

# SEATRUCKS 30 - 36FT





#### Inventory

	Great Lakes	Quebec	Atlantic	Total
36 feet		second and the second	11	11
34 feet	2	11	-	13
32 feet	-	1		1
30 feet	6	6	-	12
Total	8	18	11	37

#### Application

Used mainly for deployment of boom in sheltered water or close to shoreline and for skimming operation. Also used for the transportation of personnel and equipment during shoreline clean-up operations. Having a shallow draft, they permit access to almost any shoreline. Units are road transportable, each unit having a dedicated trailer.

#### Description

Built of aluminium, the vessels vary in size from 30' x 10' to 36' x 12'. They are equipped with two outboard motors (135 to 200HP)

Operating data
----------------

Speed:	up to	30	knots
Run Tir	ne: 6	hrs	
Road tr	anspo	orta	ble

#### Ancillaries

Radar GPS Depth sounder Some units carry booms or skimmer

#### **Technical data**

	30 feet	32 feet	34 feet	36 feet
Length:	9.1 m (30 ft)	9.8 m (32 ft)	9.1 m (30 ft)	9.1 m (30 ft)
Beam:	3.1 m (10 ft)	3.7 m (12 ft)	3.7 m (12 ft)	3.7 m (12 ft)
Draught:	30 cm (12 in)	30 cm (12 in)	30 cm (12 in)	40 cm (16 in)

# SEATRUCKS 30 - 36FT

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Integrated Contingency Plan

# SMALL BOATS 12-18FT



# Inventory

	Great Lakes	Quebec	Atlantic	Total
Small boat 12' alum		9	-	9
Small boat 14' alum	- F	4	4	8
Small boat 16' punt	1	-		1
Small boat 16' alum	1	2	2	3
Small boat 18' alum	1	÷.		1
TOTAL	3	13	6	22

# Application

These boats are primarily used for spill observation, transporting equipment, small material and personnel, for tending shoreline skinning and for shoreline treatment operations.

# Description

For stability purposes these boats are typically flat bottom with slanted square bow, unsinkable filled with polyfoam at bow and under the seat.

### **Operating data**

Speed: Outboard motor: up to 10 knots 9.9 to 40 HP

### Ancillaries

Rope, and anchor Paddle

### **Technical data**

Length:	From 3.6 m to 5.5 m (12 to 18 ft)
Beam:	From 1.5 m to 2.2 m (5 to 7 ft)
Draught:	From 0.2 to 0.5 m (8 to 20 in)

# LIBRA BELT SKIMMER



# Inventory

Great Lakes	Quebec	Atlantic	Total
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5	1	6

# Application

LIBRA

Suitable for the recovery of medium to heavy oils from shoreline and in sheltered marine environments. Can be deployed from shoreline, dock, seatruck or recovery barge.

# Description

An oleophilic skimmer, using a porous belt allowing water decanting. Three different types of belt can be used depending of the viscosity of the product to be recovered. Two small propellers, located underneath the front of the belt, pull oil toward the belt when the unit is not advancing on the water.

# **Operating data**

Nominal recovery rate:	28 tons/hr
De-rated recovery rate:	6 tons/hr

# **Technical data**

Length:	4.6 m (15 ft)
Width:	1.3 m (4 ft)
Height:	1.8 m (6 ft)
Weight:	1,600 kg (3,500 lbs)

# LORI BRUSH SKIMMERS





#### Inventory

	Great Lakes	Quebec	Atlantic	Total
LFS (6 brush)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	-	1
LBC (3 brush)	2	2	- · ·	2
LSC (4 brush)	*	-	. 1.	1
LSC (2 brush)	2		4	3
Total	2	3	2	7

### Application

Sultable for the recovery of medium to high viscosity oil. Suitable for shoreline, sheltered and open water usage. Depending of model can be deployed from shoreline, dock, vessel and recovery barge. Suitable to be used in cold water.

### Description

An oleophilic skimmer, equipped with brushes mounted on a rotating chain. Oil is scrapped off as the bristles pass through a comb-type cleaner located at the top. Units have two to six brushes.

# **Operating data**

### Ancillaries

Nominal recovery rate: De-rated recovery rate; from 75 to 200 tons/hr from 15 to 40 tons/hr Power pack Pump Hoses

# Technical data

	LES	LBC	LSC-4	LSC-2
Length:	5.2 m (17 ft 1 in)	4.9 m (16 ft 1 in)	3.1 m (10 ft 2 in)	3.1m (10 ft 2 in)
Width:	3.6 m (11 ft 10 in)	2.6 m (8 ft 6 in)	1.3 m (4 ft 3 in)	0.75m (2 ft 4 in)
Height:	1.3 m (4 ft 3 in)	2.8 m (9 ft 2 in)	2.2 m (7 ft 3 in)	3.5m (11 ft 6 in)

# PEDCO SKIMMER



#### Inventory

Great Lakes	Quebec	Atlantic	Total
1	8	5	14

# Application

PEDCO

Suitable for the recovery of light to heavy oil. Suitable for shoreline and shallow water.

# Description

The PEDCO is a weir skimmer. The depth of the weir is adjusted by controlling the pumping rate of the pump. The recovery rate is dependent of the pumping capacity of the pump connected to it.

# Operating data

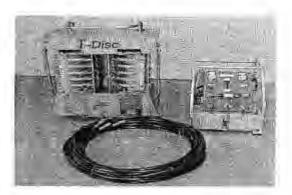
Nominal recovery rate: 75 tons/nr De-rated recovery rate: 15 tons/hr

#### **Technical data**

Length:	1.7 m (5 ft 6 in)
Width:	2.0 m (6 ft 5 in)
Height:	0.8 m (2 ft 7 m)
Weight:	55 kg (122 lbs)

# DISC SKIMMERS





### Inventory

	Great Lakes	Quebec	Atlantic	Total
MI - 30		2	5	7
T-12	2	5	-	7
T - 18	1	3	3	7
Total	3	10	8	21

# Application

Suitable for the recovery of light to medium viscosity oil. Suitable for shoreline and sheltered use. Can be deployed from shoreline, dock or small boat.

### Description

An oleophilic disk skimmer, either equipped with a diaphragm pump, installed in the middle section (MI-30, T-18) or using an external pumping mechanism (T-12). Hydraulically driven by an external power pack. The RPM of the disk is adjusted, according to the viscosity of oil, in order to minimise water pick up.

# **Operating data**

#### Ancillaries

	T-12	T-18	MI-30
Nominal recovery rate: (tons/hr)	12	18	23
De-rated recovery rate: (tons/hr)	2	4	5

Hydraulic power pack – diesel Hydraulic hoses Discharge hoses

### **Technical data**

	T-12	<u>T-18</u>	MI-30	
Length:	1.2 m (3 ft 11 in)	1.3 m (4 ft x 3 in)	1.2 m (3 ft x 11)	
Width:	1.0 m (3 ft x 4 in)	1.2 m (3 ft x 11 in)	1.2 m (3 ft x 11)	
Height	0.5 m (1 ft x 7 in)	0.6 m (1 ft x 11 in)	0.6 m (1 ft x 11)	
Weight:	68 kg (150 lbs)	150 kg (330 lbs)	71 kg (155 lbs)	

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# ELASTEC SKIMMER



Inventory	Great Lakes	Quebec	Atlantic	Total
Elastec TDS-136		3	3	6
Elastec TDS-118G	1	2		3

#### Application

Suitable for the recovery of light to high viscosity oil, but most useful in heavy oil recovery. Suitable for shoreline and sheltered water usage. Can be deployed from shoreline, vessel or recovery barge.

#### Description

An eleophilic drum skimmer, built of aluminium frame and moulded polyethylene drums. The oil is picked off the water by the rotating drum and scraped off into a sump. The 188G features a grooved drum providing improved recovery rate. An integrated or external pump moves the recovered oil to an external storage unit.

#### **Operating Data**

#### Ancillaries

	118	136
Nominal recovery rate:	8tons/hr	15 tons/hr
De-rated recovery rate:	38tons/day	72tons/day

Power pack 118- External pump 136 – Onboard submersible pump (2 in)

#### **Technical Data**

	118	136
Length:	0.9 m	0.9 m (3 ft 0 in)
Width:	1.2 m	2.3 m (7 ft 8 in)
Height	0.4 m	0.4 m (1 ft 3 in)
Weight	27 kg	68 kg (150 lbs)

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# GT-260 / GT-185 SKIMMERS





#### Inventory

	Great Lakes	Quebec	Atlantic	Total
GT-185	2	4	6	12
GT-260			2	2
Total	2	4	8	14

#### Application

Suitable for the recovery of light to high viscosity oil. Suitable for shoreline, sheltered and open water usage Can be deployed from shoreline, dock, and vessel of opportunity or recovery barge. Used in conjunction with the NOFI Sweep system from a large recovery barge.

### Description

A weir skimmer, equipped with an Archimedean screw pump, installed in the middle section. Hydraulically driven by an external power pack. The height of the weir is adjustable as well the pumping rate. This maximises the recovery of product with a minimum quantity of water.

#### **Operating data**

### Ancillaries

	GT-185	GT-260	
Nominal recovery rate (tons/hre):	45	90	
De-rated recovery rate (tons/hre):	9	18	

Hydraulic power pack – diesel Remote control Hydraulic hoses Discharge hoses, with floaters

### **Technical data**

	Skimmer head		Power pack	
	GT-185	GT-260	GT-185	GT-260
Length:	2.3 m (7 ft 7 in)	3.5 m (11 ft 6 in)	1.3 m (4 ft 3 in)	2.0 m (6 ft 7 in)
Width:	1.9 m (6 ft 3 in)	1.9 m (6 ft 3 in)	1.0 m (3 ft 3 in)	1.3 m (4 ft 3 in)
Height:	1.0 m (3 ft 3 ln)	2.2 m (7 ft 3 ln)	1.1 m (3 ft 7 in)	2.0 m (6 ft 7 in)
Weight:	182 kg (400 lbs)	220 kg (485 lbs)	640 kg (1,410 lbs)	865 kg (1,910 lbs)

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# OIL MOP SKIMMERS



#### Inventory

	Great Lakes	Quebec	Atlantic	Total
Small Rope Mop	4	11	8	23

# Application

Suitable for the recovery of medium viscosity oils. Can also be used with light and heavy oils with acceptable results, depending of conditions, Suitable for shoreline and shallow water.

Can also be used in the presence of ice and debris.

# Description

This oleophilic skimmer is composed of an endless rope mop, a pulley and an electric roller wringer. The rope mop is pulled through the oil slick and returned through the roller where the oil is extracted and collected in a 45gal drum.

# **Operating data**

Nominal recovery rate: 46 tons/hr De-rated recovery rate: 1 ton/hr

### **Technical data**

Skimmer.

Length:	0.6 m (1 ft 10 in)
Width:	0.4 m (1 ft 3 in)
Height:	0.6 m (1 ft 11 in)
Weight:	68 kg (150 lbs)
	the second se

Rope mop: Diameter:

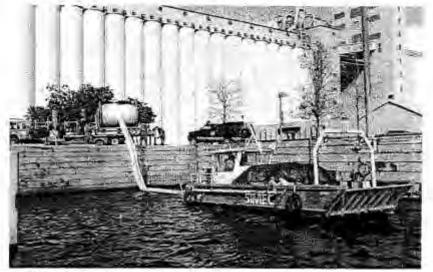
Length

10 cm (4 in) 15 m (50 ft) per section

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# **KEPNER BOOM**



#### Inventory

Open Harbour	Great Lakes	Quebec 2	Atlantic	Total
-Financian	(450 m)	(m 000)	(450 m)	(1,800 m)

# Application

Oil containment boom suitable for shoreline, sheltered and open water usage. Can be deployed from a dock, from shore or from a vessel. Mounted on a deployment real, the boom self-inflates as it comes off the real, allowing quick: deployment.

# Description

The Kepner boom is a self-inflating, self-compacting reel able boom constructed of heavy-duty polyurethane-coated polyester fabric. Each reel contains three sections of 150 meters each (500 ft) for a total of 450 meters (1 500 ft) per reel.

Ancillaries

Power pack (diesel)

Boom reel

Trailer

### Operating data

Maximum current:

1.5 knots

#### **Technical data**

Boom Section:	150 m (500 ft)
Boom overall height	0.66 m (26 in)
Boom freeboard:	0.25 m (10 in)
Boom draught:	0.41 m (16 in)
Total weight:	4,000 kg (8,800 lbs)

# NOFI SWEEP SYSTEMS



#### inventory

	Great Lakes	Quebec	Atlantic	Total
NOFI-1000			1	<b>T</b>
NOFI-600	1	2	2	4
Total		2	3	5

#### Application

The NOFI Sweep System is a wide-swath oil containment system suitable for use in unsheltered waters. The sweep system is deployed from a vessel or large recovery barge, used as the platform for the operation of the skimmer and for storage of recovered liquid. A second vessel is required to pull the lead arm of the sweep.

#### Description

The system is comprised of two boom sections: 1) the v-shaped boom section that provides an oil collection point; and, 2) the guide boom section that deflects oil into the v-section. The NOFI system utilizes a cross bridle line and a trawl net in the v-section to control the shape of the sweep. The small area created by the v-section, results in a thicker layer of oil accumulating at the apex. The NOFI 600 is single container system that can be deployed from offshore support vessels, barges or tugs. The NOFI 1000 is designed as a two-container system that must be deployed from offshore support vessels that are large enough to accommodate 20' ISO containers.

