FOREWORD

INTEGRATED CONTINGENCY PLAN

Portland Montreal Pipe Line (PMPL)

This Plan satisfies the following regulations / guidelines:

- U.S. EPA 40 CFR Part 112 (OPA 90)
- U.S. EPA 40 CFR Part 112.5 (SPCC)
- U.S.EPA 40 CFR 264 (RCRA)
- U.S. DOT 49 CFR 194 (OPA 90)
- USCG 33 CFR Part 154 (OPA 90)
- OSHA 29 CFR 1910.38(a) (Emergency Action Plan)
- OSHA 29 CFR 1910.120 (HAZWOPER)
- NEB Onshore Pipeline Regulations (SOR 99/294)
- Oil and Gas Occupational Safety and Health Regulations (SOR 87-612)
- Guidelines for Filing Requirements of the National Energy Board
- CAN/CSA-Z731-03 Emergency Preparedness and Response
- Planning of the emergency measures to ensure the safety of the workers: Guidance document for the development of emergency measures plan for the Industry, CSST

Prepared for:

PORTLAND PIPE LINE CORPORATION (PPL)
30 Hill Street
South Portland, ME 04106
and
MONTREAL PIPE LINE LTD (MPL)
10803, Sherbrooke St. East
Montreal (Quebec) H1B 1B3

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EMERGENCY RESPONSE ACTION PLAN

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FIGURE 1.4

PMPL SYSTEM INFORMATION

SYSTEM GENERAL INFORMATION	
System Name:	Portland Montreal Pipe Line System
System Description:	The Portland Montreal Pipe Line system enables shipment of crude oil between South Portland (Maine) and Montreal-East (Québec). Two (2) companies, under one ownership, are engaged in this operation. ● Portland Pipe Line Corporation - US ADDRESS: 30 Hill Street South Portland, ME 04106 TELEPHONE: 207-767-0421 207-767-3231 (Emergency - 24 hour) 866-253-7351 (Emergency- 24 hour) FAX: 207-767-0442 ● Montreal Pipe Line Limited - Canada LEGAL NAME : Montreal Pipe Line Limited ADDRESS: 10803, Sherbrooke St. East Montreal (Quebec) H1B 1B3 TELEPHONE: 514-645-8797 514-645-4589 (Emergency- 24 hour) 888-977-4589 (Emergency -24 hour) FAX: 514-645-7663 (As stated in Section 1.1, these two companies are collectively referred to as "PMPL" or The Company" throughout this plan).
PHMSA Sequence Number:	0045 - Region 1
Owner Name:	Portland Pipe Line Corporation Attn: Nick Payeur 30 Hill Street South Portland, ME 04106
Facilities Included in Pipeline System:	● A terminal to unload tanker ships with storage facilities in South Portland. ● Three (3) large-diameter unloading lines 24" (610 mm), 30" (762 mm) and 42" (1,067 mm) in South Portland linking the terminal to the tank field, which include (b) (7)(F) [redacted]

SYSTEM GENERAL INFORMATION

- Two (2) main pipe lines between South Portland and Montreal-East: the first constructed in 1950 and having a diameter of 18" (457 mm), the second, constructed in 1965 and having a diameter of 24" (610 mm). A third line constructed in 1941 and having a diameter of 12" (305 mm) has been abandoned in place.
- Eight (8) pumping stations with an installed capacity of 47,789 kW located along the pipeline route.
- A terminal with a storage tank field in Montreal-East, including manifolds and delivery lines connected to the customers of Montreal Pipe Line Limited.
- Portland Pipe Line Corporation, a Maine corporation, is a wholly-owned subsidiary of Montreal Pipe Line Limited, which is incorporated under Canadian laws. Montreal Pipe Line Limited is owned by the following three (3) Canadian oil companies: Imperial Oil Ltd., Shell Canada Ltd., and Suncor Energy. Portland Pipe Line Corporation owns the section of the pipeline system in U.S. territory and is a common carrier under the jurisdiction of the Federal Energy Regulations Commission, which administers U.S. laws and regulations relevant to the economics of oil transportation. The Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration has jurisdiction for the other aspects of oil pipeline transportation. Crude oil coming from international sources and transferred in South Portland is moved in transit under U.S. Customs Bond through the U.S.
- Montreal Pipe Line Limited, a Canadian Corporation, is a common carrier falling under the jurisdiction of the National Energy Board, which administers Canadian Laws and Regulations relevant to pipeline operations in the Canadian section of the pipeline system.

Response Zone (DOT/PHMSA): Portland Pipe Line Corporation is treating the entire pipeline as one zone. States and counties affected include:

- Maine - Cumberland County; Oxford County
- New Hampshire - Coos County
- Vermont - Caledonia County; Essex; Orleans County

Primary NAICS Codes: 48611

Determination of Significant *This Response Zone meets the criteria for "Significant and*

SYSTEM GENERAL INFORMATION	
and Substantial Harm (DOT/PHMSA):	*Substantial Harm".*
Operator Statement of "Significant and Substantial Harm":	Portland Pipe Line Corporation has determined that an accidental release could cause significant and substantial harm to the environment because of the following conditions outlined in 194.103 of the regulations: ● Some sections of the pipeline are operated at pressure levels above fifty percent of the specified minimum yield strength of the pipe. ● Some sections of the pipeline are located within a five mile radius of public drinking water intakes. Portland Pipe Line Corporation has determined that an accidental release meets the criteria for substantial harm because of the following conditions outlined in 112.20 of the regulations: ● The facility transfers oil over water from vessels and has a total oil storage capacity greater than 42,000 gallons. ● The facility has a total oil storage capacity greater than 1 million gallons and is located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments.

FIGURE 1.7

FACILITY GENERAL INFORMATION South Portland Marine Terminal and Tank Farm	
Facility Name:	Portland Pipe Line Corporation - South Portland Marine Terminal and Tank Farm
Facility Address and Telephone Number:	Marine Terminal Pier No. 1 30 Hill Street South Portland, Maine 04106 Cumberland County Marine Terminal Pier No. 2 30 Hill Street South Portland, Maine 04106 Cumberland County Dock House: (207) 767-0468 Guard House: (207) 767-0470 Supervisor's Office: (207) 767-0473 Tank Farm and Pump Station 30 Hill Street South Portland, Maine 04106 Cumberland County Operations Control Center Emergency No: (207) 767-3231 1-866-253-7351
Owner/Operator Name:	Portland Pipe Line Corporation 30 Hill Street South Portland, Maine 04106
Qualified Individual/ Emergency Coordinator	See personnel listed in Figure 2.6
Alternate Qualified Individual(s):	See personnel listed in Figure 2.6
Date of Initial Oil Storage:	1941

FIGURE 1.7 (cont'd)

FACILITY GENERAL INFORMATION
South Portland Marine Terminal and Tank Farm (Cont'd)

County:

Latitude/Longitude:

(b) (7)(F) [redacted]

Area Map:

Facility Diagram: Provided in Figure 1.5

Wellhead Protection Area: No Impact

Landside Directions:

- The tank farm and pump station is located on Hill and Dunscomb Streets in South Portland.

Waterside Directions:

- Pier No. 1 is located in the Fore River on the North Shore of South Portland near Front Street.
- Pier No. 2 is located in Casco Bay west of Diamond Island Roads, and the northwesterly shore of South Portland. The pier is approximately 12.5 nautical miles northwest of the Portland Large Navigation Buoy.

FACILITY PHYSICAL DESCRIPTION - GENERAL
South Portland Marine Terminal and Tank Farm

Description Of Operation:

- The Facility stores crude oil.
- Crude oil is received at the dock via tankers. It is immediately transferred via unloading lines into tankage and from there transported by the 24" (610 mm) pipeline to Montreal-East.
- The Facility is not equipped with a truck rack.
- (b) (7)(F) [redacted].
- The facility generates and temporarily stores hazardous waste.

Note: Material Safety Data Sheets (MSDS) are in Section 3.0 and are also maintained separately at the Facility.

FIGURE 2.1
EMERGENCY / SPILL REPORTING FORM & CHECK LIST

Date: _____ ***Time:*** _____

INCIDENT DESCRIPTION

Reporter's Full Name: _____ *Position:* _____
Day Phone Number: _____ *Evening Phone Number:* _____
Company: _____ *Organization Type:* _____
Facility Address: _____ *Owner's Address:* _____
_____ _____
Facility Latitude: _____ *Facility Longitude:* _____
Emergency / Spill Location: _____
(if not at Facility) _____
Reporter's Full Name (If other than employee): _____
Day Phone Number: _____
Company: _____
Facility Address: _____
_____
Responsible Party (If Known):
Company: _____ *Organization Type:* _____
Facility Address _____
_____
Telephone Number: _____
Calling for Responsible Party (Y/N): _____
Were materials discharged (Y/N)? _____ *Type of Crude Spilled:* _____
Source and/or cause of discharge: _____
Date: _____ *Time:* _____ *Does it Threaten a Body of Water (Y/N)?* _____
Nearest City: _____
County: _____ *State:* _____ *Zip code:* _____
Section: _____ *Township:* _____
Distance from City: _____ *Direction from City:* _____
Container Type: (Above ground /Below ground/ Unknown) *Container Storage Capacity:* _____
Facility Oil Storage Capacity: _____
Mile post or River Mile: _____ *Closest Pump Station:* _____
Material:

Total Quantity Released	Discharged Material	Water Impact (Yes or No)	Quantity into Water

Does Fire threaten Surrounding installations? _____ *Source of Fire:* _____

RESPONSE ACTION(S)

Action(s) taken to Correct, Control, or Mitigate Incident: _____
_____
_____
Number of Injuries: _____ *Number of Fatalities:* _____
Evacuation(s): _____ *Number Evacuated:* _____
Damage Estimate: _____
More information about impacted medium: _____

CALLER NOTIFICATIONS

National Response Center (NRC): 1-800-424-8802
Additional Notifications (Circle all applicable): USCG EPA State Province TSB Environment Canada MDDEP Other

ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in this report: _____
_____
_____

NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION.

Figure 2.2

INTERNAL / SMT / EXTERNAL NOTIFICATION (See also Figure 2.3)

The typical notification responsibilities for each person potentially involved in the initial response are as follows:

First Company Person Notified/On-Scene

- ☐ Immediately notify the **Controller** (See Figure 2.3)

Controller

- ☐ Notify **On-Shift or On-Call Supervisor** / Chief (if not available, assume the response duties of the **On-Shift Supervisor** / Chief until assumed by other PPL staff)
- ☐ Notify **9-1-1 or local emergency officials**
- ☐ Notify **Oil Movements Scheduler or Designate**

On-Shift Supervisor / On-Call Supervisor

- ☐ Notify **Director of Operations** for U.S. or **Quebec Area Manager** for Canada respectively (see Figures 2.5 and 2.6)
- ☐ Activate **Local Response Resources** local assistance agencies (police, fire, etc.) (PMPL response personnel/equipment and/or local contract resources, etc. as appropriate; see Figures 2.5, 2.6, 2.10 – 2.13)
- ☐ Conduct **External Agency Notifications** (NRC, Federal, State or Provincial Agencies, (e.g. USCG, TSB, PHMSA as appropriate; see Figures 2.8 and 2.9)

Director of Operations / Quebec Area Manager (QI / Emergency Coordinator)

- ☐ Notify **Health, Safety and Environmental Coordinator**
- ☐ Notify as appropriate based on location and situation (Figures 2.5 and 2.6):
  - ☐ **Maintenance Supervisor – South Portland / District 2 / Montreal**
  - ☐ **Maintenance Technicians**
- ☐ Activate additional response resources (OSROs, Contractors, Co-ops, etc.) as appropriate (See Figures 2.14 and 2.15)

Figure 2.2 (cont'd)

INTERNAL / SMT / EXTERNAL NOTIFICATION (Cont'd)

Health, Safety and Environmental Coordinator

- ☐ Activate **PMPL Spill Management Team**, as necessary (Figure 2.7)
- ☐ Notify **Engineering Manager** (Figure 2.6)
- ☐ Activate **the O'Brien Group Spill Management Team**, as appropriate (Figure 2.7)
- ☐ Notify **President or designate** (Figure 2.6)
- ☐ Verify / Follow-up Notifications to **Regulatory / Governmental Agencies**
- ☐ Commission NRDA as appropriate

President or designate

- ☐ Notify **Legal Representation** (Figure 2.7)
- ☐ Notify **city officials if hazard to public or considerable damage to property of others may result.** (See PMPL Communications Manual)
- ☐ Notify **Corporation Directors (as appropriate)**

Oil Movements Scheduler or Delegate

- ☐ Notify Products Movements Manager
- ☐ Notify **Shipper of Record if vessel related**

Corporate Controller (or Treasurer)

- ☐ Notify Public Relations as directed by the President (See Communications plans)

It is critical that the above members are notified immediately. Refer to the Internal Notification Sequence (Figure 2.3) for a flow diagram of the notification procedures.

FIGURE 2.3
INTERNAL NOTIFICATION SEQUENCE

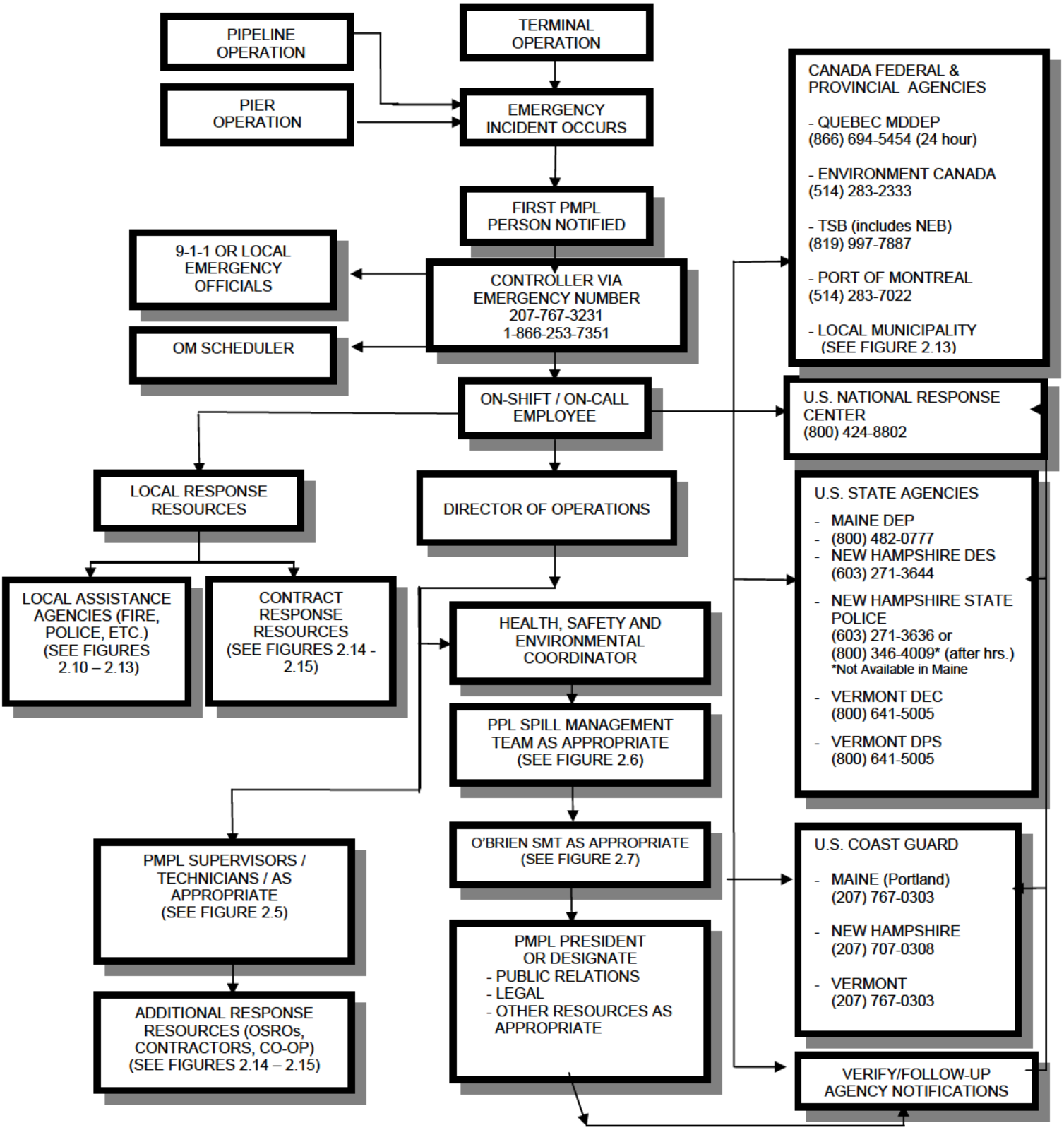


FIGURE 2.4
INTERNAL NOTIFICATION REFERENCES

LOCATION			
FACILITY AREA	**OFFICE**	**FAX NUMBER**	**NOTIFIED DATE/TIME**
Portland Pipe Line Corporation	207-767-3231(24 hour) 866-253-7351(24 hour)	207-767-0411	
Raymond Pump Station	207-655-4567	207-655-2807	
North Waterford Pump Station	207-583-2311	207-583-4117	
Shelburne Pump Station	603-466-2011	603-466-5595	
Lancaster Pump Station	603-788-4461	603-788-3813	
Sutton Pump Station	802-467-3311	802-467-1007	
Highwater Pump Station	450-292-5909	450-292-5231	
St. Cesaire Pump Station	450-469-2394	450-469-5689	
Montreal Terminal	514-645-4580	514-645-7663	
Montreal General Office	514-645-4589 (24 hour) 1-888-977-4589(24 hour)		

FIGURE 2.5
INTERNAL NOTIFICATION REFERENCES

MONTREAL TERMINAL and CANADA MAINLINE LOCAL RESPONSE TEAM CALLOUT LIST					
POSITION/TITLE	**NAME**	**OFFICE**	**HOME*** (b) (6)	**OTHER**	**NOTIFIED DATE/TIME LOCATION**
President / **Qualified Individual**	L.D. Wilson	207-767-0420	[redacted]	207-233-6320 (Cellular)	
Director of Operations / ***Alt. Qualified Individual***	T. A. Hardison	207-767-0440 514-645-2946	[redacted]	207-233-6340 (Cellular)	
Quebec Area Manager **Alt. Qualified Individual**	M. Robin	514-645-7268	[redacted]	514-946-5128 (Cellular)	
Maintenance Supervisor	D. Houle	514-645-3031	[redacted]	514-893-8760 (Cellular)	
Maintenance Technician	P. McDougall	514-645-6326	[redacted]	514-714-9101 (Cellular)	
Terminal Operator	J. Spiridigliozzi	514-645-0566	[redacted]	514-703-0443 (Cellular)	
Terminal Operator	J. Blanchette	514-645-5847	[redacted]	514-234-9517 (Cellular)	
Maintenance Technician	F. Clermont-Girard	450-292-5909	[redacted]	450-405-2065 (Cellular)	
Administrative Assistant	L. Gauthier	514-645-8797	[redacted]	N/A	

FIGURE 2.6
INTERNAL NOTIFICATION REFERENCES

SOUTH PORTLAND TERMINAL and U.S. MAINLINE LOCAL RESPONSE TEAM AND CORPORATE CALLOUT LIST					
POSITION/TITLE	**NAME**	**OFFICE**	**HOME***	**OTHER**	**NOTIFIED DATE/TIME LOCATION**
President / ***QI / EC***	L. D. Wilson	207-767-0420	(b) (6) [redacted]	207-233-6320 (Cellular)	
Director of Operations PPL/ ***Alt. QI / EC***	T. A. Hardison	207-767-0440	[redacted]	207-233-6340 (Cellular)	
Deputy Incident Commander ***Alt. QI / EC***	D. E. Cyr	207-767-0450	[redacted]	207-650-1289 (Cellular)	
Engineering Manager/ ***Alt QI / EC***	K. P. Brown	207-767-0449	[redacted]	207-233-6349 (Cellular)	
Health, Safety and Environmental Coordinator	N. D. Payeur	207-767-0422	[redacted]	207-232-5158 (Cellular)	
Controller	On-duty	207-767-3231	[redacted]	207-233-6430 (Cellular)	
Maintenance Supervisor SP	R. A. Hughes	207-767-0437	[redacted]	207-233-1937 (Cellular)	
Oil Movements Scheduler	C. A. Allen	207-767-0423	[redacted]	207-232-2486 (Cellular)	
Operations Supervisors First Operational Response Team	W. H. Mileson	207-767-0473	[redacted]	207-233-6360 (Cellular)	
	D. C. Cadorette	207-767-0473	[redacted]	207-233-6360 (Cellular)	
	W. J. Withers	207-767-0473	[redacted]	207-233-6360 (Cellular)	
	R. M. Minervino	207-767-0473	[redacted]	207-233-6360 (Cellular)	
Maintenance Supervisor District 2	R. W. Henderson	802-467-3311	[redacted]	207-232-7084 (Cellular)	
Maintenance Technicians First Operational Response Team	S. L. Whiting	207-583-2311	[redacted]	207-446-1916 (Cellular)	
	D. A. Paschal	603-788 -4461	[redacted]	603-359-1757 (Cellular)	
	K. Morin	207-767-0485	[redacted]	207-233-1966 (Cellular)	
	E. D. Robinson	207-767-0476	[redacted]	207-233-1976 (Cellular)	
	M. S. Hodgins	207-767-0466	[redacted]	207-653-4694 (Cellular)	
Welder	J. R. Chaput	207-767-0466	[redacted]	207-650-4950 (Cellular)	
Corrosion Specialist	J. M. Leary	207-767-0426	[redacted]	207-233-1977 (Cellular)	

NOTE: Personnel responding to a spill at the Portland Pipe Line Corporation Marine Terminal and Tank Farm receive regular training in HAZWOPER, SPCC plan, and ICS.

NOTE: Local Response Team personnel are capable of responding to the South Portland Marine Terminal and Tank Farm within 120 minutes. All personnel can be reached 24 hours per day.

FIGURE 2.7
INTERNAL NOTIFICATION REFERENCES
INTERNAL NOTIFICATIONS – SPILL MANAGEMENT TEAM

POSITION/ TITLE	NAME	OFFICE	HOME*	OTHER	NOTIFIED DATE/TIME LOCATION
COMMAND STAFF			(b) (6) [redacted]		
Qualified Individual / *Incident Commander*	L. D. Wilson	207-767-0420		207-233-6320 (Cellular)	
Deputy Incident Commander	D. E. Cyr (AQI)	207-767-0450		207-650-1289 (Cellular)	
External Liaison	D. E. Cyr (AQI)	207-767-0450		207-650-1289 (Cellular)	
Public Affairs Officer	L. B. Gwinn	207-767-0421		207-332-6991	
	Bernstein Shur(U.S.) Jim Merrill	603-623-8700		603-665-8853	
	National Public Relations Inc Denis Boucher	514-843-7171		514-913-1957 (Cellular) 514-843-2393 (Fax)	
Regulatory / Legal Officer	PPLC Counsel Dave Champoux Ken Gray	207-791-1364		207-408-6719 (Cellular) 207-450-0955 (Cellular)	
	MPLL Counsel Peter Villani	416-868-3517 (Tor) 514-397-4316		416-500-3517 (Cellular)	
Safety Officer	N. D. Payeur Environmental Safety & Hygiene Bruce Hackett Mark Coleman	206-767-0422 207-854-2711 207-854-2711 207-854-2711		207-232-5158 (Cellular) N/A N/A 207-756-9429 (Cellular)	
	Santinel M. Dubeau	450 670-4504 514-521-7801 (ext 2217)		514-516-5166 (Cellular)	
OPERATIONS SECTION					
Operations Section Chief	T. A. Hardison (AQI)	207-767-0440		207-233-6340 (Cellular)	
Pipeline Repair Unit Leaders	R. A. Hughes	207-767-0437		207-233-1937 (Cellular)	
	D. Houle	514-645-3031		514-893-8760 (Cellular)	
Clean-Up Unit Leaders	R. W. Henderson	802-467-3311		207-232-7084 (Cellular)	
	D. A. Paschal	603-788-4461		603-359-1757 (Cellular)	
	G. Spiridigliozzi	514-645-0566		514-703-0443 (Cellular)	
	F. Clermont-Girard	450-292-5909		450-405-2065 (Cellular)	
	J. M. Leary	207-767-0426		207-233-1977 (Cellular)	
	S. L. Whiting	207-655-4567		207-233-1976 (Cellular)	
	J. Blanchette	514-645-5847		514-234-9517 (Cellular)	

FIGURE 2.7

INTERNAL NOTIFICATION REFERENCES (Cont'd)

INTERNAL NOTIFICATIONS – SPILL MANAGEMENT TEAM (Cont'd)

POSITION/TITLE	NAME	OFFICE	HOME*	OTHER	NOTIFIED DATE/TIME LOCATION
Clean-up unit Contractors	MSRC	207-780-8801 Portland	(b) (6) [redacted]	1-800-259-6772* 1-800-645-7745* 1-800-417-0175*	
	Clean Harbors	207-799-8111*			
	ECRC (SIMEC) Pierre Samson	Emergency 613-930-9690		418-563-5618 (Cellular)	
	Boom-Tech	207-887-7111		207-252-6756 (Cellular)	
PLANNING SECTION					
Planning Section Chief	K. P. Brown (AQI)	207-767-0449		207-233-6349 (Cellular)	
Situation Unit Leader	M. Robin (AQI) J. G. Magee	514-645-7268 207-767-0415		514-946-5128 (Cellular) 207-233-4002 (Cellular)	
Surveillance Unit Leader / Field Observer	R. A. Hughes F. Clermont- Girard	207-767-0437 450-292-5909		207-233-1937 (Cellular) 450-405-2065 (Cellular)	
Environmental Specialist Unit Leader (Resources at Risk, Disposal, Alternate Response Technologies)	S. L. Given	207-767-0419		207-233-3702 (Cellular)	
Display Processor	L. M. Ramsdell	207-767-0460		207-653-7322	
Documentation Unit Leader	L. M. Ramsdell	207-767-0460		207-653-7322	
	O'Brien Group	281-320-9796			
Hydraulic Isolation Specialist	J. G. Magee	207-767-0415		207-233-4002 (Cellular)	
Resource Unit Leader	N. D. Beaton-Smith	207-767-0445		207-239-8963 (Cellular)	
Technical Specialists	O'Brien Group	281-320-9796		281-320-9700	
	Tetratech Marcel Ricard	514-257-1112		514-984-0735 (Cellular)	

FIGURE 2.7

INTERNAL NOTIFICATION REFERENCES (Cont'd)

INTERNAL NOTIFICATIONS – SPILL MANAGEMENT TEAM (Cont'd)

POSITION/TITLE	NAME	OFFICE	HOME*	OTHER	NOTIFIED DATE/TIME LOCATION
LOGISTICS SECTION			(b) (6) [redacted]		
Logistics Section Chief	J. C. Gillies	207-767-0441		207-233-1947 (Cellular)	
Procurement Unit Leaders	N. M. Amero L. A. Gauthier	207-767-0454 514-645-8797		207-491-8137 (Cellular) NA	
Supply Unit Leaders	N. D. Beaton-Smith	207-767-0491		207-409-4625 (Cellular)	
	L. A. Gauthier	514-645-8797		NA	
Communications Unit Leader	M.E. Amero	207-767-0447		207-233-7709 (Cellular)	
	MSRC	207-780-8801 Portland		1-800-259-6772* 1-800-645-7745* 1-800-417-0175*	
	Bell Mobility (24 hr)	1-800-361-2616			
	Rogers			1-877-274-3375	
Security Unit Leader	O'Brien Group	281-320-9796		281-320-9700	
	Publicover (24 hr)	207-773-3736			
	Pro-sec	514-313-6131*		514-718-8254* (Cellular)	
I.T. Unit Leader	M. E. Amero	207-767-0447		207-233-7709 (Cellular)	
Pollution Equipment Unit Leader	MSRC O'Brien Group Boom Tech	207-780-8801 281-320-9796 207-887-7111		207-232-3315 281-320-9700	
FINANCE SECTION			(b) (6) [redacted]		
Finance Section Chief	D. E. Cyr	207-767-0450		207-650-1289 (Cellular)	
Claims / Insurance Unit Leader	K. H. Dillenback Crawford: Catstro. Claims Alert Bud Trice (VP Cat. Services) Willis Insurance Allyn Roberts	207-767-0456 810-221-3509 877-346-0300* 713-625-1092		207-228-3824 (Cellular) 404-229-7061 (Cellular) 281-910-1721 (Cellular)	

POSITION/TITLE	NAME	OFFICE	HOME*	OTHER	NOTIFIED DATE/TIME LOCATION
Time Unit Leader	C. A. Allen O'Brien Group	207-767-0423 281-320-9796	(b) (6) [redacted]	207-232-2486 281-320-9796	
Cost Unit Leader	N. M. Amero	207-767-0454		207-491-8137 (Cellular)	

CONTRACT RESOURCES SUPPLEMENTARY – PPL SPILL MANAGEMENT TEAM

POSITION/TITLE	NAME	OFFICE	HOME	OTHER	NOTIFIED DATE/TIME LOCATION
Consulting on All SMT Positions	O'Brien Response Management Inc.	985-781-0804 (24 hrs)		281-320-9700 (Fax)	
Section Chief	Calvin "Bud" Kline Aaron Holton Ed Turner Scott Hess Ben Benson	985-781-0804 (24 hrs)			
Operations	Calvin "Bud" Kline Aaron Holton Ed Turner Scott Hess Ben Benson	985-781-0804 (24 hrs)			
Operations/ Training/ Safety	Calvin "Bud" Kline Aaron Holton Ed Turner Scott Hess Ben Benson	985-781-0804 (24 hrs)			
The Response Group ***IAP Software / GIS Mapping and Modeling***	Roy Barrett	281-880-5000 (24 hrs)			

EXTERNAL REPORTING GUIDELINES

SPILL REPORTING GUIDELINES

- Review Figure 2.8 for spill reporting requirements and conditions and follow required reporting.
- Never include information which has **not been verified.**
- **Never speculate** as to the cause of an incident or make any acknowledgment of liability.
- **DOCUMENT:**
  - ☐ Agency notified
  - ☐ Time agency notified
  - ☐ Person notified
  - ☐ Content of message given
  - ☐ Incident number if applicable
- **DO NOT DELAY** reporting due to incomplete information.

FIGURE 2.8
EXTERNAL NOTIFICATION REFERENCE

US FEDERAL

FEDERAL NOTIFICATIONS – ALL STATES		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
National Response Center Washington, D.C. (NRC)	(800) 424-8802* (202) 267-2675	TYPE: All spills that impact or threaten navigable water. VERBAL: Immediate notification required. WRITTEN: Not required.
Department of Transportation Information Resources Manager Office of Pipeline Safety Pipeline and Hazardous Materials Safety Administration US Dept. of Transportation Room E22-321, 1200 New Jersey Avenue, S.E. Washington, DC 20590 Fax Filing: (202) 366-4566	PHMSA (202) 366-1863 http://nrc.uscg.mil	All spills that impact or threaten navigable water must be reported to the National Response Center, 800-424-8802. In addition, some spill incidents must be reported directly to the Pipeline and Hazardous Materials Safety Administration. NOTE: PHMSA has requested direct notification for any pipeline related incidents reported to NRC. PHMSA expects to be notified within 1 hour of a confirmed incident or accident. Telephonic or Electronic Report: The operator must report incidents by calling the Department of Transportation Crisis Management Center, 202-366-1863 (24 hours), when: The operator discovers a release of the hazardous liquid transported resulting in an incident requiring a Written Report as described on Page 2-18 and: (1) a person dies or has injuries requiring hospitalization; (2) the incident results in a fire or explosion not intentionally set by the operator; (3) the incident causes property damage including cleanup and recovery costs, lost product costs, and damage to the operator's and / or other entity's property exceeding $50,000; (4) the incident pollutes a stream, river, lake, reservoir, or other similar body of water and violates applicable water quality standards, discolors the surface of the water or adjoining shoreline, or deposits a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or (5) the operator judges the incident is significant even though it did not meet the above criteria.

***24-Hour Number**

FIGURE 2.8 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

US FEDERAL

FEDERAL NOTIFICATIONS – ALL STATES		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
(continued) **Department of Transportation** Information Resources Manager Office of Pipeline Safety Pipeline and Hazardous Materials Safety Administration US Dept. of Transportation Room E22-321, 1200 New Jersey Avenue, S.E. Washington, DC 20590 Fax Filing: (202) 366-4566 ***24 Hour Number***	PHMSA (202) 366-1863	The telephonic reports to the Pipeline and Hazardous Materials Safety Administration must include: (1) the operator's name and address, identification # of operator; (2) the reporter's name and telephone number; (3) the incident location; (4) the incident time; (5) fatalities and personal injuries; and (6) all the significant facts the operator knows about the incident including the incident cause and damages. (a) Calculation. A pipeline operator must have a written procedure to calculate and provide a reasonable initial estimate of the amount of released product. (b) New information. An operator must provide an additional telephonic report to the NRC if significant new information becomes available during the emergency response phase of a reported event at the earliest practicable moment after such additional information becomes known. <u>Accident Report:</u> The operator must file Department of Transportation Form 7000-1 within thirty days of an incident when the following criteria are met: Hazardous liquid is released and (1) the incident results in a fire or explosion not intentionally set by the operator; (2) five gallons or more of hazardous liquid is released; excepting no report is required for a release of less then 5 barrels resulting from maintenance activity and the release: (a) does not meet the other written report criteria, (b) does not meet the telephonic reporting criteria listed under Telephonic Reporting (page 2-18) in item 4 (pollution of a stream, river, lake, reservoir, or other similar body of water), (c) is confined to company property or pipeline ROW, and (d) is cleaned up promptly. (3) a person dies; (4) a person's injuries require him or her to be hospitalized; or (5) the incident causes property damage including cleanup and recovery costs, lost product costs, and damage to the operator's and/or other entity's property exceeds $50,000. Department of Transportation Form 7000-1 is in Appendix K.

FIGURE 2.8 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

FEDERAL NOTIFICATIONS – ALL US STATES		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
Occupational Safety and Health Administration (OSHA) Washington, D.C.	(800) 321-6742*	TYPE: Fatality from a work related incident or the inpatient hospitalization of three (3) or more employees as a result of a work related incident. VERBAL: Immediate notification required. WRITTEN: As requested.

RECOMMENDED EXTERNAL NOTIFICATIONS	
AGENCY	**CONTACT INFORMATION**
U.S. Environmental Protection Agency (EPA): Report to the EPA Regional Administrator within 60 days whenever the facility has discharged more than 1,000 U.S. gallons of oil in a single discharge or discharged more than 42 U.S. gallons of oil in each of two discharges occurring within any twelve month period.	A call to the NRC satisfies the reporting requirements for these two agencies. However, a follow-up call is strongly recommended. Phone numbers are located in the State Specific Notification section that follows.
U.S. Coast Guard	
Local Emergency Planning Committee (LEPC)	See State Notification Lists
State Emergency Response Commission (SERC)	See State Notification Lists – DEP

***24-Hour Number**

CANADA FEDERAL

FIGURE 2.9
EXTERNAL NOTIFICATION REFERENCE

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
Transportation Safety Board (TSB)	819-997-7887 General 24 hour number	Incident concerning the pipeline: **Canada Specific Reporting Requirements** In response to an industry suggestion, the National Energy Board (NEB) and the Transportation Safety Board of Canada (TSB) have agreed to introduce single-window reporting during pipeline incidents/occurrences. Arrangements have been made for the TSB to receive these reports on behalf of both agencies. Effective September 1, 1999, all incidents and occurrences should be reported to the TSB Occurrence Hot Line (for telephone number, see Figure 2.9). Preliminary and detailed incidents reports should also be reported to the TSB. The TSB will forward all applicable reports to the NEB. **Section 1 of the National Energy Board's Regulations (Onshore Pipeline Regulation) "Incident" means an occurrence that results in:** (a) the death of or serious injury to a person (b) a significant adverse effect on the environment (c) an unintended fire or explosion (d) an unintended or uncontained release of LPV hydrocarbons in excess of 1.5 m3 (e) an unintended or uncontrolled release of gas or HVP hydrocarbons: (f) the operation of a pipeline beyond its design limits as defined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board
National Energy Board	403-807-9473 24/7 Incident Line	Accident involving an employee, occupational disease or other hazardous occurrence. **Section 1 of the National Energy Board's Regulations (Onshore Pipeline Regulation) "Incident" means an occurrence that results in:** (a) the death or serious injury to a person (b) a significant adverse effect on the environment (c) an unintended fire or explosion (d) an unintended or uncontrolled release of LPV hydrocarbons in excess of 1.5 m3 (e) an unintended or uncontrolled release of gas or HPV hydrocarbons (f) the operation of a pipeline beyond its design limits as defined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board From the **Oil and Gas Occupational Safety and Health Regulations (DORS/87-612)** of the Canadian Labour Code (Ministry of Human Resources), MPL shall report the date, time, location and nature of any accident, occupational disease or other hazardous occurrence, as soon as possible but not later than 24 hours after becoming aware of the occurrence, where the occurrence resulted in one of the following

FIGURE 2.9 (cont'd)
EXTERNAL NOTIFICATION REFERENCE

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
		circumstances: (a) the death of an employee; (b) a missing person; (c) a disabling injury to an employee; (d) the implementation of emergency rescue, revival or evacuation procedures; (e) a fire or explosion that threatened the safety or health of an employee; (f) the free fall of an elevating device that rendered the elevating device unsafe for use by an employee; (g) an accidental accumulation, spill or leak of a hazardous substance; or (h) the loss of or damage to support craft. A written report of the accident, occupational disease or other hazardous occurrence shall be submitted by the employer within 14 days after the occurrence to the National Energy Board. The Hazardous Occurrence Investigation Report shall be used to report the medical incident (see Figure 3-4). **Section 52 of the National Energy Board's Regulations (Onshore Pipeline Regulation)** requires oil pipeline companies under the Board's jurisdiction to report incidents involving their pipelines to the TSB. Guidance notes for the OPR set out the content and timing of these reports. This section and its guidance notes are reproduced in the following paragraphs. **Reportable Incidents** (Section 52 of Onshore Pipeline Regulations) (1) A company shall immediately report to the Board of any incident relating to the construction, operation or abandonment of its pipeline that and shall submit a preliminary report to the Board as soon as is practicable (2) After notification of an incident, an inspection officer may partially or completely relieve a company from the requirement to submit a preliminary and detailed incident report. **A Preliminary Detailed Incident Report** (Guidance Notes for the Onshore Pipeline Regulations – consult Appendix H forms) should be prepared by the Deputy Incident Commander and provided to the TSB, as soon as practicable following the discovery of an incident and should set out, to the extent that the information is available: (1) the area affected, the substance involved and an estimate of the volume released, and the nature, location, date, and time of the incident; (2) the name and occupation of every person killed as the result of the incident; (3) the name, occupation, condition and current location of every person that sustained a serious injury; (4) a description of any interruption or reduction in service resulting from the incident; (5) a description of the actions taken by the company to protect the public and the environment;

CANADA FEDERAL

FIGURE 2.9 (cont'd)
EXTERNAL NOTIFICATION REFERENCE

CANADA FEDERAL

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
		(6) a description of the repairs made or to be made by the company and the anticipated date of return to service of the pipeline; (7) the availability of the damaged parts of the pipeline; (8) the nature and extent of any adverse environmental effects; (9) the nature and extent of any concerns expressed to the company by the public related to the incident; (10) a descriptive assessment of any continuing hazards resulting from or related to the incident; (11) other significant facts that are known to be relevant to the cause of the incident, and; (12) a list of the witness who notified the company, along with their addresses and telephone numbers. **Detailed Incident report** A **detailed incident report** should be prepared by the Incident Commander and provided to the TSB, as soon as detailed information is available and should include: (1) a detailed description of the adverse environmental effects of the incident on terrain, property, livestock, fish, wildlife and habitat of fish and wildlife; (2) a description and evaluation of the clean-up and disposal methods used or proposed to be used; (3) a description of all measures taken or proposed to be taken to restore the terrain where the incident occurred; (4) a description of the monitoring undertaken or proposed to be undertaken to determine the success of restoration measures; (5) where the incident involved a spillage of LVP hydrocarbons, liquid test medium or any toxic substance, an outline of the program that the company proposes to follow to rehabilitate the affected area; (6) a description, sketch or photograph of the area affected by any fluids that escaped from the pipeline as a result of the incident; (7) a detailed description of the incident including the events leading up to and following the incident; (8) comments, sketches, drawings or photographs relevant to the incident that are necessary for a complete understanding of the incident; and (9) corrective actions to be taken to prevent similar incidents from occurring in the future.
Environment Canada	514-283-2333 Environmental Protection Service	Any environmental incident: spill of hazardous or petroleum products, fumes, unusual odours, noise, vapour, etc.
Port of Montreal	514-283-7022	Any spill to St. Lawrence River.

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)

RECOMMENDED EXTERNAL NOTIFICATIONS	
AGENCY	CONTACT INFORMATION
Fisheries and Oceans – Canadian Coast Guard	418-648-2544
Canadian Wildlife Service	800-363-4735 Emergencies (24 hour)
Park Canada (navigational lock)	450-447-4805

FIGURE 2.10
EXTERNAL NOTIFICATION REFERENCE

STATE SPECIFIC NOTIFICATIONS

Notifications for each state or province are detailed on the following pages in the following order: 1) Required Notifications; 2) Non-Required Notifications; 3) Local Emergency Services; 4) Neighboring Community, Utility, and Industry.