NOFI-1000

1.5 knots max.

200 m

### Operating data

Advancing rate: 1.5 knots max. Swath width

Ancillaries

Diesel hydraulic power unit for NOFI-600 Gas powered boom inflators

### **Technical data**

	NOFI-600	NOFI-1000
Boom overall height:	1.2 m (4 ft 0 in)	2.4 m (7 ft 9 in)
Boom draught:	0.6 m (2 ft 0 in)	1.0 m (3 ft 3 in)
Boom freeboard:	0.6 m (2 ft 0 in)	1.4 m (4 ft 6 in)
Length of guide boom:	100 m (330 ft)	270 m (900 ft)

NOFI-600

100 m

# SOLID FLOTATION BOOM



#### Inventory (meters)

	Great Lakes	Quebec	Atlantic	Total
GP 20 in.	8,670	730	5,190	14,590
GP 24 in.		20,750	7.300	28,050
GP 36 in.		1.960	3,750	5,710
Total	8,670	23,440	16,240	48,350

# Application

Oil containment boom suitable for shoreline and sheltered water. It is stored in trailers, containers and on deck of seatrucks and pontoons.

# Description

It is a general purpose boom with a solid flotation core and made of polyurethane-coated polyester fabric.

Operating da	ta	A	ncillaries	
Maximum current:	1.5 knots	An	opes chors loys	
Technical da	ta			
	20 in	24.in	36 in	
Boom section.	15 m (50 ft)	15 m (50 ft)	15 m (50 ft)	
Boom overall height:	51 cm (20 in)	61 cm (24 in)	91 cm (36 in)	
Boom freeboard:	15 cm (6 in)	20 cm (8 in)	30 cm (12 in)	

36 cm (14 in)

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41 cm (16 in)

61 cm (24 in)

Boom draught:

# SHORE SEAL BOOM



# Inventory (meters)

	Great Lakes	Quebec	Atlantic	Total
Shore Seal	180	1,270	180	1,630

# Application

Mainly used in area where there is tidal effect, it provides seal to the bottom when the tides goes out. It joins to conventional booms in deeper water.

Useful when doing shoreline cleaning, using water flooding method.

# Description

The boom uses two water-filled lower chambers for ballast and stability. The top chamber is air infiated for buoyancy. It is made of a rugged urethane coated fabric for maximum abrasion and puncture resistance.

# **Technical data**

Boom section: Air chamber: Water chambers: 15 m (50 ft) 35 cm (14 in) 25 cm (9 in)

# Ancillaries

Ropes Anchors Buoys

# FIELD OPERATIONS CENTRE







# Inventory

	Great Lakes	Quebec	Atlantic	Total
Trailer	1	2	2	5
Motorised unit	÷	1		3
Total	1	3	2	6

# Application

Used as a temporary Field Operations Centre/Communications Centre, equipped with communication equipment, including an 800 MHz repeater and mast antenna. Also utilised as a field division office deployed at/near the spill site.

# Description

Fifth wheel trailer or motor home modified to support SpIII Management Team. Units are equipped with heating / air conditioning units.

# **Operating data**

Fifth wheel or motorised Can be used in cold or warm climate

# **Technical data**

Length: Width: varying from 9 m to 12 m (30 to 40 ft) 2.4 m (8 ft)

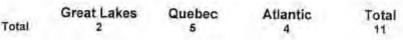
# Ancillaries

800 MHz radio system (dedicated frequencies) VHF / UHF Phone (Land, cell, satellite) FAX, Photocopier

# MOBILE UNIT / BASE STATION



#### Inventory



# Application

This type of unit is used to enhance the coverage area given its transmitting power is stronger than a typical handheld unit. It is utilised as a mobile unit (in truck, boats or field operation centre) or as a base station in the management centre.

# Description

The Spectra mobile unit is a programmable radio operating in the UHF 800 MHz frequency range providing access to 48 pre-programmed channels, providing maximum flexibility for spill response communications requirements. This unit has a stronger output than handheld radios that increase the coverage area enhancing communications capability. Dedicated transportation cases, meeting air transportation specifications, are available for the transportation of the base stations.

# **Operating data**

Range: +/- 20km radius in conventional mode Output: 25 watts Can operate in simplex, duplex (conventional) and trunking.

# Technical data

Frequency Range: 806-825 MHz 851-870 MHz Four sets of frequency dedicated to ECRC for spill response operation

> Eastern Canada Response Corporation Ltd. Suite 1201, 275 Slater Street, Ottawa K1P 5H9 Phone (613)-230-7369 Fax (613)-230-7344

# Portland Montreal Pipe Line System 2016

### Ancillaries

Remote speaker Microphone Antenna (3dB or 9 dB gain)

Integrated Contingency Plan

# PORTABLE RADIO



### Inventory

	Great Lakes	Quebec	Atlantic	Total
Total	21	72	50	143

# Application

The portable radio is the main communication tool for ECRC both in the field and within operational management. The radio is intrinsically safe and can be used in all environments. Response Centres maintain an inventory of radios that could be cascaded to any region and operated without having to be reprogrammed.

# Description

The Motorola MTS 2000 portable radio operates in the UHF-800MHz frequency ranges, providing access to 48 pre-programmed channels, which allows greater flexibility for establishing a communication network when there is a lot of teams working in the field. It can be used in a simplex mode (radio to radio), through ECRC repeaters or through public carrier trunking systems. Dedicated transportation cases, meeting air transportation specifications, are available for the transportation of radios.

### **Operating data**

Range: +/- 10 km radius in conventional mode Output: 2 (intrinsic limit) watts Can operate in simplex, duplex (conventional) and trunking

# **Technical data**

Frequency Range: 806-825 MHz 851-870 MHz Frequency dedicated to ECRC for spill response operation Intrinsically safe

> Eastern Canada Response Corporation Ltd. Suite 1201, 275 Slater Street, Ottawa K1P 5H9 Phone (613)-230-7369 Fax (613)-230-7344

# Portland Montreal Pipe Line System

2016

# Ancillaries

Microphone Optional headphone Carrying case Battery / Spare battery Belt / Belt clip



# DESMI DOP - 160



#### Inventory

**Great Lakes** Quebec Atlantic Total Total 2 3 2

#### Application

A submersible cargo offloading pump system, designed to pump high viscosity products (0 to > 1,000,000 cSt). The system is used for transferring product from temporary storage devices or can be deployed directly into areas where large volumes of oil may be collected for recovery.

#### Description

The Desmi DOP-160 system is a modified design of the traditional archimedes screw pump. Unlike traditional archimedes screw pumps, the DOP-160 is self-feeding. Fluid is forced into the pump housing by the rotation of the screw. This self-feeding feature combined with the benefits of screw pump design enables the DOP-160 to operate as an effective offloading and transfer pump for products with higher viscosity ratings. The unit can be run with hot water injection on the inlet and/or outlet side of the pump. This lubricates the pump and/or product hose in order to handle the most viscous products.

#### **Operating Data**

Max. Pressure: 10 bar / 150 PSI Max. Capacity: 30 m /hr (132 gpm)



1.4 m (4' 6")

1.4 m (4' 6")

1.5 m (5')

**Technical Data** 

Length: Width: Height: Weight

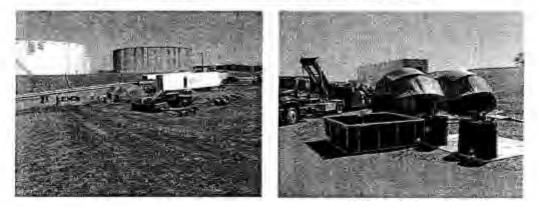
Power pack 1.3 m (4' 6") 1 m (3' 4") 1.1 m (3' 8") Full 830 Kg (1826 lbs)



Hydraulic power unit, powered by a 35 kW diesel motor. Hose reel is complete with hoses for hydraulic fluid and water injection.

> Pump .39 m (15") .24 m (9") .52 m (20") 31 Kg (68lbs)

# **DECONTAMINATION UNIT**



#### Inventory

	Great Lakes	Quebec	Atlantic	Total
45 ft trailer		-	1	1
Tents and mat'l	4	3	1	5

# Application

The decontamination unit is utilized for the cleaning of personnel and equipment during split responses. It provides for the removal, storage and potential cleaning/reuse of personal protective equipment and tools. It is the point of entry/departure to and from the spill site by shoreline workers.

### Description

The decontamination unit consists of one 45 ft. van trailer, four tents (see Information Sheet Tent-Shelter), wash trays, sorbents, deck matting, storage drums and portatanks. It is set up near or adjacent to the spill site as a component of the field camp. Trailer is to be moved to other region, when needed

# **Technical data**

45 ft van trailer (fifth wheel), equipped with a propane fired water heater Tents of 27  $m^2$  (300  $ft^2)$ 

### Ancillaries

Cleaning agents Personal protective equipment Water tanks Washroom Toilet facilities Water heater Waste stream separation system (piping and tanks)

# HIGH PRESSURE WASHING UNIT



#### Inventory

	Great Lakes	Quebec	Atlantic	Total
Landa	-	3	2	5

# Application

Portable high pressure washing unit, providing cold or warm water or steam. Can be used during shoreline cleanup operations to clean manmade structures. Can be transported by road or on a seatruck to access remote shoreline areas

# Description

Mounted on a trailer, the unit is equipped with a diesel heater, a diesel pump, a 500 gal reservoir for the water and two high-pressure pistols.

# **Operating data**

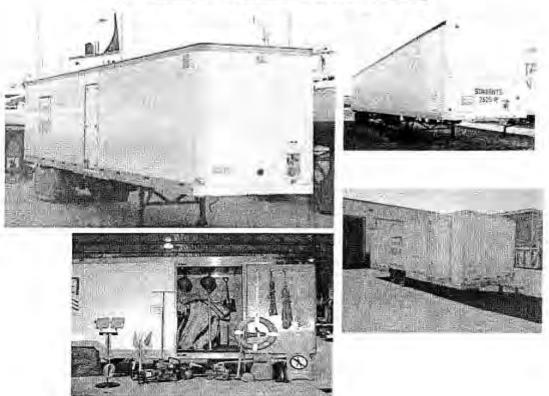
Maximum pressure:

165 bar (2,300 psi)

### Technical data

Length:	5 m (16 ft 8 in)
Width:	2.4 m (7 ft 9 in)
Height:	1,7 m (5 ft 7 in)

# RESPONSE TRAILERS



# Inventory

	Great Lakes	Quebec	Atlantic	Total
48 ft trailer	G.	7	3	10
45 ft trailer		-	7	7
35 ft trailer	1	1		2
24 ft trailer	1	6	~	7
10 ft trailer	5	1	2	8
Total	7	15	12	34

# Application

Quick deployment trailer, containing response equipment to start shoreline cleanup operations or to bring different response equipment on site. Can be used as a field store when on site.

# Description

The box trailers vary in size from 10 ft to 48 ft. One unit per response centre is configured as a shoreline cleanup unit, containing booms, skimmer, pumps, hoses, portable storage, sorbents, generators, lights, etc. Other units carry boom, sorbents or configured as a field store.

# **Technical data**

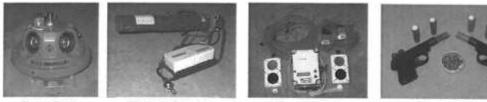
Varying in length from 10 ft (3m) to 48 ft (14.6m)

Eastern Canada Response Corporation Ltd. Suite 1201, 275 Slater Street, Ottawa K1P 5H9 Phone (613)-230-7369 Fax (613)-230-7344

Integrated Contingency Plan



# BIRD HAZING DEVICES



Breco Buoy

Propane Cannon

Phoenix Wailer

Starter Pistols

#### Inventory

Great Lakes	Quebec	Atlantic	Total
1	5	2	8
-	-	5	5
	-	1	1
2		14	16
3	5	22	30
	Great Lakes 1 - 2 3	Great Lakes Quebec 1 5  2 - 3 5	1 5 2 5 - 1 2 - 14

#### Application

Bird scaring devices are used to help move birds away from oiled areas to reduce the risk of contamination to the birds.

#### Description

The bird scaring devices listed above all use sound as the deterrent mechanism. The sounds are generated by electronic speakers (Breco Buoy, Phoenix Wailer), controlled gas explosion (propane cannon), and 6mm pistol blanks and "whizzers" (Starter Pistols). The range and effectiveness varies with each device. The electronic devices use a random sequence of sounds to reduce the habituation of the birds to the sounds. Each of the devices is designed to be operated on land or on a boat. The Breco Buoy is also a free floating unit designed to drift with an oil slick.