REQUIRED NOTIFICATIONS

MAINE

AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)
Maine Department of Environmental Protection	Oil Spills (800) 482-0777* (In State calls) (207) 822-6300 (Out of State calls, 8 a.m. - 5 p.m.) (207) 657-3030 (Out of State calls, nights, weekends, holidays) **Hazardous Materials** (800) 452-4664 (In State calls) (207) 624-7000 (Out of State calls)	TYPE: All spills of oil or hazardous substance or hazardous waste. VERBAL: Immediate notification required (Maximum 2 hours). WRITTEN: 10 days for Hazardous Material and Oil Spill releases. Once removal of the discharge has been completed, the person, firm or corporation responsible for the discharge shall prepare a complete written report of the occurrence and submit that report to the Commissioner within 10 days. Written report is sent to Canco Road office to the attention of the field response person who responded or fielded our telephone call to make the report. The State reporting form is located in Appendix K. Maine Department of Environmental Protection 312 Canco Road Portland, ME 04103

MAINE

***24-Hour Number**

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

MAINE

AGENCY	LOCATION	OFFICE/ ALTERNATE
U.S. Environmental Protection Agency (EPA) - Region I	Boston, MA	(617) 223-7265 (617) 723-8928* (800) 424-8802* (857) 383-8450*
U.S. Coast Guard - Marine Safety Office (USCG - COTP) (USCG-SNNE)	South Portland, ME South Portland, ME	(207) 767-0320 (207) 767-0303
U.S. Fish and Wildlife Service (USFWS) Kevin O'Brien	Concord, ME	(207) 469-6842
Oxford County Emergency Management Agency (LEPC) Scott Parker	South Paris, ME	(207) 743-6336
Maine DEP - Southern Maine	Portland, ME	(207) 822-6300 (888) 769-1036
National Weather Service (Recorded Forecasts)	Gray, ME	(207) 688-3216
NOAA Hazardous Materials Response and Assessment Dir. Stephen Lehmann	Boston, MA	(617) 223-8016 (206) 526-6317* (617) 877-2806 Cell
U.S. Department of Interior Andrew Raddant	Boston, MA	(617) 223-8565 (617) 925-2767*
Department of Conservation Bureau of Public Lands Steve Oliveri	Augusta, ME	(207) 287-3061
Department of Inland Fish & Wildlife Rich Dressler / Jordan Bailey	Bangor, ME	(207) 941-4467 (207) 941-4448
Department of Marine Services Seth Barker / Joe Fessenden	Hallowell, ME	(207) 633-9507 (207) 624-6550
Maine State Emergency Response Commission (SERC) Art Cleaves	Augusta, ME	(207) 626-4503
Maine Emergency Management Agency (MEMA) John Libby	Augusta, ME	(800) 452-8735 (207) 624-4400
Cumberland County - Emergency Management Agency (LEPC)	Windham, ME	(207) 892-6785 (207) 623-3614* (Sheriff)
South Portland Conservation Commission	South Portland, ME	(207) 767-3201
Westbrook Conservation Commission	Westbrook, ME	(207) 854-0676
Windham Natural Resource Committee	Windham, ME	(207) 892-1905
Bethel Conservation Committee	Bethel, ME	(207) 824-2669

***24-Hour Number**

MAINE

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

MAINE

AGENCY	LOCATION	OFFICE/ ALTERNATE
Department of Environmental Protection Peter Blanchard Jon Woodard Unbooming During Transfer	 Augusta, ME Portland, ME Portland, ME	 (207) 287-7190 (207) 822-6300 (207) 822-6300 (207) 879-6369
Governor's Office	Augusta, ME	(207) 287-3531
Maine Bureau of Waterways	Portland, ME	(207) 773-5608
Maine Historic Preservation Commission Art Spiess	Augusta, ME	(207) 287-2132
Maine State Police	Augusta, ME	(800) 452-4664
Maine Dig Safe		(888) DIG-SAFE **811**

LOCAL EMERGENCY SERVICES

NOTIFY AS NEEDED

MAINE

SERVICE	LOCATION	OFFICE/ ALTERNATE
CUMBERLAND COUNTY		
Cumberland County Emergency Director	Portland, ME	(207) 892-6785
Portland Water District (24 hr)	Portland, ME	(207) 761-8300
South Portland Wastewater Treatment Plant	South Portland, ME	(207) 767-7675
Portland Wastewater Treatment Plant	Portland, ME	(207) 761-5424
Municipal Fire Departments		
South Portland (Hazardous Materials & Hazardous Waste spill mutual aid)	-----	911 (207)-874-8576*
Portland	-----	(207) 874-8576*
Westbrook	-----	(207)-854-0644* (207) 854-2531
Windham	-----	(207) 893-2810* (207) 892-2525
Raymond	-----	(207) 893-2810* (207) 655-7851

MAINE

Casco	-----	(207) 893-2810* (207) 627-6958
Naples	-----	(207) 893-2810* (207) 693-6850
Otisfield	-----	(207) 743-9554* (207) 539-4619
Harrison	-----	(207) 893-2810* (207) 583-6011
Fire Wardens		
MP 10-21 Charles Hammond, Fire Chief	Windham, ME	(207) 892-1911
MP 21-26 Bruce Tupper, Fire Chief	Raymond, ME	(207) 655-1187
MP 26-32 John Small, Fire Chief	Casco, ME	(207) 693-6850
MP 32-40 Mike Hooker, Fire Chief	Otisfield, ME	(207) 539-4619
MP 40-43 Scott Andrews, Fire Chief	Harrison, ME	(207) 583-6011

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES

NOTIFY AS NEEDED

MAINE

SERVICE	LOCATION	OFFICE/ ALTERNATE
CUMBERLAND COUNTY		
Law Enforcement Agencies		
Maine State Police	Gray, ME	(800) 482-0730
Maine State Police	Augusta, ME	(800) 452-4664
Cumberland County Sheriff	-----	(800) 501-1111 non-emergency (207) 774-1444 emergency
Local Police Departments	-----	
South Portland	-----	911 (207) 799-5511
Portland	-----	(207) 874-8875
Westbrook	-----	(207) 854-2531
Windham	-----	(207) 892-2525
Harrison		(800) 501-1111 – Uses Cumberland County
Central Maine Partners in Health		
Central Maine Partners in Health	South Portland, ME	207-741-0220
Hospitals		
Maine Medical Center	Portland, ME	(207) 871-2381
Mercy Hospital	Portland, ME	(207) 879-3266
OXFORD COUNTY		
Municipal Fire Departments		(207) 743-9554*
Norway	-----	(207) 743-2424
Waterford	-----	(207) 583-2410
Bethel	-----	(800) 733-1421 (207) 824-2665
Newry	-----	(207) 824-4905
Gilead	-----	(207) 836-2079
Rumford	-----	(207) 364-2901

MAINE

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
MAINE		
SERVICE	**LOCATION**	**OFFICE/ ALTERNATE**
Law Enforcement Agencies		
Norway Police Department	Norway, ME	(207) 743-8934
Bethel Police Department	Bethel, ME	911 emergency or (800) 733-1421 non-emergency
Rumford Police Department	Rumford, ME	(207) 364-4551
Doctors		
Dr. Donald Ware Oxford Hills Internal Medicine Group	Norway, ME	(207) 743-7721
Hospital		
Stephens Memorial Hospital	Norway, ME	(207) 743-5933

MAINE

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

NEIGHBORING COMMUNITY, UTILITY AND INDUSTRY				
NOTIFY AS NEEDED				
INDUSTRY OR COMMUNITY				
MILE POST (MP)	WATER COURSE	INDUSTRY OR COMMUNITY	LOCATION	OFFICE/ ALTERNATE
-----	Portland Harbor	Central Maine Power*	Portland, ME	(207) 622-7421 (207) 622-7671
		MSRC	Portland, ME	(207) 780-8801
		Irving/Buckeye	South Portland, ME	(207) 761-0501
		Global	South Portland, ME	(207) 767-8259
		Sprague Energy	South Portland, ME	(207) 799-4899
		Citgo Enterprises	South Portland, ME	(207) 799-3394
5 to 29	Presumpscot River	Portland Water District	Portland, ME	(207) 774-5961
	Pleasant River	Central Maine Power*	Portland, ME	(207) 622-7421 (207) 622-7671
	Sebago Lake	S.D. Warren Co.	Westbrook, ME	(207) 856-4000
	Panther Pond	Cumberland Co.	Portland, ME	(207) 774-1444 (Sheriff)
29 to 60	Parker Pond	Casco Village	Casco, ME	(207) 627-4515
	Crooked River	Hancock Lumber Co.	Casco, ME	(207) 627-4201
		Portland Water District	Portland, ME	(207) 761-8310
		Papoose Pond Campground	N. Waterford, ME	(207) 583-4470
60	Androscoggin R.	St. Lawrence & Atlantic R.R.	Auburn, ME	(207) 782-5680
0-60	Various	Portland Natural Gas Transmission	Westbrook, ME to Gorham, NH	(888) 576-4634

MAINE

When oil enters a water course to the extent that it may endanger a water supply or create a fire hazard to a community or industry, persons concerned must be promptly notified. This list is intended to serve as a check list and should be amended to include all other concerned persons in each section of which the supervisor has knowledge.

*Note: Contact Central Maine Power for any issue involving electric power transmission lines and facilities in Maine

FIGURE 2.11
EXTERNAL NOTIFICATION REFERENCE

REQUIRED NOTIFICATIONS		
NEW HAMPSHIRE		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
New Hampshire Department of Environmental Services	(603) 271-3440 * (8 a.m. - 4 p.m.) (603) 271-3636 (nights, weekends, holidays)	TYPE: All spills of oil and hazardous substances or wastes. VERBAL: Immediate notification required. WRITTEN: This must be done within 15 days of the incident. New Hampshire Department of Environmental Services Attn: Special Investigations Section 6 Hazen Drive Concord, NH 03301
New Hampshire State Police	(800) 346-4209 (603) 271-3636 (800) 346-4009 (In State calls)	
Nearest Fire Department	(See Local Emergency Contacts)	TYPE: A condition in which a fire or safety hazard exists. VERBAL: Immediate notification required.

***24-Hour Number**

FIGURE 2.11 (cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)		
NOTIFY AS NEEDED		
NEW HAMPSHIRE		
AGENCY	**LOCATION**	**OFFICE/ ALTERNATE**
U.S. Department of Agriculture - Forest Service District Ranger (Any leak or spill in the White Mountains between mile 87 and 91).		(603) 466-2713 (603) 528-8721 (During Office Hours)
U.S. Environmental Protection Agency (EPA) - Region I	Boston, MA	(617) 223-7265 (617) 723-8928* (800) 424-8802* (857) 383-8450*
U.S. Fish and Wildlife Service (USFWS)	Chelsea, MA	(617) 889-6616
U.S. Coast Guard – Sector Northern New England (USCG - COTP) (USCG - MSO)	 South Portland, ME South Portland, ME	 (207) 767-0320 (207) 767-0303
National Weather Service (Recorded Forecasts)	Gray, ME	(207) 688-3210
New Hampshire Fish & Game Department	Concord, NH	(603) 271-2462
NOAA Hazardous Materials Response and Assessment Director Stephen M. Lehman	Boston, MA	(617) 223-8016 (206) 526- 6317*
New Hampshire Emergency Management (SERC) Director – George Iverson Asst. Director – Kathryn Doubtt	Concord, NH	(800) 852-3792 (603) 271-6911 (603) 271-2231
Lancaster LEPC Patricia Kelly	Lancaster, NH	(603) 788-3391
Jefferson LEPC Jeffrey Wiseman	Jefferson, NH	(603) 586-4436
Randolph LEPC John Scarinza	Randolph, NH	(603) 486-5775
Shelburne Natural Resources and Conservation Committee	Shelburne, NH	(603) 466-2262
Lancaster Conservation Committee	Lancaster, NH	(978) 368-4007

NEW HAMPSHIRE

***24-Hour Number**

FIGURE 2.11 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

NEW HAMPSHIRE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
NEW HAMPSHIRE		
SERVICE	LOCATION	OFFICE/ ALTERNATE
COOS COUNTY		
Municipal Fire Departments		
Shelburne	-----	(603) 466-3345
Gorham	-----	(603) 466-3336
Randolph	-----	(603) 466-3336
Jefferson	------	(603) 586-4444 (603)788-3232*
Lancaster	-----	(603) 788-4830 (603) 788-3232*
Guildhall (Part of Lunenburg)	-----	(603) 788-4466
Lunenburg	-----	(603) 788-4466
Sutton	-----	(802) 748-5050
Burke	-----	(802) 748-5050
Fire Wardens		
MP 72-81 Nathan Emery	Shelburne, NH	(603) 466-3345
MP 71 – 86 Rick Eichler	Gorham, NH	(603) 466-2549
MP 86 – 93 Dana Horne	Randolph, NH	(603) 466-2332
MP 93 – 103 Chris Milligan	Jefferson, NH	(603) 586-4570**
MP 103 – 107 Randy Flynn	Lancaster, NH	(603) 788-4749**
Law Enforcement Agencies		
New Hampshire State Police	Concord, NH	(603) 271-3636
Twin Mountain State Police Barracks	Twin Mountain, NH	(603) 846-3333
State Highway Commission	Lancaster, NH	(603) 846-3333 (603) 788-4641
County Sheriff (Alan Tardif)	Lancaster, NH	(603) 788-5598
Shelburne Police Department	Shelburne, NH	(603) 466-3345
Gorham Police Department	Gorham, NH	(603) 466-3336
Randolph Police Department	Randolph, NH	(603) 466-3336
Jefferson Police Department	Jefferson, NH	(603) 846-5517
Lancaster Police Department	Lancaster, NH	(603) 788-4402
Health Officers		
Weeks Medical	Lancaster, NH	(603) 788-2521
Charlie Davisson	Dalton, NH	(603) 837-9097**
Richard Hill	Littleton, NH	(603) 444-2637

NEW HAMPSHIRE

FIGURE 2.11 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES

NOTIFY AS NEEDED

NEW HAMPSHIRE

SERVICE	LOCATION	OFFICE/ ALTERNATE
COOS COUNTY (Cont'd)		
Doctors		
Gorham Medical Center Family Health Services	Gorham, NH	(603) 466-2741
Weeks Medical Center	Lancaster, NH	(603) 788-2521
Hospitals		
Androscoggin Valley Hospital	Berlin, NH	(603) 752-2200
Weeks Memorial Hospital	Lancaster, NH	(603) 788-4911
Ambulance		
Gorham Ambulance Service	Gorham, NH	(603) 466-3336

NEIGHBORING COMMUNITY, UTILITY, AND INDUSTRY

NOTIFY AS NEEDED

INDUSTRY OR COMMUNITY

MILE POST (MP)	WATER COURSE	INDUSTRY OR COMMUNITY	LOCATION	OFFICE/ ALTERNATE
60 to 90	Peabody River	NH and VT R.R.	Whitefield, NH	(603) 837-3055
		Public Serv. Co. of N.H.	Berlin, NH	(800) 662-7764
		Gorham, N.H. Town Office	Gorham, NH	(603) 466-2744
		Gorham Paper and Tissue	Gorham, NH	(603) 342-2000
		Chadbourne Tree Farm and Hancock Lumber	Bethel, ME	(207) 824-2166
		Mead Paper	Rumford, ME	(207) 364-4521
90 to 113	Connecticut River	NH and VT R.R.	Whitefield, NH	(603) 837-3055
		Public Service of N.H.	Berlin, NH	(800) 662-7764
		Maine Central R.R.	Portland, ME	(800) 955-9217 (207) 848-9851* (207) 848-4315*
		Lancaster Town Office	Lancaster, NH	(603) 788-3391
		TransCanada-Moore Station	Littleton, NH	(603) 991-2668* (603) 348-3710*

When oil enters a water course to the extent that it may endanger a water supply or create a fire hazard to a community or industry, persons concerned must be promptly notified. This list is intended to serve as a check list and should be amended to include all other concerned persons in each section of which the supervisor has knowledge. Note: Contact Public Service of New Hampshire for any issue involving electric power transmission lines and facilities in New Hampshire

FIGURE 2.11 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

REQUIRED NOTIFICATIONS

VERMONT

AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)
Agency of Natural Resources - Department of Environmental Conservation (Waste Mgmt. 8 am - 4 pm) (Emergency Mgmt/State Police) (Hazardous Materials Hotline)	800-641-5005*	TYPE: - All spills that pose a threat to human health or the environment. - A spill of 2 gallons or more VERBAL: Immediate notification required. WRITTEN: Within 10 days for any reportable spill. Vermont Department of Environmental Conservation Agency of Natural Resources 103 South Main Street West Building Waterbury, VT 05671-0404
Vermont Department of Public Service	(802) 828-2811	TYPE: All fires, leaks, or blowouts. VERBAL: Immediate notification required. WRITTEN: As requested by the agency.
National Response Center	1-800-424-8802	TYPE: Any spill that impacts (or threatens) surface water (e.g. lakes, streams, wetlands) VERBAL: Immediate notification required

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

VERMONT

AGENCY	LOCATION	OFFICE/ ALTERNATE
U.S. Environmental Protection Agency (EPA) - Region I	Boston, MA	(617) 223-7265 (617) 723-8928* (800) 424-8802* (857) 383-8450*
U.S. Coast Guard – Sector Northern New England (USCG - COTP)	Portland, ME	(207) 767-0320 (207) 767-0303
U.S. Fish and Wildlife Service (USFWS)	Chelsea, MA	(617) 889-6616
National Weather Service (Recorded Forecasts)	Gray, ME	(207) 688-3210
Department of Fish and Wildlife Commission	Waterbury, VT	(812) 241-3700
NOAA Hazardous Materials Response and Assessment Director- Stephen M. Lehman	Boston, MA	(617) 223-8016 (206) 526- 6317*
Agency of Natural Resources Dept. of Environmental Conservation Duncan Higgins, SERC Chair	Waterbury, VT	(800) 347-0488 (802) 244-8721
LEPC #9 Jay Wood	St. Johnsbury, VT	(802) 748-2576
LEPC #10 x/o Newport City PD Paul Duquette	Newport, VT	(802) 334-6733
Sutton Conservation Committee	Sutton, VT	(603) 927-4416

VERMONT

VERMONT

Figure 2.12 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
VERMONT		
SERVICE	**LOCATION**	**OFFICE/ ALTERNATE**
STATEWIDE		
Emergency Hazardous Materials Spill Reporting 7:45 AM – 4:30 PM Weekends		1-800-641-5005* (802) 241-3888
State Police Dispatch		(800) 641-5005*
ESSEX COUNTY		
Essex County Sheriff	Essex	(802) 892-1111
Fire Wardens		
MP 107 - 114	Guildhall, VT	(802) 328-4415 (802) 328-3879
CALEDONIA COUNTY		
Law Enforcement Agencies		
State Police	Derby, VT	(802) 334-8881
Caledonia County Sheriff	Caledonia, VT	(802) 748-6666
Fire Wardens		
MP 123 - 130	Burke, VT	(802) 626-5484
MP 130 - 137	Sutton, VT	(802) 467-3350
Municipal Fire Departments		
Sutton, VT	-----	(802) 748-5050
ORLEANS COUNTY		
Local Police Departments		**USE 911 STATEWIDE**
St. Johnsbury	-----	(802) 748-2314
Barton	-----	911
Newport	-----	(802) 334-6733
Law Enforcement Agencies		
Vermont State Police	Orleans, VT	(802) 766-2211
Orleans County Sheriff	Orleans, VT	(802) 334-3333

***24-Hour Number**

FIGURE 2.12 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
VERMONT		
SERVICE	LOCATION	OFFICE/ ALTERNATE
ORLEANS COUNTY		
Hospitals		
Northeastern Vt. Regional Hospital	St. Johnsbury, VT	(802) 748-8141
North County Hospital	Newport, VT	(802) 334-7900
Ambulance		
Northeastern Vt. Regional Hospital	St. Johnsbury, VT	(802) 748-8141
Newport Ambulance	Newport, VT	(802) 334-2023
Municipal Fire Department		**Use 911 for ALL Fire and Police Service**
Barton	-----	911
Orleans	-----	911
Irasburg	-----	911
Lyndonville	-----	911
Newport Center	-----	911
Troy	-----	911
North Troy	-----	911
Jay	-----	911
Fire Wardens		
MP 137 – 146 Emile LaPierre	Barton, VT	(802) 754-6005
MP 146 – 154	Irasburg, VT	(802) 754-6914
MP 154 – 158 Robert George, Fire Chief	Newport, VT	(802) 334-8661
MP 158 – 166 Michael Santaro, Fire Chief	Troy, VT	(802) 988-4395
Bill Leonard	Jay, VT	(802) 988-2901

VERMONT

FIGURE 2.12 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

VERMONT

NEIGHBORING COMMUNITY, UTILITY, AND INDUSTRY				
NOTIFY AS NEEDED				
INDUSTRY OR COMMUNITY				
MILE POST (MP)	WATER COURSE	INDUSTRY OR COMMUNITY	LOCATION	OFFICE/ ALTERNATE
		Lunenburg Town Office	Lunenburg, VT	(802) 892-5959
113 - 123	Moose River	Maine Central Railroad	Portland, ME	(800) 955-9217 (800) 248-2861 (Customer Service) (207) 848-9851* (207) 845-4315*
		St. Johnsbury Town Office	St. Johnsbury, VT	(802) 748-3926
123 - 127	Passumpsic River	East Burke Garage	Lyndonville, VT	(802) 626-5484
	East Branch	Lyndonville Village Office	Lyndon, VT	(802) 626-5785
		Lyndonville Power Co. (8 am - 4 pm)	Lyndon, VT	(802) 626-3638 (802) 626-9252
		Northern Vermont R.R. Yard Office Roadmaster	Newport, VT	(802) 334-8435 (800) 955-9208 (Railroad Ops) (802) 334-6540
		Vermont Electric Cooperative	Johnson, VT	(802) 730-1134*

***24-hour number**

When oil enters a water course to the extent that it may endanger a water supply or create a fire hazard to a community or industry, persons concerned must be promptly notified. This list is intended to serve as a check list and should be amended to include all other concerned persons in each section of which the supervisor has knowledge.

Note: Contact Vermont Electric Cooperative for any issue involving electric transmission lines and facilities in Vermont.

FIGURE 2.13
EXTERNAL NOTIFICATION REFERENCE

REQUIRED NOTIFICATIONS

QUEBEC

AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)
Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) Estrie Regional Office Montérégie Regional Office Montreal and Lanaudière Regional Office	866-694-5454 Environmental Emergencies (24 hour) all regions 819-820-3882 450-928-7607 514-873-3636	Any environmental incident: spill of hazardous or petroleum products, fumes, unusual odours, noise, vapour, etc. Spill with possible impacts on a stream or land spills, any spill of any contaminant, from the established list of contaminants, released in the environment, or susceptible of harm to life, health, security, well-being or comfort of a person, contaminant which may damage or deteriorate soil quality, vegetation, fauna or property.

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

QUEBEC

AGENCY	LOCATION	OFFICE/ ALTERNATE
MRC Regional Municipal Authority		
	Brôme-Missisquoi	450-266-4900
	Memphrémagog	819-843-9292
	Lajemmerais (Boucherville, Varennes, Vercheres)	450-583-3301
	Rouville	450-460-2127
	Haut-Richelieu	450-346-3636
	Vallée Richelieu	450-464-0339
Quebec Road Department		
	Main Number	450-589-5651
	Eastern Townships	819-820-3280
	Montérégie	450-347-2301
	Boucherville	450-655-1317
CANUTEC		613-996-6666

QUEBEC

*See Montreal Pipe Line Right of Way Book for individual parcel landowners list

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)		
NOTIFY AS NEEDED		
AMBULANCE SERVICES		
Highwater Area – Missisquoi River Area	Ambulance Cowansville inc.	800-361-3010 450-263-2444
	Ambulance de l'Estrie (Eastman)	800-567-6090
	Berkshire Ambulance	802-933-4300
	Enosburg Ambulance	802-933-4000
	Highgate Ambulance	802-868-3320
	Richford Ambulance	802-848-7700
	Sheldon Ambulance	802-933-4000
	Swanton Ambulance	802-868-3320
Saint-Césaire Area	Ambulance Marieville	800-363-1916
FIRST RESPONDERS		
Provincial Police	Estrie	819 564-1212
	Montréal	514-310-4141
	Montérégie	450-641-2128
Vermont Police Headquarters	Headquarters	802-244-8727
	Troop A (St. Albans, Vermont)	802-524-5993 802-933-5555
	Troop B (Derby, Vermont) (St. Johnsbury, Vermont)	802-334-8881 802-748-3111

QUEBEC

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)		
NOTIFY AS NEEDED		
Health Services		
Highwater Area		
Medical Doctor	Bedford Medical Centre	450-248-3336
	Cowansville Medical Centre	450-263-0774
Hospital	Brome Missisquoi-Perkins-Cowansville	450-266-4342
	North Country Hospital, Newport, Vt.	802-334-7331
	Northwest Medical Centre, St.Albans, VT	802-524-1037 (24 hour)
CLSC	C.L.S.C. Mansonville	450-292-3376
Saint-Césaire Area		
Medical Doctor	Robinson Medical Centre, Granby	450-378-8435
Hospital	Centre santé et services sociaux de la Haute Yamaska	450-372-5491
Richelieu River Area		
Hospitals	Charles LeMoyne Hospital, Greenfield Park Public Health	450-466-5000 514-466-5655
	Hôtel-Dieu Hospital, Sorel	450-746-6000
Montreal Area		
Medisys	Groupe santé Medisys	514 845-1211
Hospital	Centre Hospitalier de l'Université de Montréal (CHUM), Montréal	514-890-8000
	Maisonneuve-Rosemont Hospital	514-252-3400
	Pierre Boucher Hôpital Longueuil	450-468-8111

QUEBEC

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

NEIGHBORING COMMUNITY, UTILITY AND INDUSTRY			
NOTIFY AS NEEDED			
INDUSTRY OR COMMUNITY			
Municipalities	**Town Hall**	**Fire Dept.**	**Local Police**
Ange-Gardien	819-986-7470	911	911
Beloeil	450-467-2835	450-536-3333	
Boucherville	450 463-7027	911 450-463-7038 (if outside the city limits)	911 450-463-7028 (if outside the city limits)
Brigham	450-263-5942	911	911
Cowansville	450-263-0141	911	911
Dunham	450-295-2418	911	911
Glen Sutton	450-538-2290	911	911
Highwater/Potton	450-292-3313	911	911
Marieville	450-460-4444	911	911
McMasterville	450-467-3580	911	
Montreal	514-872-1111	911	
Montreal-East	514-645-7431	911 514-280-7808 outside city	911 514-280-2255 outside city
Mont-Saint-Hilaire	450-467-2854	911	
Otterburn Park	450-536-0303	911	
Potton	450-292-3313	911	911
Repentigny	450-470-3000	911	911 450-470-3600 (outside city)
Saint-Antoine-sur-Richelieu	450-584-2258	911	911
Saint-Basile-le-Grand	450-461-8000	911	911
Saint-Bruno-de-Montarville	450-653-2443	911	911
Saint-Césaire (suburbs)	450-469-3108	911	911
Saint-Césaire (city/suburbs)	450-469-3108	911	911
Saint-Charles-sur-le-Richelieu	450-584-3484	911	911
Saint-Denis-sur-Richelieu	450-787-2092	911	911
Saint-Marc-sur-Richelieu	450-787-3497	911	911
Saint-Mathias	450-658-2841	911	911
Saint-Roch-de-Richelieu	450-785-2755	911	911
Saint-Ours	450-785-2203	911	911
Saint-Sulpice	450-589-4450	911	
Sainte-Angèle-de-Monnoir	450-460-7838	911	911
Sainte-Brigitte-d'Iberville	450-293-7511	911	911
Sainte-Julie	450-922-7111	911	911

QUEBEC

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

NEIGHBORING COMMUNITY, UTILITY AND INDUSTRY (cont'd)			
NOTIFY AS NEEDED			
INDUSTRY OR COMMUNITY			
Municipalities	**Town Hall**	**Fire Dept.**	**Local Police**
Sorel/Tracy	450-780-5600	911	
Sutton Township & Town	450-538-2290	911	911
Varennes	450-652-9888	911	911
Verchères	450-583-3307	911	

LOCAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
Local Fire Department	Figure 2.13	Spill or fumes with risks of fire or explosion
Municipal or Provincial Police	Figure 2.13	Incident with impacts on public safety (ex. spills/fire)
Municipality involved	Figure 2.13	Spill or fumes with risks of fire or explosion Incident with impacts on public safety Incident with major consequences on the surrounding population

***Note: Contact Hydro-Quebec for any issue involving electric power transmission lines and facilities in Quebec**

QUEBEC

FIGURE 2.14

EXTERNAL NOTIFICATION REFERENCE

RESOURCES US

CONTRACTORS / SERVICES (ALL US RESPONSE ZONES)		
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)		
COMPANY	**LOCATION**	**OFFICE / ALTERNATE**
Clean Harbors of Maine, Inc. 17 Main Street South Portland, ME 04106	South Portland, ME	(207) 799-8111*
MSRC Region 1 Center 120 Fieldcrest Avenue Edison, NJ 08837	Edison, NJ	(800) 259-6772* (800) 645-7745* (732) 417-0175* (732) 346-2450 (Office)
MSRC Portland Preposition Site	Portland, ME	(207) 780-8801

***24-Hour Number**

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES

ADDITIONAL RESPONSE RESOURCE

The following resources are listed by category. The categories are as follows:

- Aviation
- Firefighters
- Hazardous Waste Transporter
- Security
- Storage and Disposal
- Contractors & Equipment
- Hazardous Substances Sampling
- Spill Response Contractors
- Wildlife Rescue and Rehabilitation

This list is not separated geographically; rather it is a general list of contractors/experts with the potential to respond to spills anywhere on the system.

Additional Resources at each of the pump station locations are also listed at the end of this general resource list.

US ADDITIONAL RESPONSE RESOURCES

SERVICE	LOCATION	COMPANY	OFFICE/ ALTERNATE
Aviation	Portland, Maine	Maine Aviation (Fixed Wing Aircraft)	(207) 780-1811 Fax: (207) 772-7277
Firefighters		Williams Fire & Hazard Control (Commercial Firefighters)	(409) 727-2347* (Answering Service) (281) 999-0276 (409) 745-3232
Firefighters	Houston, TX	Red Adair (Commercial Firefighters)	(713) 589-5500
Firefighters	Lionville, PA	Kidder Firefighting (Firefighting Foam)	(610) 363-1400 (24 Hr.)
Firefighters	St. Paul, MN	3 M Company (Firefighting Foam)	(651) 733-1110 (24 Hr.)
Hazardous Substances Sampling	Portsmouth, NH	Analytic Labs	(603) 436-5111
Hazardous Substances Sampling	Presque Isle	Aroostook Testing	(207) 762-5771
Hazardous Substances Sampling	Westbrook	Katahdin Analytical Services Inc.	(207) 874-2400
Hazardous Substances Sampling	Salem, MA	New England Chrom.	(978) 744-6600
Hazardous Substances Sampling	Waterville	Northeast Laboratory	(207) 873-7711

***24-Hour Number**

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

RESOURCES US

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
SERVICE	LOCATION	COMPANY	OFFICE/ ALTERNATE
Hazardous Substances Sampling	Augusta, ME	State Public Health Lab	(207) 287-2727
Hazardous Waste Transporter	Augusta, ME	Board of Pesticide Control Maine Department of Agriculture	(207) 287-2731
Hazardous Waste Transporter	Augusta, ME	Central Maine Power Co.	(207) 623-3521
Hazardous Waste Transporter	S. Portland, ME	Clean Harbors Environmental Services	(207) 799-8111 or (207) 772-2201
Hazardous Waste Transporter	Scarborough, ME	C. M. Laboratories	(207) 883-8395
Hazardous Waste Transporter	Lewiston, ME	Diamond Phoenix	(207) 784-1381
Hazardous Waste Transporter	Houlton, ME	Houlton Water Co.	(207) 532-2259
Hazardous Waste Transporter	Bangor, ME	Maine Department of Transportation	(207) 941-4500
Hazardous Waste Transporter	Leeds, ME	Safety-Kleen Corp.	(207) 933-4496
Hazardous Waste Transporter	Newington, NH	United Oil Recovery	(603) 431-2420
Security	St. Johnsbury, VT	Caledonia County Sheriff	(802) 748-6666
Security	St. Johnsbury, VT	Vermont State Police	(802) 748-3111
Security	South Portland, ME	South Portland Police	(207) 799-5511
Security	Gray, ME	Maine State Police	(207) 482-0730
Security	Portland, ME	Publicover Security	(207) 773-3736
Security	Portland, ME	Cumberland County Sheriff	(207) 892-2674
Security	South Paris, ME	Oxford County Sheriff	911
Security	Berlin, NH	Coos County Sheriff	(603) 788-5598
Security	Twin Mountain, NH	New Hampshire State Police	(603) 846-3333
Security	St. Johnsbury, VT	Caledonia County Sheriff	(802) 748-6666
Security	Derby, VT	Vermont State Police	(802) 766-2211

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
SERVICE	LOCATION	COMPANY	OFFICE/ ALTERNATE
Spill Response Contractors	Bowe, NH	North Country Environmental Services	(603) 225-0579
Spill Response Contractors	Peaks Island, ME	Lionel Plante Associates	(207) 766-2508
Spill Response Contractors	South Portland, ME	Clean Harbors	(207) 799-8111 or (800) 526-9191
Spill Response Contractors	Gorham, ME	Boom Tech	(207)887-7111
Spill Response Contractors	Lancaster, NH	Beattie	(603) 788-4035
Spill Response Contractors	Calverton, NY	National Response Corporation	(800) 899-4672 (24 hr)
Spill Response Contractors	Gorham, ME	Royal Flush	(207) 892-0884
Spill Response Contractors	Gilmanton, NH	Lakes Region Environmental	(603) 267-7000
Spill Response Contractors	Westbrook, ME	North American Environmental Service	(207) 854-9360 (800) 287-0770*
Spill Response Contractors	South Burlington, VT	Environmental Products & Services	(802) 862-1212 800-977-4559*
Spill Response Contractors	Burlington, VT	ENPRO Services	800-966-1102*
Spill Response Contractors	W. Burke, VT	Wagner's Construction	802-467-3372 802-535-4230 (Cellular)
Storage and Disposal	Auburn, ME	Mid-Maine Waste Action	(207) 783-8805
Storage and Disposal	Hampden, ME	Pine Tree Land Fill	(207) 862-4200
Storage and Disposal	Norridgewock, ME	Waste Management of Maine	(800) 562-7779
Storage and Disposal	Elliot, ME	Aggregate Recycling Corporation (ARC)	(800) 639-7303
Storage and Disposal	Scarborough, ME	Commercial Paving Co., Inc.	(207) 883-3325
Storage and Disposal	Braintree, MA	Clean Harbors of Braintree, Inc.	(781) 849-1800 (800) OIL-TANK*
Storage and Disposal	Natick, MA	Clean Harbors of Natick, Inc.	(800) 645-8265
Storage and Disposal	Milan, IL	Eldred Corp.	(309) 787-3640
Storage and Disposal	Ramsey, NJ	Aerotech Labs	(800) 526-5330
Storage and Disposal	Long Island City, NY	Modutank, Inc.	(718) 392-1112

***24 Hour Number**

RESOURCSE US

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
SERVICE	LOCATION	COMPANY	OFFICE/ ALTERNATE
Storage and Disposal	Wooster, OH	Seaman Corp.	(330) 262-1111
Storage and Disposal	Madison, ME	Anson-Madison Sludge Landfill	(207) 696-3246
Storage and Disposal	Rumford, ME	Mead Paper Group	(207) 364-4521
Storage and Disposal	Brunswick, ME	Brunswick, Town of	(207) 725-6654 (Town) (207) 353-9781 (Landfill)
Storage and Disposal	Norridgewock, ME	CWS Waste Management	(800) 244-8290 (207) 634-2714
Storage and Disposal	Millinocket, ME	Katahdin Paper Company	(207) 723-5131 Ext. 1278
Storage and Disposal	Madawaska, ME	Fraser Paper-Sludge Landfill	(207) 728-3321
Storage and Disposal City of Augusta	Hallowell, ME Public Works	Hatch Hill Augusta City Landfill	(207) 626-2440 (207) 626-2435
Storage and Disposal	Washington, ME	Marriners, Inc.	(207) 845-2313
Storage and Disposal	Presque Isle, ME	Presque Isle Landfill	(207) 764-2541
Storage and Disposal	Fort Fairfield, ME	Tri-Community Landfill	(207) 473-7840
Storage and Disposal	Biddeford, ME	Maine Energy Recovery	(207) 282-4127
Storage and Disposal	Orrington, ME	Penobscot Energy Recovery	(207) 825-4566
Storage and Disposal	Portland, ME	Regional Waste System	(207) 773-6465
Storage and Disposal	S. Portland, ME	Clean Harbors Environmental Services	(207) 799-8111
Storage and Disposal	Kittery, ME	Portsmouth Naval Shipyard	(207) 438-1871 (207) 438-1000
Storage and Disposal	Portsmouth, NH	United Oil	(603) 431-2420
Storage and Disposal	Varies	State of Maine, DEP	(800) 482-0777
Wildlife Rescue and Rehabilitation	Woodstock, VT	Vermont Institute of Natural Science- Michael Pratt	(802) 457-2779 Ext. 125 (802) 359-5001 Ext. 212
Wildlife Rescue and Rehabilitation	Fairfield, CA	International Bird Rescue Research Center	(707) 207-0380
Wildlife Rescue and Rehabilitation	Newark, DE	Tri-State Bird Rescue	(302) 994-7578 (302) 737-9543
Wildlife Rescue and Rehabilitation	Fairfax, VT	Vermont Wildlife Rehabilitation Association Carol Winfield	(802) 879-4449

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
COMPANY	**LOCATION**	**SERVICE**	**OFFICE/ ALTERNATE**
The following resources have been identified as being capable of providing services and/or equipment to specific locations along the pipeline.			
SOUTH PORTLAND STATION			
Dragon Products	Frenchville, ME	Concrete Plant	(207) 543-7775
Cianbro Corp.	Pittsfield, ME	Contractors & Equipment	(207) 487-3311 or (207) 773-5852
Maietta Construction Inc.	Scarborough, ME	Contractors & Equipment	(207) 883-9546
Cote Crane Service	Auburn, ME	Contractors & Equipment	1-800-696-6282 1-207-783-0561
Portland Harbor Fuel Co. Inc.	Portland, ME	Contractors & Equipment	(207) 772-3232
Portland Tugboat LLC.	Portland, ME	Contractors & Equipment	(207) 774-2902
RAYMOND STATION			
Rogers, ML Inc.	Windham, ME	Contractors & Equipment	(207) 892-4532 (DAY) (207) 892-3681 (NIGHT) (207) 264-3266 (PAGER)
Wilson Excavation	North Waterford, ME	Contractors & Equipment	(207) 583-4632
NORTH WATERFORD STATION			
Wilson Excavating	North Waterford, ME	Contractors & Equipment	(207) 583-4632 (800) 312-4634 PGR
Pike Industries	North Waterford, ME	Contractors & Equipment	(207) 583-4721
Town of Bethel	Bethel, ME	Contractors & Equipment	(207) 824-2669
Richard Douglas	Bethel, ME	Contractors & Equipment	(207) 824-2795
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
Dennis Wilson	Bethel, ME	Contractors & Equipment	(207) 824-4656

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
COMPANY	LOCATION	SERVICE	OFFICE/ ALTERNATE
SHELBURNE STATION			
Gorham Sand & Gravel	Gorham, NH	Contractors & Equipment	(603) 466-2291
Town of Gorham	Gorham, NH	Contractors & Equipment	(603) 466-3302
K. W. Corrigan	Randolph, NH	Contractors & Equipment	(603) 466-2406
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
Taillon Crane Service	Gorham-Bethel, NH	Contractors & Equipment	(603) 466-5078
LANCASTER STATION			
K. W. Corrigan	Randolph, NH	Contractors & Equipment	(603) 466-2406
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
SUTTON STATION			
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
Wagner Inc.	Sutton Vt.	Contractors & Equipment	(802)-467-3372

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
PORTLAND / SOUTH PORTLAND			
Maine Motel	606 Main Street South Portland, ME	Rooms	(207) 774-8284
Budget Inn of Portland	634 Main Street South Portland, ME	Rooms	207) 773-5722
Anchor Motel	715 Main Street South Portland, ME	Rooms	(207) 775-9011
Travelodge Portland	1200 Brighton Ave Portland, ME	Rooms	(207) 774-6101
Holiday Inn Express Hotel & Suites South Portland	303 Sable Oaks Drive South Portland, ME	Rooms, meeting facilities	1 866 270 5110
Portland Marriott	200 Sable Oaks Drive South Portland, ME	Rooms, meeting facilities	(207) 871-7950
Doubletree by Hilton	363 Maine Mall Road South Portland, ME	Rooms, meeting facilities	(207)775-6161
Embassy Suites Hotels	1050 Westbrook Street Portland, ME	Rooms, meeting facilities	(207) 775-2200
Clarion Hotel Airport	1230 Congress Street Portland, ME	Rooms, meeting facilities	(207) 774-5611
Doubletree Hotel Portland, Maine	1230 Congress Street Portland, ME	Rooms, meeting facilities	(207) 774-5611
Holiday Inn Portland-By The Bay	88 Spring Street Portland, ME	Rooms, meeting facilities	(207) 775-2311
Portland Harbor Hotel	468 Fore Street Portland, ME	Rooms, meeting facilities	(207) 775-9090
Holiday Inn Portland-West	81 Riverside Street Portland, ME	Rooms, meeting facilities	1 866 270 5110
Motel 6	1 Riverside Street Portland, ME	Rooms	(207) 775-0111
Howard Johnson Plaza Hotel	155 Riverside Portland, ME	Rooms, meeting facilities	(207) 774-5861

RESOURCES US

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
RAYMOND STATION (See Also Portland Hotels)			
Maplewood Inn & Motel	Raymond, ME	Rooms	207) 655-4639
White Pines Inn at Sebago Lake	1262 Roosevelt Trail Raymond, ME	Rooms	207) 655-3345
Windham Way Motel	1111 Roosevelt Trail Windham, ME	Rooms	(207) 892-4762
Alyssa's Motel	11 Roosevelt Trail Casco, ME	Rooms	(207) 655-2223
Maplewood Inn & Motel	Casco, ME 04015	Rooms	207) 655-4639
Migis Lodge	30 Migis Lodge Road South Casco, ME	Rooms	(207) 655-4524
Northeastern Motel	322 Roosevelt Trail Windham, ME	Rooms	(207) 892-4834
NORTH WATERFORD STATION			
Waterford Inn	258 Chadbourne Road Waterford, ME	Rooms	207) 583-4037
Pleasant River Motel	RR 2 West Bethel, ME	Rooms	(207) 836-3575
Lake House	Rtes. 35 & 37 Waterford, ME	Rooms	(207) 583-4182
Bethel Spa Motel	88 Main Street Bethel, ME	Rooms	(207) 824-3341
River View Resort	357 Mayville Road Bethel, ME	Rooms	(207) 824-2808
Norseman Inn	Bethel. ME	Rooms	(207) 824-0640
Snowcap Inn	9 Snowcap Lane Bethel, ME	Rooms	(207) 824-7669
Sudbury Inn	151 Main Street Bethel, ME	Rooms	(207) 824-2174
Chapman Inn	1 Mill Hill Road Bethel, ME	Rooms	(207) 824-2657
Rostay Inn	186 Mayville Road Bethel, ME	Rooms	(207) 824-3111