#### **Operating data**

	Deterrent Radius	Run Time
Breco buoy:	800 m	3 days
Propane cannon:	750 m	3-7 days
Phoenix wailer:	800 m	7 days
Starter pistol:	200 m	

#### Technical data

Breco: 130 dB (max), 2-3.5 min blast cycles, 10-12 sounds/cycle Cannon: 24 hour on/off programmable, 4 blast cycle settings Wailer: 119dB (max), 0.5-32 min sound cycles, 16-64 sounds/cycle

# CLEAN HARBORS ENVIRONMENTAL SERVICES Sainte-Catherine PQ Equipment List

Clean Harbors Sainte-Catherine PQ Equipment List

# Unité	Annee	<b>AADulikke</b>	Identification vehicule	# plaque	Descuption	Capacil
31062	1991	Kenworth T600	2XK0029K0MM926591	/ LHSGAGE	TRACTEUR POMPE VAC 1200CFM / HYD	
31067	1097	Kilmyanh T800	1XKDD99XX//J946490	1 1.C82401	TRACTEUR POMPE VAC 500 CFM	+
31068	1997	Kerwarth T800	1XKDD59X2VJ04500	LCB2402		
31060	2001	Peteblit 378	1XPEDG6X81N665950	1214041	TRACTEUR POMPE VAC 500 CFM / HYD	-
31070	2002	Mack CX 813	1M1AE06Y2_W012072	L241890	TRACTEUR ROLL-OFF HYD	-
415371	2005	FREIGHT LINER	1FUJASCKXSLUSSU1	LZ32139	TRACTEUR POMPE VAC. 500 CFM / HYD.	
435372	2005	FREIGHTLINER	1FUJASCK15LU35612	L270349	TRACTEUR	-
415373	2005	FREIGHT LINER	1EUJA6CKJ5LU35613	L270349	TRACTEUR	-
415374	200E	FREIGHT LINER	1FULABCK55LU35614	L270351	TRACTEUR	
435375	2005	FREIGHT LINER	IFUJAGCK75LL35815	1,270377	TRACTEUR	1
415376	2005	FREIGHT LINER	TFULAGCK95LU35E10	1 1270378	TRACTEUR	
415377	2005	FREIGHT LINER			TRACTEUR	
1316	2006	SERWORTS	1PUJA6CK05LU35617 1*KDDBDX46J136257	L270379 L371761	IRACTEUR	-
1317	2006				TRACTEUR	-
1336	2006	Retworth	1XK0D8OX66J138258	1.371702	TRACTEUR	
1337		FREIGHT LINER	1FUJA5AV88LX00325	1,346752	TRACTEUR	-
1292	2006	FREIGHT LINER	1FUJA6AV46LX(93330	1.945753	TRACTEUR	
32015	12005	KENWORTH	1XKDDu0x95J104678	L201067	TRACTEUR	
12015	10291	Wenworth: C650	2NJKX2TX8MM926611	1833358	CAMONI SITERNE 1200 CFM	12500L
4146	2004	Kenwath 1800	1NKDLBCX94J363S38	L306055	16 ROUE ROLL-OFF	25250KG
47001	1995	Tratering carry 3 meeting	2D9TP29C281035433	RM14852	REMORQUE ROLL-OFF	26000/43
47002	1995		2D0TF46D6S1005430	RZ21362	REMORQUE ROLL-OFF	55500KG
7191	2005	Chaglyon	2C9S81ACX5V057496	RZ39635	B TRAIN ROLL-OFF	47500KG
7191-2	2005	Chagnon	12093418B05V057497	RZ36638	B TRAIN ROLL-OFF	41500KG
7192	2005	Chainari	2C95418B46V057458	R274828	B TRAIN ROLL-OFF	47500KG
7192-2	2005	Chagnian	2095418845V057488	R224029	B TRAIN ROLL-OFF	41500KG
104 5	1.000	Torongeran	Trodos (analytonano	TALL TALL	0 (1000 13/4 5/1	141.350143
40090	1978	Westlaris Willock	PV7802	R625238	OTTERNE PORTEUR	360000
40091	1979	Wiestank, Willock	IPV79021	RW19843	CITERNE PORTEUR	310000
40092	1980	Westank Wittock	[FV50027	RE\$\$920*	CITERNE VAGUUM	22900¢
40093	1980	Westark Willock	PV80041	R899202	CITERNE VACUUM 800 CFM	22000tl
40097	1985	CUSCO	2C970462XFC005537	R858287	CITERNE	22000L
40098	1986	PRESVAC	2P982528331005023	RA86449	CITERNE VACUUM SOO CFM	22000L
40099	1986	PRESVAC	2P952526301085024	RB252277	CITERNE VACUUM	225004
40105	1989	PRESVAC	ZP9525385K1005015	RB98827	CITERNE VACUUM 1200 CFM	29000k
40103	1988	PRESVAC	209KB28B5T1004183	RK97686	CITERNE VACUUM 800 CFM	13500L
40106	1985	DELOUPE CUSCO	2D9LP39B851005465	RJ78236	CITERNE VACUUM 1200 CFM	15000L
36042	1986	PETRO STEEL	1P9TBE204G1021055	RM147351	CITERNE VACUUM	274004
2133	2006	Tramcar	2TLSL494068081772	RZ39095	CITERNE POMPE & GEAR	340000
2134	2006	Transce	27LSL48406B001773	RZ29996	CITERNE POMPE A GEAR	340001
6250	1990	MANAG	1M5921460470C4735		REMORQUE	-
6251	2000	MANAC	2M5921468Y7064734	RE95897	REMORQUE	
6252	2000	MANAC	2M5921400Y7054735	RE95898		-
6253	2050	MANAG	2M5923464Y7064737	RE95720	REMORQUE	-
6254	1999	MANAC	2M5E23406Y7064740	RE95719	REMORQUE	-
42205	1999	MANAC	2M552137051643339	RE95719 RW81545	REMORQUE	
42206	1995	MANAC			REMORQUE	-
36100	1994		2M5621375V1043338	RESIDES	REMORQUE	
		KENWORTH	2NKMLAGXXRM92580	LC32544	BOX VAN	10
33201	1984	KENWORTH	1FQA5MDB11LB64920	1411625	BOX VAN	
	-		1			1.

# CLEAN HARBORS ENVIRONMENTAL SERVICES Sainte-Catherine PQ Contact List

Sainte-Catherine PQ

TÉL.:450-632-6640 / 1-800-880-1496 FAX: 450-632-1055

(b) (6)		

# CANADA – OIL SPILL RESPONSE CONTRACTORS

		H	lighwater Stati	Resources on			
		CONTE	RACTORS AND EQU	JIPMENT			
	Soudure Lessard	Excavation Saint- Pierre et Tremblay, Cowansville	Fred Korman inc., Mansonville	Location d'outily Knowlton	Allard et Allard inc., Lac Brome, Quebec	Oxygène de Granby Welding Suppliers inc.	Location Gauthier enr.
Telephone	514 640- 9446 (24 h)	266-2100 359-7894 263-4555	292-5777 292-3335 878-1453	450-242- 1644	800- 816-2646 539-2646	378-9001- 2-3	450-292- 5585
Air Compr.	D						х
Back Hoe	D		D		D		
Dozer		D	D		D		
Crane	D		D				
Front End Loader		D			D		
Overhead Loader	D				D		
Shovel	Х	D					
Tank Trailer							
Tractor Crawler							
Trucks		Х			D		
Spark Arrestors		NON			NON		
Grader							
Vacuum Truck							
Float	D				D		
Welders & Pipe Fitters	x						
D – Denotes D	iesel Power				•	•	
X – Denotes O	ther type of Powe	r					
Pipeline Va	lves in Vicinit	y					
o) (7)(F)							

Contractor Response Resources Saint-Césaire Station											
CONTRACTORS AND EQUIPMENT											
	Excavation C.M.R., Farnham	Excavation St- Pierre et Tremblay	Soudure Lessard	Ostiguy et Robert	Excavation Choinière, Granby	Simplex Location d'outils					
Telephone	450-293-5510 450-293-2293	450-293-6598	514 640-9446 (24 h)	450-469-3156 450-469-4472 (24 h) 800-363-8973	450-361-1769	450-293- 3116					
Air Compr.	D		D			Х					
Back Hoe	D	D	D		D						
Dozer	D	D		D	D						
Crane			D								
Front End Loader	D	D									
Overhead Loader	D										
Shovel	D	D	D		D						
Tank Trailer	D	D									
Tractor Crawler											
Trucks		D									
Spark Arrestors	N/A	N/A		N/A							
Grader		D		D							
Vacuum Truck											
Float	D	D	D	D							
Welders & Pipe Fitters			x								
D – Denotes Diesel X – Denotes Other † N/A – Not Available	type of Power										

# Pipeline Valves in Vicinity

(b) (7)(F)

Contractor Response Resources Montreal-East Terminal									
		C	ONTRACTORS	AND EQUIPM	ENT				
	Germain Simard Ltee	Grue Fortier	Dickie Moore	Veolia	RSR Environement	McAllister Towing Ltd.	Soudure Lessard		
Telephone	514-253- 5211 (24 h)	514-259- 1535 (24 h)	514-739- 4791 514-333- 4212 (24 h)	514-332- 2000 (24 h)	450 922-2200 (24 h)	514-849-5511 514-849-2221 (24 h)	514 640-9446 (24 h)		
Air Compr.	D		D X			D	D		
Back Hoe	D						D		
Dozer	D								
Crane		D X			D		D		
Front End Loader	D								
Overhead Loader									
Shovel	D								
Tank Trailer				D					
Tractor Crawler	D								
Trucks	D			D					
Spark Arrestors	N/A	N/A	N/A	yes					
pollution				Х	х	Х			
Welders &Pipe Fitters							х		
D – Denotes D	iesel Power								
X – Denotes C									
N/A – Not available									
	lves in Vici	nity							
(b) (7)(F)									

	Contractor Response Resources Montreal-East Terminal											
	CONTRACTORS AND EQUIPMENT											
	Simplex	Dusseault Helio Services	J.L. Sorel et Frères	McAllister Towing Ltd.	Montreal Boatman	Veolia	RSR Environement	ECRC (SIMEC)				
Telephone	514-331- 7777	450-464- 5290	514-524- 9418	514-849- 2221 514-849- 5511 (24 h)	514-640- 4970 (24 h)	514-645-1045	450-922- 2200	613-930- 9690 (24 h)				
Vacuum Truck						D	D	D				
Pump	D X			D X		D X						
Helicopter Service		Х										
Driving Service			х	х								
Tugs				D				D				
Service Boats				х	х	x	x	х				
Outboards				х		х		Х				
Spark Arrestors	N/A	N/A	N/A	N/A	N/A	N/A		N/A				
Pollution				х		Х		х				
D – Denotes X – Denotes N/A – Not Av	Other Power											

	Contractor Response Resources Montreal-East Terminal											
	CONTRACTORS AND EQUIPMENT											
	Dickie Moore Rentals	Simplex location outils	McAllister Towing Ltd	Cartier Chemical Ltd.	Environement Rive Nord	RSR Environement						
Telephone	514-333-1212 (24 h)	514-331-7777	514-849-2221 514-849-5511 (24 h)	514-637-4631	450-430-8666 514-975-4478	450-922-9200						
Steam Generator	x	х	х			x						
Elect. Generator	D X	х	D			D X						
Portable Lights	x	х	х			X						
Blower Fan	Х	Х	Х			Х						
Chain Saw		Х	Х			X						
Absorbent Material				х		x						
Oil Dispersants	N/A	N/A	N/A	N/A		N/A						
Spark Arrestors												
D – Denotes I X – Denotes ( N/A – Not ava	Other Power	·										

#### MPL LIST OF AGREEMENTS

- Simdev Construction
- Sécurité et Protection Sec-Pro Inc.
- Santinel Inc.
- o National
- Fasken Martineau
- o S.I.M.E.C.
- o UDA Inc
- o R.S.R. Environment
- o Cargair Limitée
- Tetratech Inc.
- $\circ \quad \text{Amnor Inc} \quad$
- o St-Pierre Excavation Inc

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# APPENDIX D

# **EVACUATION PROCEDURES**

General Evacuation Procedures – All LocationsD-2
FacilityD-2
NeighborhoodD-2
Command Posts D-4
Location Specific Evacuation procedures D-5
US – South Portland Marine Terminal & Tank Farm D-5
US and Canada Pump Stations D-6
Canada – Montreal Terminal and North Tank Field D-6
Evacuation DiagramsD-8

# **GENERAL EVACUATION PROCEDURES**

#### All Locations

#### **Decision to Evacuate**

Decisions about whether or not to evacuate as well as evacuation distances are incidentspecific and must be made at the time of an actual incident. The first evacuation consideration involves a comprehensive effort to identify and consider the nature of any circumstances surrounding the incident. For an oil spill incident, the factors that affect evacuation include the volume of the spill, the properties of the product spilled, rate of release, potential duration of release, dispersion pattern and the threat of injury or death posed by the spills.

#### **Evacuation of the Facility**

The need for evacuation of the facility would be determined by the Incident Commander and communicated to all employees, contractors, and other personnel in the facility, specifying the appropriate evacuation route and gathering location. Once the decision to evacuate is made, all personnel are required to exit the facility via the specified evacuation route, and check-in at the designated gathering location. Roll call will then be taken to ensure full facility evacuation. Areas immediately outside the gates would serve as regrouping areas from these routes. Ultimately, the selection of evacuation routes and shelters to be used is made by the individual in charge of the evacuation.

#### **Emergency Response Personnel**

Emergency Response Personnel will arrive and enter at the main gate, unless conditions preclude, in which case they will enter via any of the accessible gates located around the facility perimeter. Injured personnel will be taken to the nearest Hospital or Medical Facility as listed in the Local Emergency Services section of the plan.

#### **Re-entry Procedures**

When safe to do so, the Incident Commander, in cooperation with the representatives of the municipal fire department and local law enforcement, will give employees clearance to return to the site of the incident.