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
SHELBURNE STATION			
Town & Country Motor Inn	Route 2 Gorham, NH	Rooms, meeting facilities	(603) 466-3315
Gateway	Route 2 Gorham, NH	Rooms, meeting facilities	603) 466-5069
MT Madison Motel	365 Main Street Gorham, NH	Rooms	(603) 466-3622
Traveler Motel	25 Pleasant Street Berlin, NH	Rooms	(603) 752-2500
Moose Brook Motel	65 Lancaster Road Gorham, NH	Rooms	(603) 466-5400
Royalty Inn	130 Main Street Gorham, NH	Rooms	(603) 466-3312
Colonial Comfort Inn	370 Main Street Gorham, NH	Rooms	(603) 466-2732
Gorham Motor Inn	324 Main Street Gorham, NH	Rooms	(603) 466-3381
Hiker's Paradise	370 Main Street Gorham, NH	Rooms	(603) 466-2732
LANCASTER STATION			
Elms Hotel	30 Elm Street Lancaster, NH	Rooms	(603) 788-4983
Cabot Motor Inn	Rt 2 Lancaster, NH	Rooms, meeting facilities	(603) 788-3346
Pine Tree Motel	1034 Lancaster Road Lancaster, NH	Rooms	(603) 636-2479
Coos Motor Inn	209 Main Street Lancaster, NH	Rooms	(603) 788-5130
Lancaster Motor Inn	112 Main Street Lancaster, NH	Rooms	(603) 788-4921

RESOURCES US

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
SUTTON STATION			
Lynburke Motel Inc	791 Main Street Lyndonville, VT	Rooms	(802) 626-3346
Changing Seasons Motor Lodge	Route 5 Lyndonville, VT	Rooms	(802) 626-5832
Holiday Motel	222 Hastings Hill Saint Johnsbury, VT	Rooms	(802) 748-8192
Yankee Traveler Motel	342 Portland Street Saint Johnsbury, VT	Rooms	(802) 748-3156
Colonnade Inn	28 Back Center Road Lyndonville, VT	Rooms	(802) 626-9316
Lakeview Cabins	West Burke Road Barton, VT	Rooms	(802) 525-4463
Lyndon Motor Lodge	6148 Memorial Drive Lyndon, VT	Rooms	(802) 626-3548
Canterbury Inn	46 Cherry Street Saint Johnsbury, VT	Rooms	(802) 748-5556

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

AIRPORTS & LANDING STRIPS			
US ADDITIONAL RESPONSE RESOURCE			
Airport	**ADDRESS**	**RESOURCES**	**CONTACT INFORMATION**
MAINE			
Portland International Jetport	1003 Westbrook Portland, ME	Aircraft Support Equipment & Services	(207) 828-1300
Biddeford Airport	88 Landry Street Biddeford, ME	Airport	(207) 282-1893
Auburn-Lewiston Airport	80 Airport Drive Auburn, ME	Airport	(207) 786-0631
Limington Airport Authority	Route 111 Limington, ME	Aircraft Modification & Overhaul, Airports	(207) 637-2121
Twitchell's Airport & Seaplane	40 Airport Road Turner, ME	Airport	(207) 225-3490
Millinocket Municipal Airport	152 Medway Road Millinocket, ME	Airport	(207) 723-6649
Bangor International Airport	207 Godfrey Boulevard Bangor, ME	Airport	(207) 992-4600
Eastern Slope Airport Authority	Layman Drive Fryeburg, ME	Airport	(207) 935-3657
Swans Field Airport	Rr 2 Box 2480 Dixfield, ME	Airport	(207) 562-7706
NEW HAMPSHIRE			
MT Washington Regional Airport	60 Airport Road Whitefield, NH	Airport	(603) 837-9532
Berlin Municipal Airport	Berlin, NH	Airport	(603)-449-2768
Manchester-Boston Airport	One Airport Road, Manchester, NH	Airport	(603) 624-6539
Nashua Airport Authority	93 Perimeter Road Nashua, NH	Airport	(603) 882-0661
Pease INTL Airport-Portsmouth	36 Airline Avenue Portsmouth, NH	Airport	(603) 433-6536
VERMONT			
Caledonia County State Airport	2107 Pudding Hill Road Lyndonville, VT	Airport	(802) 626-3353
Lakeview Aviation Newport State Airport	2628 Airport Rd Newport, VT	Airport	(802) 334-5001
Burlington International Airport	1200 Airport Drive S. Burlington, VT	Airport	(802)-863-2874

FIGURE 2.15
EXTERNAL NOTIFICATION REFERENCE

RESOURCES CANADA

CONTRACTORS / SERVICES			
CANADA ADDITIONAL RESPONSE RESOURCES			
Service	**Location**	**Company / Contact**	**Telephone Number**
Aerial Patrol		Helicraft (Passport Québec Hélico) Cargair	450-464-5290 450-656-4483
Cranes		Armand Guay / Richard Ross	514-354-4420
Storage and Disposal	Anjou	Veolia Canada	514-645-1621 800-465-0911
	St-Amable	RSR Environment	450-922-2200
	Chambly	Veolia Canada	450-447-5252
	Tracy	Veolia Canada	450-746-0006
	Saint-Augustin-de-Desmaures Beloeil	Safety-Kleen Canada Ltd	418-878-4570
	Brossard Ville Sainte-Catherine	Safety-Kleen (Quebec) Ltd Clean Harbors Qc.	800-669-5740 450-632-6640
Laboratories		Laboratoire d'environnement S.M. inc.	514 332-6001
	Lachine	Maxxam Analytique Inc.,	877-706-7678
The following resources have been identified as being capable of providing services and/or equipment to specific locations along the pipeline.			
Highwater Station Area			
Construction	(Cowansville)	Excavation St-Pierre & Tremblay	450-266-2100 450-531-7380
		Julien Pouliot Excavation	450-292-3225 450-292-3010 819-573-2205 (Cellular)
	(Lac Brome)	Roger Choinière Excavation	450-242-3959
		SIMDEV	514-409-1804 (Cellular) 514-863-0073 (Cellular) 514-968-8599 (Cellular)
Security		Pro-Sec Security	514-313-6131 514-718-8254 (Cellular)
Saint-Césaire Station Area			
Construction	Farnham	Excavation C.M.R	450-293-5510
	Farnham	Laroche Excavation	450-293-6598
Richelieu River Area			
Electricity Provider	Saint-Hyacinthe	Hydro-Quebec	450-771-3002/3003

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
CANADA ADDITIONAL RESPONSE RESOURCES			
Service	**Location**	**Company / Contact**	**Telephone Number**
Montreal Area			
Construction		Soudure Lessard	514-645-9446
		Black & McDonald	514-753-6671
		SIMDEV	514-409-1804 (Cellular) 514-863-0073 (Cellular) 514-968-8599 (Cellular)
Clean-up Contractors	Montreal-East	Veolia	514-645-4242
	Pointe-aux-Trembles	Veolia	514-645-1621 800-361-8920
	St-Amable	RSR Environnement	450-922-2200
		Amnor	514-494-4242
	Montreal	Environnement Rive-Nord	450-430-8666 514-975-4478 866-430-8666
Electricity Provider	Metropolitan Area Montreal Area – Power Failure and Emergencies	Hydro-Québec	800-790-2424 514-387-6201
Equipment Rental		A-1 Rent-A-Tool	514-737-7666 (24 hour)
		Dickie Moore Rentals	514-333-1212 (24 hour)
		Simplex	514-331-7777 (24 hour)
Boating Equipment (Tugs, boat rental, etc.)		Ocean Towing Ltd	514-849-2221 514-849-5511 (24 hour)
		Montreal Boatman Ltd.	514-640-4970 (24 hour)
		Urgence Marine	514-640-3138 (24 hour)
Security and Fire Protection / Detection System		Signal	514-488-0790 (24 hour)
Security	Montreal	Pro-Sec Security	514-313-6131 514-718-8254 (Cellular)

RESOURCES CANADA

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

MONTREAL MUTUAL AID INFORMATION						
Company	Responsible	Tel. 24 hour	Office	(b) (6)	Pager/Cell.	Fax
Suncor Energy, Inc. 11701 Sherbrooke East St. Montreal H1B 1C3	Carmel Alain	514-640-8320	514-640-8178		514-410-6961(pager) 514-229-7882(cell)	514-640-8304
Shell Canada 10501 Sherbrooke St. Montreal-East H1B 1B3		514-645-1661	514-640-9809		514-988-0425(pager)	514-640-8610
Ultramar Marine Terminal 7000 Marien Montreal-East H1B 4W3	Sonia Leonard	640-2339/2340	514-640-2350			514-645-5779
Montreal-East Fire Department 11371 Notre-Dame St. Montreal-East H1B 2W7	Firehouse #8 Alain Rouleau	911 514-280-7800	514-645-7431			
Ashland 10515 Notre-Dame St. Montreal-East H1B 2V1	Kahner Bill	514-726-1282	514-650-3862		514-726-1282 (cell)	514-650-3819
A.I.E.M. 12500, Industriel P.A.T. H1B 5P5	Dimitri Tsingakis		514-645-2258-22		514-212-6323 (cell)	514-645-0143
CUM Police Station 49 1498 Saint-Jean-Baptiste St. Pointes-aux-Trembles H1B 4A4	Commander Fournel	514-280-0149	280-0449			514-280-0649

RESOURCES CANADA

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

MONTREAL MUTUAL AID INFORMATION (Cont'd)						
Company	Responsible	Tel. 24 hour	Office	(b) (6)	Pager/Cell.	Fax
Petrochimie 3500 Broadway St. Montreal-East H1B 5B4	Jean-Paul Glinel	514-640-2444 514-640-2201	450-640-2208	[redacted]	514-704-2208	514-640-2585
ChemTrade Montreal 11450 Cherrier St. Montreal-East H1B 1A6	Thibeault Guy	514-645-1636 ext.224	514-645-1636 ext.244	[redacted]	514-936-9629 (cell)	514-645-6070
MDDEP Emergency	Dézainde Patrick coordinator	1-866-694-5454	514-873-3636 ext 284 Substitute Fagnan Sylvain ext 283	[redacted]		514-864-4120

RESOURCES CANADA

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING/ MEETING ROOMS

CANADA ADDITIONAL RESPONSE RESOURCE

HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
Missisquoi River Area - Quebec			
Des Appalaches	234 Maple St., Sutton, QC	14 rooms, meeting facality	450-538-5799
Horizon Hotel-Motel	297 Maple St., Sutton, QC	44 rooms	450-538-3212
La Paimpolaise Inn	615 Maple St., Sutton, QC	28 rooms	514-538-3213 800-263-3213
Les Rochers Bleus	550 Route 139, Sutton	22 rooms	450-538-2324
Le St-Amour Inn	1 Pleasant St. (corner Maple St.), Sutton, QC	8 rooms	450-538-6188
Owl's Head Inn	40 Mont Owl's Head Rd., Mansonville, QC	20 rooms	450-292-3342 800-363-3342
Owl's Head Hotel and Apartments	115 Panorama Rd., Mansonville, Qc	42 rooms	450-292-3318 800-363-3342
Station de Montagne au Diable Vert	168 Staines Rd., Sutton, QC	Dormitory & rooms for 15 persons	450-538-5639 888-779-9090
Missisquoi River Area – United States			
Black Flys Lodge	Montgomery, Vermont	18 rooms	802-326-4572 888-326-4572
Black Lantern Inn	Montgomery, Vermont	10 rooms	802-326-4507 800-255-8661
Dairy Centre Ent	Enosburg Falls, Vermont	15 rooms	802-933-2030
Jay Peak Resort	Route 242, Jay, Vermont	138 rooms	802-988-2611
Riverview Victoria Country Inn	Richford, Vermont	6 rooms	802-848-7054 800-715-2260
The Crossing Motel	14 Province St., Richford, Vermont	14 rooms	802-848-3393
The Inn On Trout River	Montgomery, Vermont	Rooms	802-326-4391

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING/ MEETING ROOMS			
CANADA ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
Richelieu River Area			
Comfort Inn Motel	96 de Mortagne Blvd., Boucherville	100 rooms, meeting facility	450-641-2880 800-267-3837
Auberge De la Rive Inn	165 Sainte-Anne Rd., Sorel	98 rooms, meeting facility	450-742-5691 800-369-0059
Governor Hotel – Charron Island	2405 Charron Island Rd., Longueuil	125 rooms, meeting facility	450-651-6510 888-910-1111
Handfield Inn and Motels	555 Richelieu Rd., Saint-Marc-sur-Richelieu	53 rooms, meeting facality	450-584-2226 450-990-0468
Hostellerie les Trois Tilleuls	290 Richelieu Rd., Saint-Marc-sur-Richelieu	41 rooms, meeting facality	450-856-7787 800-263-2230
Hostellerie Rive-Gauche	1810 Richelieu Rd., Beloeil	24 rooms, meeting facility	450-467-4477 888-608-6565
Le Transit Hotel-Motel	30 Brunet Rd., Mont-Saint-Hilaire	45 rooms, meeting facality	450-467-2222 800-467-2880
Mathieu Lusignan Sports Centre Loisirs	61 Benoit Square, Saint-Charles-sur-Richelieu	Meeting rooms	450-584-3484
Rouville-Campbell Manor	125 des Patriotes Rd., Mont-Saint-Hilaire	26 rooms. meeting facality	450-446-6060 800-714-1214

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING/ MEETING ROOMS			
CANADA ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
Montreal Region			
Best Western Hotel National	7746 Taschereau Blvd., Brossard	114 rooms, meeting facility	450-466-6756 800-465-0041
Best Western Ville-Marie Hotel	3407 Peel St., Montreal	170 rooms, meeting facility	514-288-4141 800-361-7791
Governor Island Charron Hotel	2405 Île Charron, Longueuil	125 rooms, meeting facility	450-651-6510 888-910-1111
Holiday Inn Montreal Longueuil	900 St Charles E, Longueuil	142 rooms, meeting facility	450-646-8100 800-263-0159
Le Chablis Cadillac Motel	5800 Sherbrooke East St.	55 rooms, meeting facility	514-259-4691 800-369-4401
Le Prestige Sherbrooke Hotel	12555 Sherbrooke East St.	72 rooms, meeting facility	514-640-5500 877-918-5500
Quality Inn Hotel	8100 Neuville Av., Anjou	157 rooms, meeting facility	514-493-6363
Quality Inn Hotel & Suites	6680 Taschereau Blvd., Brossard	101 rooms, meeting facility	450-671-7213
Universel Inn	5000 Sherbrooke East St.	230 rooms, meeting facility	514-253-3365 800-567-0223
Auberge Royal Versailles	7200 Sherbrooke East St	132 rooms, meeting facility	514-256-1613 888-832-1416
WelcomInns Hotel	1195 Ampère St., Boucherville	116 rooms, meeting facility	450-449-1011 800-779-2659

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

AIRPORTS and LANDING STRIPS	
CANADA ADDITIONAL RESPONSE RESOURCE	
Name of Airport or Landing Strip	**Telephone Number**
Bromont Aerodrome, Bromont	450-531-6736 (emergency) 450 534-2324
Dorval International Airport Airport Security Emergency Airport General Information Line	 514-420-5000 514-394-7377
Granby Heliport, Granby	
Heliports Montreal-Saint-Hubert (Helicraft) Montreal-Charron Island Montreal-Longueuil	 450-468-3431 450-651-6510 450-651-4223
Highwater Landing Strip	Day: Evening:
Saint-Hubert Airport 5700 de l'aéroport Rd., Saint-Hubert	450-678-6030
Saint-Jean-sur-le-Richelieu Airport Chemin de l'Aéroport, Saint-Jean-sur-le-Richelieu	
Sherbrooke Airport 900 de l'Aéroport Rd., RR4, Canton Easton, Quebec	819-832-4314 819-570-2931 (Call-out number)
Sorel Airport	450-782-3188

OTHER REFERENCES	
ENVIRONMENT AND WILDLIFE RESCUE	
Committee on the Status of Endangered Wildlife in Canada (COSEWIC)	819-997-4991
Directorate of Natural Heritage and Lasting Development	613-237-1066 866-964-1066
WEATHER	
Environment Canada Weather	 514-283-3010 1 800 463-4311
Environment Canada Weather Forecasts (one-on-one) Weather of Specific Locations	 900-565-4455 900-565-4000
Road Conditions (from November 1st to the end of April)	511

RESOURCES CANADA

FIGURE 3.1
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

Remember, Without Exception, Personnel Safety Is First Priority.

FIRST COMPANY PERSON NOTIFIED/ ON SCENE (All Incidents)

_____ Call the pipeline controller to activate Company Response.

_____ **Within your competences and abilities**, take safe measures to control the situation until the arrival of the First Operational Responders / Spill Management Team

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

_____ Unless personal safety is at risk, stays on-site until authorized to leave by the Operations Section Chief.

FIRST OPERATIONAL RESPONDER (All Incidents)

INITIAL FIRE EXPLOSION

_____ Assume the role of **Incident Commander** until relieved or incident is over.

_____ Call the pipeline controller to activate Company Response.

_____ Ensure Notifications are being made. (Figures 2.2 & 2.3)

_____ Take steps necessary to minimize threats to public health and safety and to reduce the severity of the incident.

_____ Utilize local emergency services as necessary (police, fire, medical, 911 and Figures 2.10 -2.13)

For EXPLOSIONS AND/OR FIRE, SPECIFIC RESPONSE

_____ Call the Fire Department (911 or Figures 2.10 – 2.13) Be certain to clearly state your name, company, location and the type and extent of the emergency. Stay on the phone until instructed to hang up.

_____ Sound the nearest fire alarm / Alert all facility areas of the exact location and extent of the fire.

_____ Return to the scene and check to see if there are injured persons and form a rescue plan if needed.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

INITIAL FIRE EXPLOSION

_____ If practical, extinguish the fire IF SAFE TO DO SO.

_____ In the event the fire is too large for an individual to fight alone, the individual sounding the alarm or making the phone call should stand by at a safe distance to direct the fire department to the scene of the fire and keep personnel and vehicles from entering the danger area.

_____ Alert all terminal areas of the exact location and extent of the fire.

_____ Evacuate area, as the situation demands.

ADDITIONAL GENERAL PROCEDURES FOR TERMINALS AND PUMP STATIONS

_____ Shut off pumps or call pipeline controller to shut off pumps.

_____ If product is being received from pipelines or ships, notify the appropriate pipeline personnel of the fire and request that the pipeline or ship be shut down. The tank which is receiving product must not be closed until assurance is received that the pipeline or vessel is down, unless that tank is involved in the fire.

_____ After confirmation has been received that pipelines have been shut down, close the pipeline header valves as directed by the controller.

_____ Close valves for the tanks in the tank farm / field as directed by the controller.

ALL SPILL RESPONSE INCIDENTS – INITIAL RESPONSE

INITIAL ALL SPILLS

_____ Restrict access to the spill site and adjacent area except by emergency personnel.

_____ Take any other steps necessary to minimize any threat to personal, public, and safety.

_____ Stop all traffic in hazardous area (inside and outside of property boundaries), as the situation demands.

_____ Take appropriate personal protective measures to ensure safety of personnel.

_____ Use testing and sampling equipment to determine potential safety hazards, as the situation demands including; Combustible Gas Indicator, O_2 meter, H_2S meter, proper colorimetric indicators (e.g. Benzene) and other air sampling measurements to assure that areas are safe to enter for continued response operations.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

INITIAL MAIN LINE

MAIN LINE BREAK/LEAK SPILL RESPONSE INCIDENTS – INITIAL RESPONSE

_____ Shut down Pipeline System and isolate emergency site from pipeline system.

- Verify that Operations has shutdown appropriate portion of the system (See Appendix I for pipeline valve locations).
- Close, tag, and lock upstream and downstream block valves if removed from potentially hazardous area.
- Attempt to drain line section, as the situation permits.

_____ Eliminate possible sources of ignition in the near vicinity of the spill to minimize potential for fire or explosion.

_____ Turn off power to area facility rectifiers (if removed from potentially hazardous area).

_____ Contact appropriate authorities to isolate known public water supply intakes from emergency if necessary. Water intake contact phone numbers are listed in Figure 2.10.

_____ If possible, verify the type of product and quantity released (Material Safety Data Sheets are in Section 3 and are available separately at the Facility).

_____ Identify/Isolate the source and minimize the loss of product.

INITIAL PIPING / MANIFOLD

STATION/ TERMINAL PIPING OR MANIFOLD BREAK/ LEAK – INITIAL RESPONSE

_____ Shut down pumping equipment.

_____ Close upstream and downstream (Incoming / Outgoing) block valves.

_____ If located within containment area, ensure that drainage valve(s) is "closed".

INITITIAL TANK

STORAGE TANK LEAK OR OVERFLOW, INITIAL RESPONSE

_____ Shut down all tank battery product movement operations and isolate the tank.

_____ Initiate Confined Space Entry procedures, as applicable.

_____ Ensure that the containment area drainage valve(s) is "closed".

_____ If near tank bottom, consider filling tank with water and maintain water bottom to suspend the discharge.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Block drainage of spilled material from traveling offsite.

_____ Remove product from containment area (at a sump or in a low area) with an explosion proof pump, oil skimmer, and/or vacuum truck w/ skimmer attachments.

_____ If applicable, process remaining product through the separator system.

_____ Empty tank as soon as possible.

UNLOADING ARM OR TRANSFER EQUIPMENT FAILURE – INITIAL RESPONSE

INITIAL UNL ARM

_____ Shut down all unloading operations by emergency stop methods (Marine Terminal Operations Manual).

_____ Stop all transfer operations from terminal to tank farm.

_____ Close upstream and downstream block valves.

_____ If located within containment area, ensure that drainage valve(s) is "closed".

EQUIPMENT FAILURE, INITIAL RESPONSE

INITIAL EQUIPT.

_____ Shut down pumping equipment.

_____ Close upstream and downstream block valves.

_____ If located within containment area, ensure that drainage valve(s) is "closed".

ALL SPILL RESPONSE INCIDENTS – CONTINUED INITIAL RESPONSE

CONTINUED RESPONSE

_____ Mitigate spreading of the product, as the situation demands. Potential containment strategies include:

- Containment Booms
- Earthen dike/berm
- Ditching
- Spreading sorbent material over the spill

_____ Prevent the spill from entering the waterways, sewer, etc. to the greatest extent possible.

_____ Clean up spilled product to eliminate any possible environmental problems. Be alert for underground cables.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY/ SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Determine the direction and expected duration of spill movement. Refer to the maps in Section 6.0.

_____ Drain the line section or empty the tank, as the situation demands.

ALL SPILL RESPONSE INCIDENTS – CONTINUED RESPONSE

_____ Inform local operators such as utilities, telephone company, railway.

_____ If the spill escapes the containment area, review the location of socio-economic and environmentally sensitive areas identified in Section 6.0. Determine which of these may be threatened by the spill and direct the response operation to these locations. Initiate protection and recovery actions.

FINAL RESPONSE

ALL SPILL RESPONSE INCIDENTS – FINAL RESPONSE

_____ Make all necessary repairs. Return the line/ piping / tank / equipment to service when repairs are complete and tested.

_____ If necessary, call one of the approved waste removal companies to remove the remaining sludge and residue from the containment area. Contact the SMT Environmental Specialist, if necessary, to remove waste from the Facility for disposal. During temporary storage on site, ensure proper containerization and labeling and locate in designated area for storing the identified type of waste.

_____ Complete follow-up and written reporting, as the situation demands.

VAPOR CLOUD (from a massive spill, line rupture, etc.), SPECIFIC RESPONSE

VAPOR CLOUD

_____ The person who discovers the vapor cloud will sound the alarm, call the appropriate fire department, and notify the supervisor on duty and vacate the area.

_____ **Remember: the only proper action in the presence of a vapor cloud is to get away from it. Do not shut off electrical equipment.**

_____ Vapor may travel to source of ignition and cause "flash back" fire.

_____ Vapor explosion hazard is confined spaces (indoor, outdoor, or sewer).

_____ All personnel will report to the evacuation muster point for roll call and further instructions.

_____ Shut down pipeline.

_____ Evacuation of adjacent property.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Permit only the fire department to enter the terminal.

_____ Contact the appropriate agencies and potentially affected neighbors (refer to Figures 2.8-2.15).

EMERGENCY INVOLVING PNGTS NATURAL GAS PIPELINE

_____ Minimize the risk to public health, safety, and private property by isolating the affected surrounding areas.

_____ Evaluate the risk to the crude oil pipelines and establish immediate contact with the Controller.

_____ Initiate the obvious field procedures deemed necessary to protect and minimize the potential hazards to the PMPL system, including, with the cooperation of the Controller, a shutdown of the crude oil mainlines.

_____ Contact the local law enforcement/fire chiefs and enlist their assistance in providing public safety.

_____ Use judgment in deciding if it is safe and appropriate to implement any interim field procedures requested by PNGTS Dispatcher, pending on-site arrival of PNGTS Field Supervisors. Emergency shutdown and pressure reduction in any section of the natural gas pipeline system is the responsibility of PNGTS.

_____ Refer all questions about property damage, personal injury, and liability from outside sources, including the news media, to PNGTS.

_____ Be prepared to brief the PNGTS supervisor on any emergency actions taken upon arrival on scene.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

Remember, Without Exception, Personnel Safety Is First Priority.

PIPELINE CONTROLLER (All Incidents)

_____ Initiate the Internal Emergency Notification Procedure (Figures 2.2 & 2.3).

ALL SPILL RESPONSE INCIDENTS – INITIAL RESPONSE

_____ Identifies the location of the emergency / leak.

_____ Minimizes the line pressure at the leak's location.

_____ Shuts down pump stations upstream from the leak's location.

_____ Isolates the leak by directing field people to the closest main line block valves.

For EXPLOSIONS AND/OR FIRE, SPECIFIC RESPONSE

FIRE / EXPLOSIONS

CONTROLLER RECEIVING NOTIFICATION OF FIRE

Fire Reported On Main Line

_____ Verify that the appropriate fire department has been notified (911 or Fig. 2.10-2.13).

_____ Reduce the Main Line Operating Pressure.

Fire Signaled Or Reported From Remotely Operated Station

_____ Evaluate the need to shut down all pumping units at the involved station.

_____ Verify that the appropriate fire department has been notified.

_____ Ensure nearest available PMPL field representative has been notified.

Additional Procedures for the South Portland Marine Terminal

_____ In the event of a fire on a vessel, a series of ten (10) - second blasts on the ship's whistle would be sounded.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Terminal personnel shall raise alarm at fire box mounted on the Dock Building and alert all ship / shore personnel via radio or voice command. (Refer to the Marine Terminal Operations Manual, Figure 8A – Instructions in Case of Fire.)

Additional procedures for the Montreal Terminal

_____ Evaluate the need to shutdown the main lines

_____ Notify Shift Supervisor at Suncor

_____ Notify Shift Supervisor at Petrochemie Coastal and Dispatcher at Ultramar (Figure 2.15)

_____ Initiate the Internal Emergency Notification Procedure. (Figures 2.2 & 2.3)

EMERGENCY INVOLVING PNGTS NATURAL GAS PIPELINE

_____ Log the information reported in the Emergency Reporting Checklist (Figure 2.1)

_____ Immediately calls the PNGTS controller (See Figure 2.10) and communicate all pertinent information, noting the time and determining when other representatives will be on site.

_____ Initiate the Internal Emergency Notification Procedure. (Figures 2.2 & 2.3)

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

Remember, Without Exception, Personnel Safety Is First Priority.

OPERATIONS SECTION CHIEF (All Incidents)

_____ Ensure the area has been secured.

_____ Determine accurate location and cause of the emergency / threat / leak in collaboration with the Controller or First Company Person Notified / On scene.

_____ Evaluate emergency / leak potential (quantity, type, which line, speed and direction of flow, how far it has already travelled, weather conditions).

_____ Coordinate safety precautions to minimize hazards of fire and road mishaps if oil flow is on travelled ways.

_____ Direct line or other repair operations, as necessary.

COMPANY MANAGEMENT (All Incidents)

_____ **Evaluate the Severity**, Potential Impact, Safety Concerns, and Response Requirements based on the initial data provided by the first person on scene.

_____ Assume the role of **Incident Commander**.

_____ **Confirm safety** aspects at site, including need for personal protective equipment, sources of ignition, and potential need for **evacuation**.

_____ Contact and involve local **Law Enforcement / Fire Officials** as needed.

_____ Activate the **Spill Management Team and primary response contractors**, as the situation demands. The South Portland Marine Terminal has designated personnel listed in Figure 2.6.

_____ Coordinate/perform **activation of additional spill response contractors,** as the situation demands (telephone reference is provided in Figures 2.14 & 2.15).

_____ Perform further/ additional notifications as per Figures 2.2 & 2.3.

_____ Coordinate/perform **regulatory agency notification,** as the situation demands (notification procedures and telephone references are provided in Figure 2.8-2.13.

_____ Proceed to spill site and **coordinate response and clean-up operations.**

_____ Direct containment, dispersion, and/or clean-up operations.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

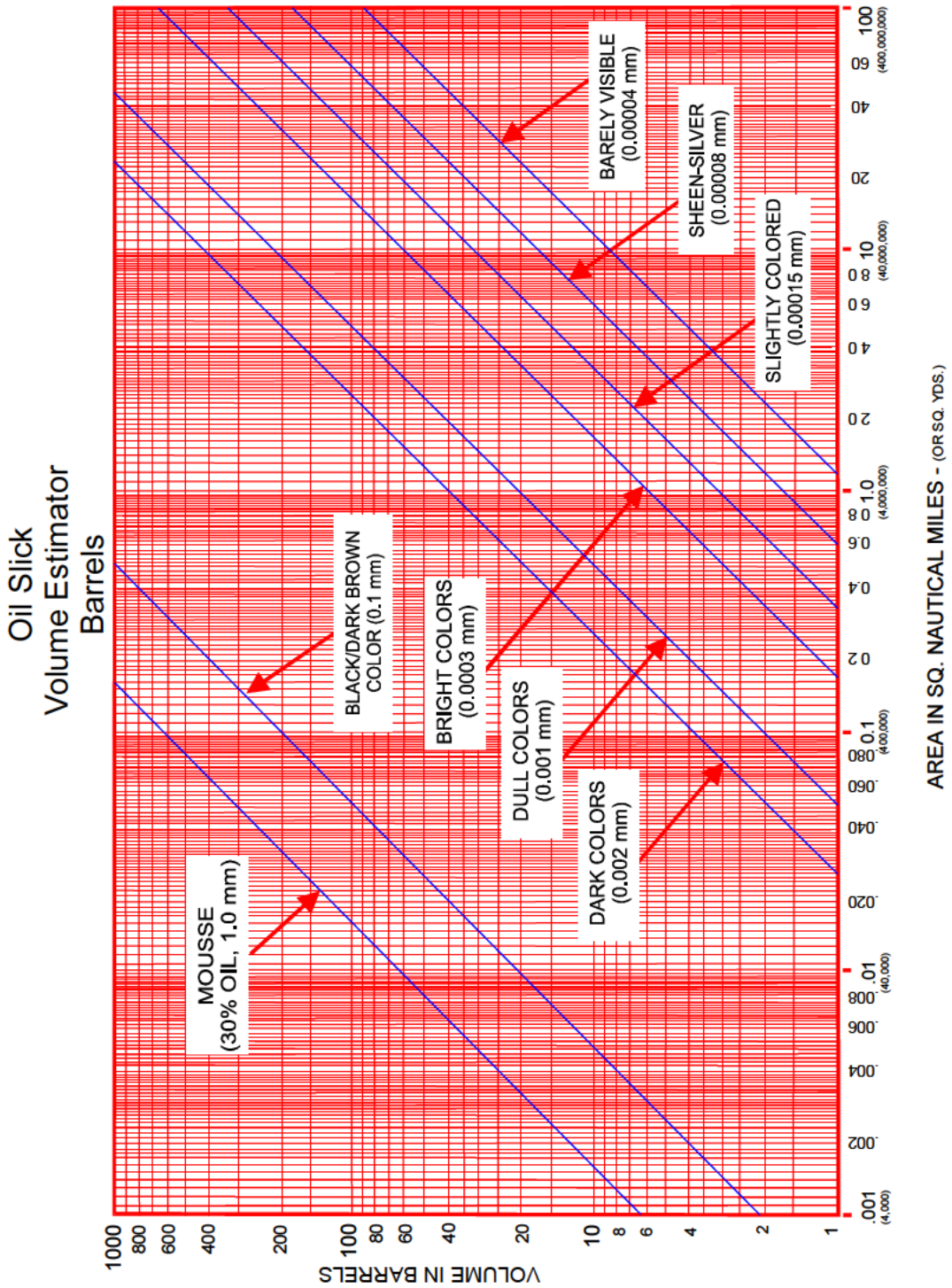
SPILL MANAGEMENT TEAM (All Incidents)

_____ Assigned personnel will immediately respond to an emergency /discharge from the Facility, as the situation demands.

_____ Perform response / clean-up operations as directed or coordinated by the Incident Commander.

_____ Assist as directed at the emergency / spill site.

FIGURE 3.2


Oil Slick
Volume Estimator
Barrels
MOUSSE
(30% OIL, 1.0 mm)
BLACK/DARK BROWN
COLOR (0.1 mm)
BRIGHT COLORS
(0.0003 mm)
DULL COLORS
(0.001 mm)
DARK COLORS
(0.002 mm)
BARELY VISIBLE
(0.00004 mm)
SHEEN-SILVER
(0.00008 mm)
SLIGHTLY COLORED
(0.00015 mm)
VOLUME IN BARRELS
1000
800
600
400
200
100
80
60
40
20
10
8
6
4
2
1
AREA IN SQ. NAUTICAL MILES - (OR SQ. YDS.)
.001 (4,000)
.002
.004
.006
.008
.01 (40,000)
.020
.040
.060
.080
0.1 (400,000)
0.2
0.4
0.6
0.8
1.0 (4,000,000)
2.0
4.0
6.0
8.0
10 (40,000,000)
20
40
60
100 (400,000,000)

(b) (7)(F)

(b) (7)(F)

FIGURE 3.3 (cont'd)
BOMB THREAT, HOSTAGE CRISIS, NATURAL DISASTER, MEDICAL EMERGENCY RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

- Caller's state (inebriety, sober, excited, slow, etc.);
- If the caller has an accent;
- Sounds surrounding the caller;
- Repeat what has not been well understood.

_____ Report the call to a senior member of management. If management supervision is not present call the appropriate local government agencies listed in Figure 2.8 – 2.13 and inform them of the bomb threat.

_____ Determine what areas should be evacuated. When in doubt, evacuate.

_____ Do not attempt to use two way radios or cell phone during the response period as some explosive devices can be detonated by radio waves.

_____ Keep an outside line open to permit the caller to call back.

_____ Members of the press or general public should not be permitted inside the terminal.

(b) (7)(F) [redacted]

Although many disasters cannot be prevented or predicted, preparation can significantly reduce losses. In the event of a severe weather condition or a natural disaster, the most senior member present will be the Incident Commander.

_____ **Be Aware of Changing Weather Conditions**

1. Tornado watch - conditions are right for the formation of a tornado.
2. Hurricane watch – there is a threat of a hurricane.
3. Tornado warning - a tornado has been sighted but is not in the area at this time.
4. Hurricane warning – a hurricane is expected within 24 hours.
5. Tornado alert - a tornado has been sighted in the immediate area - take cover immediately.

_____ **If Severe Weather Conditions Threaten**

1. Sound fire alarm.

NATURAL DISASTER

FIGURE 3.3 (cont'd)
BOMB THREAT, HOSTAGE CRISIS, NATURAL DISASTER, MEDICAL EMERGENCY RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

2. Alert terminal personnel of condition.
3. If time permits, all personnel should assemble at the terminal warehouse or in an inside room in the terminal office for shelter.
4. If time does not permit, seek shelter in low level area away from glass.
5. Make certain terminal personnel are aware of the condition.
6. Stay in shelter until **"all clear"** has been issued.

_____ **Immediately After the Storm**

1. Account for all personnel.
2. Survey for damages to terminal property.
3. Initiate team for any repairs if needed (i.e. high tank alarms, lighting, etc.).
4. Refer to this Plan for additional response guidance regarding fires, spills, etc., as needed.

MEDICAL EMERGENCY, SPECIFIC RESPONSE

MEDICAL EMNERGENCY

_____ DO NOT ENDANGER YOURSELF ATTEMPTING A RESCUE. Call 911 or rescue squad instead.

_____ If victim can be reached safely and can be moved, move them to fresh air.

_____ Apply appropriate first aid, if trained to do so, for injury and shock, exercising care not to cause further injury.

_____ If victim is unconscious and not breathing, immediately apply artificial respiration (if trained in CPR) and continue without interruption until natural breathing is restored or revived by other CPR trained personnel or other qualified medical personnel.

_____ Call for ambulance or other medical evacuation resources, if appropriate.

_____ Notify hospital of patient arrival and extent of injury.

_____ The Incident Commander will notify victim's immediate family.

_____ Complete follow-up and written reporting, as the situation demands.

_____ In case of contact with released material:

- Immediately flush eyes with running water for at least 15 minutes.
- Wash skin with soap and water.
- Remove and isolate contaminated clothing and shoes at the site.

FIGURE 3.3 (cont'd)
BOMB THREAT, HOSTAGE CRISIS, NATURAL DISASTER, MEDICAL EMERGENCY RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

PIPELINE CONTROLLER (All Incidents)

_____ Initiate the Internal Emergency Notification Procedure (Figure 2.2 & 2.3).

_____ Ensure nearest available PMPL field representative has been notified.

_____ Implement the Incident Commander's instructions for shutting down and securing operations and facilities. Support IC's evaluation of the following potential actions:

_____ Evaluate shutting down individual pump stations based on the threat/ incident.

_____ Evaluate the need to shutdown the main lines

_____ For Montreal Terminal, notify Shift Supervisor at Petrochemie Coastal, Shell Terminal and Dispatcher at Ultramar, Suncor and Enbridge (Figure 2.15)

COMPANY MANAGEMENT (All Incidents)

_____ **Evaluate the Severity**, Potential Impact, Safety Concerns, and Response Requirements based on the initial data provided by the first person on scene.

_____ Assume the role of **Incident Commander**.

_____ **Confirm safety** aspects at site, including need for personal protective equipment, sources of ignition, and potential need for **evacuation**.

_____ Contact and involve local **Law Enforcement / Fire Officials** as needed.

_____ Perform further/ additional notifications as per Figures 2.2 & 2.3.

_____ Coordinate/perform **regulatory agency notification,** as the situation demands (notification procedures and telephone references are provided in Figure 2.8-2.13.

ALL INCIDENTS

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_2S 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.

LOCATION SPECIFIC EVACUATION PROCEDURES

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.

Station	Primary Evacuation Muster Point	Alternate Evacuation Muster Point
Raymond	Main gate on Meadow Road	Gate on West side of the station.
North Waterford	Main gate on Hunts Corner Road	Gate on East side of the station.
Shelburne	Main gate on State Route 2	Gate on North side of the station.
Lancaster	Main gate on Portland Street	Warehouse building access road gate on east side of the station.
Sutton	Main gate on Barton Road (Rte 5)	Gate on west side of the station near strainer.
Highwater	Main entrance gate on Chemin du Pipeline	Gate near the 610 mm (24 in.) control building
Ste. Cesaire	Main entrance gate on Rang du Pipeline	Gate on the north side of 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 prime evacuation and assembly site is the main entrance gate of the Montreal terminal near the Montreal Office on Sherbrooke.
- The alternate evacuation site is the entrance gate located on the south fence of the terminal yard giving access to ParaChem. This alternate evacuation site will be used only if the prime site is endangered.
- 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 access points to the Montreal East Terminal, e.g. the main access gate on Sherbrooke Street.

In case of an emergency, it would also be possible to enter through the Shell Refinery main gate at 10501Sherbrooke Street, giving access from the west side of the terminal to a gate situated at employee's vehicle parking area.

Another possible access is through the ParaChem main entrance at 3500 Broadway, giving access to the terminal yard from the east side of the terminal giving access to two possible gates.

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;
- The prime evacuation and assembly site is the main entrance gate of the North Tank Field, which is located on *Broadway Nord*;
- The alternate evacuation site is the entrance gate located on Road "L", which gives access to the adjacent Imperial Oil Facility. This alternate evacuation site will be used only if the prime site is endangered;
- 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

Fire Control Plan drawings in Section 7.3 show the geographical location of the two (2) main access points to the North Tank Field, e.g. the main access gate on the *Broadway Nord* and the secondary access gate on Road "L" on the adjacent Imperial Oil property.

In case of an emergency, it would also be possible to make openings through the fence on the southwestern side, e.g. along the 20th Avenue from the adjoining Imperial Oil property, in order to access directly the tank locations.

An access would also be possible on the northeastern side, e.g. from the Henri-Bourassa boulevard where are located the fire hydrants connected to the main water distribution loop of the Island of Montreal. In this case, it would be necessary to cross commercial properties and, a wooded area, with the help of appropriate heavy equipment, to access the tank field.

Maps and figures have been redacted in accordance with the FOIA Exemption 7(F).

APPENDIX C

RESPONSE RESOURCES

COMPANY OWNED SPILL / EMERGENCY RESPONSE EQUIPMENT

Response Equipment Tests and Deployment C-3

South Portland Marine Terminal & Pump Station C-3

Raymond Pump Station C-4

North Waterford Pump Station C-4

Shelburne Pump Station C-4

Lancaster Station Pump Station C-4

Sutton Station Pump Station C-5

Highwater Pump Station C-5

St. Cesaire Pump Station C-5

Montreal Pump Station C-5

Pipeline Repair Equipment C-6

Figure C-1: Response Equipment Inspection Checklist & Sample Work Order C-7

FIRE RESPONSE EQUIPMENT

Pier 1 and Pier 2 ..... C-10

South Portland Pump Station C-11

Raymond Pump Station C-13

North Waterford Pump Station C-13

Shelburne Pump Station C-14

Lancaster Pump Station C-14

Sutton Pump Station C-15

Highwater Pump Station C-16

St. Cesaire Pump Station C-16

Montreal Pump Station C-17

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	In water at 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	Boom	50 ft. of 18-inch boom and 50 ft. of 6-inch boom	Tank Farm at Hill Street Garage
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
1	Radios – VHF Radio	Base – Op-Freq. 153.0900	Control Center
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

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

QUANTITY	TYPE	MAKE/MODEL/EQUIPMENT DESIGN	LOCATION
1	Boat	17' Steury Boat w/ 115 HP Evinrude motor	Garage
1	Boom	220' Uniroyal sealboom 17" wide	Garage – in boat
NORTH WATERFORD PUMP STATION (Shop)			
2	Boom Sea Serpent	Absorbent boom sea serpent, 50' lengths each	Shop

SHELBURNE PUMP STATION (Equipment Trailer)

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

LANCASTER PUMP STATION (Equipment Trailer)

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

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

HIGHWATER PUMP STATION (In Boat)			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boat	Fiberglass boat w/outboard motor	Motor Room
1	Boom	100' Slickbar Boom	Motor Room
1	Boom	100' Fast water boom	Motor Room

ST. CESAIRE PUMP STATION			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boat	Boat w/outboard motor	Garage
1	Boom	850' Bennett Boom	Trailer
1	Boom	200' Slickbar Boom	Trailer

MONTREAL PUMP STATION (In Garage)			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boat	Boat w/ outboard motor	Garage
1	Trailer	Small Equipment Trailer	Garage
MONTREAL PUMP STATION (In Trailer)			
1	Boom	500' Bennett Boom	Trailer
1	Skimmer	Disc Air Operated	Trailer
1	Storage Tank	3000 Gallon portable tank	Trailer
1	Wash down pump	Gas operated wash down pump	Trailer

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

- PR = Pump Room

FIRE PROTECTION EQUIPMENT

PIER 1 and PIER 2

PIER NO. 2

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

PIER NO. 1

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

OUTSIDE EQUIPMENT AVAILABILITY

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

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

TANK FARM

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

OUTSIDE EQUIPMENT AVAILABILITY

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

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

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

EQUIPMENT FOR FIRE FIGHTING

SOUTH PORTLAND PUMP STATION (Cont'd)

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

EQUIPMENT FOR FIRE FIGHTING

RAYMOND PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

NORTH WATERFORD PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

SHELBURNE PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

LANCASTER PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

SUTTON PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING			
HIGHWATER PUMP STATION			
EXTINGUISHERS			
Nº	MAKE	TYPE	LOCATION
74	Ansul	BC	Pump Room
75	Ansul	BC	Pump room
76	Ansul	BC	Motor Room
77	Ansul	BC	Stock Room
78	Ansul	BC	Work Room
79	Ansul	BC	Work Room
80	Ansul	PK	Control Room
81	Ansul	BC	Control Room
82	Ansul	BC	24 » Building
83	Ansul	BC	24 » Building
84	Ansul	PK	Boat
85	Ansul	PK	Pump Room

EQUIPMENT FOR FIRE FIGHTING			
ST. CESAIRE PUMP STATION			
EXTINGUISHERS			
Nº	MAKE	TYPE	LOCATION
51	Ansul	BC	Work Room
55	Ansul	BC	Garage
56	Ansul	PK	Boat
57	Ansul	PK	Control Room
58	Ansul	BC	Control Room
59	Ansul	PK	Sub-Station North Fence
60	Ansul	K5	Sub-Station East Fence
61	Ansul	BC	Large Trailer
62	Ansul	K5	Pump Room
63	Ansul	BC	Pump Room
64	Flag	Co_2	24 » Switch room

EQUIPMENT FOR FIRE FIGHTING			
MONTREAL EAST AREA			
EXTINGUISHERS			
N°	MAKE	TYPE	EMPLACEMENT
1	Ansul	BC	Vehicle Unit – Terminal Supervisor
2	Ansul	BC	Vehicle Unit – Terminal Maintenance
4	Ansul	BC	Pump Room West Wall
5	Ansul	BC	Pump Room East Wall
6	Ansul	Ansul	Terminal, South Wall
8	Ansul	BC	Motor Room
9	Ansul	PK	Terminal Supervisor Office
10	Buffalo	CO_2	Lunch Room
11	Walter Kid	CO_2	Control Room
13	Ansul	BC	Manifold 2 West Fence
14	York	BC	Manifold 2 East Fence
15	Ansul	CO_2	Manifold 2 Building
17	Ansul	PK	M&I Shop
20	Ansul	PK	Terminal Garage
21	Ansul	BC	Storage Building
22	Ansul	PK	Storage Building
23	Ansul	PK	Vehicle Unit – SC Station Chief
24	Ansul	BC	Meter Building
25	Ansul	BC	Meter Building
26	York	BC	Édifice des compteurs
27	Ansul	PK	Vehicle Unit – HW Station Chief
28	Ansul	BC	18" Sampling Building
30	Ansul	ABC	Main Office
31	Amer. Lafr.	CO_2	Main Office Basement
32	Ansul	ABC	Main Office Basement
35	Ansul	BC	Laboratory

EQUIPMENT FOR FIRE FIGHTING			
MONTREAL EAST AREA (Cont'd)			
N°	**MAKE**	**TYPE**	**EMPLACEMENT**
37	Ansul	BC	24" Sampling Building
38	Ansul	PK	Laboratory
39	Ansul	PK	Vehicle Unit – Maintenance Chief
40	Ansul	PK	Vehicle Unit – Maintenance Chief
41	Ansul	ABC	Main Office Attic
46	Ansul	BC	Office Garage

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

NORTH TANK FIELD			
FIRE HYDRANTS AND EXTINGUISHERS			
NUMBER AND DESCRIPTION	**MAKE**	**LOCATION**	**INTEGRATED NOZZLE**
7 (seven) 30 lbs extinguisher	Ansul BC	Booster Pumps & Tanks	
2 (two) CO_2 extinguisher	Ansul	Inside Substation #44	
23 (twenty-three) fire Hydrants	McAvity (6) Darling (17)	North Tank Field	2 (two) equipped with nozzles

FIGURE C-3

EXTERNAL RESPONSE RESOURCES

Portland Captain of the Port (COTP) Zone

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

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

MSRC's Major Equipment - Atlantic/Gulf Region - Atlantic Region

Location		Skimmers	Effective Daily Recovery Capacity BBL/Day		Boom	Storage, SBS, Small Boats
Portland, ME						
Maine Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 620						**1 - 62,000 barrel offshore barge**
Saddleback Responder	1	WP-1	3,017	5,500	ft. Sea Sentry II	1 - Shallow Water Barge (self propelled/400 bbl)
Katahdin Responder	1	Desmi 250	2,112	1,000	ft. Texa Boom	1 - 500 bbl towable storage bladder
	1	Elastec Drum	288			2 - 100 bbl Towable Storage Barges
	1	Ro-Clean OM 260	362			1 - 200 bbl Towable Storage Barge
	1	Skim-Pack 1800	2,054	220	ft. Sea Sentry (11-16)	2 - 10 bbl Fastanks
	1	Komara 12K	362	60	ft. Mark II Boom	1 - 50 bbl Fastank
	1	Komara 30K	905	1,200	ft. 38" Carolina Boom	2 - 55 bbl Fastanks
	2	Lori side collector	2,714	4,650	ft. 27" Carolina Boom	1 - Lancer TSB
	1	Sea Devil	2,290	1,750	ft. 38" Amer B & B	Work boats (2-36', 2-30 1- 46')
	1	GT-185 w Adapter	1,371			
	1	Stress I	15,840	3,200	ft. 19" HarborBoom	
Boston, MA						
High Volume Port	1	Desmi Ocean	3,017	1,320	ft. Sea Sentry II	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Queensboro	905	1,000	ft. Texa Boom	1 - Shallow Water Push Boat (26' Munson)
				60	ft. Mark II Boom	
Providence, RI						
	1	GT-185 w Adapter	1,371	4,620	ft. Sea Sentry II	1 - Shallow Water Barge (non-self propelled/400 bbl)
				1,000	ft. Texa Boom	1 - Shallow Water Push Boat (26' Munson)
				60	ft. Mark II Boom	
Edison/Perth Amboy, NJ						
New Jersey Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 520						**1 - 52,000 barrel offshore barge**
High Volume Port	1	Desmi Ocean	3,017	5,500	ft. Sea Sentry II	1 - Shallow Water Push Boat (28' Munson)
	1	AardVAC	3,840	1,800	ft. Texa Boom	1 - Shallow Water Barges (self propelled/400 bbl)
	1	GT-185 w Adapter	1,371	990	ft. Sea Sentry (20-30)	2 - 500 bbl towable storage bladders
	1	Skim-Pak	548	770	ft. Sea Sentry (11-16)	3 - 10 bbl Fastanks
	1	Stress I	15,840			9 - 55 bbl Fastank
				120	ft. Mark II Boom	
Bayonne, NJ						
	1	GT-185 w Adapter	1,371	60	ft. Mark II Boom	1 - Shallow Water Barge (non-self propelled/400 bbl)
Chesapeake City, MD						
Delaware Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 401						**1 - 40,000 barrel offshore barge**
High Volume Port	1	Walosep W4	3,017	5,500	ft. Sea Sentry II	
	1	Skim-Pak	548	1,000	ft. Texa Boom	
	1	Queensboro	905	60	ft. Mark II Boom	2 - Shallow Water Barge (non-self propelled/400 bbl)
	1	GT-185 w Adapter	1,371			2 - Shallow Water Push Boats (2-26' Munson)
						10,725 Gallons Corexit 9500 Dispersant (1 ISO Tank, 20
	1	Stress I	15,840	60	ft. Mark II Boom	totes)
Baltimore, MD						
	1	GT-185 w Adapter	1,371			1 - Shallow Water Barge (non-self propelled/400 bbl)
				60	ft. Mark II Boom	1 - Shallow Water Push Boat (26' Munson)
Virginia Beach, VA						
Virginia Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 680	**1**	**Stress I**	**15,840**	**220**	**ft. Sea Sentry II**	**1 - 68,000 barrel offshore barge**
	1	AardVAC	3,840	3,300	ft. Sea Sentry II	
	1	GT-185 w Adapter	1,371	3,000	ft. Texa Boom	1 - 500 bbl towable storage bladder
	1	Walosep W4	3,017			2 - 10 bbl Fastanks
						1 - Shallow Water Barge (self propelled/400 bbl)
				60	ft. Mark II Boom	2 - 55 bbl Fastank

MSRC's Major Equipment - Atlantic/Gulf Region - Atlantic Region

Location		Skimmers	Effective Daily Recovery Capacity BBL/Day		Boom	Storage, SBS, Small Boats
Yorktown, VA						
	1	GT-185 w Adapter	1,371	60	ft. Mark II Boom	1 - Shallow Water Barge (non-self propelled/400 bbl)
						1 - Shallow Water Push Boat (28' Munson)
Savannah, GA						
MSRC 350	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 35,000 barrel offshore barge**
						1 - 50 barrel FRV Storage. 1-100 barrel Towable Stor
MSRC Relentless	**1**	**LORI Brush Pack**	**5,000**			**Bladder.**
	2	Walosep W4	6,034	8,140	ft. Sea Sentry II	1 - 3,000 bbl towable storage bladder
	1	Stress I	15,840			2 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Skim-Pak	548	1,000	ft. Texa Boom	2 - Shallow Water Push Boats (2 -28' Munson)
	2	GT-185 w Adapter	2,742	120	ft. Mark II Boom	6 - 500 bbl towable storage bladders
						1 - 10 bbl Fastanks
						1 - 55 bbl Fastank
Jacksonville, FL						
	1	GT-185 w Adapter	1,371	50	ft. OK Corral	1 - Shallow Water Barge (non-self propelled/400 bbl)
						1 - Shallow Water Push Boat (26' Munson)
Miami, FL						
Florida Responder	**1**	**Transrec 350**	**10,567**	**1,980**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
	1	WP 1	3,017	7,700	ft. Sea Sentry II	1 - Shallow Water Barge (self propelled/400 bbl)
	1	Desmi Ocean	3,017			8 - 500 bbl towable storage bladders
	1	Walosep 4	3,017			
	1	Stress I	15,840	50	ft. OK Corral	
	2	AardVac	7,680	2,000	ft. Quali-tech	
	1	GT-185 w Adapter	1,371			
St. Croix, VI						
MSRC 381	**1**	**Stress I**	**15,840**	**1,980**	**ft. Sea Sentry II**	**1 - 38,000 barrel offshore barge**
High Volume Port	1	AardVac	3,840	10,340	ft. Sea Sentry II	2 - Shallow Water Barges (self propelled/400 bbl ea)
	1	Stress I	15,840	5,940	ft. Slickbar	4 - 500 bbl towable storage bladders
	1	Queensboro	905	500	ft. Fire + 400' Guide	
	1	GT-185 w Adapter	1,371	100	ft. Quali-tech	
Ponce, Puerto Rico						
	1	Desmi Ocean	3,017	2,100	ft. Slickbar	1 - Shallow Water Barge (non-self propelled/400 bbl)
	2	Queensboro	1,810	100	ft. Quali-tech	1 - Shallow Water Barge (self-propelled/400 bbl)
						1 - Shallow Water Push Boat (28' Munson)
San Juan, Puerto Rico						
MSRC Brisa Rapida	**1**	**LORI Brush Pack**	**5,000**			**1 - 50 barrel FRV Storage**
	1	Queensboro	905	4,100	ft. Slickbar	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Stress II	3,017	50	ft. Quali-tech	1 - Shallow Water Push Boat (28' Munson)
						1 - 100 bbl towable storage bladder
						900 Gallons Corexit 9527 dispersant - 3 totes
Yabacoa, Puerto Rico						
	1	Foilex 200	1,989	7,365	ft. Slickbar	1 - Shallow Water Barges (non-self propelled/400 bbl)
	1	Queensboro	905	50	ft. Quali-tech	1 - Shallow Water Push Boat (28' Munson)
Total Equipment	31	Skimmers	142,421	55,045	Feet	5 - Responder Class OSRVs with a total of 20,000 bbls storage
						2 - Smaller OSRVs
						2 - FRV's with a total of 50 bbls storage each
						6 - Offshore Barges with 295,000 bbls storage
						13 - Shallow Water Barges (non-self propelled) (5,200 bbls storage)
Bold entries denote resources associated with a vessel						7 - Shallow Water Barges (self propelled) (2,800 bbls storage)
						3 - Towable Storage Barges (non-self propelled) (400 bbls storage)
						13 - Shallow Water Push Boats
						24 - Towable Storage Bladders (11,200 bbls storage)
						3 - Work Boats
						23 - Fastanks (900 bbls)
						62,700 ft Ocean Boom
						10,725 Gallons Corexit 9500 Dispersant
						900 Gallons Corexit 9527 Dispersant

MSRC Spill Response Resources

Oil Spill Response Resources Cascade Planning Schedule

PORTLAND, ME

9/11/2007

EAST

MSRC RESOURCES

Resource Area	Asset	Miles	Mob. Factor	Time (hours)	Skimmers	EDRC (bpd)	SBS	TSB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)
Portland, ME	Site	0	2.0	2.0	9	12,751	1	1	1,330	180	0	0	0	3	5,500	14,230	0	19,730
Dover, NH	Site	34	2.0	4.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Belfast, ME	Site	101	2.0	5.0	0	0	0	0	0	0	0	0	0	0	0	2,100	0	2,100
Boston, MA	Site	105	2.0	5.3	2	3,922	1	1	400	0	0	0	0	1	1,320	3,060	0	4,380
Cape Cod Canal, MA	Site	127	2.0	5.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Grafton, MA	Site	128	2.0	6.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Providence, RI	Site	142	2.0	6.8	1	1,371	1	0	490	0	0	0	0	1	4,620	2,960	0	7,580
Springfield, MA	Site	191	2.0	7.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New London, CT	Site	210	2.0	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Berlin, CT	Site	214	2.0	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bristol, CT	Site	219	2.0	8.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Haven, CT	Site	228	2.0	9.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burlington, VT	Site	256	2.0	9.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Albany, NY	Site	271	2.0	10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Newburgh, NY	Site	290	2.0	10.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bayonne, NJ	Site	332	2.0	11.7	1	1,371	1	0	400	0	0	0	0	0	0	60	0	60
Edison, NJ	Site	348	2.0	12.1	6	14,384	1	2	1,400	525	0	0	0	2	6,490	3,190	0	9,680
Port Jefferson, NY	Site	354	2.0	12.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paulsboro, NJ	Site	417	2.0	14.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear, DE	Site	443	2.0	14.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chesapeake City, MD	Site	459	2.0	15.3	4	5,841	2	0	900	0	0	0	0	2	5,500	2,680	0	8,180
Atlantic City, NJ	Site	441	2.0	15.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baltimore, MD	Site	507	2.0	16.7	1	1,371	1	0	460	0	0	0	0	1	0	2,025	0	2,025
Salisbury, MD	Site	541	2.0	17.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stafford, VA	Site	595	2.0	19.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fredericksburg, VA	Site	635	2.0	19.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richmond, VA	Site	660	2.0	21.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Beach, VA	Site	638	2.0	21.8	2	5,211	1	1	900	130	0	0	0	1	4,840	5,920	0	10,760
Norfolk, VA	Site	673	2.0	21.6	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Pittsburgh, PA	Site	687	2.0	22.4	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Yorktown, VA	Site	712	2.0	23.2	1	1,371	1	0	400	0	0	0	0	1	0	60	0	60
Wheeling, WV	Site	725	2.0	23.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleveland, OH	Site	740	2.0	23.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raleigh, NC	Site	814	2.0	25.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detroit, MI	Site	813	2.0	25.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Charleston, WV	Site	847	2.0	26.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Toledo, OH	Site	856	2.0	27.0	3	2,090	1	0	400	0	0	0	0	1	0	60	0	60
Morehead City, NC	Site	920	2.0	28.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wilmington, NC	Site	935	2.0	29.0	1	288	0	0	0	0	0	0	0	0	0	0	0	0
Dayton, OH	Site	927	2.0	29.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Charlotte, NC	Site	952	2.0	29.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portsmouth, OH	Site	942	2.0	29.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cincinnati, OH	Site	956	2.0	30.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knoxville, TN	Site	1027	2.0	31.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nashville, TN	Site	1054	2.0	32.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STARs RESOURCES

Resource Area	Skimmers	EDRC (bpd)	SBS	TBB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)
Portland, ME	3	938	0	3	231	951	3	4	8	10	0	2,500	16,900	5,400	24,800
Dover, NH	0	0	0	0	0	118	1	0	1	0	0	0	200	0	200
Belfast, ME	0	0	0	0	0	128	1	0	1	1	0	0	2,100	0	2,100
Boston, MA	8	14,231	0	2	314	15,562	21	6	11	6	4	0	17,000	0	17,000
Cape Cod Canal, MA	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
North Grafton, MA	0	0	0	0	0	0	0	0	1	0	0	0	800	0	800
Providence, RI	2	4,629	0	5	193	968	4	1	6	4	0	0	7,500	0	7,500
Springfield, MA	0	0	0	0	0	0	0	0	1	0	0	0	650	0	650
New London, CT	0	0	0	0	0	0	0	0	1	0	0	0	500	0	500
Berlin, CT	2	3,600	0	1	70	806	3	1	2	1	0	0	1,500	0	1,500
Bristol, CT	0	0	0	0	0	1,309	3	1	3	0	0	0	4,000	0	4,000
New Haven, CT	6	3,097	0	3	292	3,045	8	3	6	3	3	0	9,200	0	9,200
Burlington, VT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Albany, NY	0	0	0	0	0	2,657	6	3	4	2	0	0	2,100	0	2,100
Newburgh, NY	0	0	0	0	0	920	2	2	3	2	0	0	4,400	0	4,400
Bayonne, NJ	9	12,344	1	0	2,640	4,633	48	###	26	32	20	3,600	56,100	0	59,700
Edison, NJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Port Jefferson, NY	4	12,090	0	1	402	6,956	7	16	13	4	9	0	25,500	0	25,500
Paulsboro, NJ	3	5,658	1	3	176	3,910	21	3	23	20	1	1,000	20,100	0	21,100
Bear, DE	0	0	0	0	0	162	3	0	4	2	0	0	1,500	0	1,500
Chesapeake City, MD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Atlantic City, NJ	0	0	0	0	0	0	0	0	0	0	0	0	500	0	500
Baltimore, MD	3	720	0	4	143	4,447	24	4	10	5	0	0	18,500	200	18,700
Salisbury, MD	0	0	0	0	0	628	2	0	2	1	0	0	2,000	0	2,000
Stafford, VA	1	480	0	0	0	628	5	0	1	1	0	0	1,000	0	1,000
Fredericksburg, VA	0	0	0	0	0	178	3	0	1	0	0	0	0	500	500
Richmond, VA	0	0	0	0	0	475	6	0	6	2	0	0	6,000	400	6,400
Virginia Beach, VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norfolk, VA	5	4,478	0	3	147	3,188	10	4	17	8	1	0	33,600	160	33,760
Pittsburgh, PA	0	0	0	0	0	5,321	19	22	8	0	17	0	8,000	1,600	9,600
Yorktown, VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheeling, WV	0	0	0	0	0	0	0	0	0	0	0	0	4,250	1,450	5,700
Cleveland, OH	0	0	0	0	0	880	3	1	0	4	1	0	4,200	0	4,200
Raleigh, NC	0	0	0	0	0	107	1	0	2	0	0	0	600	0	600
Detroit, MI	5	802	0	0	0	1,628	15	0	5	5	0	0	9,600	0	9,600
Charleston, WV	2	583	0	0	0	1,047	6	0	2	0	0	0	3,000	4,600	7,600
Toledo, OH	2	480	0	0	0	1,532	16	1	4	2	0	0	8,000	500	8,500
Morehead City, NC	0	0	0	0	0	0	0	0	1	0	0	0	1,000	1,500	2,500
Wilmington, NC	1	288	0	0	493	22,500	8	1	6	3	3	3,000	12,500	750	15,250
Dayton, OH	1	480	0	0	0	3,333	17	4	0	0	0	0	0	470	470
Charlotte, NC	1	480	0	0	0	0	1	0	2	0	0	0	2,000	0	2,000
Portsmouth, OH	0	0	0	0	0	0	0	0	0	0	0	0	1,500	5,450	6,950
Cincinnati, OH	0	0	0	0	0	2,524	17	2	2	1	0	0	3,000	300	3,300
Knoxville, TN	0	0	0	0	0	220	0	0	2	0	0	0	800	0	800
Nashville, TN	1	500	0	0	0	819	3	1	5	1	0	0	5,000	500	5,500

CUMULATIVE CAPACITY

Resource Area	Skimmers	EDRC (bpd)	SBS	TBB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)
Portland, ME	12	13,689	1	4	1,511	1,171	3	4	8	13	0	8,000	31,130	5,400	44,530
Dover, NH	12	13,689	1	4	1,511	1,289	4	4	9	13	0	8,000	31,330	5,400	44,730
Belfast, ME	12	13,689	1	4	1,511	1,417	5	4	10	14	0	8,000	35,530	5,400	48,930
Boston, MA	20	31,842	3	6	2,235	16,984	26	10	21	21	4	9,320	55,590	5,400	70,310
Cape Cod Canal, MA	20	31,842	3	6	2,235	16,984	26	10	21	22	4	9,320	55,590	5,400	70,310
North Grafton, MA	20	31,842	3	6	2,235	16,984	26	10	22	22	4	9,320	56,390	5,400	71,110
Providence, RI	23	37,842	3	11	2,428	17,952	30	11	28	26	4	13,940	66,850	5,400	86,190
Springfield, MA	23	37,842	3	11	2,428	17,952	30	11	29	27	4	13,940	67,500	5,400	86,840
New London, CT	23	37,842	3	11	2,428	17,952	30	11	30	27	4	13,940	68,000	5,400	87,340
Berlin, CT	25	41,442	3	12	2,498	18,758	33	12	32	28	4	13,940	69,500	5,400	88,840
Bristol, CT	25	41,442	3	12	2,498	20,067	35	14	35	28	4	13,940	73,500	5,400	92,840
New Haven, CT	31	45,339	3	15	2,790	23,112	43	19	41	31	9	13,940	82,700	5,400	102,040
Burlington, VT	31	45,339	3	15	2,790	23,112	43	19	41	31	9	13,940	82,700	5,400	102,040
Albany, NY	31	45,339	3	15	2,790	25,769	49	22	45	33	9	13,940	84,800	5,400	104,140
Newburgh, NY	31	45,339	3	15	2,790	26,689	51	24	48	35	9	13,940	89,200	5,400	108,540
Bayonne, NJ	41	59,054	5	15	6,410	31,322	100	1,788	74	69	29	17,540	145,360	5,400	168,300
Edison, NJ	47	73,398	6	17	7,430	31,847	100	1,788	74	71	29	24,030	148,550	5,400	177,980
Port Jefferson, NY	51	85,488	6	18	8,232	40,815	107	1,802	87	75	38	24,030	174,050	5,400	203,480
Paulsboro, NJ	54	91,146	7	21	8,408	44,715	128	1,805	110	95	39	25,030	194,150	5,400	224,580
Bear, DE	54	91,146	7	21	8,408	44,887	131	1,805	114	97	39	25,030	195,650	5,400	226,080
Chesapeake City, MD	58	96,987	9	21	9,308	44,887	131	1,805	114	99	39	30,530	198,330	5,400	234,260
Atlantic City, NJ	58	96,987	9	21	9,308	44,887	131	1,805	114	99	39	30,530	198,830	5,400	234,760
Baltimore, MD	62	99,078	10	25	9,751	49,334	155	1,809	124	115	39	30,530	219,355	5,600	255,485
Salisbury, MD	62	99,078	10	25	9,751	49,963	157	1,809	126	116	39	30,530	221,355	5,600	257,485
Stafford, VA	63	99,558	10	25	9,751	50,592	162	1,809	127	117	39	30,530	222,355	5,600	258,485
Fredericksburg, VA	63	99,558	10	25	9,751	50,770	164	1,809	128	117	39	30,530	222,355	6,100	258,985
Richmond, VA	63	99,558	10	25	9,751	51,245	170	1,809	134	119	39	30,530	228,355	6,500	265,385
Virginia Beach, VA	65	104,769	11	26	10,651	51,375	170	1,809	134	110	39	35,370	234,275	6,500	276,145
Norfolk, VA	71	108,247	11	29	10,798	54,563	180	1,813	151	119	40	35,370	267,875	6,660	309,905
Pittsburgh, PA	71	109,247	11	29	10,798	59,884	199	1,835	151	119	57	35,370	275,875	8,200	319,445
Yorktown, VA	72	110,618	12	29	11,198	59,884	199	1,835	151	119	57	35,370	275,935	8,260	319,505
Wheeling, WV	72	110,618	12	29	11,198	59,884	199	1,835	151	119	57	35,370	280,185	10,650	326,205
Cleveland, OH	72	110,618	12	29	11,198	60,764	202	1,836	151	124	58	35,370	284,385	10,650	330,405
Raleigh, NC	72	110,618	12	29	11,198	60,871	203	1,836	153	124	58	35,370	284,985	10,650	331,005
Detroit, MI	77	111,420	12	29	11,198	62,499	218	1,836	158	129	58	35,370	294,585	10,650	340,605
Charleston, WV	79	112,003	12	29	11,198	63,546	225	1,836	160	130	58	35,370	297,585	15,250	348,205
Toledo, OH	84	114,573	13	29	11,598	65,078	241	1,837	164	133	58	35,370	305,645	15,750	356,765
Morehead City, NC	84	114,573	13	29	11,598	65,078	241	1,837	165	133	58	35,370	306,645	17,250	359,265
Wilmington, NC	86	115,148	13	29	12,091	87,578	249	1,838	171	136	61	37,370	319,145	18,000	374,515
Dayton, OH	87	115,833	13	29	12,091	90,911	266	1,842	171	136	61	37,370	319,145	18,470	374,985
Charlotte, NC	88	116,315	13	29	12,091	90,911	267	1,842	173	136	61	37,370	321,145	18,470	376,985
Portsmouth, OH	88	116,315	13	29	12,091	90,911	267	1,842	173	136	61	37,370	322,645	23,920	383,935
Cincinnati, OH	88	116,315	13	29	12,091	93,435	284	1,844	175	137	61	37,370	325,645	24,220	387,235
Knoxville, TN	88	116,315	13	29	12,091	93,661	284	1,844	177	137	61	37,370	326,445	24,220	388,035
Nashville, TN	89	116,815	13	29	12,091	94,480	287	1,845	182	138	61	37,370	331,445	24,720	393,535

PHMSA 000055460

MSRC Spill Response Resources
Oil Spill Response Resources Cascade Planning Schedule

PORTLAND, ME
9/11/2007

EAST

MSRC RESOURCES

Resource Area	Asset	Miles	Mob. Factor	Time (hours)	Skimmers	EDRC (bpd)	SBB	TBB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Ocean Boom (ft)	Inland Boom (ft)	B&C Boom (ft)	Total Boom (ft)
Louisville, KY	Site	1055	1.0	32.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whiting, IN	Site	1071	1.0	33.4	1	905	1	0	400	0	0	0	0	1	0	60	0	60
Charleston, SC	Site	1083	1.0	33.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Savannah, GA	Site	1129	1.0	34.6	6	9,870	2	13	9,800	65	0	0	0	2	8,140	3,080	0	11,220
Chattanooga, TN	Site	1139	1.0	35.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evansville, IN	Site	1172	1.0	36.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Decatur, AL	Site	1264	1.0	36.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aurora, IL	Site	1266	1.0	38.1	1	1,371	1	0	400	0	0	0	0	1	0	60	0	60
St. Louis, MO	Site	1372	1.0	38.4	2	685	0	0	0	0	0	0	0	3	0	7,000	0	7,000
Mitchell, IL	Site	1374	1.0	38.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paducah, KY	Site	1374	1.0	38.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Port Canaveral, FL	Site	1418	1.0	40.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Memphis, TN	Site	1419	1.0	43.5	1	905	1	0	400	0	0	0	0	1	0	60	0	60
Pensacola, FL	Site	1516	1.0	46.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mobile, AL	Site	1459	1.0	46.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Panama City, FL	Site	1540	1.0	46.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olathe, KS	Site	1531	1.0	46.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Little Rock, AR	Site	1555	1.0	47.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Myers, FL	Site	1800	1.0	48.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wichita, KS	Site	1709	1.0	51.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Great Bend, KS	Site	1790	1.0	54.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Platte, NE	Site	1817	1.0	54.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portland, ME, Maine Responder	OSRV	0	1.0	3.0	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320
Edison, NJ, New Jersey Responder	OSRV	320	1.0	38.7	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320
Chesapeake City, MD Delaware Responder	OSRV	475	1.0	41.4	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320
Virginia Beach, Virginia Responder	OSRV	528	1.0	46.0	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320
Virginia Beach, VA - OSRB	OSRB	528	1.5	48.5	1	15,840	0	0	68,000	0	0	0	0	0	0	0	0	0
Savannah, GA - OSRB	OSRB	667	1.5	135.6	2	26,107	0	0	35,000	0	0	0	0	0	1,320	0	0	1,320
Portland, ME - OSRB	OSRB	0	1.5	2.5	1	15,780	0	0	62,000	0	0	0	0	0	0	0	0	0
Edison, NJ - OSRB	OSRB	320	1.5	45.5	1	15,840	0	0	92,000	0	0	0	0	0	0	0	0	0
Chesapeake City, MD - OSRB	OSRB	475	1.5	51.9	1	15,840	0	0	40,000	0	0	0	0	0	0	0	0	0
Portland, ME Bigelow Bight	OSRV	0	1.0	3.0	2	2,714	0	0	0	0	0	0	0	0	0	1,050	0	1,050

STARs RESOURCES

Resource Area	Skimmers	EDRC (bpd)	SBB	TBB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	B&C Boom (ft)	Total Boom (ft)
Louisville, KY	0	0	0	0	0	476	5	0	0	0	0	0	0	0	0
Whiting, IN	7	2,331	0	0	0	5,495	50	4	18	3	0	0	11,460	800	12,260
Charleston, SC	2	1,155	0	2	124	1,240	8	0	10	9	0	0	8,700	1,400	10,100
Savannah, GA	2	720	0	4	3,333	341	4	0	12	3	0	0	18,800	0	15,800
Chattanooga, TN	1	480	0	0	0	150	2	0	3	1	0	0	2,000	130	2,130
Evansville, IN	2	720	0	0	0	690	3	0	0	1	0	0	900	0	900
Decatur, AL	1	342	0	0	0	0	0	0	2	0	0	0	1,900	0	1,900
Aurora, IL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Louis, MO	2	665	0	0	0	0	0	0	8	3	0	0	7,000	0	7,000
Mitchell, IL	1	240	0	0	0	1,619	17	0	1	0	0	0	0	0	0
Paducah, KY	1	240	0	0	0	423	4	0	1	1	0	0	2,750	900	3,650
Port Canaveral, FL	0	0	0	0	0	795	6	0	4	2	0	0	4,600	0	4,600
Memphis, TN	6	1,460	0	2	115	920	2	1	8	3	0	0	4,060	1,300	5,360
Pensacola, FL	3	171	0	0	0	74	1	0	2	1	0	0	5,800	0	5,800
Mobile, AL	1	308	0	0	10,000	5,374	8	0	9	6	0	1,000	9,500	0	10,500
Panama City, FL	2	1,645	0	0	0	293	4	0	2	2	0	0	7,200	0	7,200
Olathe, KS	2	0	0	0	0	1,109	3	0	2	1	0	0	1,000	300	1,300
Little Rock, AR	1	500	0	0	0	70	1	0	1	0	0	0	1,000	500	1,500
Fort Myers, FL	0	0	0	0	0	55	1	0	1	0	0	0	900	0	900
Wichita, KS	0	0	0	0	0	130	0	0	2	0	0	0	200	250	450
Great Bend, KS	0	0	0	0	0	119	0	0	0	0	0	0	500	0	500
North Platte, NE	0	0	0	0	0	166	2	0	1	0	0	0	800	0	800
Portland, ME, Maine Responder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edison, NJ, New Jersey Responder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chesapeake City, MD Delaware Responder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Beach, Virginia Responder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virginia Beach, VA - OSRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Savannah, GA - OSRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portland, ME - OSRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Edison, NJ - OSRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chesapeake City, MD - OSRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portland, ME Bigelow Bight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CUMULATIVE CAPACITY

Resource Area	Skimmers	EDRC (bpd)	SBB	TBB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	B&C Boom (ft)	Total Boom (ft)
Louisville, KY	0	0	0	0	0	476	5	0	0	0	0	0	0	0	0
Whiting, IN	8	3,236	1	0	400	5,971	55	4	18	4	0	0	11,460	800	12,260
Charleston, SC	10	4,401	1	2	524	7,211	63	4	26	11	0	0	20,160	2,200	22,360
Savannah, GA	18	14,691	3	19	13,657	7,887	67	4	28	18	0	8,140	39,020	2,200	49,360
Chattanooga, TN	19	15,171	3	19	13,657	7,877	69	4	42	19	0	8,140	41,020	2,330	51,480
Evansville, IN	21	15,891	3	19	13,657	8,567	72	4	42	20	0	8,140	41,920	2,330	52,380
Decatur, AL	22	16,233	3	19	13,657	8,567	72	4	44	20	0	8,140	43,820	2,330	54,280
Aurora, IL	23	17,604	4	19	14,057	8,567	72	4	44	21	0	8,140	43,880	2,330	54,350
St. Louis, MO	27	18,874	4	19	14,057	8,567	72	4	60	27	0	8,140	57,880	2,330	68,350
Mitchell, IL	28	19,214	4	19	14,057	10,186	89	4	61	27	0	8,140	57,880	2,330	68,350
Paducah, KY	29	19,454	4	19	14,057	10,609	93	4	62	29	0	8,140	60,630	3,230	72,000
Port Canaveral, FL	29	19,454	4	19	14,057	11,404	99	4	66	30	0	8,140	65,230	3,230	76,600
Memphis, TN	34	21,799	5	21	14,576	12,324	101	5	74	34	0	8,140	69,290	4,530	81,960
Pensacola, FL	37	21,970	5	21	14,576	12,398	102	5	76	35	0	8,140	75,090	4,530	87,760
Mobile, AL	38	22,278	5	21	24,576	17,772	110	5	85	41	0	9,140	84,590	4,530	98,260
Panama City, FL	40	23,923	5	21	24,576	18,065	114	5	87	43	0	9,140	91,790	4,530	105,460
Olathe, KS	42	23,923	5	21	24,576	19,174	117	5	89	44	0	9,140	92,790	4,830	106,760
Little Rock, AR	43	24,423	5	21	24,576	19,244	118	5	90	44	0	9,140	93,790	5,330	108,260
Fort Myers, FL	43	24,423	5	21	24,576	19,299	119	5	91	44	0	9,140	94,690	5,330	109,160
Wichita, KS	43	24,423	5	21	24,576	19,429	119	5	93	44	0	9,140	94,890	5,580	109,610
Great Bend, KS	43	24,423	5	21	24,576	19,548	119	5	93	44	0	9,140	95,390	5,580	110,110
North Platte, NE	43	24,423	5	21	24,576	19,714	121	5	94	44	0	9,140	96,190	5,580	110,910
Portland, ME, Maine Responder	44	34,990	5	21	38,576	19,714	121	5	94	45	0	10,460	96,190	5,580	112,230
Edison, NJ, New Jersey Responder	45	45,557	5	21	52,576	19,714	121	5	94	46	0	11,780	96,190	5,580	113,550
Chesapeake City, MD Delaware Responder	46	56,124	5	21	66,576	19,714	121	5	94	47	0	13,100	96,190	5,580	114,870
Virginia Beach, Virginia Responder	47	66,691	5	21	80,576	19,714	121	5	94	48	0	14,420	96,190	5,580	116,190
Virginia Beach, VA - OSRB	48	82,531	5	21	148,576	19,714	121	5	94	48	0	14,420	96,190	5,580	116,190
Savannah, GA - OSRB	50	108,638	5	21	183,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Portland, ME - OSRB	51	124,418	5	21	245,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Edison, NJ - OSRB	52	140,258	5	21	297,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Chesapeake City, MD - OSRB	53	156,098	5	21	337,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Portland, ME Bigelow Bight	55	158,812	5	21	337,576	19,714	121	5	94	48	0	15,740	97,240	5,580	118,560

Notes:
(1) FOR INTERNAL MSRC PLANNING PURPOSES ONLY. INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
(2) Mobilization times and speed of advance assumptions are estimates only and may vary from Coast Guard planning assumptions. Actual mobilization times/speeds will vary from site to site and from resource to resource, e.g., depending on local conditions including availability of contractors, and also traffic, weather, safe navigation and other conditions permitting.
(3) Specifics provided re: resources (EDRC, storage capacity, etc.) are not performance guarantees or warranties. Actual recovery rates, storage capacities, etc. will depend on the specifics of the individual response, the type of oil involved, etc.
(4) The Coast Guard recognizes the MSRC "Responder" Class OSRVs with a 14,000 barrel of temporary storage planning factor credit due to the vessels' oily water waste minimization systems.