#### Neighborhood Evacuation

If the Incident Commander believes that part of the surrounding population should be evacuated, they will immediately call the local law enforcement for assistance (ex.: major leaks, fire, risk of explosion, etc.). Management shall cooperate with the local law enforcement in order to assess the extent of the evacuation required. They will also communicate the information relative to the emergency to Municipal Authorities.

#### **Conducting an Evacuation**

Should it be decided that an area is to be evacuated, the evacuation should be conducted in a well-coordinated, thorough, and safe manner. Evacuation involves a number of steps, which include assigning tasks to evacuation assistance personnel, informing potential evacuees, providing transportation as necessary, providing emergency medical care as necessary, providing security for evacuated areas and sheltering evacuees as necessary.

#### GENERAL EVACUATION PROCEDURES (Cont'd)

#### All Locations

#### Neighborhood Evacuation (cont'd)

#### Populations in a Hazardous Area

When considering people who are actually located within a hazardous area, the responsible authority should address whether to order people to remain indoors, rescue individuals from the area, or order a general evacuation. The "remain indoors" option should be considered when the hazards are too great to risk exposure of evacuees. It may be necessary to rescue people from the hazardous area supplying protective equipment for evacuees to ensure their safety. The third option is to order a general evacuation. In this case, people should evacuate by means of private transportation or transportation provided by local or state government, private company, or volunteer group.

#### Population in a Threatened Area

For an area that is only threatened by a release, the responsible authority should determine whether potential evacuees can be evacuated before hazards reach the area. To safely evacuate the area, a significant amount of lead time may be required. The potential hazards and their movement should be thoroughly considered to determine if a population is at high risk of exposure and requires evacuation.

#### Required Resources

To accomplish a safe and effective evacuation, appropriate and sufficient resources, including personnel, vehicles, and equipment, should be provided, which is typically done by the local law enforcement, municipal fire department or local emergency management agency.

The type of equipment that will be necessary during an evacuation may include:

- Protective gear for evacuation assistance personnel.
- Protective gear for evacuees, who may have to be taken through areas where exposure to a hazard is possible.
- Communication equipment (eg. portable and mobile radios, mobile public address systems, bull horns).
- Evacuate tags (a tag or marker attached to a door to indicate that the occupants have been notified) for buildings that have been evacuated.

#### **Re-entry Procedures**

When safe to do so, the municipal fire department and local law enforcement, in conjunction with the Incident Commander, will give residents clearance to return to the site of the incident/accident.

#### Hazards Imposed by Spilled Material

Refer to Section 3 Figure 3.4 and 3.5 and PMPL Hazardous Material MSDS Inventory for specific hazards imposed by spilled material.

# **COMMAND POSTS**

Response team activities will be conducted at designated operational centers. These centers include the Emergency Operations Center (EOC), the Field Command Posts, and in some cases, an offsite Command Center for Public Relations activities.

#### **Emergency Operations Center**

The EOC will act as the default primary command post during an incident (See also Section 3.1). The purpose of the EOC is to:

- Facilitate the creation of a tightly structured chain of command.
- Provide the flow of information needed for informed decision-making and planning.
- Provide accurate and timely information to government agencies and the news media, as well as, centralized accounting and documentation procedures.

The EOC will be located at the Portland Pipe Line Corporation's main office in the upstairs conference room. The equipment to be accessible at the EOC includes:

- Telephone with multiple lines
- Fax machines
- Portable radios
- A situation map
- Personal computer capability
- Visual aid equipment
- Administrative services

#### **Field Command Posts**

The Field Command Post (FCP) will be established near the incident location, preferably at a pump station or terminal. The purpose of the FCP is to:

- Coordinate all activities which are directed toward the reduction of the immediate hazard
- Containment
- Recovery
- Clean-up operations

Equipment that will be accessible at the FCP includes:

- Telephone with multiple lines
- Fax machines
- Portable radios
- Desks equipped with office supplies
- Personal computers
- Secretarial support services

Each pump station and Pier 2 is designated as a Field Command Post. Each station is equipped with office supplies, communications, and support for a field command staff.

# LOCATION SPECIFIC EVACUATION PROCEDURES

#### SOUTH PORTLAND MARINE TERMINAL AND TANK FARM

#### **Evacuation Routes**

The following areas were identified as potential areas of evacuation in the event of a worst case discharge:

- Tank Farm facility and surrounding area
- Pier 1 and 2 facilities and surrounding areas

Potential evacuation routes and regrouping areas for the tank farm are shown in the drainage diagram at the end of this appendix. The preferable routes of evacuation from the pier facilities are direct routes that exit the main security gates.

- Spill Flow Direction: Spills will typically follow the drainage courses in the tank farm to the oil water separator and retention pond. Evacuation routes should be chosen to minimize exposure to oil and potential hazards such as H<sub>2</sub>S or hazardous atmospheres.
- Prevailing Winds: Are out of the SW in summer and variable at all times of the year. Wind socks have been installed on selected tanks to indicate direction and should be referenced in evaluating evacuation routes.

The local South Portland fire and police authorities and authorized officials would be in charge of selecting populations to be evacuated and evacuation routes. The City Manager has the authority to order an evacuation. Local authorities would be in charge of conducting the evacuation. The South Portland Hazardous Materials Response Plan should serve as the primary plan for the evacuation process.

Other agencies that would likely provide support during an evacuation operation are the Red Cross and emergency medical service agencies.

#### Alarm/Notification System

Fire alarm pull boxes are located on PMPL's South Portland facilities which when activated will summon the South Portland Fire Department. One is located to the southwest of the maintenance building next to the roadway, another is located on Pier 2 at the dock house; another is located outside the Guard House. Activation of the Pier 2 fire pump will also automatically activate the fire alarm system to the South Portland Fire Department through the Guard House fire alarm panel. The South Portland General Office has smoke and heat detectors which will sound an alarm in the building for evacuation. All fires should be reported to the controller who will contact the South Portland Fire Department and open the front gate for access for fire response equipment.

### ALL MAINLINE PUMP STATIONS

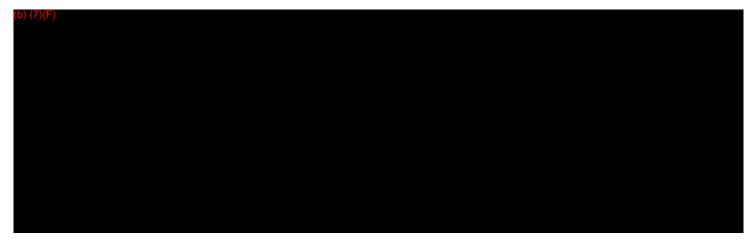
In the event of an emergency situation at any mainline pump station, the following course of action would be taken to ensure the safety of all personnel at the Pump Station.

• Evacuation of People to Predetermined Assembly Points

An alarm would be given through a telephone call, verbally or by radio. All workers would be evacuated to the primary evacuation muster point as listed below or to the alternate site if the primary muster point is endangered. The Manager, Technician, or Chief in charge of the work will take a head count to ensure that everybody has left the hazardous area.

• Re-entry Procedure

When safe to do so, the Director of Operations or the Manager, Technician, or Chief in charge of the work, in consultation with the local Fire Department and/or Law Enforcement, will give employees clearance to return to the station.



### **MONTREAL TERMINAL**

When there is an emergency situation at the Montreal Terminal, the following course of action will be taken to ensure the safety of all personnel. More information on the location of evacuation points, assembly points and Emergency Operations Center, are provided on the Fire Control Plan drawings in the Montreal Pipe Line Emergency Response Maps.

Evacuation of People to Predetermined Assembly Points

- An alarm would be given through a telephone call, verbally or by radio;
- The Operation Section Chief or their designate will take a head count to ensure that everybody
- The Operation Section Chief or their designate will take a head count to ensure that everybody
  has left the hazardous area and will inform the Incident Commander of any problems during the
  evacuation.

# LOCATION SPECIFIC EVACUATION PROCEDURES

#### Access Points

Fire Control Plan drawings in Section 7.3 show the geographical location of the one (1) main
(b) (7)(F)

### NORTH TANK FIELD

When there is an emergency situation at the North Tank Field, the following course of action will be taken to ensure the safety of all personnel. More information on the location of evacuation points, assembly points and Emergency Operations Center, are provided on the Fire Control Plan drawings in the Montreal Pipe Line Emergency Response Maps.

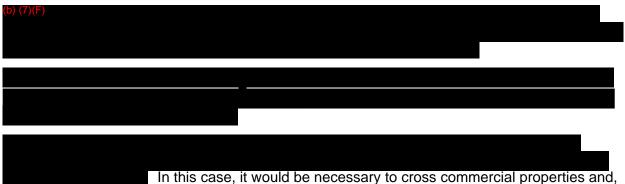
Evacuation of People to Predetermined Assembly Points

• An alarm would be given through a telephone call, verbally or by radio;

		0	0	,	 ,	
	(b) (7)(F)					
•						
_						

 The Operation Unit Leader will take a head count to ensure that everybody has left the hazardous area and will inform the Deputy Incident Commander of any problems during the evacuation.

Access Points



a wooded area, with the help of appropriate heavy equipment, to access the tank field.

# **EVACUATION DIAGRAMS**

### U.S. - The following drawings are attached for reference:

South Portland Tank Farm	Drawing D-4921
South Portland Marine Terminal	Drawing D-4922

# Canada - The following fire control drawings can be found in Section 7.3 for reference:

Highwater Pump Station: St-Cesaire Pump Station Montreal East Terminal North Tank Field Drawing D-3835 Drawing D-3834 Drawing D-3833 Drawing D-4248 (b) (7)(F)

(b) (7)(F)

# APPENDIX E

# FOLLOW-UP INVESTIGATION

All emergencies covered under this plan shall be investigated to identify root causes and the appropriate corrective actions. During the investigation, precautions must be taken in order to prevent the loss of critical evidence, which may be of importance during the investigation. The site must be secured and nothing shall be moved from the site of the incident (e.g. pieces of broken equipment, etc.) until the incident is fully investigated, which may include review by PMPL insurance carriers as well.

Upon approval by the Incident Commander (or post incident, the respective Operations Manager), the site may be rehabilitated and the normal course of business may be re-established.

Subsequent to or as part of the investigation, the Company will review the Plan to evaluate and validate its effectiveness. Input on the effectiveness of the Plan will be sought from management, terminal personnel, the Spill Management Team, regulatory agencies, and others as deemed necessary. Based on the review, amendments to the Plan may be necessary.

It is the responsibility of the Operations Manager to oversee the review of the Plan and to make sure that all copies of the Plan are amended.

November 2020

# **APPENDIX F**

### **DISPOSAL PLAN**

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### OVERVIEW

A major emergency, especially an oil spill response, may generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitary water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, solid, hazardous material, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Transportation and disposal of waste may require permits and transportation manifests. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal, state and provincial laws and regulations. This section provides an overview of the applicable regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Environmental Specialist to support field personnel in managing waste disposal needs during an oil spill cleanup.

### WASTE CLASSIFICATION

### **Oily - Liquid Wastes**

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. During a spill incident, the largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations. Recover the liquids and store in identified impermeable drums, containers or tanks (depending on the quantity). An analysis will be required to identify the most appropriate course of action.

### Non-Oily - Liquid Wastes

Emergency Response operations could also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities). These liquid wastes will also be stored in identified impermeable drums or tanks. An analysis will be required to identify the most appropriate course of action.

### **Oily - Solid/Semi-Solid Wastes**

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris. These solid wastes will be stored in identified impermeable containment. An analysis will be required to identify the most appropriate course of action.

### WASTE CLASSIFICATION (Cont'd)

### Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes. These would be handled using routine waste disposal methods and systems.

### WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

#### Safety Considerations

Care should be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes must wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles must be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste will be washed with soap and water as soon as possible. Decontamination zones would be set up during response operations to ensure personnel are treated for oil exposure.

#### **Decontamination of Personnel and Equipment**

Removing contaminants from the response team personnel, their clothing, and from equipment is of major importance after an emergency response. Personnel responding to emergencies may become contaminated in a number of ways, including:

- Contacting vapors, gases, mists, or particulates in the air;
- Being splashed by materials while responding to the emergency;
- Walking through puddles of liquids or on contaminated soil;
- Using contaminated instruments or equipment.

Under the supervision of the Environmental Specialist, contaminated material such as disposable PPE will be sent to an authorized site for disposal. Reusable PPE and equipment will be decontaminated by contractors properly trained for such decontamination activities. For example, contaminated fire intervention equipment will be cleaned before storage. Cleaning fluids used for decontamination will be recovered by a vacuum truck and sent to an authorized site.

If fumes from the spilled product or from a fire containing toxic substances (e.g.: dioxins, furans, etc.), a specific decontamination protocol will be established by the Environmental Specialist. This protocol may include a medical monitoring program for the personnel. Analyses may also be required to demonstrate the efficiency of the decontamination techniques. Such proof could be required by governmental authorities (Quebec MDDELCC, Environment Canada, EPA, etc.).

#### WASTE HANDLING (cont'd) Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates. The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.
- **Vacuum Systems**: A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.
- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.
- Wheeled Vehicles: Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Figure F-1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

### **TEMPORARY WASTE STORAGE**

Interim storage of recovered oil, oily and non-oily waste would be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal.

The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Figure F-2. The majority of these options can be used either onshore or offshore. If storage containers such as bags or drums are used, the container must be clearly marked to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks would be acceptable, if the available space can support the weight of both the container and the product. PMPL Crude Oil Storage Tanks may be used for storage of recovered crude oil.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment boom. See Appendix C for recovery and containment barges.

Empty barges have four to six feet draft which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters. Barges operating in Portland Harbor could discharge recovered crude oil into shore side fractionation tanks at the Clean Harbors terminal in South Portland. Recovered oil could then be trucked back to PMPL for transportation to Montreal, transferred to the Williams terminal tanks operated by Clean Harbors with DEP authorization or trucked to incineration facilities as appropriate. It may be difficult to offload recovered oil stored inside barges. In Montreal, barges or bladders could be discharged at "Operations Sites" predetermined by ECRC. These include locations such as SIMEC's facility at Verchères, the Quai de Verchères at Verchères, the Port de plaisance at Contrecoeur, the Salle communautaire in Lavaltrie, and HydroQuebec in Tracy. Recovered liquids could be disposed of in one of PMPL's tanks if one is available and the solids would be disposed of by the ECRC in an approved disposal site as determined at the time with the MDDEP, ECRC and PMPL's contract environmental specialist. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

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

- Geology.
- Ground water.
- Soil.
- Flooding.
- Surface water.
- Slope.

### TEMPORARY WASTE STORAGE (Cont'd)

- Covered material.
- Capacity.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security.
- Regulations.
- Access.
- Public contact.

Temporary storage sites should use the best achievable technology to protect the environment (soil, surface and groundwater, etc.) and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 millimeters or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, if oily debris is stored, it should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least 3 meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

Contaminated equipment and materials, PPE, decontamination solutions, adsorbents and spent chemicals will be removed and disposed of by the response contractor using the above criteria as guidance. Contaminated equipment will typically be cleaned on site and the cleaning materials bagged and taken to an incinerator. Adsorbents and contaminated PPE will be incinerated. Spent chemicals from decontamination stations and cleaning will be recovered and recycled when possible or incinerated if necessary. All steps necessary will be taken to avoid or minimize the amount of materials taken to a landfill. Facilities and response resources for these activities are listed in Figure 2.14 & 2.15 as Additional Response Resources.

When the last of the oily debris leaves a temporary storage site, the ground protection would be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil would also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. **The temporary storage area should be returned to its original condition.** 

It is the responsibility of the Environment Specialist to identify the acceptable disposal methods and sites approved to receive the different types of wastes produced during the emergency and to consult with federal, state or provincial authorities as needed.

### WASTE DISPOSAL

#### Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Incineration and burning for energy recovery are preferred when available within a reasonable geographical distance, with treatment the next best alternative. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the facility. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option.

During an oil spill incident, PMPL would consult with the federal, state and provincial representatives to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. PMPL maintains a list of approved disposal sites that satisfy local, state, provincial and federal regulations and PMPL requirements. This identification of suitable waste treatment and disposal sites would be prepared by PMPL in the form of an Incident Disposal Plan. In the US, this plan must be authorized by the U.S. Coast Guard and/or the EPA. In Canada, approval is by the Quebec MDDEP. An Incident Disposal Plan would include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal will be preferred.

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

The different types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Figure F-3 lists some of the options that would be available to segregate oily wastes. The table also depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

Recovered oil will be returned to the facility and moved to refineries for processing as suitable. Alternatively, debris laden recovered oil may be incinerated. Contaminated soils will be recycled through commercial paving companies or otherwise properly disposed.

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

#### Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is accepted by the refinery and exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

### WASTE DISPOSAL (Cont'd)

Oiled soils are potential candidates for recycling with commercial paving companies that are able to properly recycle and process the material (see Figures 2.14 & 2.15). Please note that this is not permitted in Quebec.

PMPL's **Environmental Specialist** is responsible for ensuring that all waste materials be properly disposed of or recycled at a PMPL approved disposal site or recycling facility.

#### Incineration

This technique entails the complete destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration would include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

### In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state, provincial and local laws. They would not be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

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

#### Landfill Disposal

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

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation would be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes would be disposed of only at PMPL and state/provincially approved disposal facilities. PMPL is responsible for ensuring that all waste materials are disposed of at a previously approved PMPL and MEDEP disposal site. Disposal at a facility not previously approved would require approval by PMPL senior management prior to sending any waste to such a facility.

# Figure F-1 COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
<ul> <li>Gravel/Particulate</li> </ul>	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
<ul> <li>Seaweed/Stringy Matter</li> </ul>	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	3	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	В	В	B,J		F	A	В	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: KEY TO COMMENTS:

#### 5 = Best; 1 = Worst

- A. Normally require remote power sources, thus are safe around flammable fluids.
- B. Should have a relief valve in the outlet line to prevent bursting hoses.
- C. Air powered units tend to freeze up in sub-freezing temperatures.
- D. Units with work ball valves are difficult to prime.
- E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
- F. Can also pump air at low pressure.
- G. Transfer is batch-wise rather than continuous.
- H. Waste must be in separate container for efficient transfer.
- I. Transportable with its own prime mover.
- J. High shear action tends to emulsify oil and water mixtures.

# Figure F-2

### **TEMPORARY STORAGE METHODS**

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	х	х	May require handling devices. Covered and clearly marked.
Tank Trucks	х	х		х	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		х	х	х	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	х	Х		х	Consider problems of large volumes of water in oil.
Bladders	х	х		х	May require special hoses or pumps for oil transfer.

# Figure F-3

### OILY WASTE SEPARATION AND DISPOSAL METHODS

	TE SEPARATION AND DISPOSAL MI	
TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration
		Use of recovered oil as refinery/production facility feedstock*
Emulsified oils	<ul> <li>Emulsion broken to release water by:</li> <li>heat treatment</li> <li>emulsion breaking chemicals</li> <li>mixing with sand</li> <li>centrifuge</li> <li>filter/belt press</li> </ul>	Use of recovered oil as refinery/production facility feedstock*
SOLIDS		
Oil mixed with soil	Collection of liquid oil leaching from soil during temporary storage	
	Extraction of oil from soil by washing with water or solvent	Use of recovered oil as refinery/production facility feedstock*
	Removal of solid oils by sieving	Direct disposal
	Recycling	Stabilization with inorganic material
		Degradation through land farming or composting
		Incorporation of treated oiled sand in road base material
TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
Oil mixed with cobbles or	Screening	Incineration
pebbles	Collection of liquid oil leaching from materials during temporary storage	Direct Disposal
	Extraction of oil from materials by washing with water or solvent	Use of recovered oil as refinery/production facility feedstock*
	Recycling	Incorporation of treated oiled sand in road base material
Oil mixed with wood, seaweed	Screening	Incineration
and sorbents	Collection of liquid oil leaching from debris during temporary storage	Direct disposal
	Flushing of oil from debris with water	Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration
		Direct disposal

\* Requires acceptance by refinery.

### **US – STATE REGULATORY REQUIREMENTS**

State environmental personnel will respond when notified of an oil spill and will be available to provide guidance on proper treatment, storage, and disposal of oil and oil-contaminated debris.

A waste material that is discarded, recycled or reclaimed and that exhibits one or more of the four characteristics shown below is classified as "Hazardous Waste" or "Universal Waste" under federal law or by each of the three states in which PMPL operates.

- Ignitable: The material has a flash point of less than 140°F and/or is an oxidizer.
- Corrosive: An aqueous material that has a pH of less than 2.0 (acid) or greater than 12.5 (base).
- Reactive: A material that is reactive to water, shock, heat, pressure or undergoes rapid or violent chemical reaction.
- Toxic: This category includes materials that meet or exceed specified levels of heavy metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), certain volatile organic chemicals (including benzene), and certain pesticides.

In addition, waste materials that are "listed" in the each state's hazardous waste management regulations, are also classified as "Hazardous Waste".

Some products and materials that can become hazardous or universal wastes during an oil spill are:

- Discarded products (i.e., batteries).
- Products used as solvents or cleaning compounds.
- Spent lubricating oils.
- Spent hydraulic oils.
- Products that are damaged in shipment.

Although crude oil is typically not a hazardous or universal waste, sampling and testing of waste products during an oil spill is recommended to best determine the disposal method appropriate at different times throughout the incident. If the waste is designated as a hazardous waste, it must be disposed of in accordance with the state's hazardous waste management regulations as discussed more specifically below. Disposal of all non-hazardous or universal wastes generated by response to an oil spill is also regulated in each of the states as discussed more specifically below.

#### Maine

According to the Maine Department of Environmental Protection (DEP), recovered oil and oily debris is not considered a hazardous waste. Oily debris includes sorbents, seaweed, carcasses, and other materials contaminated with oil as a result of a marine oil spill.

Under Chapter 405.6 of the DEP's regulations, oily debris can be landfilled, or incinerated and the resultant ash landfilled. The disposal of animal carcasses is the responsibility of the Maine Department of Inland Fisheries and Wildlife in conjunction with the U.S. Fish and Wildlife Service. All carcasses not required by

### US –STATE REGULATORY REQUIREMENTS (cont'd)

the Maine Warden Service, U.S. Fish and Wildlife Service Special Agent, or National Marine Fisheries Service Agent will be landfilled, or incinerated and the resultant ash landfilled. The DEP has a contract with the Mid-Maine Waste Action Committee in Auburn for disposal of combustible oily debris.

Waste oil is typically disposed of by burning in a waste oil burner. The requirements of Chapter 860 of the DEP's regulations must be met for storage and transportation of waste oil by a waste oil dealer. PMPL will work closely with the DEP regarding storage and disposal options and procedures. Currently, the DEP does not require hazardous waste testing of recovered waste oil. The testing of other waste streams may be necessary. Figure 2.5 in the Notification Section provides a list of approved testing laboratories.

### New Hampshire

The New Hampshire Department of Environmental Services (DES), specifies procedures for clean-up, management and investigation of soil contaminated by petroleum releases in Chapter Env-Or 600 of the New Hampshire Code of Administrative Rules. Under these rules, contaminated soils may fall into several categories including "non-hazardous oil-contaminated soil" or "non-hazardous contaminated soil." Different certification, management, and disposal requirements apply to each category of soils. PMPL will work closely with the DES regarding soil disposal procedures. Testing may be required. Figure 2.5 provides a list of approved testing laboratories.

DES regulates the collection, storage, testing, transfer, and disposal of other oily waste (including absorbents, certain oils and petroleum products but not including the soils discussed immediately above) in Chapter Env-Sw 900 of the New Hampshire Code of Administrative Rules. Disposal of oily animal carcasses is also regulated by DES. PMPL will work closely with DES regarding these wastes. Testing may be required. Figure 2.5 in the Notification Section provides a list of approved testing laboratories.

#### Vermont

According to the Vermont Department of Environmental Conservation (DEC), oily debris includes sorbents, sludge or grit, and contaminated soil. Carcasses are not included within the definition of oily debris and must be handled in accord with Vermont's Solid Waste Management Rule. Recovered oil and oily debris is not considered a hazardous waste *unless the wastes contain more than 5% by weight petroleum distillates.* Oily debris that is hazardous waste must be identified and shipped using waste code VT02. Certain clean-up materials containing oil may be wrung out, cleaned, and/or stored in accord with Section 7-203 of Vermont's Hazardous Waste Management Rules. Testing of these waste streams may be necessary. Figure 2.5 in the Notification Section provides a list of approved testing laboratories.

Oil that is a free liquid and that is generated as part of a clean-up may be managed as used oil. Used oil is typically disposed of by burning for energy recovery. PMPL will store and transport used oil in accord with the requirements of Subchapter 8 of the Vermont Hazardous Waste Management Rules. PMPL will work closely with the DEC regarding disposal procedures. Currently, the DEC does not require hazardous waste testing of recovered used oil.

### **CANADA – PROVINCIAL REGULATORY REQUIREMENTS**

Federal (Environment Canada) and Quebec (MELCC) environmental personnel will respond when notified of an oil spill. MELCC will provide guidance on proper treatment, storage, and disposal of oil and oil-contaminated debris under the Quebec Environment Quality Act unless there is PCB's. In this last case, Environment Canada environmental personnel would get involved to indicate how the disposal should be handled for this specific situation under the Canada PCB Regulations.

### Quebec

The MELCC (Ministère de l'Environnement et de la Lutte contre les changements climatiques), specifies with the Residual Materials Policy the procedures for the management, the investigation and the disposal of soil contaminated by petroleum releases. The Residual Materials Policy includes the laws, regulations, guides, guidelines and directives regarding these materials. "Residual material" is a generic term covering several major families of waste, including hazardous and non-hazardous material, biomedical waste, pesticides, fertilizing residual material and used snow.

By definition, a hazardous material is any substance which, by reason of its properties, poses a threat to health or the environment and which, within the meaning of this law and attendant regulations, is explosive, gaseous, flammable, toxic, radioactive, corrosive, combustive or leachable, or any material or object that is deemed to be a hazardous material. They are so called because they must be managed in a special way in order to prevent accidents or environmental contamination that could lead to the degradation of soil, water or air and affect flora, fauna and humans to varying degrees.

Non-hazardous material are residues such as tires, computers, paint, oil, paper, card board, glass, leaves, building debris, metals, plastic, industrial residues, etc. Different requirements must be taken into consideration for the management and the recycling of these materials.

PMPL will work closely with the MELCC regarding the management, the investigation and the disposal of these residual materials.