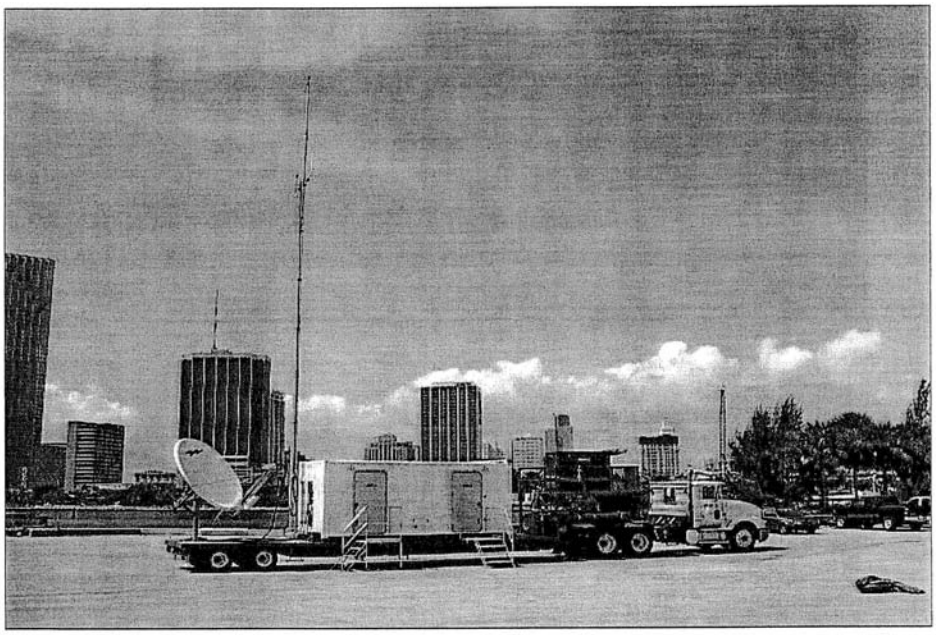
MOBILE COMMUNICATIONS SUITE

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

Components

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

Number of Operators Required: 5-10 depending on operations



MSRC COMMUNICATIONS

WAREHOUSE

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

ME Responder

On Bridge

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

RHIBS

2	Marine VHF Radios	all	one on each RHIB

COMM"S ROOM

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

Munson Support Boat 1-1

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

MSRC-620

MSRC-1-16

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

CCB Heritage Vessels

Saddleback

		All	
1	Motorola M1225	MSRC 1-4	

Katahdin

		All	
1	Motorola M1225	MSRC 1-4	

Crocker

		All	
1	Motorola M1225	MSRC 1-4	

Cadillac

		All	
1	Motorola M1225	MSRC 1-4	

Agamenticus

		All	
1	Motorola M1225	MSRC 1-4	

MSRC Frequency Assignments

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

SOUTH PORTLAND, ME SERVICE CENTER **17 Main Street** **South Portland, ME 04106**	**43.64 N 70.29 W**	**24-Hr. #** **24-Hr. #** **Fax #**	**207.799.8111** **800.645.8265** **207.799.0349**

Matt Quinn, General Manager

EPA / Federal ID #: N/A

Personnel Authorized to release equipment / materials / manpower, etc:

Matt Quinn
Jack Vallely
Ken Burbank

40-Hour OSHA Trained Personnel:

Supervisor	6
Foreman	6
Field Technician	12
Equipment Operator	11
Site Safety Officer	1

Equipment List

Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
(1) Vessels & Marine Support Equipment							
Power Workboat, Workskiff	South Portland	21', 115HP, V329	1	Y	Y	N	N
Power Workboat, Pointer	South Portland	21', 120 HP, ME 207SY, V120	1	Y	Y	N	N
Jon Boat w/ Motor, Alumaline	South Portland	12', 9.9 HP, ME 107CH, V201	1	Y	Y	N	N
Jon Boat w/ Motor	South Portland	12', 5 HP, SEAP7313M84G	1	Y	Y	N	N
Power Workboat, Trailboss	South Portland	20', 30 HP, ME10ZMM, V148	1	Y	Y	N	N
Power Workboat, Monarch	South Portland	22', 150 HP, ME 10ZML, 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.	2	Y	Y	N	N
Vacuum Split Trailers	South Portland	6,000 gal	1	Y	Y	N	N
Vacuum Trailer	South Portland	6,000 gal	3	Y	Y	N	N
High Powered Vacuum Loader, Cusco	South Portland	3,000 gal / 10 cu. yd.	1	Y	Y	N	N
Vacuum Skid	South Portland	3,000 gal	1	Y	Y	N	N
Vacuum Skid	South Portland	300 gal	1	Y	Y	N	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	Y	Y	N	N
Spill Trailer	South Portland		1	Y	Y	N	N
10 Wheel Dump Truck	South Portland	10 yards	1	Y	Y	N	N
Roll Off Truck	South Portland	15 Yards	1	Y	Y	N	N
6 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	P	D
(3) Pumps and Pressure Equipment							
Wilden Diaphragm Pump	South Portland	2"	2	Y	Y	N	N
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	Y	Y	N	N
Bowie 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							
Oil Containment Boom	South Portland	Global 14", In Water	2000	Y	Y	N	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	N
Oil Containment Boom	South Portland	American Marine 18", In Van	19500	Y	Y	N	Y
Oil Containment Boom	South Portland	Global 24", In Water	1100	Y	Y	N	N
(5) Environmental Monitoring Equipment							
HNU Meter	South Portland	P101	1	Y	Y	N	N
MSA Gas Indicator	South Portland	Miniguard II	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	1	Y	Y	N	Y
Drum Skimmer, Crucial	South Portland	TDS118, 3", 35 GPM, TDS11899336, S214	1	Y	Y	N	Y
(7) Beach or Earth Cleaning and Excavating Equipment							
Excavator, CAT	South Portland	235 Track	1	Y	Y	N	N
Backhoe, CAT	South Portland	436	1	Y	Y	N	N
Bobcat	South Portland	843, Skidsteer	1	Y	Y	N	N
(8) Generators / Compressors / Light Towers							
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	N	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		20	Y	Y	N	N

CANADA – OIL SPILL RESPONSE CONTRACTORS

Contractor Response Resources
Highwater Station

CONTRACTORS AND EQUIPMENT

	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								X
Back Hoe	D			D			D		
Dozer			D	D			D		
Crane	D			D					
Front End Loader			D				D		
Overhead Loader	D						D		
Shovel	X		D						
Tank Trailer									
Tractor Crawler									
Trucks			X				D		
Spark Arrestors			NON				NON		
Grader									
Vacuum Truck									
Float	D						D		
Welders & Pipe Fitters	X								

D – Denotes Diesel Power

X – Denotes Other type of Power

(b) (7)(F)

[redacted]

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			X
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 Power

X – Denotes Other type of Power

(b) (7)(F)

[redacted]

Contractor Response Resources

Montreal-East Terminal

CONTRACTORS AND EQUIPMENT

	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				X	X	X	
Welders &Pipe Fitters							X

D – Denotes Diesel Power

X – Denotes Other Power

N/A – Not available

(b) (7)(F)

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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		X						
Driving Service			X	X				
Tugs				D				D
Service Boats				X	X	X	X	X
Outboards				X		X		X
Spark Arrestors	N/A	N/A	N/A	N/A	N/A	N/A		N/A
Pollution				X		X		X

D – Denotes Diesel Power

X – Denotes Other Power

N/A – Not Available

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	X	X			X
Elect. Generator	D X	X	D			D X
Portable Lights	X	X	X			X
Blower Fan	X	X	X			X
Chain Saw		X	X			X
Absorbent Material				X		X
Oil Dispersants	N/A	N/A	N/A	N/A		N/A
Spark Arrestors						

D – Denotes Diesel Power

X – Denotes Other Power

N/A – Not available

MPL LIST OF AGREEMENTS

- Simdev Construction
- Sécurité et Protection Sec-Pro Inc.
- Santinel Inc.
- National
- Fasken Martineau
- S.I.M.E.C.
- UDA Inc
- R.S.R. Environment
- Cargair Limitée
- Tetratech Inc.
- Amnor Inc
- St-Pierre Excavation Inc

Eastern Canada Response Corporation (ECRC)
Quebec Equipment Summary (Note 1)

Location	Skimmers	Boom	Barges	Vessels
1 Field Operations Center	5 Libra belt skimmers	2 Reels Open Harbor Kepner Boom (900 meters)	1 - Basque: 16,300 bbl storage capacity w/ NOFI Vee sweep and GT 185 skimmer	2 - 49 foot Patrol boats
5 Mobile Unit Base Stations	3 Lori brush skimmers	2 NOFI Sweep systems	1 - Dover Light: 10,000 bbls	4 - 24 foot Patrol boats
21 Portable radios	8 Pedco skimmers	730 meters - 20 inch solid flotation boom	12- 50 ton storage barges; some with Lori skimmers	2 – 21 foot Patrol boats
1 Decontamination unit	10 Disc skimmers	20,750 meters - 24 inch solid flotation boom	1 - Barge Orleans: 13,200 bbls storage capacity with w/ NOFI Vee sweep and GT 185 skimmer	11 Rigid hull inflatable boats
15 Response trailers	3 Elastic skimmers	1,960 meters - 36 inch solid flotation boom`	6 Shoreline deck barges	18 Seatrucks
5 Bird hazing devices	4 GT-185 skimmers	1,270 meters shore seal boom		13 Small boats (12-18 foot aluminum)
	11 Oil Mop skimmers			
	1 Desmi DOP - 250			

Note 1: See ECRC data sheets in Appendix C for detailed information on equipment.
Note 2: Summary prepared by PMPL

FOREWORD

INTEGRATED CONTINGENCY PLAN

Portland Montreal Pipe Line (PMPL)

This Plan satisfies the following regulations / guidelines:

- U.S. EPA 40 CFR Part 112 (OPA 90)
- U.S. EPA 40 CFR Part 112.5 (SPCC)
- U.S.EPA 40 CFR 264 (RCRA)
- U.S. DOT 49 CFR 194 (OPA 90)
- USCG 33 CFR Part 154 (OPA 90)
- OSHA 29 CFR 1910.38(a) (Emergency Action Plan)
- OSHA 29 CFR 1910.120 (HAZWOPER)
- NEB Onshore Pipeline Regulations (SOR 99/294)
- Oil and Gas Occupational Safety and Health Regulations (SOR 87-612)
- Guidelines for Filing Requirements of the National Energy Board
- CAN/CSA-Z731-03 Emergency Preparedness and Response
- Planning of the emergency measures to ensure the safety of the workers: Guidance document for the development of emergency measures plan for the Industry, CSST

Prepared for:

PORTLAND PIPE LINE CORPORATION (PPL)
30 Hill Street
South Portland, ME 04106
and
MONTREAL PIPE LINE LTD (MPL)
10803, Sherbrooke St. East
Montreal (Quebec) H1B 1B3

Copy #_____

INTEGRATED CONTINGENCY PLAN

ACKNOWLEDGMENT AND PLAN APPROVAL

The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan.

I certify that the information and procedures contained herein are considered to be accurate and true as of this date, and that the accidental spill measures described in this document will be implemented as described. The information and procedures contained herein are also consistent with the U.S. National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5. The information and procedures contained herein are consistent with regulations from the National Energy Board.

Further, on behalf of Montreal Pipe Line, I hereby certify that the individuals identified as Qualified Individual and Alternate Qualified Individual in this plan have the full authority in accordance with the applicable federal and provincial regulations and this plan to:

1. Activate and engage in contracting with oil spill removal organizations,
2. Act as a liaison with the pre-designated federal and/or provincial authority,
3. Obligate funds required to carry out response activities.

Plan Approved:

L. D. Wilson
Qualified Individual (United States and Canadian Assets)
Portland Pipe Line Corporation
Montreal Pipe Line Limited

Date: 12/15/11

NOTE: O'Brien's Response Management, Inc. ("O'Brien's") provided consulting and plan development services in the preparation of this plan utilizing data provided by Portland Pipe Line Corporation, Montreal Pipe Line Limited and/or the Facility. O'Brien's assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

INTEGRATED CONTINGENCY PLAN

PMPL Policy on Response to Spill, Fire/Explosion or Medical Emergencies

PMPL is committed to devoting all required resources to planning its response to possible hazardous material, hazardous waste and oil spill incidents or fire/explosion incidents and to developing a comprehensive Integrated Contingency Plan.

PMPL is committed to an ongoing review of this response plan and to its revision when necessary in order to adapt to changing conditions and/or technical advancements.

PMPL is committed to periodic exercise of its plan and to providing the training necessary for its employees and associates to effectively and efficiently carry out all elements of the plans.

PMPL is committed to informing the public of the details of its response plan and to being responsive to inquiries by the public and news media regarding the plan. The procedures set forth in the PMPL Communications Manuals shall be followed as applicable.

PMPL is committed to timely public notification in the event of a spill.

PMPL will disclose to the public details of an emergency, as the verifiable facts become known.

PMPL is committed to following its policies on the environment, business ethics, security, and health and safety when responding to and informing the public of spill, fire or explosion emergencies it may experience.

INTEGRATED CONTINGENCY PLAN

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Regulatory Cross-references are included in Appendix A of this Plan.

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INTEGRATED CONTINGENCY PLAN

REVISION CONTROL RECORD

Note: It is the responsibility of the holder of this plan to ensure that all changes and updates are made. The holder shall:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.
- Record each revision on this form.

Change Date	Affected Page Number(s)	Description of Change(s)	Name
March 2001	Entire Plan	Issuance of Plan	
March 2003	Entire SPCC	SPCC revisions	
October 2003	Pgs. ERAP-3, ERAP-5 thru ERAP-7, ERAP-12, ERAP-13, ERAP-18, ERAP-22, ERAP-23, ERAP-42, ERAP-56, ERAP-57, ERAP-58, ERAP-63, ERAP-64, ERAP-65, ii, vii, ix, 1-12, 1-19, 1-21, 1-22, 2-4 thru 2-10, Notifications 2-5, Notifications 2-6, Notifications 2-12, Notifications 2-16, Notifications 2-17, Resources 2-1, 3-6, A-1, A-3, A-4, A-7 thru A-25, C-1, C-3, C-5, C-6, C-11, C-12, C-25 inserts, H-1, remove page H-13, K-1, K-11 thru K-22, M-2, M-3	Miscellaneous revisions	
August 2004	Pgs. ERAP-6, ERAP-7, vii, x, 2-7, 2-9, 2-10	Annual update	
September 2004	Pgs. ERAP (all), vii, 2-7, 2-9 thru 2-11, Figure 2.4 Notifications, Figure 2.5 Resources	ICP update	
September 2004	ERAP Pg. 12, Notifications 2-4	Revision to State of Maine Reporting Requirements	
February 2005	Appendix C, Pages 15 – 19	Remove 300 lb. wheeled fire extinguishers from the Equipment for Fire Fighting Stations Lists	
January 2006	ERAP (entire section), Foreword (entire section), Section 1.0 (all except for Figure 1.1., page 1-10 and Figure 1.3, pages 1-15 and 1-16), Section 2.0 (entire section), Section 3.0 (entire section) , Section 4.0 (entire section, remove Figure 4.4), Section 5.0 (entire section), Section 6.0 (replace pages 6-1 to 6-16, and 6-17 to 6-20, retain figures and maps), SPCC (replace new pages, retain maps in Section 9.0), Appendix A, (entire section), Appendix C (entire section), Appendix G (entire section, discard page G-13), Appendix L (replace page L-12 only)	Miscellaneous revisions	
March 2006	Appendix C – insert MSRC Major Equipment Eastern Region	Revision to Appendix C	
August 2006	ERAP (entire section), Foreword (entire section), Section1.0 (entire section), Section 2.0 (entire section), Section 6.0 (entire section), SPCC (entire section), Appendix C, D, F, G and H (entire sections)	Miscellaneous revisions	

INTEGRATED CONTINGENCY PLAN

Change Date	Affected Page Number(s)	Description of Change(s)	Name
December 2006	Section 5 (Pgs. 5-3 and 5-4), SPCC (Foreword and Section 5), Appendix C (Pages C-3 and C-4), ERAP (Pages 56 and 57)	Miscellaneous revisions	
March 2007	Foreword (Pages vii – xii), Section 1.0 (Pages 1-11 and 1-12), Section 2.0 (Pages 2-17 to 2-20, 2-25 and 2-26, 2-31 and 2-32), Appendix C (Pages C-3 to C-4, insert pages C-6(a) and C-6(b)), Appendix K (Pages K-1, K-23 and K-24), ERAP (Pages 12-15, 20-21, 24-25, 56-59, and insert new page 89)	Clarified radio and vacuum truck locations in the facility; inserted state emergency response agencies and contact numbers; provided additional sample forms.	
September 2007	Foreword (Pages vii-viii), Section 2.0 (Pages 2-7 to 2-10); Appendix K (Pages K-1 and K-16, additional pages inserted after K-16 as noted); ERAP (Pages 6-7).	Revised to update the Spill Management Team roles and titles, and to insert the National Incident Management System Incident Command Forms.	
September 2009	Entire Plan	Incorporation and integration of Montréal Pipe Line Emergency Response plan in its entirety. Revised Section 1.0 Facility location descriptions, Section 2.0 notification lists, Section 3.0 response checklists and actions, Section 4.0 SMT members, Section 7.0 SPCC to add tank dike changes and mobile fueling tank. Also revised Appendix A regulatory cross reference page references, Appendix B response team descriptions for pre-incident and SMT roles, and in Appendix K added updated forms. Created separate binders for environmental and associated response maps (See Figure 6.1) previously contained in manual.	
December 2009	Foreword (pages xi - xvi), Section 1.0 (Page 1-5), Section 2.0 (Page 2-18 and Page 2-46), and Section 4.0 (Page 4-17).	Revised Foreword to update various mailing addresses and indicate if plan is received electronically; Revised Section 1.0, Page 1-5 to indicate requirement to notify DOT/PHMSA in the event of a material change in the Facility's spill prevention and response procedures; Revised Section 2.0 Pages 2-17 and 2-18 to provide updated information on DOT reporting requirements and Page 2-46 to provide current aviation contractor contact information; Revised Section 4.0, Page 4-17 to update Figure 4.3 with current contact information.	

INTEGRATED CONTINGENCY PLAN

Change Date	Affected Page Number(s)	Description of Change(s)	Name
March 2011	Foreword (pages xvii to xxii), Section 1.0 (Pages 13, 19, 24, 31), Section 2.0 (Pages 7, 11-13, 17–20, 23 -26), Section 3.0 (Pages 15 and 22), Section 4.0 (Pages 3-4, 17) ; Section 6.0 (Pages 1, 17–19, 25–30); Section 7.0 (Pages FWD-iva to FWD-vi, 1-1, 1-4 to 1-5, 4-1 to 4-2, 5-1 to 5-2, 6-1, 7-1, 9-1 to 9-4 and drawings D-4925 and D-4927); Appendix A (Pages 3–12) ; Appendix C (Pages 1-2, 21-22, 25-26, 29-32, and 53-127) ; Appendix H (Pages 5-8) ; Appendix K (Pages 1-2, 6-38) ; MPL Emergency Response Mapping, Section 2.1 Glen Sutton Block Valve Site.	Revised Foreword to include Fire Chiefs along the Right of Way in the distribution list; revised Section 1.0 for address changes and to update equipment at St. Cesaire; revised Section 2.0 to add NRDA reference in Figure 2.2, add additional recommendations under external notifications, and update personnel names and contact information throughout Section; revised Section 3.0 to indicate factor is nautical miles, not meters and modify 3.2.2; revised Section 4.0 to indicate response times for LRT and SRT and update Figure 4.3; revised Section 6.0 to update endangered species; revised Section 7.0 to update the tank dike status subsequent to tank work completion and to clarify regulatory compliance; revised Appendix A to update Cross Reference to align with changes made in Section 4.0, and update the header to reflect the correct cross reference; revised Appendix C to provide updated contractor and equipment information; revised Appendix H to update vulnerability analysis information; revised Appendix K to insert the Media Inquiry Log and update pagination; revised MPL Emergency Response Mapping to revise the Glen Sutton Block Valve Site drawing.	
December 2011	Foreword (entire section), Section 1.0 (pages 1-1 to 1-10; 1-19 to 1-20), Section 2.0 (entire section – note that some pages were pagination changes only), Section 3.0 (pages 3-1 to 3-2, 3-7 to 3-8, 3-13 to 3-16, 3-37 to 3-38), Section 4.0, Section 7.2 pages 7-9 to 7-18; Appendix A (pages A-1, A-13 to A-36 (note pages A-15 to A-36 were pagination changes only), Appendix H (page H-25).	Revised Foreword to include hazardous waste and updated Table of Contents, to provide current Acknowledgement and Plan Approval, and to include additional recipients; revised Section 1.0 to include references to hazard waste requirements, revised Section 2.0 to reference hazard waste and Emergency Coordinator, revised Section 3.0 to reference hazard waste and Emergency Coordinator, Section 7.2 revised contact information; Appendix A to insert reference to U.S. EPA Hazardous Waste 40 CFR Part 264; revised Appendix H to update contact information.	

INTEGRATED CONTINGENCY PLAN

Change Date	Affected Page Number(s)	Description of Change(s)	Name
November 2012	Foreward (Pages i-ii,v-vi, xiii-xxv), Section 1.0 (Pages 1-3 to 1-4,1-7 to 1-14, 1-17 to 1-24, 1-31 to 1-37). Section 2.0 (Pages 2-3 to 2-63). Section 3.0 (Entire Section). Section 4.0 (Pages 4-3 to 4-6, 4-11 to 4-12, 4-17 to 4-18). Section 5.0 (Pages 5-3 to 5-4 ; Section 6.0 (Pages 6-9 to 6-10, 6-21 to 6-24). Section 7.0 (Pages FWD-i to FWD-ii, FWD-vi to 9-10, MPL 7-1 to 7-24). Appendix B (Pages B-3 to B-4, B-9 to B-10, B-23 to B-24). Appendix C (pages C-1 to C-26, C-75 to C-126). Appendix E (Pages E-1 to E-2). Appendix F (Pages F-3 to F-4, F-9 to F-10). Appendix K (Entire Section). Appendix M (Entire Section).	Revised entire manual for administrative changes; Revised Forward for manual distribution list and table of contents; Revised Section 1.0 for addition of CAN/CSA Z731-95 determination of an emergency, and to reflect 18" main line deactivation and tank storage capacity; Revised Section 2.0 to address removal of Shell Security in Montreal, updated external notification procedures; Revised Section 3.0 to remove Shell Security in Montreal and update crude oil and hydrogen sulfide MSDS; Revised Section 4.0 US response unit and added Canadian response unit; Section 5.0 revised to remove company pagers; Section 6.0 revised to updated Endangered/Threatened species lists; Section 7.0 revised to add additional emergency number, updated Log of Plan Review and Amendments and Canada specific reporting requirements;	
December 2013	Foreward (Pages xiii-xxvi); Section 1.0 (Pages 1-1 to 1-4, 1-7 to1-14, 1-19 to 1-24, 1-37 to 1-38); Section 2.0 (Pages 2-1 to 2-18, 2-21 to 2-22, 2-25 to 2-28, 2-31 to 2-36, 2-39 to 2-40, 2-47 to 2-50, 2-55 to 2-60); Section 3.0 (Pages 3-47 to 3-66; Section 5 (Pages 5-1 to 5-4); Section 7 (Pages FWD-vi to FWD-vi and MPL 7-11 to 7-12); Appendix B (Pages B-13 to B-14, B-#5 to B-38); Appendix C (Pages C-3 tp C-6, C-21 to C-22, C-87 to C-88, C-125 to C-126); Appendix D (Pages D-3 to D-4); Appendix I (Pages I-5 to I-26); Appendix K (Pages K1 to K-2, K-19 to K-59); Appendix M (M-1 to M-2)	Revised entire manual for administrative changes. Section 1 CSA Z731-03, added 24 hour toll free emergency number, updated daily throughput and storage, documented to NTF tanks removed from service. Section 3 updated Crude Oil MSDS. Section 5 added reference to Section 1 for directions to all PMPL owned response equipment. Appendix B added role and responsibility of the NEB. Appendix C updated to reflect current equipment inventory and locations. Appendix D added reference to PMPL Hazardous Material MSDS Inventory. Appendix I revised to reflect current mainline valve configuration including additional MOVs. Appendix K removed expired PHMSA Form 7000-1 and added instructions to 12-2012 Form 7000-1 online submission. Appendix M administrative changes.	
EXAMPLE			
01/01/99	1-1 thru 1-4; 5-2	Head Office Update	B.A. Sample

INTEGRATED CONTINGENCY PLAN

DISTRIBUTION LIST

NOTE: The Distribution of this Plan is controlled by the Copy Number located on the front cover. Plan Distribution Procedures are provided in Section 1.3 and the Plan Review and Update Procedures are provided in Section 1.4 and should be followed when making any and all changes.

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
1	Director of Operations and Maintenance - PPL Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
2	Quebec Area Manager - MPL 10803 Sherbrooke St East. Montreal (Quebec) H1B 1B3	Montreal, QC
3	President Portland Pipe Line Corporation / Montreal Pipe Line Limited 30 Hill Street South Portland, ME 04106	South Portland, ME
4	Operations Supervisor Dock Copy – South Portland Marine Terminal Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
5	Maintenance Supervisor – South Portland Tank Farm Copy – South Portland Tank Farm Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
6	Maintenance Technician Station Copy – Raymond Pump Station Portland Pipe Line Corporation 388 Meadow Road Raymond, ME	Raymond, ME
7	Maintenance Technician Station Copy – North Waterford Pump Station Portland Pipe Line Corporation 471 Hunts Corner Road North Waterford, ME	North Waterford, ME
8	Maintenance Technician Station Copy – Shelburne Pump Station Portland Pipe Line Corporation 525 State Route 2 Shelburne, NH	Shelburne, NH

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
9	Maintenance Technician Station Copy – Lancaster Pump Station Portland Pipe Line Corporation 309 Portland Street Lancaster, NH	Lancaster, NH
10	Maintenance Technician Station Copy – Sutton Pump Station Portland Pipe Line Corporation Barton Road (4373 Route 5 – nine miles south of Barton)	Sutton, VT
11	Maintenance Technician Station Copy – St-Césaire Pump Station 148 rang du Pipeline Saint-Césaire (Quebec)	St-Césaire, QC
12	Maintenance Technician Station Copy – Highwater Pump Station 99, chemin du Pipeline Highwater (Quebec)	Highwater, QC
13	Maintenance Supervisor Station Copy – Montreal terminal 10803 Sherbrooke St East. Montreal (Quebec) H1B 1B3	Montreal, QC
14	Health, Safety and Environmental Coordinator Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
15	Engineering Manager Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
16	Secretary Treasurer Portland Pipe Line Corporation / Montreal Pipe Line 30 Hill Street South Portland, ME 04106	South Portland, ME
17	Procurement Unit Leader Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
18	Supply Unit Leader Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
19	Engineer(Hydraulic Specialist) Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
20	Controller – Control Center Copy Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
21	Maintenance Technician 10803 Sherbrooke St East. Montreal (Quebec) H1B 1B3	Montréal, QC
22	Maintenance Technician 10803 Sherbrooke St East. Montreal (Quebec) H1B 1B3	Montréal, QC
23	Engineer (Display Processor) Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
24	Quebec Area Manager- MPL 10803 Sherbrooke St East. Montreal (Quebec) H1B 1B3	Montréal, QC
25	Corporate Controller Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
26	Communications Unit Leader Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
27	Product Movement Manager Portland Pipe Line Corporation 30 Hill Street South Portland, ME 04106	South Portland, ME
28	Administrative Assistant- MPL 10803 Sherbrooke St East. Montreal (Quebec) H1B 1B3	Montréal, QC
29	The Bernstein Shur Group 100 Middle Street West Tower Portland, Maine 04101	Portland, ME
30	HKDP- Communications and Public Affairs Marc K. Parson- Vice-President Public Affairs and Issues Management 1100 René-Lévesque Blvd. West Suite 600 Montreal (Quebec) H3B 4N	Montréal, QC
31	Pierce Atwood - Legal Counsel - US Ken Gray, Esq Merrill's Wharf 254 Commercial St. Portland, ME 04101	Portland, ME
32	Faskin Martineau – Legal Counsel - Canada Peter Villani The Stock Exchange Tower, PO Box 242, 34th Floor 800 Victoria Square Montréal, PQ H4Z 1E9	Montréal, QC

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
33	Genivar ATTN : Marcel Ricard, Coordonator 1600, boulevard René-Lévesque Ouest 16e étage Montréal QC H3H 1P9 Canada	Montréal, QC
34	Clean Harbors of Maine 17 Main Street South Portland, ME 04106	South Portland, ME
35	MSRC - Region 1 Center 120 Fieldcrest Avenue Edison, NJ 08837	Edison, NJ
36	MSRC - Portland 14 Union Wharf Portland, ME 04101	Portland, ME
37	ECRC/ SIMEC-Eastern Canada Response Organization 281 de l'Estuaire Québec (Québec), G1K 8S8	Québec, QC
38	Environmental Safety & Hygiene – Safety Specialist - US 5 Delta Drive Westbrook, ME 04092	Westbrook, ME
39	Santinel Inc - Health and Safety Specialist - Canada M. Dubeau 1061, boulevard Ste-Foy Longueuil (Québec) J4K 1W5	Montréal, QC
40	Groupe Pro-Sec Conseil 2561, boulevard Henri-Bourassa Est Montréal (Québec) H2B 1V4	Montréal, QC
41	Regional Administrator C/o Chief, Emergency Response Section Mail Code HBR U.S. Environmental Protection Agency – Region I 1 Congress Street, Ste. 1100 Boston, MA 02114-2023 Reference Plan #: FRP01A0001	Boston, MA
42	Commanding Officer Sector Northern New England 259 High Street South Portland, ME 04106	Portland, ME
43, 44	Melanie M.C. Barber, Environmental Planning Officer Pipeline and Hazardous Material Safety U.S. Department of Transportation Room E22-210, 1200 New Jersey Avenue S.E. Washington, D.C. 20590 Reference OPS Plan Sequence #45 Note: Updates sent via cd-rom/courier, no hard copies	Washington, D.C.

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
45	National Energy Board Attention: Secretary of the Board 444 Seventh Avenue SW Calgary, Alberta T2P 0X8	Calgary, AB
46	National Energy Board Attention: Secretary of the Board 444 Seventh Avenue SW Calgary, Alberta T2P 0X8	Calgary, AB
47	National Energy Board Attention: Secretary of the Board 444 Seventh Avenue SW Calgary, Alberta T2P 0X8	Calgary, AB
48	State of Maine Dept. of Environmental Protection Attn: Mr. Peter Blanchard State House Station #17 Augusta, ME 04333	Augusta, ME
49	State of NH Dept. of Environmental Services Attn: Mr. Rick Berry Waste Management Division 29 Hazen Drive- PO Box 95 Concord, NH 03302	Concord, NH
50	State of Vermont, Dept. of Environmental Conservation 103 South Main Street Waterbury, VT 05671-0404	Waterbury, VT
51	South Portland Fire Department Chief Kevin Guimond 684 Broadway South Portland, ME 04106	South Portland, ME
52	Department of Public Safety Vt. Emergency Management Division Mr. Thomas Woodard 103 South Main Street Waterbury, VT 05671-2101	Waterbury, VT
53, 54	O'Brien's Response Management, Inc. 818 Town & Country Blvd- Suite 200 Houston, TX 77024-4564 Note: Updates sent via cd-rom, no hard copies	Houston, TX
55	MDDEP (French copy of the ICP)	Quebec, QC
56	Environment Canada Attn: Monsieur Robert Reiss 105, McGill Collège, 4e étage Montréal, Quebec H2Y 2E7	Quebec, QC

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
57	Fire Chief Michael Jodrey Town of Bethel P. O. Box 1660 Bethel, ME 04217 Note: Updates sent via cd-rom, no hard copies	Bethel, ME
58	Fire Chief John Small Town of Casco 78 Pine Hill Road Casco, ME 04015 Note: Updates sent via cd-rom, no hard copies	Casco, ME
59	Kenneth Cole, Fire Department Town of Gilead 2007 North Road Gilead, ME 04217 Note: Updates sent via cd-rom, no hard copies	Gilead, ME
60	Fire Chief Scott Andrews Town of Harrison 34 School Street Harrison, ME 04040 Note: Updates sent via cd-rom, no hard copies	Harrison, ME
61	Fire Chief Mike Hooker Town of Otisfield 403 State Route 121 Otisfield, ME 04270 Note: Updates sent via cd-rom, no hard copies	Otisfield, ME
62	Fire Chief Jerome LaMoria City of Portland 389 Congress Street Portland, ME 04101 Note: Updates sent via cd-rom, no hard copies	Portland, ME
63	Fire Chief Bruce Tupper Town of Raymond 401 Webbs Mill Road Raymond, ME 04071 Note: Updates sent via cd-rom, no hard copies	Raymond, ME

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
64	Fire Chief Kevin Guimond City of South Portland 684 Broadway South Portland, ME 04106 Note: Updates sent via cd-rom, no hard copies	South Portland, ME
65	Fire Chief Adrien Morin Waterford Fire Department 366 Valley Road Waterford, ME 04088 Note: Updates sent via cd-rom, no hard copies	Waterford, ME
66	Fire Chief William Baker City of Westbrook 2 York Street Westbrook, ME 04092 Note: Updates sent via cd-rom, no hard copies	Westbrook, ME
67	Fire Chief Charlie Hammond Town of Windham 8 School Road Windham, ME 04062 Note: Updates sent via cd-rom, no hard copies	Windham, ME
68	Fire Chief George “Rick” Eichler Town of Gorham 20 Park Street Gorham, NH 03581 Note: Updates sent via cd-rom, no hard copies	Gorham, NH
69	Fire Chief Christopher Milligan Jefferson Fire Department 694 Presidential Highway Jefferson, NH 03583 Note: Updates sent via cd-rom, no hard copies	Jefferson, NH
70	Fire Chief Randy Flynn Town of Lancaster 25 Main Street Lancaster, NH 03584 Note: Updates sent via cd-rom, no hard copies	Lancaster, NH

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
71	Fire Chief Dana Horne Town of Randolph 130 Durand Road Randolph, NH 03593 Note: Updates sent via cd-rom, no hard copies	Randolph, NH
72	Fire Chief Nathan Emery Town of Shelburne 74 Village Road Shelburne, NH 03581 Note: Updates sent via cd-rom, no hard copies	Shelburne, NH
73	Steve Bosley Barton Fire Department P.O. Box 519 Village Square Barton, VT 05822 Note: Updates sent via cd-rom, no hard copies	Barton, VT
74	Fire Chief Brian Greer East Burke Volunteer Fire Brigade P. O. Box 36 East Burke, VT 05832-0036 Note: Updates sent via cd-rom, no hard copies	East Burke, VT
75	Fire Chief Brian Greer Town of Granby 9005 Granby Road P. O. Box 56 Granby, VT 05840 Note: Updates sent via cd-rom, no hard copies	Granby, VT
76	Fire Chief Robin Beaton Town of Irasburg P. O. Box 51 Irasburg, VT 05845 Note: Updates sent via cd-rom, no hard copies	Irasburg, VT

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
77	Fire Chief Doug James Town of Jay 1036 VT – Route 242 Jay, VT 05859 Note: Updates sent via cd-rom, no hard copies	Jay, VT
78	Fire Chief Steve Colby Lunenburg Fire Department 291 West Main Street Lunenburg, VT 05906 Note: Updates sent via cd-rom, no hard copies	Lunenburg, VT
79	Fire Chief David Parenteau City of Newport 22 Main Street Newport, VT 05855 Note: Updates sent via cd-rom, no hard copies	Newport, VT
80	Fire Chief Scott Brill Sutton Fire Department 79 Wheelock Road Sutton, VT 05867 Note: Updates sent via cd-rom, no hard copies	Sutton, VT
81	Fire Chief Lee Forbes Town of North Troy 142 Main Street North Troy, VT 05859 Note: Updates sent via cd-rom, no hard copies	North Troy, VT
82	Fire Chief Richard Fisher Town of North Concord/Victory Route 2 North Concord, VT 05860 Note: Updates sent via cd-rom, no hard copies	North Concord, VT
83	Fire Chief Tom Villeneuve West Burke Fire Dept. 42 VT Route 5A West Burke, VT 05871 Note: Updates sent via cd-rom, no hard copies	West Burke, VT

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
84	Me Marie-Pier Lamarche Chef du service des documents et Greffe 500, rue de la Riviere-aux-Pins Boucherville, Quebec J4B 2Z7 Note: Updates sent via cd-rom, no hard copies	Boucherville, Quebec
85	Louis-Philippe Ethier Bromont Fire Department 15, rue du Ciel Bromont, Quebec J2L 3X4 Note: Updates sent via cd-rom, no hard copies	Bromont, Quebec
86	Cowansville Fire Department 200, rue Miner Cowansville, Quebec J2K 3Y7 Note: Updates sent via cd-rom, no hard copies	Cowansville, Quebec
87	Dunham Fire Department 3777, rue Principale, C.P. 70 Dunham, Quebec J2K 3Y7 Note: Updates sent via cd-rom, no hard copies	Dunham, Quebec
88	Mme Francie Tetreault Directrice generale 682, rue Saint-Charles Marieville, Quebec J3M 1P9 Note: Updates sent via cd-rom, no hard copies	Marieville, Quebec
89	M. Alain Rouleau Chef de section – Prevention Caserne 28, 7650, Boulevard Chateauneuf Montreal, Quebec H1K 4H3 Note: Updates sent via cd-rom, no hard copies	Montreal, Quebec
90	Francis Marcoux Potton Fire Department 2, rue de Vale Perkins Potton, Quebec JOE 1X0 Note: Updates sent via cd-rom, no hard copies	Potton, Quebec

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
91	Philippe Chartrand Chef du service des incendies 249, rue Saint-Joseph Ange-Gardien, Quebec J0E 1E0 Note: Updates sent via cd-rom, no hard copies	Ange-Gardien, Quebec
92	Mme Pierrette Gendron Directrice generale 5, chemin du Vide Sainte-Angele-de-Monnoir, Quebec J0L 1P0 Note: Updates sent via cd-rom, no hard copies	Sainte-Angele-de-Monnoir, Quebec
93	M. Jean-Marie Beaupre Directeur general 204, rue Principale Saint-Basile-le-Grand, Quebec J3N 1M1 Note: Updates sent via cd-rom, no hard copies	Saint-Basile-le-Grand, Quebec
94	Bertrand Dery Directeur general 1111, avenue Saint-Paul Saint-Cesaire, Quebec J0L 1T0 Note: Updates sent via cd-rom, no hard copies	Saint-Cesaire, Quebec
95	M. Robert Morissette Directeur general adjoint 1580, chemin du Fer-a-Cheval Sainte-Julie, Quebec J3E 2M1 Note: Updates sent via cd-rom, no hard copies	Sainte-Julie, Quebec
96	Bruno Jodoin Chef du service des incendies 300, chemin des Patriotes Saint-Mathias-sur-Richelieu, Quebec J3L 6Z5 Note: Updates sent via cd-rom, no hard copies	Saint-Mathias-sur-Richelieu, Quebec
97	Sutton Fire Department 11, rue Principale Sud Sutton, Quebec J0E 2K0 Note: Updates sent via cd-rom, no hard copies	Sutton, Quebec

INTEGRATED CONTINGENCY PLAN

COPY NUMBER	PLAN HOLDER (ENTIRE PLAN)	LOCATION
98	Portland Water District Attn; Chad Thompson 1 White Rock Road Standish, ME 04084 Note: Updates sent via cd-rom, no hard copies	Standish, ME

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1.0 INTRODUCTION AND PLAN CONTENT

1.1 PLAN PURPOSE/OBJECTIVES

The purpose of this Integrated Contingency Plan (hereinafter referred to as "Plan") is to assist Portland Pipe Line Corporation (PPL) and Montréal Pipe Line Limited (MPL), (hereinafter referred to together as “PMPL” or “Company”) personnel to prepare to minimize impacts to human health and the environment, and respond safely and efficiently to a discharge of oil, hazardous material or hazardous waste, fire, explosion or medical emergency originating from the pipelines, terminals or associated facilities (hereinafter referred to as “Facility or Facilities”). The Plan provides techniques and guidelines for achieving a safe, efficient, coordinated, and effective response to an incident which may occur at the Facility.

The specific objectives of the Plan are to:

- Establish Response Teams, assign individuals to fill the positions on the teams, and define the roles and responsibilities of team members.
- Define notification, activation, and mobilization procedures to be followed when an incident or discharge occurs.
- Define organizational lines of responsibility to be adhered to during a response operation.
- Document equipment, personnel, and other resources available to assist with the response.
- Ensure compliance with the Company’s Corporate Safety and Environmental Policies.
- Ensure compliance with the federal, provincial, state, and local oil pollution and hazardous waste regulations.
- Ensure consistency with the US National Contingency Plan, US Area Contingency Plan(s), Canada Federal Emergency Plan or the Quebec Plan national de sécurité civile for the respective area of operation.

1.2 SCOPE OF PLAN

This Plan has been developed under the general guidance published in the Federal Register by the EPA entitled “The National Response Team’s (NRT) Integrated Contingency Plan” (61FR28642). The NRT guidance was developed in conjunction with the Environmental Protection Agency, Department of Transportation (U.S. Coast Guard, Pipeline and Hazardous Material Safety Administration), Department of the Interior (Minerals Management Service), and the Department of Labor (Occupation Safety and Health Administration).

This Plan has also been developed under general guidance provided by environmental and technical agencies in Canada. More specifically, the following guidelines/resources were used:

- Environmental Emergencies Branch Environment Canada's Interim Implementation Guideline for Canadian Environmental Protection Act, 1999 Part 8, Environmental Matters Related to Emergencies Section 199, Authorities for Requiring Environmental Emergency Plans. March 2000
- CAN/CSA-Z731-03 Emergency Planning for Industry.

In Canada, the emergency response interventions will be done in cooperation with the concerned Government organizations as per the «Loi sur la sécurité civile du Québec» of the government of Québec (Bill No 173) and in accordance with articles 32, 33, 34 and 35 of the OPR of the National Energy Board. On a regular basis, MPL will verify that emergency response plan requirements originating from these Government organizations are in harmony with the PMPL plan.

The plan is organized into Contingency Planning Sections, Facility Specific Information, Oil Spill Specific Plan information and Appendices.

This guidance also provides for federal, state, provincial and local contingency planning requirements to be incorporated into the Plan. A summary of the applicable regulations and the facilities affected by each regulation is provided in Section 1.5.

The plan provides guidance for responding to and managing hazardous materials and hazardous waste emergencies at PMPL facilities.

For complete Cross-Reference for Laws, Regulations, and Guidelines concerning pipelines, consult Appendix A.

Plan Integration

The SPCC Plan for U.S. Operations is integrated into the Facility's Integrated Contingency Plan (ICP) into Section 7 tabbed "PPL / MPL Specific plans". The integrated documents have been streamlined to maximize their usefulness in the event of an emergency response, as well as for training and regulatory compliance.

Specific references are made in the SPCC Plan to certain sections, figures, and appendices of the ICP for data that provides a primarily response oriented function (Facility diagrams, summary Facility information, notification data, etc.) or to consolidate certain supporting appendices (regulatory cross-references, documentation forms, glossary/acronyms, etc.). Specific references are made out of the ICP into certain sections and figures of the SPCC Plan for data that provides primarily spill prevention, control and countermeasures information (discharge detection methods, containment and drainage detail, hazard identification tank tables, security, etc.).

This Plan contains prioritized procedures for Facility personnel to mitigate or prevent any discharge resulting from Facility operations. A description of the operations conducted at the Facility has been detailed in Figures 1.4 and 1.7 with additional information provided in the Facility-specific sections and the appendices. It is also the intention of this plan to cover emergencies that may occur in the immediate vicinity of PMPL's right-of-way (ROW) and associated facilities from South Portland, Maine to Montreal, Quebec. Facility spill mitigation procedures and response guidelines are provided in Section 3.0 for discharges that could result from any of the following scenarios:

- Pipeline rupture/leak
- Tank overfill/failure
- Explosion and/or fire
- Failure of facility piping
- Equipment failure (e.g. pumping system failure, relief valve failure, etc.)
- Leak or discharge of hazardous material from drum or container

These scenarios could result in the following discharge volumes:

Discharge Scenario	Potential Oil Group	Planning Volumes (Bbls)			
		USCG	EPA	DOT-RSPA	CANADA
Small/Average Most Probable	2 (Crude Oil)	50	50	N/A	50
Medium/Maximum Most Probable	2 (Crude Oil)	1,200	857	N/A	857

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These worst case discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The pipeline system is considered to be in a non-high volume area described in 40 CFR 112, 49 CFR 149, and 33 CFR 154. Therefore, the tier requirements for these areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3). Appendix G of this Plan demonstrates a series of calculations and planning volume determinations based on guidance provided by the U. S. Environmental Protection Agency (EPA) in 40 CFR Part 112 *Final Rule* dated July 1, 1994, the U.S. Coast Guard (USCG) regulations in 33 CFR Part 154, Subpart F 61 FR 7917, February 29, 1996, effective date May 29, 1996, and the Department of Transportation (DOT) PHMSA regulations in 49 CFR 194.105 dated January 5, 1993. Appendix G demonstrates a series of calculations for worst case discharge scenarios involving the pipeline and the North Tank Field. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios outlined in the table above.