### **APPENDIX G**

### WORST CASE DISCHARGE ANALYSIS AND SCENARIOS

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This appendix identifies potential causes for oil discharges and discusses the response efforts that are necessary for successful mitigation. Included in this appendix are hypothetical scenarios for various types of spills that have the potential to occur along the system. It is anticipated that PMPL will respond to spills in a consistent manner regardless of the location. Therefore, the guidelines discussed in this appendix will apply to all spills whenever possible.

### **US DISCHARGE VOLUME CALCULATIONS**

The Portland Marine Terminal is classified as a "Complex Facility" which operates in a nonhigher volume port area.

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

Complexes must perform discharge calculations for each jurisdictional agency and plan for the largest Worst Case Discharge Volume pursuant to the respective regulations. The USCG, EPA, and the DOT-PHMSA discharge volume calculations are described below. The calculations and descriptions are as follows:

### USCG Discharge Volume Calculation

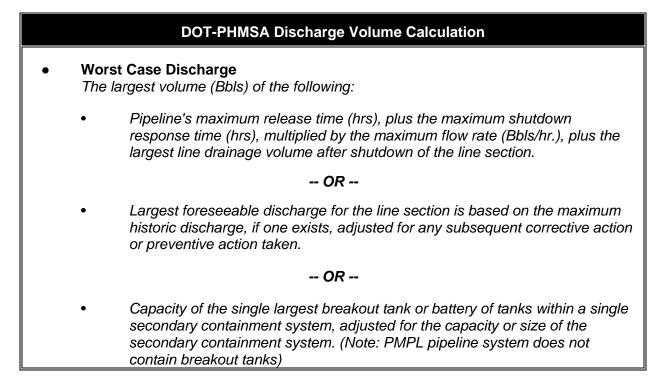
• Worst Case Discharge (WCD) Discharge from all piping carrying oil between the marine transfer manifold and the non-transportation-related portion of the Facility. The discharge from each pipe is calculated as follows:

{[Maximum Discovery Time (hrs) + Maximum Shutdown Time (hrs.)] \* Maximum Flow Rate (Bbls/Hr)} +Total Line Fill (Bbls) = WCD (Bbls)

- Maximum Most Probable Discharge (MMPD) 1,200 Bbls or 10% of the WCD, whichever is less
- Average Most Probable Discharge (AMPD) 50 Bbls or 1% of the WCD, whichever is less

### EPA Discharge Volume Calculation

- Worst Case Discharge 100% of the largest single tank plus the volume of all tanks without adequate secondary containment.
   Medium Discharge
  - Discharge greater than 2,100 gallons (50 Bbls) and less than or equal to 36,000 gallons (857 Bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD.
- Small Discharge Discharge of less than or equal to 2,100 gallons (50 Bbls), not to exceed the WCD.



The following planning volume calculations must be performed to determine the required response resources for a Worst Case Discharge:

### Planning Volume for On-Shore Recovery (OSR)

**OSR** = WCD \* % Oil On Shore \* Emulsification Factor

### Planning Volume for On-Water Recovery (OWR)

**OWR** = WCD \* % Recovered Floating Oil \* Emulsification Factor

### Recovery Capacity (RC)

**RC** = OWR \* On-Water Recovery Resource Mobilization Factors

The recovery capacity determined by these equations is compared to the appropriate response capability caps from the EPA tables; the actual contracted response amount is the lesser of the two values. If the calculated capacity exceeds the capability caps, sufficient response resources should be available for twice the amount of the caps or up to the total planning volume, whichever is less.

#### Scenario Types

The occurrence of a Small, Medium, or Worst Case Discharge could be the result of any number of scenarios at the Facility including (Maintenance activities are pre-planned and attended during work, therefore are not considered to be the cause of the discharge scenarios.):

- Tank overfill and/or failure.
- Piping rupture.
- Piping leak, under pressure and not under pressure.
- Explosion or fire.
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with internal or external facility transfers).

The response actions to each of these scenarios are outlined in Section 3.1 and Figures 3.1-3.16. The response resources are identified in Section 5.1 with additional detail on equipment and manpower provided in Appendix C. Facility response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Figures 2.2 - 2.15.

#### EPA TABLES FOR WORST CASE DISCHARGE RESPONSE RESOURCES DETERMINATION AND REMOVAL CAPACITY PLANNING

Spill Location	(1	(1) Rivers & Canals (2)			arshore/Inland/Great Lakes			
		3 Days			4 Days			
Sustainability of on-water oil recovery		D	Е		D	Е		
Oil Group	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore	% Natural Dissipation	% Recovered Floating Oil	% Oil On Shore		
I. Non-persistent oils	80	10	10	80	20	10		
II. Light crudes	40	15	45	50	50	30		
III. Medium crudes and fuels	20	15	65	30	50	50		
IV. Heavy crudes and fuels	5	20	75	10	50	70		

#### EMULSION FACTORS

F	
NON-PERSISTENT OIL	
Group I	1.0
PERSISTENT OIL	
Group II	1.8
Group III	2.0
Group IV	1.4
Group V	1.0

#### RESPONSE CAPABILITY CAPS (bbls/day) (Maximum Required Recovery levels)

AREA	TIER 1	TIER 2	TIER 3					
Rivers and Canals	1,875	3,750	7,500					
Great Lakes	6,250	12,300	25,000					
Inland/Nearshore	12,500	25,000	50,000					
ON-WATER OIL RE	ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS							
AREA	TIER 1	TIER 2	TIER 3					
River	.30	.40	.60					
Inland/Nearshore Great Lakes	.15	.25	.40					

NOTE: These mobilization factors are for total resources mobilized, not incremental response resources.

RESPONSE TIME (nours)								
AREA	TIER 1	TIER 2	TIER 3					
Higher volume port area	6	30	54					
All Other	12	36	60					

### Small/Average Most Probable Discharge = 50 Bbls

#### Response Requirement

The Facility must identify sufficient resources, by contract or other approved means, to respond to a small discharge. The response resources must include at a minimum:

- 1,000' of containment boom or twice the length of the largest vessel that regularly conducts oil transfers to or from the Facility, whichever is greater, and the means of deploying and anchoring the boom at the Facility within one (1) hour of the detection of a spill.
- Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a *Small /Average Most Probable Discharge* or greater which is available at the Facility within two (2) hours of the detection of an oil discharge.
- Oil storage capacity for recovered oily material equivalent to twice the effective daily recovery rate.

### Facility Response Resources/Capability

The Facility will respond to a *Small Discharge/Average Most Probable Discharge* with the manpower detailed in Figures 2.2-2.7 as well as local contract resources as detailed in Figure 2.14, Section 5.1, Figures 4.2 & 4.3 and Appendix C.

- Small discharges could occur from little used or idle piping.
- A 50 Bbl discharge from Facility piping typically will not escape the Facility.
- Direction of flow would be consistent with the drainage diagrams in the SPCC plan.
- Scenario weather conditions heavy rainfall.
- The spill would typically be retained inside a tank dike or on land, immediately adjacent to the piping location.
- If a 50 Bbl discharge escaped the Facility or occurred as the result of a marine transfer operation, response operations would be implemented immediately upon discovery.
- Spills of this nature would not create a chain reaction of other failures.
- Oil containment and recovery devices can be secured from contract resources (with a minimum effective daily recovery capacity of 50 Bbls) and can be implemented at the Facility, as the situation demands.
- A minimum of 100 Bbls of oil storage capacity for recovered oily material can be secured from contractor resources or made available within the Facility's storage facilities, as the situation demands.
- Additional recovery and storage equipment may be secured from other Company and contract resources, as the situation demands.

### US RESPONSE CAPABILITY SCENARIOS (Cont'd)

#### Small/Average Most Probable Discharge = 50 Bbls

• Disposal of recoverable oil would be done per the disposal plan.

#### Notes:

- Equipment and manpower resources are detailed in Sections 4.0, 5.0, Figures 4.2 & 4.3, and Appendix C.
- Telephone references are provided in Figures 2.2-2.14.

#### Medium/Maximum Most Probable Discharge (b) (7)(F)

#### Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a Medium/Maximum Most Probable Discharge. The response resources shall, as appropriate, include:

- Oil recovery devices with an effective daily recovery capacity equal to 50% of the *Medium/Maximum Most Probable Discharge* volume must be capable of arriving on scene within 12 hours.
- Sufficient quantity of containment boom must arrive within 12 hours for oil collection and containment and for protection of fish and wildlife and sensitive environments, as appropriate.
- Temporary storage capacity equal to twice the daily recovery capacity must be available.

#### Facility Response Resources/Capability

The Facility will initially respond to a *Medium/Maximum Most Probable Discharge* with a similar response to the Small Discharge. Additional response resources will be activated from an Oil Spill Removal Organization(s) (OSRO) as detailed in Figures 2.14, Section 5.1, Figure 4.3 and Appendix C and will arrive within 12 hours.

- Medium discharges could occur from Third Party damage.
- **(b)** (7)(F)
- Scenario weather conditions heavy rainfall.
- Direction of flow would be consistent with the drainage diagrams in the SPCC plan.
- At the South Portland Tank Farm, oil will be retained on premises and not reach water, fish, wildlife or sensitive environments. At the terminal area and shore tanks, there is a low probability the oil could reach the Fore River.
- These types of spills are typically singular in nature and not subject to chain reactions or failure due to the nature of the cause of the leak.

# US RESPONSE CAPABILITY SCENARIOS, Cont'd

Medium/Maximum Most Probable Discharge <sup>(b) (7)(F)</sup>
<ul> <li>Oil recovery devices with an effective daily recovery capacity of (b) (7)(F) (50% of the Medium/Maximum Most Probable Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.</li> </ul>
<ul> <li>(b) (7)(F) of oil storage capacity for recovered oily material will be secured from the OSRO(s) and/or made available within the Facility's storage facilities.</li> </ul>
• Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive areas will be secured from the OSRO(s) in the event that the spill escapes the boundaries of the Facility and impacts the storm water drainage channels, Anthoine Creek, Fore River or Casco Bay.
<ul> <li>Disposal of recoverable oil would be done per the disposal plan.</li> </ul>
Notes:
<ul> <li>Equipment and manpower resources are detailed in Sections 4.0, 5.0, Figures 4.2 &amp; 4.3, and Appendix C.</li> </ul>
Telephone references are provided in Figures 2.2-2.14

• Telephone references are provided in Figures 2.2-2.14.

### US RESPONSE CAPABILITY SCENARIOS (Cont'd)

Worst Case Discharge (b) (7)(F)
A worst case discharge at this Facility is considered to be discharge that does not exceed (b) (7)(F)
Description
This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to:
<ul> <li>Tank and associated pipeline fire</li> <li>Catastrophic tank shell failure</li> <li>Tornado-induced spills</li> <li>Pipeline manifold rupture</li> </ul>
The types of material that could be discharged is crude oil.
This spill type is one that would result in a chain reaction and shut down of systems. There is low probability it would result in failures of other equipment. <b>Potential Causes</b>
<ul> <li>(b) (7)(F)</li> </ul>
Prevention
For a worst case discharge caused by a natural disaster, preparedness is more appropriate than prevention. Company employees receive training periodically on the proper procedures to deal with a natural disaster. Employees are also trained in steps to follow if any of the facilities must be evacuated (due to a tank fire or other emergency).
In addition, preventative maintenance of tanks and the associated pipeline are performed at

regularly scheduled intervals (to ensure that any weaknesses are discovered). Note that tanks can be expected, due to their shape and due to product weight, to fare very well during severe weather. The pipeline mainline is primarily underground, excepting short piping runs within the pump stations. Line inspections include surface conditions on or adjacent to the pipeline and the adequacy of the cathodic protection.

### US RESPONSE CAPABILITY SCENARIOS, (cont'd)

### Worst Case Discharge (b) (7)(F)

#### Worst Case Discharge and Adverse Weather

Calculation of response equipment needs for a worst case discharge are given later in this Appendix. These calculations take into account adverse weather. Severe rain events and associated flooding would also increase the chances of an oil spill from leaving the property.

Nevertheless, boom could be deployed as an initial measure to reduce the potential for any off-site drainage from a spill that may unfortunately occur concurrently with a severe rain event, associated flooding, or a hurricane.

#### Direction of Flow:

Oil from the Tank Farm that reaches the Fore River would be subject to outgoing river current offset periodically by incoming tides per the tidal cycle. Oil reaching the Fore River via Anthoine Creek would likely pool in the mud flats immediately adjacent to Broadway and migrate to the river with the current pull. When it reaches the river itself, it may move upriver if there is an incoming tide. Oil reaching the Fore River from the shore tanks will be more immediately affected by river current and tides, migrating down current toward Pier 2. In both cases, protective booming strategies as outlined in the PPLC Spill Response Field Document and the Geographic Response Plans developed by the Area Committee should be referenced and evaluated for applicability based on conditions.

### US RESPONSE CAPABILITY SCENARIOS (Cont'd)

### Worst Case Discharge (b) (7)(F)

#### Response Requirement

The Facility shall identify sufficient response resources, by contract or other approved means, to respond to a worst case discharge to the maximum extent practicable. The response resources shall, as appropriate, include:

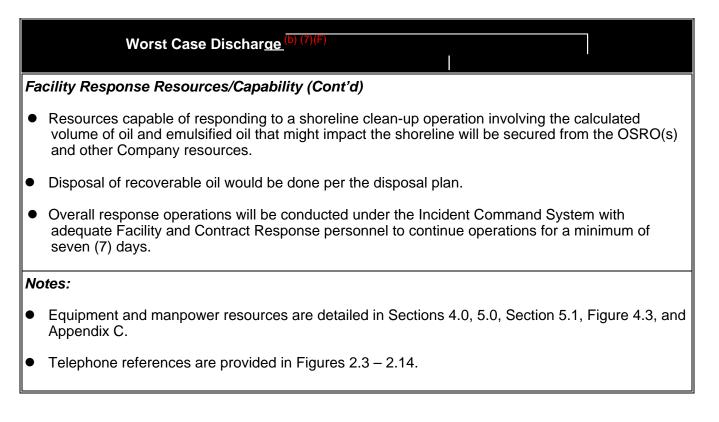
- All resources shall be capable of arriving at the Facility within the applicable response tier requirements [Tier 1 = 6 hours; Tier 2 = 30 hours; Tier 3 = 56 hours (EPA/USCG); Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours (DOT)].
- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps. If the daily recovery rate exceeds the applicable contracting caps (see EPA Tables) then the Facility must identify additional resources equal to twice the cap or the amount necessary to reach the calculated planning volume.
- Temporary storage capacity equal to twice the daily recovery capacity.
- At least 20% of the on-water response equipment should be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of areas of environmental sensitivity or economic importance.
- Identify resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline.

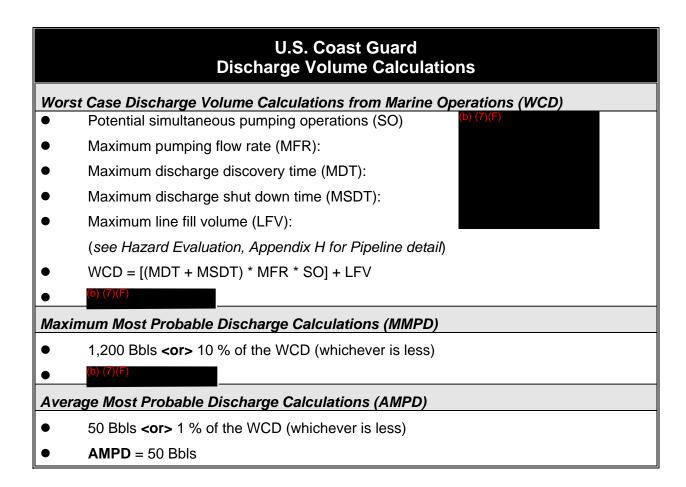
#### Facility Response Resources/Capability

The Facility will respond to a *Worst Case Discharge (WCD)* initially with a similar response as identified for a Small/Average Most Probable or Medium/Maximum Most Probable Discharge. Additional OSRO(s) will be activated as the situation demands. The response resources will be capable of arriving within the required response tiers and will include:

- Oil recovery devices with an effective daily recovery capacity equal to the lesser of 50% of the WCD or the response caps will be secured from the OSRO(s) and other Company resources. Any amount in excess of the required caps will be contracted for and responded to as part of the same response effort.
- Temporary storage capacity equal to twice the daily recovery capacity will be secured from OSRO(s), other Company resources, or made available within the Facility's storage facilities.
- At least 20% of the on-water response equipment secured from the OSRO(s) and other Company resources will be capable of operating in water of 6 feet or less depth.
- Containment boom for oil collection and containment and for protection of fish and wildlife and sensitive environments and socio-economic sensitivities will be secured from the OSRO(s) and other Company resources.

### US RESPONSE CAPABILITY SCENARIOS (Cont'd)





### U.S. EPA Discharge Volume Calculations

#### Worst Case Discharge Calculations (WCD)

- The volume of the largest single tank.
- (b) (7)(F)

(largest single tank, see Hazard Identification Tanks Table in Appendix H)

#### Medium Discharge (MD) Calculations

- 857 Bbls **<or>** 10 % of the capacity of the largest tank (whichever is less)
- (b) (7)(F)

### Small Discharge (SD) Calculations

- Less than or equal to 50 Bbls
- **SD** = 50 Bbls

### U.S. DOT PHMSA Discharge Volume Calculations

The worst case discharge of (b) (7)(F) is calculated by using the method identified under 49 CFR 194.105(b)(1) - The pipeline's 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. Operators monitor the flow of oil at the terminal and mainline pump stations during all transfer operations. The following calculations are used to determine the worst case discharge:

Pipeline maximum release time <sup>1</sup> Maximum shutdown time <sup>2</sup> Maximum flow rate <sup>3</sup> Largest line drainage volume <sup>4</sup> Worst case discharge



- 1. Maximum release time is based on a best estimate of how long it would take the operator to recognize a catastrophic pipeline failure. Given the capabilities of the pipeline monitoring system to detect shortages and the installation of pressure rate of change detection alarms at the pump stations, this is a reasonable estimate.
- 2. The maximum shutdown time is an estimate based on historical shutdown experience.
- 3. The maximum flow rate is the maximum daily capacity (expressed in barrels per hour) of the 24" line using the Colt Engineering study.
- 4. The largest line drainage volume for the U.S. system is based on a 24" mainline break at milepost (0) (7)(F)

calculation assumes a full drain down of the pipeline from the point of highest elevation on either side of the break. The calculation considers the location of block valves and assumes that the sections of pipe that are located in topographical depressions (except for the break location) will remain full of oil.

### EPA Planning Distance Calculation "Oil Transport on Tidal Influence Areas"

For persistent oils discharged into tidal waters, the planning distance is 15 miles from the facility down current ebb tide and to the point of maximum tidal influence or 15 miles, whichever is less, during flood tide.

The

# Portland Pipe Line Corporation - South Portland Terminal Facility Response Planning Volume Calculations

Location Data				
Location Type			Nearshore/Inland	
Port Type			High <u>er Volume Port</u>	
WCD Product Type			(b) (7)(F)	
Product Group				
Maximum Vessel Discharge Pumping Rate (	bbls/hr/line)			
Maximum Number of Simultaneous Vessel		g Operations (per line)		
Worst Case Discharge Scenario Pumping Ti	me (detect + shut	down, hrs)		
Total Line Fill Volume From Dock to First Va	lve w/in Containm	ent (bbls)		
Capacity of the Largest Single Tank (bbls)				
Discharge Volumes/Calculations	; ;			
Average Most Probable or Small Discharge	(bbls)		(b) (7)(F)	
Maximum Most Probable or Medium Dischar	rge (bbls)			
Worst Case Discharge - Based on USCG cri	iteria (bbls)			
Worst Case Discharge - Based on DOT/PHN	/ISA criteria (bbls)			
Worst Case Discharge - Based on EPA crite	ria (bbls)			
USCG WCD Calculation: (Pump Rate * Pun	np Time * Number	of Pump Operations) +	Line Fill	
DOT/PHMSA WCD Calculation: (Detection	•	,		
EPA WCD Calculation: 100% * Capacity of		,		
Selected Calculation Factors				
Removal Capacity Planning Volume - Percent Natural Dissipation				
Removal Capacity Planning Volume - Percent Recovered Floating Oil				
Removal Capacity Planning Volume - Percent Oil Onshore				
Emulsification Factor			1.8	
Tier 1. On Water Oil Bessyan, Bessures Mabilization Faster				
Tier 1 - On Water Oil Recovery Resource Mobilization Factor Tier 2 - On Water Oil Recovery Resource Mobilization Factor				
Tier 3 - On Water Oil Recovery Resource Mobilization Factor				
			40%	
Response Planning Volume Calo	ulation			
On-Water Recovery Volume (bbls)			(b) (7)(F)	
On-Shore Recovery Volume (bbls)				
Total Recovery Volume (bbls)				
	Tier 1	Tier 2	Tier 3	
On-Water Recovery Cpcty (bbls/day)	36,180	60,300	96,480	
Shallow Water Resp Cpblty (bbls/day)	7,236	12,060	19,296	
Storage Capacity (bbls/day)	72,360	120,600	192,960	
On-Water Response Caps (bbls/day)	12,500	25,000	50,000	
Additional Response Req'd (bbls/day)	(b) (7)(F)			
Response Time (hrs)	12	36	60	

# **CANADA DISCHARGE VOLUME CALCULATIONS / SCENARIOS**

This Appendix addresses worst case crude oil spills most likely to occur at the Montreal Pipe Line Ltd. Installations, namely the trunk lines and the North Tank Field in Montreal-East.

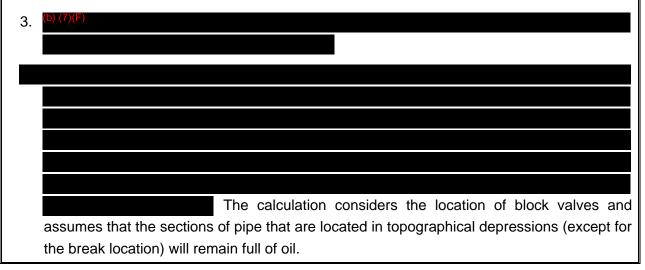
### MONTREAL PIPE LINE LIMITED DISCHARGE VOLUME CALCULATION MAIN LINE

### **Worst Case Discharge Volume Calculations**

The worst case discharge is calculated by using the method identified under 49 CFR 194.105(b)(1) U.S. DOT PHMSA. The pipeline's 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. Operators monitor the flow of oil at the terminal and mainline pump stations during all transfer operations. The following calculations are used to determine the worst case discharge:

Pipeline maximum release time<sup>1</sup> Maximum shutdown time<sup>2</sup> Maximum flow rate<sup>3</sup> Largest line drainage volume<sup>4</sup> Worst case discharge

- 1. Maximum release time is based on a best estimate of how long it would take the operator to recognize a catastrophic pipeline failure. Given the capabilities of the pipeline monitoring system to detect shortages and the installation of pressure rate of change detection alarms at the pump stations, this is a reasonable estimate.
- 2. The maximum shutdown time is an estimate based on historical shutdown experience.



## **APPENDIX H**

## HAZARD EVALUATION

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### Unloading of Transportation Vehicles (South Portland Marine Terminal)

The Facility only conducts unloading of marine vessels. These operations are typically conducted as follows:

MARINE OPERATIONS								
Transfer Points: Two (2)								
(b) (7)(F)								
Simultaneous Operations:	Two (2) operations							
Transfers per day:	Four (4) ( <i>maximum</i> )							
Products:	Crude Oil							

#### Day-to-Day Operations

The day-to-day operations at the Facility that may present a risk of discharging oil or releasing a hazardous substance are:

- Pipeline transfer operations
- Vessel unloading operations
- Tank to tank transfers
- Vacuum truck to tank transfers (maintenance activities)

Work such as piping replacement/repair is rare, and would only be done on portions of the system that are isolated from the active system.

#### Secondary Containment Volumes

Secondary containment is provided for the bulk storage tanks and/or transfer points at the South Portland Facility. Detailed secondary containment information is located in the SPCC Plan (under separate tab).

#### Normal Daily Throughput

The Company currently maintains 23 above-ground storage tanks at its South Portland facilities. Four (4) tanks (Tanks 1, 2, 27, and 28) are located adjacent to the two Company piers in Portland Harbor. Pier No. 2 is the only active pier; however, Tanks 1 and 2 are still used for active storage. The remaining 19 tanks are located at the Tank Farm located on Hill Street in South Portland approximately three miles from the marine terminal. The Hazard Identification Table in this appendix identifies each of these tanks by tank number. All tanks are used to store crude oil only, and are filled and drained in accordance with scheduled receipt of crude oil by vessels at Pier No. 2, and by delivery of crude oil to refineries and storage tanks in Montreal, Canada by the Company's interstate pipeline. Because delivery and shipment of crude oil vary throughout the year, the Company has chosen to present the rated shell capacity as the maximum capacity of liquid in each tank. The average quantity stored in each tank on any given day can range from empty to an effective liquid capacity for each tank, depending on receipt and shipment of crude oil to and from the facility. The Normal Daily Throughput for the South Portland Facility:

Normal Daily Throughput	Average Storage	Total Storage
(b) (7)(F)		

#### Hazard Identification Tank Table

The Hazard ID Tank table, which is located in the appendix, lists all storage tanks at the South Portland facilities. A detailed Spill Potentials List for the South Portland facilities is located in the SPCC Plan, under separate tab.

#### **Discharge Detection**

Detailed information pertaining to discharge detection is located in the SPCC Plan, under separate tab.

#### Security

#### Introduction

The vulnerability analysis addresses the potential effects (i.e., to human health, property, or the environment) of an oil spill originating from the South Portland Facilities. Section 6.0 of this Plan provides general guidance to the responder for "Spill Impact Considerations", addressing response options for many of the specific sensitivities detailed below.

The rest of the pipeline system is rather extensive as it stretches across 236 miles in three states and two countries. Therefore, the sensitive areas are detailed in "Emergency Response Mapping" booklets which are contained in separate, stand alone documents.

The area potentially affected by a spill originating from the Facility has a number of characteristics which require consideration in the event of a discharge.

- The immediate area of the Facility is located in an industrialized area of South Portland, Maine.
- The most sensitive area near the facility are commercial and sport fisheries and wildlife in the Portland Harbor and the Casco Bay areas.
- Residential areas are located on all sides of the Tank Farm, and on both banks of Anthoine Creek and the Fore River.



#### Residential Areas

Residential areas are on all sides of the Tank Farm, and on both banks of Anthoine Creek and the Fore River. Any evacuation efforts for these areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.) Additional details on the residential areas within the area of the Facility are included in the "Emergency Response Mapping" booklets which are maintained as separate, stand alone documents. Telephone reference is provided in Figure 2.5.