1.3 PLAN DISTRIBUTION PROCEDURES

The Plan Administrator shall have the responsibility for maintenance and distribution of the Plan. Distribution will be handled in the following manner:

- Distribution of the Plan is controlled by the number on the cover page. A distribution list is included in the Distribution and Revisions Section to facilitate

control.

- Company personnel who may be called upon to provide assistance during discharge response activities will have access to a copy of the plan for their use and training.
- It is the responsibility of any person holding a copy of the Plan to ensure that the copy is transferred to their replacement in the event of reassignment or change in responsibility.
- Various regulatory agencies will also be distributed a copy of the Plan. The list of agencies is detailed in the Distribution List located in the Foreword Section.

1.4 PLAN REVIEW AND UPDATE PROCEDURES

Annual Review/Update

The Plan Administrator will coordinate the following plan review and update procedures:

- At least once each year, review and make appropriate revisions as required by operational or organizational changes.
- At least once each year, review and make appropriate revisions as required by changes in the names and telephone numbers detailed in Section 2.0.
- At least once each year, review and make appropriate revisions if the list of emergency equipment changes.
- Coordinate the word processing, publication, and distribution efforts to complete the revisions and maintain the Plan.
- Plan review opportunities may occur during response team tabletop exercises or actual emergency responses. Upon the completion of all drills, exercise and actual response the plan administrator will hold a lessons learned meeting to properly identify any revisions that may be necessary to the ICP. The lessons learned will be stewarded to completion through the PMPL gap closure process.
- The Quebec Area Manager will ensure liaisons with the Canadian agencies are maintained.
- Health, Safety and Environmental Coordinator will ensure liaisons with the U.S. agencies are maintained.
- Updates will incorporate feedback identified during the field liaisons with agencies and municipalities as part of the Public Awareness Program or Response Exercises.

Incorporation of Plan Revisions

The **plan holder**, immediately upon receipt of any revisions, shall:

- Review and insert the revised pages into the Plan.
- Discard the obsolete pages.
- Record this action on the "Revision Record" page in the Distribution and Revisions Section.

1.4.1 U. S. Agency Revision Requirements

The Facility shall revise and resubmit revised portions of the Plan for each facility change that may materially affect the response to a Worst Case Discharge including:

CONDITIONS REQUIRING CHANGES	EPA	DOT/ PHMSA	USCG
Change in ownership of Facility and/or Pipeline.	✓	✓	
Relocation or replacement of portions of the Facility (including the pipeline) which in any way substantially affect the information included in this Plan, such as a change in the Worst Case Discharge volume.	✓	✓	✓
Emergency response procedures.		✓	✓
A change in the Qualified Individual.	✓	✓	
A change in the NCP or an ACP that has significant impact on the equipment appropriate for response activities.		✓	
A change in the listings of economically important or environmentally sensitive areas identified in the applicable ACP in effect six (6) months prior to the plan review.	✓	✓	✓
Change in the Facility's configuration that materially alters the information included in the Plan (i.e. new construction).	✓	✓	✓
Change in the type of oil handled, stored, or transferred that materially alters the required response resources.	✓	✓	✓
A change in the name of the Oil Spill Removal Organization (OSRO).		✓	✓
Material change in capabilities of the Oil Spill Removal Organization(s) (OSROs) that provide equipment and personnel.	✓	✓	✓
Material change in the Facility's spill prevention and response procedures.	✓	✓	
Any other changes that materially affect the implementation of the Plan.	✓	✓	✓
As a result of post incident or drill evaluations.		✓	

NOTE: Any agency may require revisions to this Plan at any time if deficiencies are found under their applicable regulations or during an actual response.

Except as provided above, amendments to the following do not require approval by DOT/PHMSA, EPA, or USCG.

- Personnel and telephone number lists included in the Plan.

SUBMISSION OF REVISIONS

When submitting revisions to the applicable agencies always include the Facility identification number (see Figure 1.4) with the revisions. The agencies require revisions to be submitted as follows:

- **EPA** – The Facility shall revise and resubmit revised portions of the Plan to the EPA Regional Administrator within 60 days of each facility change that may materially affect the response to a Worst Case Discharge.

- **DOT/PHMSA** – The Facility shall revise and resubmit changes to the Pipeline Response Plans Officer within 30 days. An updated plan shall be submitted to the Response Plans Officer every five years.

- **USCG** – Requires changes to be submitted in a timely manner to the Sector (in duplicate). The plan review must occur within one (1) month of the anniversary date of the USCG approval letter. If NO CHANGES are required, the Facility must submit a letter to the USCG stating "NO CHANGES REQUIRED".

1.4.2 Canadian Agency Revision Requirements

The Facility shall review and resubmit revised portions of the Plan for each facility change that may materially affect the response to a Worst Case Discharge. A copy of the revised version will be transmitted to the National Energy Board.

All updates will be communicated to employees or external resources having a copy of the Plan (see Section, Plan Distribution Procedures).

Hereafter is a list of sections which require a regular update.

- **Section 1: Introduction and General Information**
  - ❑ Regulatory Compliance and Interface with Other Plans
  - ❑ PMPL System Information and General Description
  - ❑ Hazard Evaluation
- **Section 2: Notification Procedures**
  - ❑ Alarm Systems
  - ❑ Internal and External Notifications
  - ❑ Telephone Lists of Internal and External Resources
  - ❑ Initial Communication Plan
- **Section 4: Response Team**
  - ❑ Qualified Individual
  - ❑ Response Team Training
- **Appendices:**
  - ❑ Appendix A: Regulatory Cross Reference
  - ❑ Appendix C: Response Equipment and Resources; Agreements

- ❑ Appendix F: Disposal Plan
- ❑ Appendix G: Worst Case Discharge Scenarios
- ❑ Appendix H: Hazard Evaluation / Hazardous Materials Inventory

1.5 REGULATORY COMPLIANCE

The development, maintenance, and utilization of this Plan implements company policy and addresses the following regulatory requirements and guidelines (for complete description of articles and Cross-References, see Appendix M):

- Federal Oil Pollution Act of 1990: U.S. DOT Final Rule for Transportation Related On-shore Facilities (49 CFR Part 194), U.S. EPA Final Rule for Non-transportation Related Onshore Facilities (40 CFR Part 112 – as published on July 1, 1994 and USCG Final Rule for Transportation Related On-shore Facilities (33 CFR 154 as published 1996).

- U.S. EPA Spill Prevention, Control, and Countermeasure (SPCC) regulations (40 CFR Part 112.5).

- U.S EPA Hazardous Waste Regulations (40 CFR Part 264) and State of Maine Hazardous Waste Rules Chapter 850-857

- NEB Onshore Pipeline Regulations (SOR 99/294)
  - The National Energy Board requires that companies include in their emergency response plan all emergencies resulting from all causes and have applicable procedures in place to deal with all potential scenarios.
- Oil and Gas Occupational Safety and Health Regulations (SOR 87-612)
- Canadian Standards Association pipeline standards
- Guidelines for Filing Requirements of the National Energy Board
- CAN/CSA-731-03 Emergency Planning for the Industry – A National Standard of Canada
- Planning of the emergency measures to ensure the safety of the workers: Guidance document for the development of emergency measures plan for the Industry, CSST
- OSHA's Emergency Action Plan Regulation (29 CFR 1910.386(a)).
- OSHA's HAZWOPER Regulation (29 CFR 1910.120).

The applicable Area Contingency Plans for the Facility are:

- U.S. Environmental Protection Agency Inland Contingency Plan – Region I, New England (Sept. 07, 2006 and changes)- Current March 2008
- U.S. Coast Guard: Maine and New Hampshire Area Contingency Plan – Portland, Maine (Change dated May, 2008)- Current January 2010

The applicable National Contingency Plan for the Facility is:

- U.S. Environmental Protection Agency; National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule; published September 15, 1994.

1.6 DISCHARGE/EMERGENCY CLASSIFICATION

The Company's response to a hazardous material release, fire, medical emergency, or natural disaster will depend on the facts, circumstances, potential hazards and substances involved in each incident. All incidents will be evaluated and characterized according to the following criteria:

Figure 1.1
Incident Classification Criteria - Consequence

CATEGORIES	MAJOR	SERIOUS	MINOR
Spill / Contamination-Mainline / Pier	>50K$	Spill to land and water > 1 bbl.	>0
Spill / Contamination - Mainline Stations / Tank Farm/Terminals	>50K$	Spill to land and water > 1 bbl	> 1 gal.
Personnel	Death or Disability	Lost Time Restricted Work Medical Aid	First Aid
Facility: Fire & Explosion Material, Product Loss, Property Damage,	>100K$	25 – 100K$	<25K$

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- Non-emergency Incident - A non-emergency incident is an occurrence that does not pose an immediate safety, security, health or environmental hazard. Non-emergency incidents are routine occurrences which can be handled safely by operational employees in the immediate work area or maintenance personnel from other areas of the facility.

  If an incident occurs and it cannot conclusively be characterized as a non-emergency, it is characterized as an emergency, and the emergency response procedures described in this plan are implemented. If the Company's subsequent evaluation of the situation shows that an emergency does not exist, the incident will be recharacterized accordingly.

Characterizing Emergency Incident Levels

During any "emergency incident," it is the responsibility of the Spill Management Team to immediately determine the incident level and communicate this determination to personnel responsible for informing all other emergency response personnel. The initial determination directs initial response actions.

The following factors shall be considered when evaluating and classifying an emergency incident level:

- The type of incident (crude oil spill, release of hazardous material or hazardous waste, fire, explosion, medical, security).
- Location of the incident.
- The hazardous material involved and the hazards potentially associated with the material.
- Size, duration, and characteristics of the incident, when available.
- Potential hazards to facility personnel, public, and the environment.
- Corrective actions needed to control the incident, when available.
- Potential for involvement of other facility areas and the possibility of secondary incidents.
- Any mitigating or aggravating factors (e.g., weather conditions, proximity of incompatible material, loss of power).
- It involves a response effort by emergency responders from outside the immediate area and/or by other designated outside responders (e.g., local, state and provincial response agencies, fire departments, and hazardous materials teams) 29 CFR § 1910.120(a) (3).

The severity of a discharge will have a bearing on the level of management involvement necessary and the extent of resource mobilization.

Emergency Incidents are further classified into the levels in Figure 1.2.

All levels require an Emergency Reporting Checklist to be filled by the Pipeline Controller. Every emergency will require a follow-up investigation as well as corrective measures to be implemented in order to prevent further incidents from occurring. Incident investigations will be conducted by the individual identified in PMPL incident investigation procedures.

Montreal Pipe Line Only:
Definition of Emergency and Non-Emergency Incidents

- Emergency Incident (from OPR) – An emergency incident is an occurrence which will involve incidents and releases that are defined and reportable to the NEB under section 1.0 of the OPR. These are:
  - the death of or serious injury to a person;
  - a significant adverse effect on the environment;
  - an unintended fire or explosion;
  - an unintended or uncontained release of LVP hydrocarbons in excess of 1.5 m3;
  - an unintended or uncontrolled release of gas or HVP hydrocarbons;
  - the operation of a pipeline beyond its design limits as determined under CSA Z662 or CSA Z276 or any operating limits imposed by the National Energy Board.

Figure 1.2
Incident Classification Criteria - Management level required

MINOR INCIDENT
Incident Command will normally be assumed by Local Management. Corporate support will be utilized on an as needed basis.
Exposure
The potential Public and Environmental exposure is moderate. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderate impact on the public and/or the environment.
Degree of Control
The incident can be controlled in a short period of time through implementation of the local resources available to the Facility (including contract resources).
Governmental Involvement
Government involvement will be moderate and generally restricted to State, Provincial, and Local levels.
Media Involvement
Media interest will be moderate and generally restricted to State, Provincial and Local levels.
SERIOUS INCIDENT
Local resources may have to be supplemented with Corporate and external resources to manage the spill incident.
Exposure
The potential Public and Environmental exposure is moderately high. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderately high impact on the public and/or the environment.
Degree of Control
The incident can be brought under control in a moderate period of time through implementation of local resources available to the Company (including contract resources) with possible implementation of regional resources.
Governmental Involvement
Government involvement will be moderately high and generally restricted to Regional levels.
Media Involvement
Media interest will be moderately high and generally restricted to Regional levels.

Figure 1.2 (Cont'd) Incident Classification Criteria- Management Level Required
MAJOR INCIDENT
Maximum and external resources must be implemented to respond to the spill incident. Activation of the Spill Management Team would be anticipated during a Major incident.
Exposure
The potential Public and Environmental exposure is significant. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have significant impact on the public and/or the environment.
Degree of Control
Maximum and third party resources must be implemented in order to gain control of the incident.
Governmental Involvement
Government involvement will be intense.
Media Involvement
Media interest will be intense.

MPL uses the CAN/CSA Z731-03 to determine the criteria of an emergency or incident.

LEVEL I:

- No effects outside company property
- Control of hazardous substance completed or pending
- No immediate threat to the public or company personnel
- Minimal environmental effects
- Incident/spill handled by company personnel
- Low potential to escalate

LEVEL II:

- No immediate threat outside company property but potential exists to extend beyond property boundaries
- Outside services and government agencies likely to be directly involved
- Imminent control of hazardous substance probably
- Some injury or threat to the public and company personnel
- Moderate environmental effects

LEVEL III:

- Serious injury to the public and company personnel and ongoing threat to the public
- Uncontrolled release of hazardous substance continuing
- Significant and ongoing environmental effects
- Immediate and significant government agency involvement
- Assistance from outside parties required
- Effects extend beyond company property

FIGURE 1.3

PIPELINE SYSTEM OVERVIEW MAP

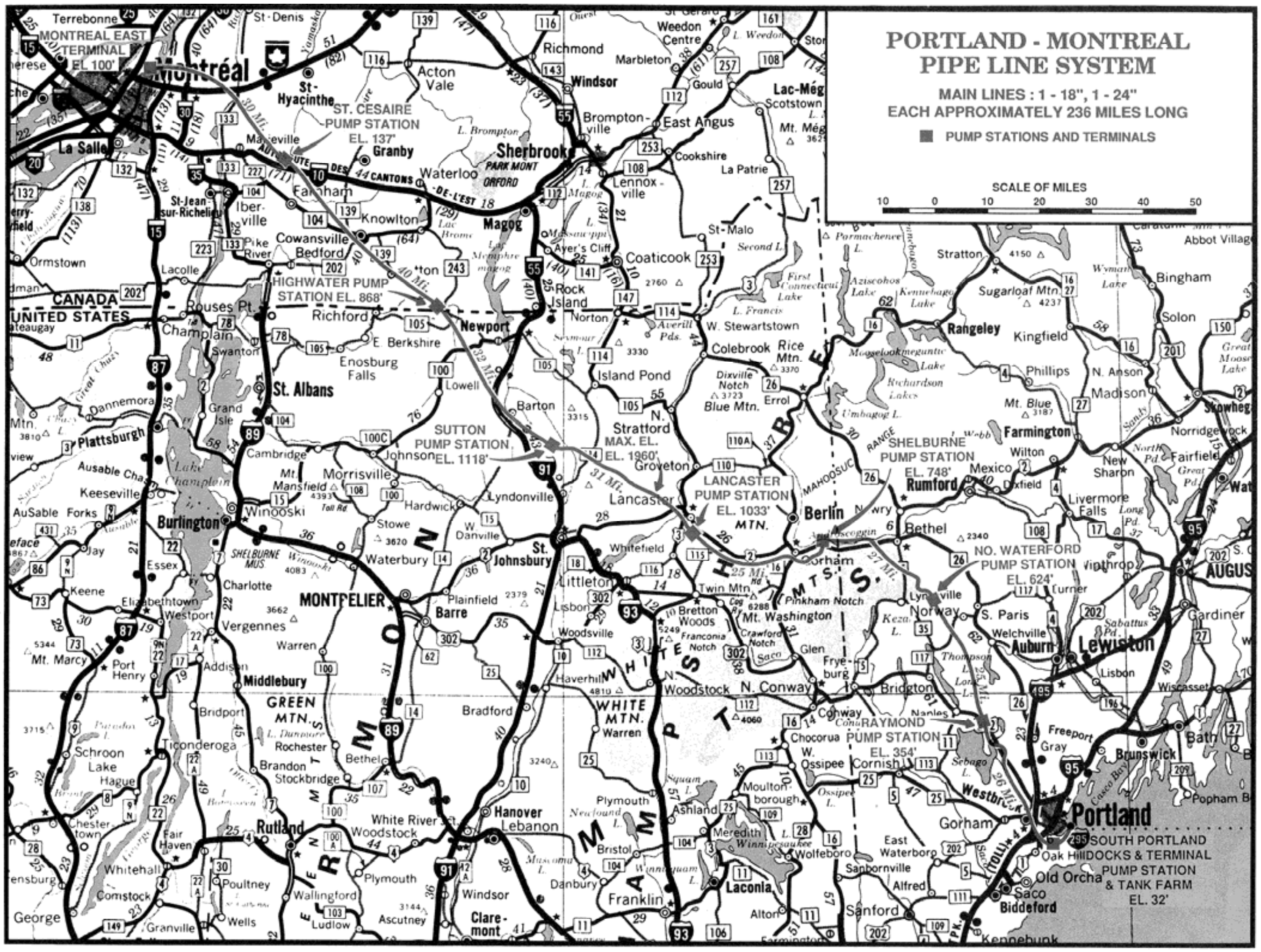

FIGURE 1.4

PMPL SYSTEM INFORMATION

SYSTEM GENERAL INFORMATION	
System Name:	Portland Montreal Pipe Line System
System Description:	The Portland Montreal Pipe Line system enables shipment of crude oil between South Portland (Maine) and Montreal-East (Québec). Two (2) companies, under one ownership, are engaged in this operation. ● Portland Pipe Line Corporation - US ADDRESS: 30 Hill Street South Portland, ME 04106 TELEPHONE: 207-767-0421 207-767-3231 (Emergency - 24 hour) 866-253-7351 (Emergency- 24 hour) FAX: 207-767-0442 ● Montreal Pipe Line Limited - Canada LEGAL NAME : Montreal Pipe Line Limited ADDRESS: 10803, Sherbrooke St. East Montreal (Quebec) H1B 1B3 TELEPHONE: 514-645-8797 514-645-4589 (Emergency- 24 hour) 888-977-4589 (Emergency -24 hour) FAX: 514-645-7663 (As stated in Section 1.1, these two companies are collectively referred to as "PMPL" or The Company" throughout this plan).
PHMSA Sequence Number:	0045 - Region 1
Owner Name:	Portland Pipe Line Corporation Attn: Nick Payeur 30 Hill Street South Portland, ME 04106
Facilities Included in Pipeline System:	● A terminal to unload tanker ships with storage facilities in South Portland. ● Three (3) large-diameter unloading lines 24" (610 mm), 30" (762 mm) and 42" (1,067 mm) in South Portland linking the terminal to the tank field, which (b) (7)(F) [redacted]).

SYSTEM GENERAL INFORMATION

- Two (2) main pipe lines between South Portland and Montreal-East: the first constructed in 1950 and having a diameter of 18" (457 mm), the second, constructed in 1965 and having a diameter of 24" (610 mm). A third line constructed in 1941 and having a diameter of 12" (305 mm) has been abandoned in place.
- Eight (8) pumping stations with an installed capacity of 47,789 kW located along the pipeline route.
- A terminal with a storage tank field in Montreal-East, including manifolds and delivery lines connected to the customers of Montreal Pipe Line Limited.
- Portland Pipe Line Corporation, a Maine corporation, is a wholly-owned subsidiary of Montreal Pipe Line Limited, which is incorporated under Canadian laws. Montreal Pipe Line Limited is owned by the following three (3) Canadian oil companies: Imperial Oil Ltd., Shell Canada Ltd., and Suncor Energy. Portland Pipe Line Corporation owns the section of the pipeline system in U.S. territory and is a common carrier under the jurisdiction of the Federal Energy Regulations Commission, which administers U.S. laws and regulations relevant to the economics of oil transportation. The Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration has jurisdiction for the other aspects of oil pipeline transportation. Crude oil coming from international sources and transferred in South Portland is moved in transit under U.S. Customs Bond through the U.S.
- Montreal Pipe Line Limited, a Canadian Corporation, is a common carrier falling under the jurisdiction of the National Energy Board, which administers Canadian Laws and Regulations relevant to pipeline operations in the Canadian section of the pipeline system.

Response Zone (DOT/PHMSA): Portland Pipe Line Corporation is treating the entire pipeline as one zone. States and counties affected include:

- Maine - Cumberland County; Oxford County
- New Hampshire - Coos County
- Vermont - Caledonia County; Essex; Orleans County

Primary NAICS Codes: 48611

Determination of Significant and Substantial Harm (DOT/PHMSA): *This Response Zone meets the criteria for "Significant and Substantial Harm".*

SYSTEM GENERAL INFORMATION	
Operator Statement of "Significant and Substantial Harm":	Portland Pipe Line Corporation has determined that an accidental release could cause significant and substantial harm to the environment because of the following conditions outlined in 194.103 of the regulations: ● Some sections of the pipeline are operated at pressure levels above fifty percent of the specified minimum yield strength of the pipe. ● Some sections of the pipeline are located within a five mile radius of public drinking water intakes. Portland Pipe Line Corporation has determined that an accidental release meets the criteria for substantial harm because of the following conditions outlined in 112.20 of the regulations: ● The facility transfers oil over water from vessels and has a total oil storage capacity greater than 42,000 gallons. ● The facility has a total oil storage capacity greater than 1 million gallons and is located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments.

(b) (7)(F)

(b) (7)(F)

(b) (7)(F)

[redacted]

FIGURE 1.7

FACILITY GENERAL INFORMATION South Portland Marine Terminal and Tank Farm	
Facility Name:	Portland Pipe Line Corporation - South Portland Marine Terminal and Tank Farm
Facility Address and Telephone Number:	Marine Terminal Pier No. 1 30 Hill Street South Portland, Maine 04106 Cumberland County Marine Terminal Pier No. 2 30 Hill Street South Portland, Maine 04106 Cumberland County Dock House: (207) 767-0468 Guard House: (207) 767-0470 Supervisor's Office: (207) 767-0473 Tank Farm and Pump Station 30 Hill Street South Portland, Maine 04106 Cumberland County Operations Control Center Emergency No: (207) 767-3231 1-866-253-7351
Owner/Operator Name:	Portland Pipe Line Corporation 30 Hill Street South Portland, Maine 04106
Qualified Individual/ Emergency Coordinator	See personnel listed in Figure 2.6
Alternate Qualified Individual(s):	See personnel listed in Figure 2.6
Date of Initial Oil Storage:	1941

FIGURE 1.7 (cont'd)

FACILITY GENERAL INFORMATION
South Portland Marine Terminal and Tank Farm (Cont'd)

County: (b) (7)(F) [redacted]

Latitude/Longitude:

Area Map:

Facility Diagram: Provided in Figure 1.5

Wellhead Protection Area: No Impact

Landside Directions:

- The tank farm and pump station is located on Hill and Dunscomb Streets in South Portland.

Waterside Directions:

- Pier No. 1 is located in the Fore River on the North Shore of South Portland near Front Street.
- Pier No. 2 is located in Casco Bay west of Diamond Island Roads, and the northwesterly shore of South Portland. The pier is approximately 12.5 nautical miles northwest of the Portland Large Navigation Buoy.

FACILITY PHYSICAL DESCRIPTION - GENERAL
South Portland Marine Terminal and Tank Farm

Description Of Operation:

- The Facility stores crude oil.
- Crude oil is received at the dock via tankers. It is immediately transferred via unloading lines into tankage and from there transported by the 24" (610 mm) pipeline to Montreal-East.
- The Facility is not equipped with a truck rack.
- (b) (7)(F) [redacted]
- The facility generates and temporarily stores hazardous waste.

Note: Material Safety Data Sheets (MSDS) are in Section 3.0 and are also maintained separately at the Facility.

FIGURE 1.8

FACILITY PHYSICAL DESCRIPTION – MARINE
South Portland Marine Terminal

Description of Operation:

- The marine terminal consists of two piers and four storage tanks (i.e. two in the vicinity of each pier).
- Ocean-going tankers unload crude oil at one of the marine terminal's two finger piers. Details on both piers follow.

Pier No. 1 (Currently idle)

- Pier Length is 657 feet.
- Two berths (east and west) dredged to 35 feet.
- Each berth is approximately 645 feet long.
- Two hose (in storage) strings at each berth, 10 inches by 60 feet.
- Two unloading lines – one 16" line and one 24" line.
- A maximum of two (2) simultaneous pumping operations.

Physical Limitations:

Maximum Summer Deadweight Tonnage	32,000 DWT
Maximum Length Overall	675 ft.
Maximum Arrival Draft	
• East Berth	32 ft.
• West Berth	31 ft.
Maximum Beam	91 ft.
Maximum Distance, Bow To Hose Connections: Vessels Not Having Bulbous Forefoot	364 ft.
Maximum Distance, Bow To Hose Connections: Vessels Having Bulbous Forefoot	354 ft.
Maximum Distance, Stern To Hose Connections	360 ft.

Pipelines from Dock to Facility:

- One (1) 24" diameter pipeline that runs 2,327 feet from the dock to the first valve within secondary containment.
- One (1) 30" diameter pipeline that runs 1,140 feet from the dock to the first valve within secondary containment.
- Discharging pump rate for all lines is 6,000 barrels per hour.

(Volume calculation details are provided in Appendix G – Worst Case Discharge Analysis and Appendix H – Hazard Evaluation)

FIGURE 1.8 (cont'd)

Pier No. 2

- Two berths with depths of 57 feet below mean low water.
- A maximum of two (2) simultaneous pumping operations.
- Two 36" unloading lines.

Physical Limitations:

Maximum Summer Deadweight Tonnage	Approx. 170,000 DWT
Maximum Length Overall	960 ft.
Maximum Distance, Bow To Center Of Vessel's Manifold (B to CM). Vessels Having Bulbous Forefoot	480 ft.
Maximum Distance Stern to Center Vessel's Manifold	480 ft.
Maximum Arrival Displacement	200,000 LT
Maximum Arrival Draft	52 ft.
Maximum Allowable Discharge Pressure At Ship's Rail	175 psig

Pipelines from Dock to Facility:

- One (1) 36''/30'' diameter pipeline that runs 17, 200 feet from the dock to the first valve within secondary containment.
- One (1) 36''/42'' diameter pipeline that runs 15,900 feet from the dock to the first valve within secondary containment.
- Maximum discharge pumping rate for both lines is 180,000 barrels per hour (90,000 BPH per line)

(Volume calculation details are provided in Appendix G- Worst Case Discharge Analysis and Appendix H- Hazard Evaluation)

FIGURE 1.9

FACILITY PHYSICAL DESCRIPTION - PIPELINE

PMPL Mainline Pipeline

General: A diagram of the main line profile is included in Appendix I. The location and access route to the main line pump stations follows. The location and valve locations are also presented in Appendix I.

Crude oil is tendered for transportation by the shipper to South Portland, Maine to be transferred to the Portland Pipe Line Corporation Terminal. The Portland Pipe Line Corporation Pumping Station in South Portland begins the movement of the crude oil towards Montreal. The oil is first transferred from the storage tanks of the Portland Pipe Line Corporation in South Portland into the 610 mm / 24 inch diameter line.

If needed and apart from the Portland station, various pumping stations in Raymond and North Waterford (Maine), Shelburne and Lancaster (New Hampshire), Sutton (Vermont), Highwater and Saint-Césaire (Quebec), can all be used to boost the crude oil flow to the Montreal-East Terminal. From Montreal-East Terminal, the product is shipped by pipelines:

- To an on-site relief tank at the Montreal Terminal;
- Directly to the nearby reception tanks of Suncor Energy refinery.

At the Montreal-East Terminal, the flow rate ranges between 100 and 175 MBPD, with a typical average line pressure of 0.7 kg/cm^2 (10 PSI) to 6.3 kg/cm^2 (90 PSI).

(b) (7)(F)

[redacted]

Pipeline System Details:

The basic specifications of the entire pipeline system is as follows:

- **Product Types:** Crude Oil
- **Pipe Detail:** Two main lines of 18" (457 mm) and 24" (610 mm)

Note: 18'' (457mm) deactivated and displaced with nitrogen in 2011

***Normal Operating Conditions*:**

(b) (7)(F)

[redacted]

FIGURE 1.10

FACILITY PHYSICAL DESCRIPTION – PUMP STATIONS

(b) (7)(F)

[redacted]

FIGURE 1.10 (cont'd)

FACILITY PHYSICAL DESCRIPTION
Raymond Pump Station

TELEPHONE NUMBER: 207- 655- 4567

388 Meadow Road
Raymond, Maine, 04071

Access Directions to the Station from Portland, ME

- Take Rte 302 West from Portland,
- At the rotary intersection, take the second exit and continue North on rte 302 for 7.7 miles,
- Turn SLIGHT RIGHT onto MAIN ST / ME-Rte 121 for 0.5 miles,
- Turn RIGHT onto MEADOW RD/ME-121 for 3.3 miles,
- Turn left into station entrance.

18 in. (457mm) Line Control Building

(b) (7)(F)

a garage housing an emergency boat, and a maintenance room with an eyewash station. The building also houses an office, and bathroom.

24 in. (610 mm) Line Control Building

This building houses the electrical switchgear for the 24 in. (610 mm) main line.

Note: This building has a basement and the old part of the building has a metal floor over the basement.

457 mm (18 in.) Line Pump Room Building

This building houses two (2) mainline pumps for the 18 in. (457mm) line pumping loop.

24 in. (610 mm) Line Pumping Loop

It includes two (2) mainline pumps for the 24 in. (610 mm) main line. This is an outdoor area.

FIGURE 1.10 (cont'd)

FACILITY PHYSICAL DESCRIPTION
North Waterford Pump Station

TELEPHONE NUMBER: 207-583-2311

471 Hunts Corner Road,
North Waterford, Maine 04088

Access Directions to the Station from Portland, ME

- Take Rte 26 North to Norway, Maine,
- Turn left onto Route 118 / Waterford Road, and continue North for 13 miles,
- Turn right onto Hunts Corner Road by the Campground, and continue North for 2.3 miles,
- Turn right into the station entrance.

18 in. (457mm) and 24 in. (610 mm) Line Control Building
This (b) (7)(F) [redacted]

Maintenance / Office building
This building includes a garage housing an emergency boat, a maintenance room with an eyewash station and an office and bathroom.

18 in. (457mm) Line Pump Room Building
This building houses two (2) mainline pumps for the 18 in. (457mm) line pumping loop.

24 in. (610 mm) Line Pumping Loop
It includes three (3) mainline pumps for the 24 in. (610 mm) main line. This is an outdoor area.

FIGURE 1.10 (cont'd)

FACILITY PHYSICAL DESCRIPTION
Shelburne Pump Station

TELEPHONE NUMBER: 603-466-2011

535 State Road (US Route 2)
Shelburne, NH 03581

Access Directions to the Station from Bethel, ME
Via Maine Rte 2 West:

- Take Rte 2 West from Bethel, Maine 22 miles,
- Turn right into station entrance.

Access Directions to the Station from Gorham, NH
Via Maine Rte 2 East:

- Take Rte. 2 East from Gorham NH 3 miles,
- Turn left into Station entrance.

18 in. (457mm) Line Control Building
(b) (7)(F) [redacted] a garage housing an emergency response trailer, and a maintenance room with an eyewash station. The building also houses an office and bathroom.

24 in. (610 mm) Line Control Building
(b) (7)(F) [redacted]
Note: This building has a basement and the old part of the building has a metal floor over the basement.

457 mm (18 in.) Line Pump Room Building
This building houses two (2) mainline pumps for the 18 in. (457mm) line pumping loop.

24 in. (610 mm) Line Pumping Loop
It includes two (2) mainline pumps for the 24 in. (610 mm) main line. This is an outdoor area.

FIGURE 1.10 (cont'd)

FACILITY PHYSICAL DESCRIPTION
Lancaster Pump Station

TELEPHONE NUMBER: 603-788-4461

309 Portland Street (US Route 2)
Lancaster, NH 03584

Access Directions to the Station from Lancaster, NH
Via NH Route 2

- From downtown Lancaster NH, Take Rte 2 East for 2.5 miles,
- Turn right into the station entrance.

Access Directions to the Station from Gorham, NH
Via NH Route 2

- From downtown Gorham NH, take Rte 2 West for 22 miles,
- Turn left into the station entrance.

18 in. (457mm) and 24 in. (610 mm) Line Control Building
(b) (7)(F) [redacted]

Maintenance / Office building
This building includes a garage, a maintenance room with an eyewash station and an office and bathroom.

Warehouse building
This building includes system spare parts, an emergency boat and an emergency response trailer.

18 in. (457mm) Line Pump Room Building
This building houses two (2) mainline pumps for the 18 in. (457mm) line pumping loop.

24 in. (610 mm) Line Pumping Loop
It includes three (3) mainline pumps for the 24 in. (610 mm) main line. This is an outdoor area.

FIGURE 1.10 (cont'd)

FACILITY PHYSICAL DESCRIPTION
Sutton Pump Station

TELEPHONE NUMBER: 802-467-3311

4373 Barton Road (US Route 5)
Sutton, Vt. 05876

Access Directions to the Station from St. Johnsbury, VT

- Take I-93 North from St Johnsbury,
- Take the US-5 exit, Exit 23, toward Vt. Rte. 114/ Lyndonville/ Burke for 0.2 mi.,
- Turn Right onto Memorial Dr. / US-5. Continue to follow US-5 for 1.3 mi.,
- Turn Left onto Depot St. / US-5 for 0.1 mi.,
- Turn Right onto Main St. / US-5. Continue to follow US-5 for 3.4 mi.,
- Turn Sight Left onto Calendar Brook Rd for 4.6 mi.,
- Calendar Brook Rd. becomes Station Rd / TH-24 for 1.8 mi.,
- Turn LEFT onto US-5/ Lynburke Rd. for 2.3 mi.,
- Turn left into Station entrance.

18 in. (457mm) Line Control Building

(b) (7)(F) [redacted] lines, a garage housing an emergency response trailer, and a maintenance room with an eyewash station. The building also houses an office and bathroom.

24 in. (610 mm) Line Control Building

This building houses the electrical switchgears for the 24 in. (610 mm) main line.

Note: This building has a basement and the old part of the building has a metal floor over the basement.

457 mm (18 in.) Line Pump Room Building

This building houses two (2) mainline pumps for the 18 in. (457mm) line pumping loop.

24 in. (610 mm) Line Pumping Loop

It includes two (2) mainline pumps for the 24 in. (610 mm) main line. This is an outdoor area.

FIGURE 1.10 (cont'd)

FACILITY PHYSICAL DESCRIPTION
Highwater Pump Station

TELEPHONE NUMBER: 450-292-5909

99, Chemin du Pipeline,
Highwater, Quebec J0E 1X0

Access Directions to the Station from Montreal, Quebec (consult Access Diagram in the Montreal Pipe Line Limited Oil Spill Specific Response Plans)

Via Autoroute 10 east :

- Take exit 106,
- At the stop sign, turn left,
- Follow route 245 south toward Jay (Vermont),
- Follow the road until the end and follow the indications for route 243, South Bolton (15,6 km),
- Turn left on road 243 and drive 17 km until the railroad in Highwater,
- Turn left after the railroad crossing and drive 400 m. Turn right on Pipeline Road,
- Drive to the end of the Road, approximately 2.6 km where the pumping station is located.

Physical Description and Activities

General Control Building
It comprises a control room, which includes the electrical instrumentation for the 457 mm (18 in.) and 610 mm (24 in.) lines, an office area, lunchroom and washroom.

457 mm (18 in.) Line Pump Room Building
This building comprises the pump room for the 457 mm (18 in.) main line which houses three (3) booster pumps, the motor room, which include electrical switchgears for the 457 mm (18 in.) main line pumps, the maintenance room and a spare parts storage room. The motor room is also used for the emergency boat storage.

610 mm (24 in.) Line Control Building
This building houses the electrical switchgears and the remote control equipment for the operation of the 610 mm (24 in.) line.

610 mm (24 in.) Line Pumping Loop
The pumping loop includes three (3) booster pumps for the 610 mm (24 in.) main line system. This is an outdoor area.

FIGURE 1.10 (cont'd)

FACILITY PHYSICAL DESCRIPTION
Saint - Cesaire Pump Station

TELEPHONE NUMBER: 450-469-2394

148 Rang du Pipeline,
Saint-Cesaire, Quebec J0L 1T0

Access Directions to the Station from Montreal, Quebec (consult Access Diagram in the Montreal Pipe Line Limited Oil Spill Specific Response Plans)

From Autoroute 10 east :

- Take exit 48;
- At the stop sign, turn left on Road 233 North;
- Drive 1,1 km until Pipeline Road, following the directions for Road 233 North;
- Turn right on Pipeline Road;
- The pumping station is 200 m on the left inside of the road.

Physical Description and Activities

457 mm (18 in.) Line Control Building
(b) (7)(F) [redacted] (b) (7)(F) [redacted] a garage housing an emergency boat, nitrogen cylinders (fixed and portable) and a maintenance room. The building also houses a bathroom with shower and eyewash located in the maintenance room.

610 mm (24 in.) Line Control Building
This building houses the electrical switchgears for the 610 mm (24 in.) main line.
Note: This building has a basement and the old part of the building has a metal floor over the basement.

457 mm (18 in.) Line Pump Room Building
This building houses three (3) booster pumps for the 457 mm (18 in.) line pumping loop.

610 mm (24 in.) Line Pumping Loop
It includes the back pressure system and one (1) booster pump for the 610 mm (24 in.) main line. This is an outdoor area.

457 mm (18 in.) Line Back Pressure System
This is where the backpressure on the 457 mm (18 in.) main line system is controlled. This is an outdoor area.

FIGURE 1.11

FACILITY PHYSICAL DESCRIPTION
Montreal-East Terminal

ADDRESS:	10803, Sherbrooke St. East Montreal (Quebec) H1B 1B3 Pipeline km 380
TELEPHONE NUMBER:	514-645-8797

(b) (7)(F)

[redacted]

(b) (7)(F)

[redacted]

FIGURE 1.11 (cont'd)

FACILITY PHYSICAL DESCRIPTION
North Tank Field

ADDRESS: 8398, Broadway St. North
Montreal (Quebec)
TELEPHONE NUMBER: 514-648-4656

Access Directions to the Tank Field (consult Access Diagram in the Montreal Pipe Line Limited Oil Spill Specific Response Plans)
From Autoroute 40:

- Take Exit 83 (Avenue Marien/Blvd. St. Jean Baptiste;
- Take Marien North
- Go west on Metropolitan Service Road;
- Turn right on Broadway North;

Physical Description and Activities
Peripheral Fence of the North Tank Field
The North Tank Field perimeter is entirely fenced. The main access is provided through an entry gate located on the eastern side of the site located at 8398 Broadway North. There is also a secondary access on the southern side of the site, controlled by another gate installed at Road "L" and going to the adjoining Imperial Oil property.

Above Ground Storage Tanks
Six (6) above ground storage tanks (TK-660, 661, 662, 663, 664 and 665, consult Drawing D-3857 in Appendix A) with internal floating roofs, used for the storage and transfer of crude oil within the fenced perimeter of the North Tank Field. Approximate dimensions, covered area and nominal capacity of each tank are as follow:

- Diameter 220 ft. (67.1 m)
- Height 54 ft. (15.6 m)
- Area 38,000 sq. ft. (3,500 m^2)

(b) (7)(F) [redacted]

Each tank is completely surrounded by dikes, creating a retention basin that can contain up to 110 % of the tank nominal volume in case of a leak or spill. A service road is constructed at the top of the peripheral dikes, enabling easy access around the three (3) groups of tanks (TK-660/661, TK662/664, and TK663/TK665). Ramps are provided at various locations from the service roads to get access inside the retention basins.

Pipelines
The pipelines used to transfer the crude oil to the tank field are installed on above ground supports. The pipelines enter the fenced perimeter of the tank field at Road "L" from the adjacent Imperial Oil property, going afterward along 20th Avenue up to Road "M", following it

FIGURE 1.11 (cont'd)

until reaching 21st Avenue. At this last location, valves and above ground pipes enable crude oil transfer between the pipelines and Tanks TK-660/661. The pipelines go further along 20th Avenue where other valves and pipes enable crude oil transfer to tanks TK-662/664 and Tanks TK663/TK665.

Drainage Water Ditches and Collection Basin

Conduits are installed at the base of the dykes and are controlled by valves, enabling transfer of accumulated rainwater inside the retention basins into the main drainage ditches located along 21st Avenue and Road "M". Drainage water is then canalled and discharged into a collection basin located at the corner of the 22nd Avenue and Road "O".

Underground drainage trench, constructed near the south-western side of the tank field on the Imperial Oil property, enable the interception of surface runoff water on adjacent lands.

Drainage water outside the North Tank Field is directly discharged into the municipal sewer network located along Broadway North.

(b) (7)(F)

[redacted]

Figure 1.12

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

Oil Storage Capacity:

South Portland:

1941 Construction of Pier 1 and original tank farm facility including six storage tanks (1, 2, 10, 11, 12, 13)

1944 Construction of two additional storage tanks (8, 9)
Additional storage capac (b) (7)(F) [redacted]
Total storage capacity:

1950 Construction of four add [redacted] 6)
Additional storage capa (b) (7)(F) [redacted]
Total storage capacity:

1953 Construction of two additional storage tanks (19, 20)
Additional storage capa (b) (7)(F) [redacted]
Total storage capacity:

1955 Construction of two additional storage tanks (21, 22)
Additional storage capa (b) (7)(F) [redacted]
Total storage capacity:

1956 Construction of Pier 2 complete

1957 Construction of one additional storage tank (26)
Additional storage capa (b) (7)(F) [redacted]
Total storage capacity:

1960 Construction of one additional storage tank (23)
Additional storage capac (b) (7)(F) [redacted]
Total storage capacity: 1

1965 Construction of two additional storage tanks (24, 25)
Additional storage capac (b) (7)(F) [redacted]
Total storage capacity:

1966 Construction of one additional storage tank (27)
Additional storage capa (b) (7)(F) [redacted]
Total storage capacity:

1969 Construction of one additional storage tank (28)
Additional storage capa (b) (7)(F) [redacted]
Total storage capacity:

1970 Construction of one additional storage tank (18)
Additional storage capac (b) (7)(F) [redacted]
Total storage capacity:

Figure 1.12 Cont'd

DATES AND TYPES OF SUBSTANTIAL EXPANSIONS

Oil Storage Capacity:

South Portland:

2010-2011 Removed six storage tanks from service (4-5-6, 23-24-25)
Reduced storage capacity: (b) (7)(F) [redacted]
Total in-service storage cap[redacted]

2012 Removed Tank 28 from service (b) (7)(F) [redacted]
Total in-service storage capacity[redacted]

North Tank Field:

1999 Lease and upgrading of Tanks 660, 661, 662, 664
Additional storage cap (b) (7)(F) [redacted]
Total storage capacity: [redacted]

2003 Construction of two addition[redacted]and 665)
Additional storage capacity (b) (7)(F) [redacted]
Total NTF storage capacity [redacted]

2012 Removed two storage tanks[redacted]d 661)
Reduced storage capacity: (b) (7)(F) [redacted]
Total NTF storage capacity [redacted]

Pumping Equipment:

1941 Installation of 12-inch mainline pumping equipment.

1950 Installation of 18-inch mainline pumping equipment.

1965 Installation of 24-inch mainline pumping equipment.

1968 Installation of Pump #5 transfer unit.

1982 12-inch mainline pumping equipment idled.

1986 18-inch mainline pumping equipment idled.

1999 18-inch pumping equipment returned to service.

2000 18-inch pumping equipment expanded.

2011 18-inch pumping equipment idled.

OTHER FACILITY DATA
• Additional facility data (including storage information) is provided in Appendix H and discharge detection and inspection information is provided in the SPCC Plan located in Section 7.

2.0 NOTIFICATION PROCEDURES

This section is a guide for notification procedures that should be implemented immediately after discovering a discharge or emergency incident. This includes oil, hazardous materials or hazardous waste spills, fire, explosion, bomb threats, hostage situations, natural disaster and emergency medical situations. Internal and external notifications are described separately for clarification purposes only. All notifications are of extreme importance and must be completed in a timely manner.

Additionally, this section identifies the different types of alarms corresponding to possible emergencies.

2.1 NOTICE OF AN EVENT

This section describes the initial notification procedures necessary to activate the Plan, which includes mobilization of the emergency response team organization and equipment, appropriate local emergency responders, governmental agencies and contractors with additional equipment as needed.

When a company employee discovers a spill, or otherwise becomes aware of a potential spill or other emergency situation affecting the pipeline system, the pier or the terminal operation**, the employee shall immediately call the Controller via telephone or UHF/VHF radio**.

Whenever notice of a release or potential incident is received by telephone, the company employee initially receiving the information should complete as much as possible (do not delay notification pending collection of all information) on the Spill/ Emergency Reporting Checklist (Figure 2.1). Once the information is documented, proceed with the internal and external notification procedures as detailed in this section.

The employee receiving notice of or reporting a spill or emergency should reference Figure 2.1 and determine answers to the following questions:

- Where is the spill or emergency? Find out exactly where the spill or emergency was first discovered. Where in a PMPL facility, on what road, near what bridge, stream, house or other landmark? Near what MP/KM post on the right-of-way?

  Example: "Manifold 2 in Montreal" or "Halfway between MP ____ (or KM ____)", or: "200 feet (or meters) north of MP ____ (or KM ____)".

- Both the Alignment Maps and the Response Maps in this plan are keyed to the KM/MP post numbers in order to show locations for all recommended oil control check points.

- In addition to any KM/MP post numbers reported by an observer, nearby landmarks should be identified. Names of lakes, ponds, bridges, and highway routes are important to all personnel working in the area.

2.1 NOTICE OF AN EVENT (Cont'd)

- How serious is the spill or emergency? Is oil flowing along the ground, or is it flowing in a river or a street? Is it just discoloring the ground? Does it threaten a body of water? Is there a fire?

- Who discovered the spill or emergency? Obtain name, address, and where they can be reached by phone or by messenger.

- Can the spill observer guide response personnel to the spill or emergency location? Is the person available to guide Company personnel to the site? Will they wait by the phone until personnel can reach them?

- Does the spill or emergency observer have any special suggestions to minimize the consequences based upon conditions observed or reported by the person discovering the event?

[SEE EMERGENCY/ SPILL REPORTING CHECKLIST]

FIGURE 2.1
EMERGENCY / SPILL REPORTING FORM & CHECK LIST

Date: _____ ***Time:*** _____

INCIDENT DESCRIPTION

Reporter's Full Name: _____ *Position:* _____
Day Phone Number: _____ *Evening Phone Number:* _____
Company: _____ *Organization Type:* _____
Facility Address: _____ *Owner's Address:* _____
_____ _____
Facility Latitude: _____ *Facility Longitude:* _____
Emergency / Spill Location: _____
(if not at Facility) _____
Reporter's Full Name (If other than employee): _____
Day Phone Number: _____
Company: _____
Facility Address: _____
_____
Responsible Party (If Known):
Company: _____ *Organization Type:* _____
Facility Address _____
_____
Telephone Number: _____
Calling for Responsible Party (Y/N): _____
Were materials discharged (Y/N)? _____ *Type of Crude Spilled:* _____
Source and/or cause of discharge: _____
Date: _____ *Time:* _____ *Does it Threaten a Body of Water (Y/N)?* _____
Nearest City: _____
County: _____ *State:* _____ *Zip code:* _____
Section: _____ *Township:* _____
Distance from City: _____ *Direction from City:* _____
Container Type: (Above ground /Below ground/ Unknown) *Container Storage Capacity:* _____
Facility Oil Storage Capacity: _____
Mile post or River Mile: _____ *Closest Pump Station:* _____
Material:

Total Quantity Released	Discharged Material	Water Impact (Yes or No)	Quantity into Water

Does Fire threaten Surrounding installations? _____ *Source of Fire:* _____

RESPONSE ACTION(S)

Action(s) taken to Correct, Control, or Mitigate Incident: _____
_____
_____
Number of Injuries: _____ *Number of Fatalities:* _____
Evacuation(s): _____ *Number Evacuated:* _____
Damage Estimate: _____
More information about impacted medium: _____

CALLER NOTIFICATIONS

National Response Center (NRC): 1-800-424-8802
Additional Notifications (Circle all applicable): USCG EPA State Province TSB Environment Canada MDDEP Other

ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in this report: _____
_____
_____

NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION.

Figure 2.1a SPILL REPORTING FORM & CHECK LIST GUIDELINES
♦ Do not report information that has not been verified. ♦ Never speculate as to the cause of the incident or make any acknowledgement of responsibility. ♦ Document persons/agencies notified and content of message. ♦ Provide as much information as possible as outlined below. ♦ DO NOT DELAY reporting due to incomplete information. ♦ Care should be exercised in accurately estimating the quantity of oil spilled and, if possible, any estimate should be cleared with the PMPL President before given to public officials or news media. It is important not to underestimate the potential quantity of oil when undertaking measures to contain it.
SPILL, FIRE/EXPLOSION: REFER TO APPROPRIATE BOX; BOMB THREAT: REFER TO APPROPRIATE FORM
WARNING INFORMATION
OIL SPILL WARNING INFORMATION - All crude oil is flammable and toxic. - Do not approach oil spill. - H_2S is lethal and has no odor at lethal concentration. - Leave the area. HAZARDOUS WASTE SPILL WARNING INFORMATION - Liquid hazardous waste may be flammable and / or toxic (e.g. Mercury, Mineral Spirits) - Solid hazardous waste is toxic (e. g.. lead paint chips) - Do not approach spill without proper PPE

2.2 Alarm Systems

(b) (7)(F)

[redacted]

Alarm Reporting

In Canada, in non fire alarm cases, after receiving the signal at its monitoring station, SIGNAL will call the Emergency Telephone number and will precisely describe the alarm, i.e. which pump station, the zone involved and the type of alarm. If the alarm occurs outside regular business hours, the SIGNAL monitoring station will still call the Emergency Telephone number and the information will be transmitted to the PMPL Controller through the tele-messaging service. The PMPL Controller will then call the MPL supervisor on stand-

2.2 Alarm Systems (cont'd)

by. In case the SIGNAL representative is not explicit, the MPL representative receiving the call shall question him or her and get the information he/she needs. For fire alarm cases, the SIGNAL representative shall directly call the appropriate Fire Department and then the PMPL Controller.

Following a call related to theft or equipment failure, a MPL Representative will have to take the appropriate measures:

1. Call the Station to ensure it is not a fellow employee who has accidentally tripped the alarm.
2. Call the appropriate local or provincial police (see Figure 2.13 for the appropriate city).

The MPL representative should instruct the concerned authorities on the location of the alarm and its nature. He should also ask the Police Department to call back to inform him about the situation.

All other alarms will require a call to the Equipment Maintenance Personnel.

Under certain circumstances it may be necessary for personnel visiting the station to report alarms, faulted zones or system problems. In that case, all communications should be directed to the Equipment Maintenance Personnel.

If need be, the MPL Representative can report problems to the SIGNAL Office, refer to Figure 2.15 for telephone numbers.

In the U.S., the PMPL Controller alerts PMPL Maintenance personnel or the local authorities, as appropriate.

2.3 Internal Notifications

Internal notifications will be made as outlined in Figures 2.2 and 2.3.

Figure 2.2

INTERNAL / SMT / EXTERNAL NOTIFICATION (See also Figure 2.3)

The typical notification responsibilities for each person potentially involved in the initial response are as follows:

First Company Person Notified/On-Scene

- ☐ Immediately notify the **Controller** (See Figure 2.3)

Controller

- ☐ Notify **On-Shift or On-Call Supervisor** / Chief (if not available, assume the response duties of the **On-Shift Supervisor** / Chief until assumed by other PPL staff)
- ☐ Notify **9-1-1 or local emergency officials**
- ☐ Notify **Oil Movements Scheduler or Designate**

On-Shift Supervisor / On-Call Supervisor

- ☐ Notify **Director of Operations** for U.S. or **Quebec Area Manager** for Canada respectively (see Figures 2.5 and 2.6)
- ☐ Activate **Local Response Resources** local assistance agencies (police, fire, etc.) (PMPL response personnel/equipment and/or local contract resources, etc. as appropriate; see Figures 2.5, 2.6, 2.10 – 2.13)
- ☐ Conduct **External Agency Notifications** (NRC, Federal, State or Provincial Agencies, (e.g. USCG, TSB, PHMSA as appropriate; see Figures 2.8 and 2.9)

Director of Operations / Quebec Area Manager (QI / Emergency Coordinator)

- ☐ Notify **Health, Safety and Environmental Coordinator**
- ☐ Notify as appropriate based on location and situation (Figures 2.5 and 2.6):
  - ☐ **Maintenance Supervisor – South Portland / District 2 / Montreal**
  - ☐ **Maintenance Technicians**
- ☐ Activate additional response resources (OSROs, Contractors, Co-ops, etc.) as appropriate (See Figures 2.14 and 2.15)

Figure 2.2 (cont'd)

INTERNAL / SMT / EXTERNAL NOTIFICATION (Cont'd)

Health, Safety and Environmental Coordinator

- ☐ Activate **PMPL Spill Management Team**, as necessary (Figure 2.7)
- ☐ Notify **Engineering Manager** (Figure 2.6)
- ☐ Activate **the O'Brien Group Spill Management Team**, as appropriate (Figure 2.7)
- ☐ Notify **President or designate** (Figure 2.6)
- ☐ Verify / Follow-up Notifications to **Regulatory / Governmental Agencies**
- ☐ Commission NRDA as appropriate

President or designate

- ☐ Notify **Legal Representation** (Figure 2.7)
- ☐ Notify **city officials if hazard to public or considerable damage to property of others may result.** (See PMPL Communications Manual)
- ☐ Notify **Corporation Directors (as appropriate)**

Oil Movements Scheduler or Delegate

- ☐ Notify Products Movements Manager
- ☐ Notify **Shipper of Record if vessel related**

Corporate Controller (or Treasurer)

- ☐ Notify Public Relations as directed by the President (See Communications plans)

It is critical that the above members are notified immediately. Refer to the Internal Notification Sequence (Figure 2.3) for a flow diagram of the notification procedures.

FIGURE 2.3
INTERNAL NOTIFICATION SEQUENCE

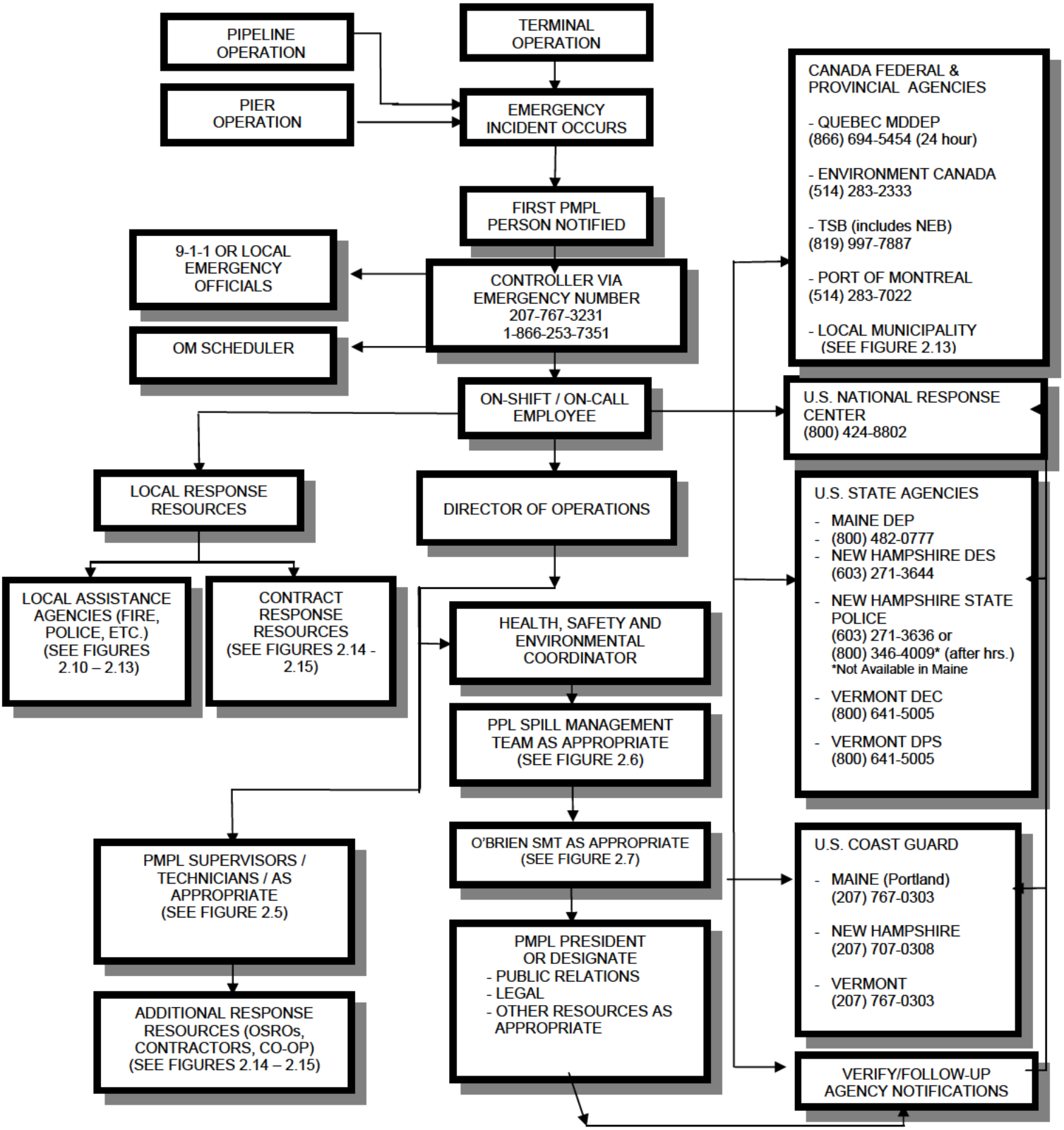

FIGURE 2.4
INTERNAL NOTIFICATION REFERENCES

LOCATION			
FACILITY AREA	**OFFICE**	**FAX NUMBER**	**NOTIFIED DATE/TIME**
Portland Pipe Line Corporation	207-767-3231(24 hour) 866-253-7351(24 hour)	207-767-0411	
Raymond Pump Station	207-655-4567	207-655-2807	
North Waterford Pump Station	207-583-2311	207-583-4117	
Shelburne Pump Station	603-466-2011	603-466-5595	
Lancaster Pump Station	603-788-4461	603-788-3813	
Sutton Pump Station	802-467-3311	802-467-1007	
Highwater Pump Station	450-292-5909	450-292-5231	
St. Cesaire Pump Station	450-469-2394	450-469-5689	
Montreal Terminal	514-645-4580	514-645-7663	
Montreal General Office	514-645-4589 (24 hour) 1-888-977-4589(24 hour)		

FIGURE 2.5
INTERNAL NOTIFICATION REFERENCES

MONTREAL TERMINAL and CANADA MAINLINE LOCAL RESPONSE TEAM CALLOUT LIST					
POSITION/TITLE	**NAME**	**OFFICE**	(b) (6) [redacted]	**OTHER**	**NOTIFIED DATE/TIME LOCATION**
President / **Qualified Individual**	L.D. Wilson	207-767-0420		207-233-6320 (Cellular)	
Director of Operations / ***Alt. Qualified Individual***	T. A. Hardison	207-767-0440 514-645-2946		207-233-6340 (Cellular)	
Quebec Area Manager **Alt. Qualified Individual**	M. Robin	514-645-7268		514-946-5128 (Cellular)	
Maintenance Supervisor	D. Houle	514-645-3031		514-893-8760 (Cellular)	
Maintenance Technician	P. McDougall	514-645-6326		514-714-9101 (Cellular)	
Terminal Operator	J. Spiridigliozzi	514-645-0566		514-703-0443 (Cellular)	
Terminal Operator	J. Blanchette	514-645-5847		514-234-9517 (Cellular)	
Maintenance Technician	F. Clermont-Girard	450-292-5909		450-405-2065 (Cellular)	
Administrative Assistant	L. Gauthier	514-645-8797		N/A	

FIGURE 2.6
INTERNAL NOTIFICATION REFERENCES

SOUTH PORTLAND TERMINAL and U.S. MAINLINE
LOCAL RESPONSE TEAM AND CORPORATE CALLOUT LIST

(b) (6)

POSITION/TITLE	NAME	OFFICE	[redacted]	OTHER	NOTIFIED DATE/TIME LOCATION
President / ***QI / EC***	L. D. Wilson	207-767-0420		207-233-6320 (Cellular)	
Director of Operations PPL/ ***Alt. QI / EC***	T. A. Hardison	207-767-0440		207-233-6340 (Cellular)	
Deputy Incident Commander ***Alt. QI / EC***	D. E. Cyr	207-767-0450		207-650-1289 (Cellular)	
Engineering Manager/ ***Alt QI / EC***	K. P. Brown	207-767-0449		207-233-6349 (Cellular)	
Health, Safety and Environmental Coordinator	N. D. Payeur	207-767-0422		207-232-5158 (Cellular)	
Controller	On-duty	207-767-3231		207-233-6430 (Cellular)	
Maintenance Supervisor SP	R. A. Hughes	207-767-0437		207-233-1937 (Cellular)	
Oil Movements Scheduler	C. A. Allen	207-767-0423		207-232-2486 (Cellular)	
Operations Supervisors First Operational Response Team	W. H. Mileson	207-767-0473		207-233-6360 (Cellular)	
	D. C. Cadorette	207-767-0473		207-233-6360 (Cellular)	
	W. J. Withers	207-767-0473		207-233-6360 (Cellular)	
	R. M. Minervino	207-767-0473		207-233-6360 (Cellular)	
Maintenance Supervisor District 2	R. W. Henderson	802-467-3311		207-232-7084 (Cellular)	
Maintenance Technicians First Operational Response Team	S. L. Whiting	207-583-2311		207-446-1916 (Cellular)	
	D. A. Paschal	603-788 -4461		603-359-1757 (Cellular)	
	K. Morin	207-767-0485		207-233-1966 (Cellular)	
	E. D. Robinson	207-767-0476		207-233-1976 (Cellular)	
	M. S. Hodgins	207-767-0466		207-653-4694 (Cellular)	
Welder	J. R. Chaput	207-767-0466		207-650-4950 (Cellular)	
Corrosion Specialist	J. M. Leary	207-767-0426		207-233-1977 (Cellular)	

NOTE: Personnel responding to a spill at the Portland Pipe Line Corporation Marine Terminal and Tank Farm receive regular training in HAZWOPER, SPCC plan, and ICS.
NOTE: Local Response Team personnel are capable of responding to the South Portland Marine Terminal and Tank Farm within 120 minutes. All personnel can be reached 24 hours per day.

FIGURE 2.7
INTERNAL NOTIFICATION REFERENCES
INTERNAL NOTIFICATIONS – SPILL MANAGEMENT TEAM

(b) (6)

POSITION/ TITLE	NAME	OFFICE	[redacted]	OTHER	NOTIFIED DATE/TIME LOCATION
COMMAND STAFF					
Qualified Individual / *Incident Commander*	L. D. Wilson	207-767-0420		207-233-6320 (Cellular)	
Deputy Incident Commander	D. E. Cyr (AQI)	207-767-0450		207-650-1289 (Cellular)	
External Liaison	D. E. Cyr (AQI)	207-767-0450		207-650-1289 (Cellular)	
Public Affairs Officer	L. B. Gwinn	207-767-0421		207-332-6991	
	Bernstein Shur(U.S.) Jim Merrill	603-623-8700		603-665-8853	
	National Public Relations Inc Denis Boucher	514-843-7171		514-913-1957 (Cellular) 514-843-2393 (Fax)	
Regulatory / Legal Officer	PPLC Counsel Dave Champoux Ken Gray	207-791-1364		207-408-6719 (Cellular) 207-450-0955 (Cellular)	
	MPLL Counsel Peter Villani	416-868-3517 (Tor) 514-397-4316		416-500-3517 (Cellular)	
Safety Officer	N. D. Payeur Environmental Safety & Hygiene Bruce Hackett Mark Coleman	206-767-0422 207-854-2711 207-854-2711 207-854-2711		207-232-5158 (Cellular) N/A N/A 207-756-9429 (Cellular)	
	Santinel M. Dubeau	450 670-4504 514-521-7801 (ext 2217)		514-516-5166 (Cellular)	
OPERATIONS SECTION					
Operations Section Chief	T. A. Hardison (AQI)	207-767-0440		207-233-6340 (Cellular)	
Pipeline Repair Unit Leaders	R. A. Hughes	207-767-0437		207-233-1937 (Cellular)	
	D. Houle	514-645-3031		514-893-8760 (Cellular)	
Clean-Up Unit Leaders	R. W. Henderson	802-467-3311		207-232-7084 (Cellular)	
	D. A. Paschal	603-788-4461		603-359-1757 (Cellular)	
	G. Spiridigliozzi	514-645-0566		514-703-0443 (Cellular)	
	F. Clermont-Girard	450-292-5909		450-405-2065 (Cellular)	
	J. M. Leary	207-767-0426		207-233-1977 (Cellular)	
	S. L. Whiting	207-655-4567		207-233-1976 (Cellular)	
	J. Blanchette	514-645-5847		514-234-9517 (Cellular)	

FIGURE 2.7

INTERNAL NOTIFICATION REFERENCES (Cont'd)

INTERNAL NOTIFICATIONS – SPILL MANAGEMENT TEAM (Cont'd)

POSITION/TITLE	NAME	OFFICE	(b) (6) [redacted]	OTHER	NOTIFIED DATE/TIME LOCATION
Clean-up unit Contractors	MSRC	207-780-8801 Portland		1-800-259-6772* 1-800-645-7745* 1-800-417-0175*	
	Clean Harbors	207-799-8111*			
	ECRC (SIMEC) Pierre Samson	Emergency 613-930-9690		418-563-5618 (Cellular)	
	Boom-Tech	207-887-7111		207-252-6756 (Cellular)	
PLANNING SECTION					
Planning Section Chief	K. P. Brown (AQI)	207-767-0449		207-233-6349 (Cellular)	
Situation Unit Leader	M. Robin (AQI) J. G. Magee	514-645-7268 207-767-0415		514-946-5128 (Cellular) 207-233-4002 (Cellular)	
Surveillance Unit Leader / Field Observer	R. A. Hughes F. Clermont- Girard	207-767-0437 450-292-5909		207-233-1937 (Cellular) 450-405-2065 (Cellular)	
Environmental Specialist Unit Leader (Resources at Risk, Disposal, Alternate Response Technologies)	S. L. Given	207-767-0419		207-233-3702 (Cellular)	
Display Processor	L. M. Ramsdell	207-767-0460		207-653-7322	
Documentation Unit Leader	L. M. Ramsdell	207-767-0460		207-653-7322	
	O'Brien Group	281-320-9796			
Hydraulic Isolation Specialist	J. G. Magee	207-767-0415		207-233-4002 (Cellular)	
Resource Unit Leader	N. D. Beaton-Smith	207-767-0445		207-239-8963 (Cellular)	
Technical Specialists	O'Brien Group	281-320-9796		281-320-9700	
	Tetratech Marcel Ricard	514-257-1112		514-984-0735 (Cellular)	

FIGURE 2.7

INTERNAL NOTIFICATION REFERENCES (Cont'd)

INTERNAL NOTIFICATIONS – SPILL MANAGEMENT TEAM (Cont'd)

POSITION/TITLE	NAME	OFFICE	(b) (6) [redacted]	OTHER	NOTIFIED DATE/TIME LOCATION
LOGISTICS SECTION					
Logistics Section Chief	J. C. Gillies	207-767-0441		207-233-1947 (Cellular)	
Procurement Unit Leaders	N. M. Amero L. A. Gauthier	207-767-0454 514-645-8797		207-491-8137 (Cellular) NA	
Supply Unit Leaders	N. D. Beaton-Smith	207-767-0491		207-409-4625 (Cellular)	
	L. A. Gauthier	514-645-8797		NA	
Communications Unit Leader	M.E. Amero	207-767-0447		207-233-7709 (Cellular)	
	MSRC	207-780-8801 Portland		1-800-259-6772* 1-800-645-7745* 1-800-417-0175*	
	Bell Mobility (24 hr)	1-800-361-2616			
	Rogers			1-877-274-3375	
Security Unit Leader	O'Brien Group	281-320-9796		281-320-9700	
	Publicover (24 hr)	207-773-3736			
	Pro-sec	514-313-6131*		514-718-8254* (Cellular)	
I.T. Unit Leader	M. E. Amero	207-767-0447		207-233-7709 (Cellular)	
Pollution Equipment Unit Leader	MSRC O'Brien Group Boom Tech	207-780-8801 281-320-9796 207-887-7111		207-232-3315 281-320-9700	
FINANCE SECTION					
Finance Section Chief	D. E. Cyr	207-767-0450		207-650-1289 (Cellular)	
Claims / Insurance Unit Leader	K. H. Dillenback Crawford: Catstro. Claims Alert Bud Trice (VP Cat. Services) Willis Insurance Allyn Roberts	207-767-0456 810-221-3509 877-346-0300* 713-625-1092		207-228-3824 (Cellular) 404-229-7061 (Cellular) 281-910-1721 (Cellular)	

POSITION/TITLE	NAME	OFFICE	(b) (6) [redacted]	OTHER	NOTIFIED DATE/TIME LOCATION
Time Unit Leader	C. A. Allen O'Brien Group	207-767-0423 281-320-9796		207-232-2486 281-320-9796	
Cost Unit Leader	N. M. Amero	207-767-0454		207-491-8137 (Cellular)	

CONTRACT RESOURCES SUPPLEMENTARY – PPL SPILL MANAGEMENT TEAM

POSITION/TITLE	NAME	OFFICE	HOME	OTHER	NOTIFIED DATE/TIME LOCATION
Consulting on All SMT Positions	O'Brien Response Management Inc.	985-781-0804 (24 hrs)		281-320-9700 (Fax)	
Section Chief	Calvin "Bud" Kline Aaron Holton Ed Turner Scott Hess Ben Benson	985-781-0804 (24 hrs)			
Operations	Calvin "Bud" Kline Aaron Holton Ed Turner Scott Hess Ben Benson	985-781-0804 (24 hrs)			
Operations/ Training/ Safety	Calvin "Bud" Kline Aaron Holton Ed Turner Scott Hess Ben Benson	985-781-0804 (24 hrs)			
The Response Group ***IAP Software / GIS Mapping and Modeling***	Roy Barrett	281-880-5000 (24 hrs)			

2.4 EXTERNAL NOTIFICATION

In the event of an oil spill into a stream, a river, on land, or a fire/explosion with release of hazardous substances or wastes, or a serious injury, various government authorities in the field of environmental protection (TSB, MDDEP, Environment Canada, EPA, DEP, DES, etc.) must be notified as soon as possible after the discovery of the leak. These organizations will participate in identifying which resources are threatened and will propose a set of priorities of protection, confinement, recovery and clean-up measures to be implemented, depending on available resources, environmental features in the area, time of the year, weather conditions and so on.

It is the on shift / on call supervisor (initial Incident Commander who is responsible to notify the appropriate regulatory external governmental authorities or organization. The on-shift/ on call supervisor is also responsible for notifying the Emergency Coordinator (EC). The home addresses of the ECs are not included in this plan as the plan is distributed to numerous government agencies and local entities and the information is therefore subject to access by persons beyond emergency response purposes. To protect the privacy of PMPL employees, only the names and contact information for ECs is provided and those persons potentially acting as ECs are either on site or immediately available on call for the 24 hour operations at PMPL. The IC may also designate a knowledgeable person to make the telephone calls (e.g. environmental specialist, legal advisor, etc.).

- The typical external notification responsibilities for each person potentially involved in the initial response are those as indicated in Figure 2.2.
- Federal, state, provincial and local reporting requirements and phone numbers are in Figure 2.3
- Contacts for spill response resources such as clean up contractors, experts/consultants technical support and other support services are listed in Figure 2.7.

The Director of Operations will also have to make some external phone calls to clean-up contractors, etc.

EXTERNAL REPORTING GUIDELINES

SPILL REPORTING GUIDELINES

- Review Figure 2.8 for spill reporting requirements and conditions and follow required reporting.
- Never include information which has **not been verified.**
- **Never speculate** as to the cause of an incident or make any acknowledgment of liability.
- **DOCUMENT:**
  - ☐ Agency notified
  - ☐ Time agency notified
  - ☐ Person notified
  - ☐ Content of message given
  - ☐ Incident number if applicable
- **DO NOT DELAY** reporting due to incomplete information.

FIGURE 2.8
EXTERNAL NOTIFICATION REFERENCE

US FEDERAL

FEDERAL NOTIFICATIONS – ALL STATES		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
National Response Center Washington, D.C. (NRC)	(800) 424-8802* (202) 267-2675	TYPE: All spills that impact or threaten navigable water. VERBAL: Immediate notification required. WRITTEN: Not required.
Department of Transportation Information Resources Manager Office of Pipeline Safety Pipeline and Hazardous Materials Safety Administration US Dept. of Transportation Room E22-321, 1200 New Jersey Avenue, S.E. Washington, DC 20590 Fax Filing: (202) 366-4566	PHMSA (202) 366-1863 http://nrc.uscg.mil	All spills that impact or threaten navigable water must be reported to the National Response Center, 800-424-8802. In addition, some spill incidents must be reported directly to the Pipeline and Hazardous Materials Safety Administration. NOTE: PHMSA has requested direct notification for any pipeline related incidents reported to NRC. PHMSA expects to be notified within 1 hour of a confirmed incident or accident. Telephonic or Electronic Report: The operator must report incidents by calling the Department of Transportation Crisis Management Center, 202-366-1863 (24 hours), when: The operator discovers a release of the hazardous liquid transported resulting in an incident requiring a Written Report as described on Page 2-18 and: (1) a person dies or has injuries requiring hospitalization; (2) the incident results in a fire or explosion not intentionally set by the operator; (3) the incident causes property damage including cleanup and recovery costs, lost product costs, and damage to the operator's and / or other entity's property exceeding $50,000; (4) the incident pollutes a stream, river, lake, reservoir, or other similar body of water and violates applicable water quality standards, discolors the surface of the water or adjoining shoreline, or deposits a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or (5) the operator judges the incident is significant even though it did not meet the above criteria.

***24-Hour Number**

FIGURE 2.8 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

US FEDERAL

FEDERAL NOTIFICATIONS – ALL STATES		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
(continued) Department of Transportation Information Resources Manager Office of Pipeline Safety Pipeline and Hazardous Materials Safety Administration US Dept. of Transportation Room E22-321, 1200 New Jersey Avenue, S.E. Washington, DC 20590 Fax Filing: (202) 366-4566 ***24 Hour Number***	PHMSA (202) 366-1863	The telephonic reports to the Pipeline and Hazardous Materials Safety Administration must include: (1) the operator's name and address, identification # of operator; (2) the reporter's name and telephone number; (3) the incident location; (4) the incident time; (5) fatalities and personal injuries; and (6) all the significant facts the operator knows about the incident including the incident cause and damages. (a) Calculation. A pipeline operator must have a written procedure to calculate and provide a reasonable initial estimate of the amount of released product. (b) New information. An operator must provide an additional telephonic report to the NRC if significant new information becomes available during the emergency response phase of a reported event at the earliest practicable moment after such additional information becomes known. <u>Accident Report:</u> The operator must file Department of Transportation Form 7000-1 within thirty days of an incident when the following criteria are met: Hazardous liquid is released and (1) the incident results in a fire or explosion not intentionally set by the operator; (2) five gallons or more of hazardous liquid is released; excepting no report is required for a release of less then 5 barrels resulting from maintenance activity and the release: (a) does not meet the other written report criteria, (b) does not meet the telephonic reporting criteria listed under Telephonic Reporting (page 2-18) in item 4 (pollution of a stream, river, lake, reservoir, or other similar body of water), (c) is confined to company property or pipeline ROW, and (d) is cleaned up promptly. (3) a person dies; (4) a person's injuries require him or her to be hospitalized; or (5) the incident causes property damage including cleanup and recovery costs, lost product costs, and damage to the operator's and/or other entity's property exceeds $50,000. Department of Transportation Form 7000-1 is in Appendix K.

FIGURE 2.8 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

FEDERAL NOTIFICATIONS – ALL US STATES		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
Occupational Safety and Health Administration (OSHA) Washington, D.C.	(800) 321-6742*	TYPE: Fatality from a work related incident or the inpatient hospitalization of three (3) or more employees as a result of a work related incident. VERBAL: Immediate notification required. WRITTEN: As requested.

RECOMMENDED EXTERNAL NOTIFICATIONS	
AGENCY	**CONTACT INFORMATION**
U.S. Environmental Protection Agency (EPA): Report to the EPA Regional Administrator within 60 days whenever the facility has discharged more than 1,000 U.S. gallons of oil in a single discharge or discharged more than 42 U.S. gallons of oil in each of two discharges occurring within any twelve month period.	A call to the NRC satisfies the reporting requirements for these two agencies. However, a follow-up call is strongly recommended. Phone numbers are located in the State Specific Notification section that follows.
U.S. Coast Guard	
Local Emergency Planning Committee (LEPC)	See State Notification Lists
State Emergency Response Commission (SERC)	See State Notification Lists – DEP

***24-Hour Number**

CANADA FEDERAL

FIGURE 2.9
EXTERNAL NOTIFICATION REFERENCE

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
Transportation Safety Board (TSB)	819-997-7887 General 24 hour number	Incident concerning the pipeline: **Canada Specific Reporting Requirements** In response to an industry suggestion, the National Energy Board (NEB) and the Transportation Safety Board of Canada (TSB) have agreed to introduce single-window reporting during pipeline incidents/occurrences. Arrangements have been made for the TSB to receive these reports on behalf of both agencies. Effective September 1, 1999, all incidents and occurrences should be reported to the TSB Occurrence Hot Line (for telephone number, see Figure 2.9). Preliminary and detailed incidents reports should also be reported to the TSB. The TSB will forward all applicable reports to the NEB. **Section 1 of the National Energy Board's Regulations (Onshore Pipeline Regulation) "Incident" means an occurrence that results in:** (a) the death of or serious injury to a person (b) a significant adverse effect on the environment (c) an unintended fire or explosion (d) an unintended or uncontained release of LPV hydrocarbons in excess of 1.5 m3 (e) an unintended or uncontrolled release of gas or HVP hydrocarbons: (f) the operation of a pipeline beyond its design limits as defined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board
National Energy Board	403-807-9473 24/7 Incident Line	Accident involving an employee, occupational disease or other hazardous occurrence. **Section 1 of the National Energy Board's Regulations (Onshore Pipeline Regulation) "Incident" means an occurrence that results in:** (a) the death or serious injury to a person (b) a significant adverse effect on the environment (c) an unintended fire or explosion (d) an unintended or uncontrolled release of LPV hydrocarbons in excess of 1.5 m3 (e) an unintended or uncontrolled release of gas or HPV hydrocarbons (f) the operation of a pipeline beyond its design limits as defined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board From the **Oil and Gas Occupational Safety and Health Regulations (DORS/87-612)** of the Canadian Labour Code (Ministry of Human Resources), MPL shall report the date, time, location and nature of any accident, occupational disease or other hazardous occurrence, as soon as possible but not later than 24 hours after becoming aware of the occurrence, where the occurrence resulted in one of the following

FIGURE 2.9 (cont'd)
EXTERNAL NOTIFICATION REFERENCE

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
		circumstances: (a) the death of an employee; (b) a missing person; (c) a disabling injury to an employee; (d) the implementation of emergency rescue, revival or evacuation procedures; (e) a fire or explosion that threatened the safety or health of an employee; (f) the free fall of an elevating device that rendered the elevating device unsafe for use by an employee; (g) an accidental accumulation, spill or leak of a hazardous substance; or (h) the loss of or damage to support craft. A written report of the accident, occupational disease or other hazardous occurrence shall be submitted by the employer within 14 days after the occurrence to the National Energy Board. The Hazardous Occurrence Investigation Report shall be used to report the medical incident (see Figure 3-4). **Section 52 of the National Energy Board's Regulations (Onshore Pipeline Regulation)** requires oil pipeline companies under the Board's jurisdiction to report incidents involving their pipelines to the TSB. Guidance notes for the OPR set out the content and timing of these reports. This section and its guidance notes are reproduced in the following paragraphs. **Reportable Incidents** (Section 52 of Onshore Pipeline Regulations) (1) A company shall immediately report to the Board of any incident relating to the construction, operation or abandonment of its pipeline that and shall submit a preliminary report to the Board as soon as is practicable (2) After notification of an incident, an inspection officer may partially or completely relieve a company from the requirement to submit a preliminary and detailed incident report. **A Preliminary Detailed Incident Report** (Guidance Notes for the Onshore Pipeline Regulations – consult Appendix H forms) should be prepared by the Deputy Incident Commander and provided to the TSB, as soon as practicable following the discovery of an incident and should set out, to the extent that the information is available: (1) the area affected, the substance involved and an estimate of the volume released, and the nature, location, date, and time of the incident; (2) the name and occupation of every person killed as the result of the incident; (3) the name, occupation, condition and current location of every person that sustained a serious injury; (4) a description of any interruption or reduction in service resulting from the incident; (5) a description of the actions taken by the company to protect the public and the environment;

CANADA FEDERAL

FIGURE 2.9 (cont'd)
EXTERNAL NOTIFICATION REFERENCE

CANADA FEDERAL

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
		(6) a description of the repairs made or to be made by the company and the anticipated date of return to service of the pipeline; (7) the availability of the damaged parts of the pipeline; (8) the nature and extent of any adverse environmental effects; (9) the nature and extent of any concerns expressed to the company by the public related to the incident; (10) a descriptive assessment of any continuing hazards resulting from or related to the incident; (11) other significant facts that are known to be relevant to the cause of the incident, and; (12) a list of the witness who notified the company, along with their addresses and telephone numbers. **Detailed Incident report** A **detailed incident report** should be prepared by the Incident Commander and provided to the TSB, as soon as detailed information is available and should include: (1) a detailed description of the adverse environmental effects of the incident on terrain, property, livestock, fish, wildlife and habitat of fish and wildlife; (2) a description and evaluation of the clean-up and disposal methods used or proposed to be used; (3) a description of all measures taken or proposed to be taken to restore the terrain where the incident occurred; (4) a description of the monitoring undertaken or proposed to be undertaken to determine the success of restoration measures; (5) where the incident involved a spillage of LVP hydrocarbons, liquid test medium or any toxic substance, an outline of the program that the company proposes to follow to rehabilitate the affected area; (6) a description, sketch or photograph of the area affected by any fluids that escaped from the pipeline as a result of the incident; (7) a detailed description of the incident including the events leading up to and following the incident; (8) comments, sketches, drawings or photographs relevant to the incident that are necessary for a complete understanding of the incident; and (9) corrective actions to be taken to prevent similar incidents from occurring in the future.
Environment Canada	514-283-2333 Environmental Protection Service	Any environmental incident: spill of hazardous or petroleum products, fumes, unusual odours, noise, vapour, etc.
Port of Montreal	514-283-7022	Any spill to St. Lawrence River.

FEDERAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)

RECOMMENDED EXTERNAL NOTIFICATIONS	
AGENCY	CONTACT INFORMATION
Fisheries and Oceans – Canadian Coast Guard	418-648-2544
Canadian Wildlife Service	800-363-4735 Emergencies (24 hour)
Park Canada (navigational lock)	450-447-4805

FIGURE 2.10
EXTERNAL NOTIFICATION REFERENCE

STATE SPECIFIC NOTIFICATIONS

Notifications for each state or province are detailed on the following pages in the following order: 1) Required Notifications; 2) Non-Required Notifications; 3) Local Emergency Services; 4) Neighboring Community, Utility, and Industry.