#### Businesses

There are various commercial areas in the vicinity of the Facility. Any evacuation efforts for these areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.). Additional detail on the general layout of businesses within the area of the Facility are included in the "Emergency Response Mapping" booklets which are maintained as separate, stand alone documents.

#### Fish and Wildlife, Wetlands, and other Sensitive Environments

The area surrounding the Facility is detailed in the applicable ACP. The "Emergency Response Mapping" booklets which are maintained as separate, stand alone documents, detail sensitive areas.

Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

Commercial and sport fisheries and wildlife are located in the Portland Harbor and Casco Bay area. Additional information is included in the "Emergency Response Mapping" booklets which are maintained as separate, stand alone documents.

Possible environmental effects of a spill could include potential mortality to fish, wildlife, flora and fauna.

During a response situation the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.
- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.
- Mobilize equipment to haze birds and wildlife and activate wildlife rescue and rehabilitation resources

#### Lakes and Streams

The Facility is located in close proximity to Anthoine Creek, the Fore River, and Portland Harbor. Additional information is included in the "Emergency Response Mapping" booklets which are maintained as separate, stand alone documents. Possible environmental effects of a spill could include impacts to water quality and potential mortality to fish, wildlife, flora and fauna in these areas.

#### Endangered Flora and Fauna

No endangered species are known to be located within the immediate area of the Facility. A complete list of state and federal threatened and endangered wildlife is located in the "Emergency Response Mapping" booklets which are maintained as separate, stand alone documents.

#### **Recreational Areas**

There are various recreational areas in the area of the Facility. These areas include Ferry Beach State Park, Crescent Beach State Park, Two Lights State Park, Bug Light Park, Willard Beach, East End Beach, and Wolfe's Neck Woods State Park. These are identified in the "Emergency Response Mapping" booklets which are maintained as separate, stand alone documents.

The recreational area that could be potentially affected by a spill from the South Portland Tank Farm is the Greenbelt Walkway that transits Anthoine Creek immediately adjacent to Broadway.

The recreation areas that could potentially be impacted by a Spill from the terminal tanks would be East End Beach, Willard Beach and Bug Light Park.

Possible environmental effects of a spill could include oil impacted shorelines and potential mortality to fish, wildlife, flora and fauna. Public access and recreational use could also be impacted.

#### Transportation Routes (air, land, and water)

#### South Portland Tank Farm

A worst case spill from a tank at the South Portland tank farm at 30 Hill Street could potentially impact traffic on Broadway in South Portland near Anthoine Street where Anthoine Creek crosses Broadway. Depending on the tank location within the farm, it could also potentially affect Evans Street and Highland Avenue traffic. South Portland Police would be contacted to direct traffic.

Although unlikely, a high degree of vapors from a spill could impact air traffic at the Portland Jetport. The alternate western and northern runway approaches would be used. It is possible the Fore River could see enough oil to impact vessel activity in the upper Fore River. The decision to curtail vessel activity would be made by the USCG who are the leading FOSC for spills east of Route One.

# US - Vulnerability Analysis (Cont'd)

#### Other Areas of Economic Importance

Any evacuation efforts necessary for these areas will be coordinated with the local emergency assistance agencies (police department, fire department, etc.), State Police, and other agencies as the situation demands. Telephone references are provided in Figure 2.5. Other than neighboring businesses, there are not many other areas of economic importance within close proximity to the Facility.

The potential for a significant spill at the Portland Marine Terminal and Tank Farm is minimal due to the spill prevention measures that are in place and the operating procedures followed by facility personnel. The potential for a spill of sufficient magnitude to escape the Facility is very remote due to the spill mitigation measures inherent in the facility design.

Spill prevention measures include a number of discharge detection methods and various inspection procedures which are described further in the SPCC Plan (under separate tab).

Operating procedures are defined in the Company procedural manuals. All personnel responsible for terminal operations are trained. New personnel receive on-the-job training working with experienced operating personnel as well as training in the areas of safety, spill prevention, emergency response, and applicable pollution prevention laws, rules and regulations. They become fully trained prior to assuming unsupervised operating responsibilities.

Spill mitigation measures include facility designs intended to direct releases to containment areas where they can be promptly controlled and cleaned up.

The Portland area is not subject to excessive exposure of inclement weather such as tornadoes, hurricanes, floods, or tropical storms. The area is subject to snowstorms during the winter months but none have resulted in reportable spills.

The South Portland Tank Farm is constructed on bedrock and consolidated soils, with good stability. The existing rock underlying the topography is the reason the tanks are built at different elevations and also provides good support for the tanks. A tank settlement monitoring program is in place.

#### **Small Discharges**

Small discharges could occur from little used or idle piping. Unused piping is removed or flushed, cleaned and capped. Little used piping is flushed and unloading lines undergo internal inspection and pigging. Response effort for these types of spills would be initiated by site personnel and aided by contract response resources. Spills of this nature are generally singular in nature and not subject to chain reactions or failures. The spill would typically be retained inside a tank dike or on land immediately adjacent to the piping location. Disposal would be per the disposal plan with recovered soil typically taken to a local plant for use as road base material.

#### **Medium Discharges**

Medium Discharges could occur from Third Party Damage to underground piping. PPLC, Dig Safe and City permit processes control digging around underground piping. At the South Portland Tank Farm, oil will be retained on premises and not reach water, fish, wildlife or sensitive environments. At the terminal area and shore tanks, there is a low probability the oil could reach the Fore River. These types of spills are typically singular in nature and not subject to chain reactions or failure due to the nature of the cause of the leak. The Facility maintains a separate Oil Spill History file in the Facility office. The Facility's file contains the below listed information to the extent that such information is reasonably identifiable.

- Date of discharge.
- Location of discharge.
- Discharge cause(s).
- Material(s) discharged.
- Amount discharged.
- Amount of discharge that reached navigable waters.
- Amount recovered.
- Effectiveness and capacity of secondary containment.
- Clean-up actions taken.
- Steps taken to reduce possibility of recurrence.
- Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.
- Enforcement actions.
- Effectiveness of monitoring equipment.
- Description of how spill was detected.

Based on the information available, an analysis of previous spills yields two tank overflow spills in the early years of operation. Both were contained. Since that time, remote monitoring of tank levels has been implemented with redundant high level alarms which are monitored by personnel having full authority to stop all operations to prevent an overflow. There have been small spills attributable to seals and gaskets. A computerized maintenance managing system is used today to manage maintenance of these components. There have been spills attributed to internal corrosion of little used piping. These spills were retained on premises. To prevent recurrence unused piping is removed or flushed, cleaned and capped, little used piping is flushed, and unloading lines undergo internal inspection and pigging. There is one known enforcement action by the Maine Department of Environmental Protection.

Recorded history indicates that the only known damage to the facility by nature was damage to Pier No. 1 by a hurricane in 1946. The pier was rebuilt stronger, and has weathered subsequent storms. One hurricane of low magnitude is known to have occurred in the mid-1990s with no impact to the oil containing facilities.

There have been no spills from the South Portland Tank Farm that were reportable under 40 CFR Part 110. There has been only one identified South Portland Tank Farm Facility spill that threatened to reach surface waters. Subsequent to construction of the 42" dock line in 1969, oil was released into a ditch connecting with Anthoine Creek. A summary of this incident follows.

# Figure H-1 US - Reportable Oil Spill History

Date of discharge.	September 15, 1969
Location of discharge.	42" Unloading Line
Discharge cause(s).	After construction and hydrostatic testing of the 42" unloading line, a skimmer pit was built to allow drainage of the test water from the line and capturing any residual oil in the pipe from leaking manifold valves and piping. The contractor representative responsible for observing the fluid being drained to the pit left the job site without permission. In his absence, some oil entered and overflowed the pit and into a ditch connecting with Anthoine Creek (did not reach Anthoine Creek).
Material(s) discharged.	Crude oil
Amount discharged.	50 barrels
Amount of discharge that reached navigable waters.	None – did not reach Anthoine Creek.
Amount recovered.	
Effectiveness and capacity of secondary containment.	Temporary secondary containment not effective due to human failure.
Clean-up actions taken.	Dam constructed upstream of Anthoine Creek.
Steps taken to reduce possibility of recurrence.	Employee counseled; Today, work plans and contractor programs manage.
Total storage capacity of the tank(s) or impoundment(s) from which the material discharged.	Capacity of skimmer pit unknown.
Enforcement actions.	None documented.
Effectiveness of monitoring equipment.	Poor; human error (contractor).
Description of how spill was detected.	Visual discovery by company personnel.

# Figure H-2 US - HAZARD IDENTIFICATION TANKS ABOVE GROUND STORAGE TANKS

(Tank = any container that stores oil)

Tank Number	Substance Stored (Oil & Haz. Substance)	(b) (7)(F)	Tank Type (ie. floating roof, fixed roof, etc.)	Year Built	Potential Failure Mode	Probability	Rate of Flow (Gallons)	Failure / Cause (Record cause and date of any Tank failure which has resulted in a loss of tank contents)	Direction of Flow
1	Crude		Floating	1941	Rupture	Low		Overflow due to incorrect remote tank guage readings. 74,340 gal. loss to containment (5/29/75)	Note "A"
2	Crude		Floating	1941	Rupture	Low		N/A	
27	Crude		Floating	1966	Rupture	Low		N/A	Noto "P"
28	Crude		Floating	1969	Rupture	Low		N/A	Note "B"
3	Crude		Floating	1950	Rupture	Low		N/A	
4	Crude		Floating	1950	Rupture	Low		N/A	
5	Crude		Floating	1950	Rupture	Low		N/A	
6	Crude		Floating	1950	Rupture	Low		N/A	
8	Crude		Floating	1944	Rupture	Low		N/A	
9	Crude		Floating	1944	Rupture	Low		N/A	
10	Crude		Floating	1941	Rupture	Low		Overflow when wrong tank opened to receive oil from vessel. 10,080 gal. loss to containment. (10/5/60)	Note "C"
11	Crude		Floating	1941	Rupture	Low		N/A	

PMPL Use Only Portland Pipe Line Corporation

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		(b) (7)(F)	(Tan	k = any c	ontainer t	hat stores o	oil)		
Tank Number	Substa nce Stored (Oil & Haz. Substa nce)		Tank Type (ie. floating roof, fixed roof, etc.)	Year Built	Potential Failure	Probability	Rate of Flow (Gallons)	Failure / Cause (Record cause and date of any Tank failure which has resulted in a loss of tank contents)	Direction of Flow
12	Crude		Floating	1941	Rupture	Low		N/A	
13	Crude		Floating	1941	Rupture	Low		N/A	
18	Crude		Floating	1971	Rupture	Low		N/A	
19	Crude		Floating	1953	Rupture	Low		N/A	
20	Crude		Floating	1953	Rupture	Low		N/A	Note "C"
21	Crude		Floating	1955	Rupture	Low		N/A	
22	Crude		Floating	1955	Rupture	Low		N/A	
23	Crude		Floating	1960	Rupture	Low		N/A	
24	Crude		Floating	1965	Rupture	Low		N/A	
25	Crude		Floating	1965	Rupture	Low		N/A	
26	Crude		Floating	1957	Rupture	Low		N/A	
#2 Fuel Oil Storage Tank	Fuel Oil		Horizonta I	1983	Leak			N/A	
Waste Oil/Rags Drums Storage	Waste Oil & Rags		55 Gal Drums		Leak			N/A	
Pier 2 Diesel	Diesel			2002	Leak			N/A	
Generator Tank Construction Mobile Fuel Tank	Fuel Diesel Fuel		Rectangular		Leak		N/A		In tank dike 23/24

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**Note<sup>B</sup>:** Primary drainage is to the containment area. Drainage outside of, or escaping containment would flow north across Pickett Street towards Portland Harbor.

Note<sup>C</sup>: Primary drainage is to the containment area. Drainage outside of, or escaping containment would more than likely flow through either storm drains or ditches to the oil/water separator and reservoir. The chance does exist that a spill could reach Portland Harbor to the northwest.
 Note<sup>F</sup>: 55 gallon drum is stored on factory produced drum containment pallet sufficient to hold the entire contents.

US - HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SI) (Surface Impoundment = natural topographic depression, man-made excavation, or diked area)									
SI Number	Substance Stored	Quantity Stored (Gallons)	Maximum Capacity (Gallons)	Surface Area	Year Built	Failure / Cause (Record cause and date of any SI failure which has resulted in the loss of SI contents)			
		Surf	There a ace Imp at this F	oundment	S				

#### **US - HAZARD IDENTIFICATION TANKS** UNDERGROUND STORAGE TANKS (Tank = any container that stores oil) Tank Type (ie. floating roof, fixed roof, etc.) Substance Maximum Year Built Potential Rate of Failure / Cause Secondary Average Direction Stored Quantity Capacity Failure Flow (Record cause and of Flow Containment date of any Tank Capacity (Gallons) (Oil & Haz. (Gallons) Stored (Gallons) failure which has Substance) (Gallons) resulted in a loss of tank contents)

Unde	rgroun	e are n d Stora s Facil				

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Tank

Number

# Figure H-4 **United States**

This page reserved for Hydrant and Drainage Diagrams

D4923 - Hydrants -D4924 - Hydrants -B1154 – Drainage Diagram – South Portland Tank Farm

South Portland Tank Farm **South Portland Terminal** 

B1153 – Drainage Diagram – South Portland Terminal