REQUIRED NOTIFICATIONS

MAINE

AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)
Maine Department of Environmental Protection	Oil Spills (800) 482-0777* (In State calls) (207) 822-6300 (Out of State calls, 8 a.m. - 5 p.m.) (207) 657-3030 (Out of State calls, nights, weekends, holidays) **Hazardous Materials** (800) 452-4664 (In State calls) (207) 624-7000 (Out of State calls)	TYPE: All spills of oil or hazardous substance or hazardous waste. VERBAL: Immediate notification required (Maximum 2 hours). WRITTEN: 10 days for Hazardous Material and Oil Spill releases. Once removal of the discharge has been completed, the person, firm or corporation responsible for the discharge shall prepare a complete written report of the occurrence and submit that report to the Commissioner within 10 days. Written report is sent to Canco Road office to the attention of the field response person who responded or fielded our telephone call to make the report. The State reporting form is located in Appendix K. Maine Department of Environmental Protection 312 Canco Road Portland, ME 04103

MAINE

***24-Hour Number**

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

MAINE

AGENCY	LOCATION	OFFICE/ ALTERNATE
U.S. Environmental Protection Agency (EPA) - Region I	Boston, MA	(617) 223-7265 (617) 723-8928* (800) 424-8802* (857) 383-8450*
U.S. Coast Guard - Marine Safety Office (USCG - COTP) (USCG-SNNE)	South Portland, ME South Portland, ME	(207) 767-0320 (207) 767-0303
U.S. Fish and Wildlife Service (USFWS) Kevin O'Brien	Concord, ME	(207) 469-6842
Oxford County Emergency Management Agency (LEPC) Scott Parker	South Paris, ME	(207) 743-6336
Maine DEP - Southern Maine	Portland, ME	(207) 822-6300 (888) 769-1036
National Weather Service (Recorded Forecasts)	Gray, ME	(207) 688-3216
NOAA Hazardous Materials Response and Assessment Dir. Stephen Lehmann	Boston, MA	(617) 223-8016 (206) 526-6317* (617) 877-2806 Cell
U.S. Department of Interior Andrew Raddant	Boston, MA	(617) 223-8565 (617) 925-2767*
Department of Conservation Bureau of Public Lands Steve Oliveri	Augusta, ME	(207) 287-3061
Department of Inland Fish & Wildlife Rich Dressler / Jordan Bailey	Bangor, ME	(207) 941-4467 (207) 941-4448
Department of Marine Services Seth Barker / Joe Fessenden	Hallowell, ME	(207) 633-9507 (207) 624-6550
Maine State Emergency Response Commission (SERC) Art Cleaves	Augusta, ME	(207) 626-4503
Maine Emergency Management Agency (MEMA) John Libby	Augusta, ME	(800) 452-8735 (207) 624-4400
Cumberland County - Emergency Management Agency (LEPC)	Windham, ME	(207) 892-6785 (207) 623-3614* (Sheriff)
South Portland Conservation Commission	South Portland, ME	(207) 767-3201
Westbrook Conservation Commission	Westbrook, ME	(207) 854-0676
Windham Natural Resource Committee	Windham, ME	(207) 892-1905
Bethel Conservation Committee	Bethel, ME	(207) 824-2669

***24-Hour Number**

MAINE

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

MAINE

AGENCY	LOCATION	OFFICE/ ALTERNATE
Department of Environmental Protection		
Peter Blanchard	Augusta, ME	(207) 287-7190
Steve Flannery	Portland, ME	(207) 822-6300
Unbooming During Transfer	Portland, ME	(207) 822-6300 (207) 879-6369
Governor's Office	Augusta, ME	(207) 287-3531
Maine Bureau of Waterways	Portland, ME	(207) 773-5608
Maine Historic Preservation Commission Art Spiess	Augusta, ME	(207) 287-2132
Maine State Police	Augusta, ME	(800) 452-4664
Maine Dig Safe		(888) DIG-SAFE **811**

LOCAL EMERGENCY SERVICES

NOTIFY AS NEEDED

MAINE

SERVICE	LOCATION	OFFICE/ ALTERNATE
CUMBERLAND COUNTY		
Cumberland County Emergency Director	Portland, ME	(207) 892-6785
Portland Water District (24 hr)	Portland, ME	(207) 761-8300
South Portland Wastewater Treatment Plant	South Portland, ME	(207) 767-7675
Portland Wastewater Treatment Plant	Portland, ME	(207) 761-5424
Municipal Fire Departments		
South Portland (Hazardous Materials & Hazardous Waste spill mutual aid)	-----	911 (207)-874-8576*
Portland	-----	(207) 874-8576*
Westbrook	-----	(207)-854-0644* (207) 854-2531
Windham	-----	(207) 893-2810* (207) 892-2525
Raymond	-----	(207) 893-2810* (207) 655-7851

MAINE

Casco	-----	(207) 893-2810* (207) 627-6958
Naples	-----	(207) 893-2810* (207) 693-6850
Otisfield	-----	(207) 743-9554* (207) 539-4619
Harrison	-----	(207) 893-2810* (207) 583-6011
Fire Wardens		
MP 10-21 Charles Hammond, Fire Chief	Windham, ME	(207) 892-1911
MP 21-26 Bruce Tupper, Fire Chief	Raymond, ME	(207) 655-1187
MP 26-32 John Small, Fire Chief	Casco, ME	(207) 693-6850
MP 32-40 Mike Hooker, Fire Chief	Otisfield, ME	(207) 539-4619
MP 40-43 Scott Andrews, Fire Chief	Harrison, ME	(207) 583-6011

MAINE

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
MAINE		
SERVICE	**LOCATION**	**OFFICE/ ALTERNATE**
CUMBERLAND COUNTY		
Law Enforcement Agencies		
Maine State Police	Gray, ME	(800) 482-0730
Maine State Police	Augusta, ME	(800) 452-4664
Cumberland County Sheriff	-----	(800) 501-1111 non-emergency (207) 774-1444 emergency
Local Police Departments	-----	
South Portland	-----	911 (207) 799-5511
Portland	-----	(207) 874-8875
Westbrook	-----	(207) 854-2531
Windham	-----	(207) 892-2525
Harrison		(800) 501-1111 – Uses Cumberland County
Central Maine Partners in Health		
Central Maine Partners in Health	South Portland, ME	207-741-0220
Hospitals		
Maine Medical Center	Portland, ME	(207) 871-2381
Mercy Hospital	Portland, ME	(207) 879-3266
OXFORD COUNTY		
Municipal Fire Departments		(207) 743-9554*
Norway	-----	(207) 743-2424
Waterford	-----	(207) 583-2410
Bethel	-----	(800) 733-1421 (207) 824-2665
Newry	-----	(207) 824-4905
Gilead	-----	(207) 836-2079
Rumford	-----	(207) 364-2901

MAINE

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
MAINE		
SERVICE	**LOCATION**	**OFFICE/ ALTERNATE**
Law Enforcement Agencies		
Norway Police Department	Norway, ME	(207) 743-8934
Bethel Police Department	Bethel, ME	911 emergency or (800) 733-1421 non-emergency
Rumford Police Department	Rumford, ME	(207) 364-4551
Doctors		
Dr. Donald Ware Oxford Hills Internal Medicine Group	Norway, ME	(207) 743-7721
Hospital		
Stephens Memorial Hospital	Norway, ME	(207) 743-5933

MAINE

FIGURE 2.10 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

NEIGHBORING COMMUNITY, UTILITY AND INDUSTRY				
NOTIFY AS NEEDED				
INDUSTRY OR COMMUNITY				
MILE POST (MP)	WATER COURSE	INDUSTRY OR COMMUNITY	LOCATION	OFFICE/ ALTERNATE
-----	Portland Harbor	Central Maine Power*	Portland, ME	(207) 622-7421 (207) 622-7671
		MSRC	Portland, ME	(207) 780-8801
		Irving/Buckeye	South Portland, ME	(207) 761-0501
		Global	South Portland, ME	(207) 767-8259
		Sprague Energy	South Portland, ME	(207) 799-4899
		Citgo Enterprises	South Portland, ME	(207) 799-3394
5 to 29	Presumpscot River	Portland Water District	Portland, ME	(207) 774-5961
	Pleasant River	Central Maine Power*	Portland, ME	(207) 622-7421 (207) 622-7671
	Sebago Lake	S.D. Warren Co.	Westbrook, ME	(207) 856-4000
	Panther Pond	Cumberland Co.	Portland, ME	(207) 774-1444 (Sheriff)
29 to 60	Parker Pond	Casco Village	Casco, ME	(207) 627-4515
	Crooked River	Hancock Lumber Co.	Casco, ME	(207) 627-4201
		Portland Water District	Portland, ME	(207) 761-8310
		Papoose Pond Campground	N. Waterford, ME	(207) 583-4470
60	Androscoggin R.	St. Lawrence & Atlantic R.R.	Auburn, ME	(207) 782-5680
0-60	Various	Portland Natural Gas Transmission	Westbrook, ME to Gorham, NH	(888) 576-4634

MAINE

When oil enters a water course to the extent that it may endanger a water supply or create a fire hazard to a community or industry, persons concerned must be promptly notified. This list is intended to serve as a check list and should be amended to include all other concerned persons in each section of which the supervisor has knowledge.

*Note: Contact Central Maine Power for any issue involving electric power transmission lines and facilities in Maine

FIGURE 2.11
EXTERNAL NOTIFICATION REFERENCE

REQUIRED NOTIFICATIONS		
NEW HAMPSHIRE		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
New Hampshire Department of Environmental Services	(603) 271-3440 * (8 a.m. - 4 p.m.) (603) 271-3636 (nights, weekends, holidays)	TYPE: All spills of oil and hazardous substances or wastes. VERBAL: Immediate notification required. WRITTEN: This must be done within 15 days of the incident. New Hampshire Department of Environmental Services Attn: Special Investigations Section 6 Hazen Drive Concord, NH 03301
New Hampshire State Police	(800) 346-4209 (603) 271-3636 (800) 346-4009 (In State calls)	
Nearest Fire Department	(See Local Emergency Contacts)	TYPE: A condition in which a fire or safety hazard exists. VERBAL: Immediate notification required.

***24-Hour Number**

NEW HAMPSHIRE

FIGURE 2.11 (cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)		
NOTIFY AS NEEDED		
NEW HAMPSHIRE		
AGENCY	LOCATION	OFFICE/ ALTERNATE
U.S. Department of Agriculture - Forest Service District Ranger (Any leak or spill in the White Mountains between mile 87 and 91).		(603) 466-2713 (603) 528-8721 (During Office Hours)
U.S. Environmental Protection Agency (EPA) - Region I	Boston, MA	(617) 223-7265 (617) 723-8928* (800) 424-8802* (857) 383-8450*
U.S. Fish and Wildlife Service (USFWS)	Chelsea, MA	(617) 889-6616
U.S. Coast Guard – Sector Northern New England (USCG - COTP) (USCG - MSO)	 South Portland, ME South Portland, ME	 (207) 767-0320 (207) 767-0303
National Weather Service (Recorded Forecasts)	Gray, ME	(207) 688-3210
New Hampshire Fish & Game Department	Concord, NH	(603) 271-2462
NOAA Hazardous Materials Response and Assessment Director Stephen M. Lehman	Boston, MA	(617) 223-8016 (206) 526- 6317*
New Hampshire Emergency Management (SERC) Director – George Iverson Asst. Director – Kathryn Doubtt	Concord, NH	(800) 852-3792 (603) 271-6911 (603) 271-2231
Lancaster LEPC Patricia Kelly	Lancaster, NH	(603) 788-3391
Jefferson LEPC Jeffrey Wiseman	Jefferson, NH	(603) 586-4436
Randolph LEPC John Scarinza	Randolph, NH	(603) 486-5775
Shelburne Natural Resources and Conservation Committee	Shelburne, NH	(603) 466-2262
Lancaster Conservation Committee	Lancaster, NH	(978) 368-4007

***24-Hour Number**

FIGURE 2.11 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
NEW HAMPSHIRE		
SERVICE	LOCATION	OFFICE/ ALTERNATE
COOS COUNTY		
Municipal Fire Departments		
Shelburne	-----	(603) 466-3345
Gorham	-----	(603) 466-3336
Randolph	-----	(603) 466-3336
Jefferson	------	(603) 586-4444 (603)788-3232*
Lancaster	-----	(603) 788-4830 (603) 788-3232*
Guildhall (Part of Lunenburg)	-----	(603) 788-4466
Lunenburg	-----	(603) 788-4466
Sutton	-----	(802) 748-5050
Burke	-----	(802) 748-5050
Fire Wardens		
MP 72-81 Nathan Emery	Shelburne, NH	(603) 466-3345
MP 71 – 86 Rick Eichler	Gorham, NH	(603) 466-2549
MP 86 – 93 Dana Horne	Randolph, NH	(603) 466-2332
MP 93 – 103 Chris Milligan	Jefferson, NH	(603) 586-4570**
MP 103 – 107 Randy Flynn	Lancaster, NH	(603) 788-4749**
Law Enforcement Agencies		
New Hampshire State Police	Concord, NH	(603) 271-3636
Twin Mountain State Police Barracks	Twin Mountain, NH	(603) 846-3333
State Highway Commission	Lancaster, NH	(603) 846-3333 (603) 788-4641
County Sheriff (Alan Tardif)	Lancaster, NH	(603) 788-5598
Shelburne Police Department	Shelburne, NH	(603) 466-3345
Gorham Police Department	Gorham, NH	(603) 466-3336
Randolph Police Department	Randolph, NH	(603) 466-3336
Jefferson Police Department	Jefferson, NH	(603) 846-5517
Lancaster Police Department	Lancaster, NH	(603) 788-4402
Health Officers		
Weeks Medical	Lancaster, NH	(603) 788-2521
Charlie Davisson	Dalton, NH	(603) 837-9097**
Richard Hill	Littleton, NH	(603) 444-2637

NEW HAMPSHIRE

NEW HAMPSHIRE

FIGURE 2.11 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES

NOTIFY AS NEEDED

NEW HAMPSHIRE

SERVICE	LOCATION	OFFICE/ ALTERNATE
COOS COUNTY (Cont'd)		
Doctors		
Gorham Medical Center Family Health Services	Gorham, NH	(603) 466-2741
Weeks Medical Center	Lancaster, NH	(603) 788-2521
Hospitals		
Androscoggin Valley Hospital	Berlin, NH	(603) 752-2200
Weeks Memorial Hospital	Lancaster, NH	(603) 788-4911
Ambulance		
Gorham Ambulance Service	Gorham, NH	(603) 466-3336

NEIGHBORING COMMUNITY, UTILITY, AND INDUSTRY

NOTIFY AS NEEDED

INDUSTRY OR COMMUNITY

MILE POST (MP)	WATER COURSE	INDUSTRY OR COMMUNITY	LOCATION	OFFICE/ ALTERNATE
60 to 90	Peabody River	NH and VT R.R.	Whitefield, NH	(603) 837-3055
		Public Serv. Co. of N.H.	Berlin, NH	(800) 662-7764
		Gorham, N.H. Town Office	Gorham, NH	(603) 466-2744
		Gorham Paper and Tissue	Gorham, NH	(603) 342-2000
		Chadbourne Tree Farm and Hancock Lumber	Bethel, ME	(207) 824-2166
		Mead Paper	Rumford, ME	(207) 364-4521
90 to 113	Connecticut River	NH and VT R.R.	Whitefield, NH	(603) 837-3055
		Public Service of N.H.	Berlin, NH	(800) 662-7764
		Maine Central R.R.	Portland, ME	(800) 955-9217 (207) 848-9851* (207) 848-4315*
		Lancaster Town Office	Lancaster, NH	(603) 788-3391
		TransCanada-Moore Station	Littleton, NH	(603) 991-2668* (603) 348-3710*

When oil enters a water course to the extent that it may endanger a water supply or create a fire hazard to a community or industry, persons concerned must be promptly notified. This list is intended to serve as a check list and should be amended to include all other concerned persons in each section of which the supervisor has knowledge. Note: Contact Public Service of New Hampshire for any issue involving electric power transmission lines and facilities in New Hampshire

FIGURE 2.11 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

REQUIRED NOTIFICATIONS

VERMONT

AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)
Agency of Natural Resources - Department of Environmental Conservation (Waste Mgmt. 8 am - 4 pm) (Emergency Mgmt/State Police) (Hazardous Materials Hotline)	800-641-5005*	TYPE: - All spills that pose a threat to human health or the environment. - A spill of 2 gallons or more VERBAL: Immediate notification required. WRITTEN: Within 10 days for any reportable spill. Vermont Department of Environmental Conservation Agency of Natural Resources 103 South Main Street West Building Waterbury, VT 05671-0404
Vermont Department of Public Service	(802) 828-2811	TYPE: All fires, leaks, or blowouts. VERBAL: Immediate notification required. WRITTEN: As requested by the agency.
National Response Center	1-800-424-8802	TYPE: Any spill that impacts (or threatens) surface water (e.g. lakes, streams, wetlands) VERBAL: Immediate notification required

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

VERMONT

AGENCY	LOCATION	OFFICE/ ALTERNATE
U.S. Environmental Protection Agency (EPA) - Region I	Boston, MA	(617) 223-7265 (617) 723-8928* (800) 424-8802* (857) 383-8450*
U.S. Coast Guard – Sector Northern New England (USCG - COTP)	Portland, ME	(207) 767-0320 (207) 767-0303
U.S. Fish and Wildlife Service (USFWS)	Chelsea, MA	(617) 889-6616
National Weather Service (Recorded Forecasts)	Gray, ME	(207) 688-3210
Department of Fish and Wildlife Commission	Waterbury, VT	(812) 241-3700
NOAA Hazardous Materials Response and Assessment Director- Stephen M. Lehman	Boston, MA	(617) 223-8016 (206) 526- 6317*
Agency of Natural Resources Dept. of Environmental Conservation Duncan Higgins, SERC Chair	Waterbury, VT	(800) 347-0488 (802) 244-8721
LEPC #9 Jay Wood	St. Johnsbury, VT	(802) 748-2576
LEPC #10 x/o Newport City PD Paul Duquette	Newport, VT	(802) 334-6733
Sutton Conservation Committee	Sutton, VT	(603) 927-4416

VERMONT

Figure 2.12 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
VERMONT		
SERVICE	**LOCATION**	**OFFICE/ ALTERNATE**
STATEWIDE		
Emergency Hazardous Materials Spill Reporting 7:45 AM – 4:30 PM Weekends		1-800-641-5005* (802) 241-3888
State Police Dispatch		(800) 641-5005*
ESSEX COUNTY		
Essex County Sheriff	Essex	(802) 892-1111
Fire Wardens		
MP 107 - 114	Guildhall, VT	(802) 328-4415 (802) 328-3879
CALEDONIA COUNTY		
Law Enforcement Agencies		
State Police	Derby, VT	(802) 334-8881
Caledonia County Sheriff	Caledonia, VT	(802) 748-6666
Fire Wardens		
MP 123 - 130	Burke, VT	(802) 626-5484
MP 130 - 137	Sutton, VT	(802) 467-3350
Municipal Fire Departments		
Sutton, VT	-----	(802) 748-5050
ORLEANS COUNTY		
Local Police Departments		**USE 911 STATEWIDE**
St. Johnsbury	-----	(802) 748-2314
Barton	-----	911
Newport	-----	(802) 334-6733
Law Enforcement Agencies		
Vermont State Police	Orleans, VT	(802) 766-2211
Orleans County Sheriff	Orleans, VT	(802) 334-3333

***24-Hour Number**

VERMONT

FIGURE 2.12 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

LOCAL EMERGENCY SERVICES		
NOTIFY AS NEEDED		
VERMONT		
SERVICE	LOCATION	OFFICE/ ALTERNATE
ORLEANS COUNTY		
Hospitals		
Northeastern Vt. Regional Hospital	St. Johnsbury, VT	(802) 748-8141
North County Hospital	Newport, VT	(802) 334-7900
Ambulance		
Northeastern Vt. Regional Hospital	St. Johnsbury, VT	(802) 748-8141
Newport Ambulance	Newport, VT	(802) 334-2023
Municipal Fire Department		**Use 911 for ALL Fire and Police Service**
Barton	-----	911
Orleans	-----	911
Irasburg	-----	911
Lyndonville	-----	911
Newport Center	-----	911
Troy	-----	911
North Troy	-----	911
Jay	-----	911
Fire Wardens		
MP 137 – 146 Emile LaPierre	Barton, VT	(802) 754-6005
MP 146 – 154	Irasburg, VT	(802) 754-6914
MP 154 – 158 Robert George, Fire Chief	Newport, VT	(802) 334-8661
MP 158 – 166 Michael Santaro, Fire Chief	Troy, VT	(802) 988-4395
Bill Leonard	Jay, VT	(802) 988-2901

VERMONT

FIGURE 2.12 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

VERMONT

NEIGHBORING COMMUNITY, UTILITY, AND INDUSTRY				
NOTIFY AS NEEDED				
INDUSTRY OR COMMUNITY				
MILE POST (MP)	WATER COURSE	INDUSTRY OR COMMUNITY	LOCATION	OFFICE/ ALTERNATE
		Lunenburg Town Office	Lunenburg, VT	(802) 892-5959
113 - 123	Moose River	Maine Central Railroad	Portland, ME	(800) 955-9217 (800) 248-2861 (Customer Service) (207) 848-9851* (207) 845-4315*
		St. Johnsbury Town Office	St. Johnsbury, VT	(802) 748-3926
123 - 127	Passumpsic River	East Burke Garage	Lyndonville, VT	(802) 626-5484
	East Branch	Lyndonville Village Office	Lyndon, VT	(802) 626-5785
		Lyndonville Power Co. (8 am - 4 pm)	Lyndon, VT	(802) 626-3638 (802) 626-9252
		Northern Vermont R.R. Yard Office Roadmaster	Newport, VT	(802) 334-8435 (800) 955-9208 (Railroad Ops) (802) 334-6540
		Vermont Electric Cooperative	Johnson, VT	(802) 730-1134*

***24-hour number**

When oil enters a water course to the extent that it may endanger a water supply or create a fire hazard to a community or industry, persons concerned must be promptly notified. This list is intended to serve as a check list and should be amended to include all other concerned persons in each section of which the supervisor has knowledge.

Note: Contact Vermont Electric Cooperative for any issue involving electric transmission lines and facilities in Vermont.

FIGURE 2.13
EXTERNAL NOTIFICATION REFERENCE

REQUIRED NOTIFICATIONS

QUEBEC

AGENCY	TELEPHONE NUMBER	REPORTING REQUIREMENTS (IF ANY)
Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) Estrie Regional Office Montérégie Regional Office Montreal and Lanaudière Regional Office	866-694-5454 Environmental Emergencies (24 hour) all regions 819-820-3882 450-928-7607 514-873-3636	Any environmental incident: spill of hazardous or petroleum products, fumes, unusual odours, noise, vapour, etc. Spill with possible impacts on a stream or land spills, any spill of any contaminant, from the established list of contaminants, released in the environment, or susceptible of harm to life, health, security, well-being or comfort of a person, contaminant which may damage or deteriorate soil quality, vegetation, fauna or property.

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)

NOTIFY AS NEEDED

QUEBEC

AGENCY	LOCATION	OFFICE/ ALTERNATE
MRC Regional Municipal Authority		
	Brôme-Missisquoi	450-266-4900
	Memphrémagog	819-843-9292
	Lajemmerais (Boucherville, Varennes, Vercheres)	450-583-3301
	Rouville	450-460-2127
	Haut-Richelieu	450-346-3636
	Vallée Richelieu	450-464-0339
Quebec Road Department		
	Main Number	450-589-5651
	Eastern Townships	819-820-3280
	Montérégie	450-347-2301
	Boucherville	450-655-1317
CANUTEC		613-996-6666

QUEBEC

*See Montreal Pipe Line Right of Way Book for individual parcel landowners list

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)		
NOTIFY AS NEEDED		
AMBULANCE SERVICES		
Highwater Area – Missisquoi River Area	Ambulance Cowansville inc.	800-361-3010 450-263-2444
	Ambulance de l'Estrie (Eastman)	800-567-6090
	Berkshire Ambulance	802-933-4300
	Enosburg Ambulance	802-933-4000
	Highgate Ambulance	802-868-3320
	Richford Ambulance	802-848-7700
	Sheldon Ambulance	802-933-4000
	Swanton Ambulance	802-868-3320
Saint-Césaire Area	Ambulance Marieville	800-363-1916
FIRST RESPONDERS		
Provincial Police	Estrie	819 564-1212
	Montréal	514-310-4141
	Montérégie	450-641-2128
Vermont Police Headquarters	Headquarters	802-244-8727
	Troop A (St. Albans, Vermont)	802-524-5993 802-933-5555
	Troop B (Derby, Vermont) (St. Johnsbury, Vermont)	802-334-8881 802-748-3111

QUEBEC

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)		
NOTIFY AS NEEDED		
Health Services		
Highwater Area		
Medical Doctor	Bedford Medical Centre	450-248-3336
	Cowansville Medical Centre	450-263-0774
Hospital	Brome Missisquoi-Perkins-Cowansville	450-266-4342
	North Country Hospital, Newport, Vt.	802-334-7331
	Northwest Medical Centre, St.Albans, VT	802-524-1037 (24 hour)
CLSC	C.L.S.C. Mansonville	450-292-3376
Saint-Césaire Area		
Medical Doctor	Robinson Medical Centre, Granby	450-378-8435
Hospital	Centre santé et services sociaux de la Haute Yamaska	450-372-5491
Richelieu River Area		
Hospitals	Charles LeMoyne Hospital, Greenfield Park Public Health	450-466-5000 514-466-5655
	Hôtel-Dieu Hospital, Sorel	450-746-6000
Montreal Area		
Medisys	Groupe santé Medisys	514 845-1211
Hospital	Centre Hospitalier de l'Université de Montréal (CHUM), Montréal	514-890-8000
	Maisonneuve-Rosemont Hospital	514-252-3400
	Pierre Boucher Hôpital Longueuil	450-468-8111

QUEBEC

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

NEIGHBORING COMMUNITY, UTILITY AND INDUSTRY			
NOTIFY AS NEEDED			
INDUSTRY OR COMMUNITY			
Municipalities	**Town Hall**	**Fire Dept.**	**Local Police**
Ange-Gardien	819-986-7470	911	911
Beloeil	450-467-2835	450-536-3333	
Boucherville	450 463-7027	911 450-463-7038 (if outside the city limits)	911 450-463-7028 (if outside the city limits)
Brigham	450-263-5942	911	911
Cowansville	450-263-0141	911	911
Dunham	450-295-2418	911	911
Glen Sutton	450-538-2290	911	911
Highwater/Potton	450-292-3313	911	911
Marieville	450-460-4444	911	911
McMasterville	450-467-3580	911	
Montreal	514-872-1111	911	
Montreal-East	514-645-7431	911 514-280-7808 outside city	911 514-280-2255 outside city
Mont-Saint-Hilaire	450-467-2854	911	
Otterburn Park	450-536-0303	911	
Potton	450-292-3313	911	911
Repentigny	450-470-3000	911	911 450-470-3600 (outside city)
Saint-Antoine-sur-Richelieu	450-584-2258	911	911
Saint-Basile-le-Grand	450-461-8000	911	911
Saint-Bruno-de-Montarville	450-653-2443	911	911
Saint-Césaire (suburbs)	450-469-3108	911	911
Saint-Césaire (city/suburbs)	450-469-3108	911	911
Saint-Charles-sur-le-Richelieu	450-584-3484	911	911
Saint-Denis-sur-Richelieu	450-787-2092	911	911
Saint-Marc-sur-Richelieu	450-787-3497	911	911
Saint-Mathias	450-658-2841	911	911
Saint-Roch-de-Richelieu	450-785-2755	911	911
Saint-Ours	450-785-2203	911	911
Saint-Sulpice	450-589-4450	911	
Sainte-Angèle-de-Monnoir	450-460-7838	911	911
Sainte-Brigitte-d'Iberville	450-293-7511	911	911
Sainte-Julie	450-922-7111	911	911

QUEBEC

FIGURE 2.13 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

NEIGHBORING COMMUNITY, UTILITY AND INDUSTRY (cont'd)			
NOTIFY AS NEEDED			
INDUSTRY OR COMMUNITY			
Municipalities	**Town Hall**	**Fire Dept.**	**Local Police**
Sorel/Tracy	450-780-5600	911	
Sutton Township & Town	450-538-2290	911	911
Varennes	450-652-9888	911	911
Verchères	450-583-3307	911	
Utility		**IDLH**	**Emergency**
Hydro-Quebec		1-866-302-2510	1-888-694-2577*

LOCAL NOTIFICATIONS – QUEBEC		
REQUIRED EXTERNAL NOTIFICATIONS		
AGENCY	**TELEPHONE NUMBER**	**REPORTING REQUIREMENTS (IF ANY)**
Local Fire Department	Figure 2.13	Spill or fumes with risks of fire or explosion
Municipal or Provincial Police	Figure 2.13	Incident with impacts on public safety (ex. spills/fire)
Municipality involved	Figure 2.13	Spill or fumes with risks of fire or explosion Incident with impacts on public safety Incident with major consequences on the surrounding population

*Note: Contact Hydro-Quebec for any issue involving electric power transmission lines and facilities in Quebec.

QUEBEC

RESOURCES US

FIGURE 2.14

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES (ALL US RESPONSE ZONES)		
USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)		
COMPANY	**LOCATION**	**OFFICE / ALTERNATE**
Clean Harbors of Maine, Inc. 17 Main Street South Portland, ME 04106	South Portland, ME	(207) 799-8111*
MSRC Region 1 Center 120 Fieldcrest Avenue Edison, NJ 08837	Edison, NJ	(800) 259-6772* (800) 645-7745* (732) 417-0175* (732) 346-2450 (Office)
MSRC Portland Preposition Site	Portland, ME	(207) 780-8801

***24-Hour Number**

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

RESOURCES US

CONTRACTORS / SERVICES

ADDITIONAL RESPONSE RESOURCE

The following resources are listed by category. The categories are as follows:

- Aviation
- Firefighters
- Hazardous Waste Transporter
- Security
- Storage and Disposal
- Contractors & Equipment
- Hazardous Substances Sampling
- Spill Response Contractors
- Wildlife Rescue and Rehabilitation

This list is not separated geographically; rather it is a general list of contractors/experts with the potential to respond to spills anywhere on the system.

Additional Resources at each of the pump station locations are also listed at the end of this general resource list.

US ADDITIONAL RESPONSE RESOURCES

SERVICE	LOCATION	COMPANY	OFFICE/ ALTERNATE
Aviation	Portland, Maine	Maine Aviation (Fixed Wing Aircraft)	(207) 780-1811 Fax: (207) 772-7277
Firefighters		Williams Fire & Hazard Control (Commercial Firefighters)	(409) 727-2347* (Answering Service) (281) 999-0276 (409) 745-3232
Firefighters	Houston, TX	Red Adair (Commercial Firefighters)	(713) 589-5500
Firefighters	Lionville, PA	Kidder Firefighting (Firefighting Foam)	(610) 363-1400 (24 Hr.)
Firefighters	St. Paul, MN	3 M Company (Firefighting Foam)	(651) 733-1110 (24 Hr.)
Hazardous Substances Sampling	Portsmouth, NH	Analytic Labs	(603) 436-5111
Hazardous Substances Sampling	Presque Isle	Aroostook Testing	(207) 762-5771
Hazardous Substances Sampling	Westbrook	Katahdin Analytical Services Inc.	(207) 874-2400
Hazardous Substances Sampling	Salem, MA	New England Chrom.	(978) 744-6600
Hazardous Substances Sampling	Waterville	Northeast Laboratory	(207) 873-7711

***24-Hour Number**

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

RESOURCES US

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
SERVICE	LOCATION	COMPANY	OFFICE/ ALTERNATE
Hazardous Substances Sampling	Augusta, ME	State Public Health Lab	(207) 287-2727
Hazardous Waste Transporter	Augusta, ME	Board of Pesticide Control Maine Department of Agriculture	(207) 287-2731
Hazardous Waste Transporter	Augusta, ME	Central Maine Power Co.	(207) 623-3521
Hazardous Waste Transporter	S. Portland, ME	Clean Harbors Environmental Services	(207) 799-8111 or (207) 772-2201
Hazardous Waste Transporter	Scarborough, ME	C. M. Laboratories	(207) 883-8395
Hazardous Waste Transporter	Lewiston, ME	Diamond Phoenix	(207) 784-1381
Hazardous Waste Transporter	Houlton, ME	Houlton Water Co.	(207) 532-2259
Hazardous Waste Transporter	Bangor, ME	Maine Department of Transportation	(207) 941-4500
Hazardous Waste Transporter	Leeds, ME	Safety-Kleen Corp.	(207) 933-4496
Hazardous Waste Transporter	Newington, NH	United Oil Recovery	(603) 431-2420
Security	St. Johnsbury, VT	Caledonia County Sheriff	(802) 748-6666
Security	St. Johnsbury, VT	Vermont State Police	(802) 748-3111
Security	South Portland, ME	South Portland Police	(207) 799-5511
Security	Gray, ME	Maine State Police	(207) 482-0730
Security	Portland, ME	Publicover Security	(207) 773-3736
Security	Portland, ME	Cumberland County Sheriff	(207) 892-2674
Security	South Paris, ME	Oxford County Sheriff	911
Security	Berlin, NH	Coos County Sheriff	(603) 788-5598
Security	Twin Mountain, NH	New Hampshire State Police	(603) 846-3333
Security	St. Johnsbury, VT	Caledonia County Sheriff	(802) 748-6666
Security	Derby, VT	Vermont State Police	(802) 766-2211

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
SERVICE	**LOCATION**	**COMPANY**	**OFFICE/ ALTERNATE**
Spill Response Contractors	Bowe, NH	North Country Environmental Services	(603) 225-0579
Spill Response Contractors	Peaks Island, ME	Lionel Plante Associates	(207) 766-2508
Spill Response Contractors	South Portland, ME	Clean Harbors	(207) 799-8111 or (800) 526-9191
Spill Response Contractors	Gorham, ME	Boom Tech	(207)887-7111
Spill Response Contractors	Lancaster, NH	Beattie	(603) 788-4035
Spill Response Contractors	Calverton, NY	National Response Corporation	(800) 899-4672 (24 hr)
Spill Response Contractors	Gorham, ME	Royal Flush	(207) 892-0884
Spill Response Contractors	Gilmanton, NH	Lakes Region Environmental	(603) 267-7000
Spill Response Contractors	Westbrook, ME	North American Environmental Service	(207) 854-9360 (800) 287-0770*
Spill Response Contractors	South Burlington, VT	Environmental Products & Services	(802) 862-1212 800-977-4559*
Spill Response Contractors	Burlington, VT	ENPRO Services	800-966-1102*
Spill Response Contractors	W. Burke, VT	Wagner's Construction	802-467-3372 802-535-4230 (Cellular)
Storage and Disposal	Auburn, ME	Mid-Maine Waste Action	(207) 783-8805
Storage and Disposal	Hampden, ME	Pine Tree Land Fill	(207) 862-4200
Storage and Disposal	Norridgewock, ME	Waste Management of Maine	(800) 562-7779
Storage and Disposal	Elliot, ME	Aggregate Recycling Corporation (ARC)	(800) 639-7303
Storage and Disposal	Scarborough, ME	Commercial Paving Co., Inc.	(207) 883-3325
Storage and Disposal	Braintree, MA	Clean Harbors of Braintree, Inc.	(781) 849-1800 (800) OIL-TANK*
Storage and Disposal	Natick, MA	Clean Harbors of Natick, Inc.	(800) 645-8265
Storage and Disposal	Milan, IL	Eldred Corp.	(309) 787-3640
Storage and Disposal	Ramsey, NJ	Aerotech Labs	(800) 526-5330
Storage and Disposal	Long Island City, NY	Modutank, Inc.	(718) 392-1112

***24 Hour Number**

RESOURCSE US

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
SERVICE	LOCATION	COMPANY	OFFICE/ ALTERNATE
Storage and Disposal	Wooster, OH	Seaman Corp.	(330) 262-1111
Storage and Disposal	Madison, ME	Anson-Madison Sludge Landfill	(207) 696-3246
Storage and Disposal	Rumford, ME	Mead Paper Group	(207) 364-4521
Storage and Disposal	Brunswick, ME	Brunswick, Town of	(207) 725-6654 (Town) (207) 353-9781 (Landfill)
Storage and Disposal	Norridgewock, ME	CWS Waste Management	(800) 244-8290 (207) 634-2714
Storage and Disposal	Millinocket, ME	Katahdin Paper Company	(207) 723-5131 Ext. 1278
Storage and Disposal	Madawaska, ME	Fraser Paper-Sludge Landfill	(207) 728-3321
Storage and Disposal City of Augusta	Hallowell, ME Public Works	Hatch Hill Augusta City Landfill	(207) 626-2440 (207) 626-2435
Storage and Disposal	Washington, ME	Marriners, Inc.	(207) 845-2313
Storage and Disposal	Presque Isle, ME	Presque Isle Landfill	(207) 764-2541
Storage and Disposal	Fort Fairfield, ME	Tri-Community Landfill	(207) 473-7840
Storage and Disposal	Biddeford, ME	Maine Energy Recovery	(207) 282-4127
Storage and Disposal	Orrington, ME	Penobscot Energy Recovery	(207) 825-4566
Storage and Disposal	Portland, ME	Regional Waste System	(207) 773-6465
Storage and Disposal	S. Portland, ME	Clean Harbors Environmental Services	(207) 799-8111
Storage and Disposal	Kittery, ME	Portsmouth Naval Shipyard	(207) 438-1871 (207) 438-1000
Storage and Disposal	Portsmouth, NH	United Oil	(603) 431-2420
Storage and Disposal	Varies	State of Maine, DEP	(800) 482-0777
Wildlife Rescue and Rehabilitation	Woodstock, VT	Vermont Institute of Natural Science- Michael Pratt	(802) 457-2779 Ext. 125 (802) 359-5001 Ext. 212
Wildlife Rescue and Rehabilitation	Fairfield, CA	International Bird Rescue Research Center	(707) 207-0380
Wildlife Rescue and Rehabilitation	Newark, DE	Tri-State Bird Rescue	(302) 994-7578 (302) 737-9543
Wildlife Rescue and Rehabilitation	Fairfax, VT	Vermont Wildlife Rehabilitation Association Carol Winfield	(802) 879-4449

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
COMPANY	LOCATION	SERVICE	OFFICE/ ALTERNATE
The following resources have been identified as being capable of providing services and/or equipment to specific locations along the pipeline.			
SOUTH PORTLAND STATION			
Dragon Products	Frenchville, ME	Concrete Plant	(207) 543-7775
Cianbro Corp.	Pittsfield, ME	Contractors & Equipment	(207) 487-3311 or (207) 773-5852
Maietta Construction Inc.	Scarborough, ME	Contractors & Equipment	(207) 883-9546
Cote Crane Service	Auburn, ME	Contractors & Equipment	1-800-696-6282 1-207-783-0561
Portland Harbor Fuel Co. Inc.	Portland, ME	Contractors & Equipment	(207) 772-3232
Portland Tugboat LLC.	Portland, ME	Contractors & Equipment	(207) 774-2902
RAYMOND STATION			
Rogers, ML Inc.	Windham, ME	Contractors & Equipment	(207) 892-4532 (DAY) (207) 892-3681 (NIGHT) (207) 264-3266 (PAGER)
Wilson Excavation	North Waterford, ME	Contractors & Equipment	(207) 583-4632
NORTH WATERFORD STATION			
Wilson Excavating	North Waterford, ME	Contractors & Equipment	(207) 583-4632 (800) 312-4634 PGR
Pike Industries	North Waterford, ME	Contractors & Equipment	(207) 583-4721
Town of Bethel	Bethel, ME	Contractors & Equipment	(207) 824-2669
Richard Douglas	Bethel, ME	Contractors & Equipment	(207) 824-2795
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
Dennis Wilson	Bethel, ME	Contractors & Equipment	(207) 824-4656

RESOURCES US

FIGURE 2.14 (Cont'd)

EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
US ADDITIONAL RESPONSE RESOURCE			
COMPANY	LOCATION	SERVICE	OFFICE/ ALTERNATE
SHELBURNE STATION			
Gorham Sand & Gravel	Gorham, NH	Contractors & Equipment	(603) 466-2291
Town of Gorham	Gorham, NH	Contractors & Equipment	(603) 466-3302
K. W. Corrigan	Randolph, NH	Contractors & Equipment	(603) 466-2406
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
Taillon Crane Service	Gorham-Bethel, NH	Contractors & Equipment	(603) 466-5078
LANCASTER STATION			
K. W. Corrigan	Randolph, NH	Contractors & Equipment	(603) 466-2406
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
SUTTON STATION			
Beattie Enterprises	Lancaster, NH	Contractors & Equipment	(603) 788-4035
Wagner Inc.	Sutton Vt.	Contractors & Equipment	(802)-467-3372

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
PORTLAND / SOUTH PORTLAND			
Maine Motel	606 Main Street South Portland, ME	Rooms	(207) 774-8284
Budget Inn of Portland	634 Main Street South Portland, ME	Rooms	207) 773-5722
Anchor Motel	715 Main Street South Portland, ME	Rooms	(207) 775-9011
Travelodge Portland	1200 Brighton Ave Portland, ME	Rooms	(207) 774-6101
Holiday Inn Express Hotel & Suites South Portland	303 Sable Oaks Drive South Portland, ME	Rooms, meeting facilities	1 866 270 5110
Portland Marriott	200 Sable Oaks Drive South Portland, ME	Rooms, meeting facilities	(207) 871-7950
Doubletree by Hilton	363 Maine Mall Road South Portland, ME	Rooms, meeting facilities	(207)775-6161
Embassy Suites Hotels	1050 Westbrook Street Portland, ME	Rooms, meeting facilities	(207) 775-2200
Clarion Hotel Airport	1230 Congress Street Portland, ME	Rooms, meeting facilities	(207) 774-5611
Doubletree Hotel Portland, Maine	1230 Congress Street Portland, ME	Rooms, meeting facilities	(207) 774-5611
Holiday Inn Portland-By The Bay	88 Spring Street Portland, ME	Rooms, meeting facilities	(207) 775-2311
Portland Harbor Hotel	468 Fore Street Portland, ME	Rooms, meeting facilities	(207) 775-9090
Holiday Inn Portland-West	81 Riverside Street Portland, ME	Rooms, meeting facilities	1 866 270 5110
Motel 6	1 Riverside Street Portland, ME	Rooms	(207) 775-0111
Howard Johnson Plaza Hotel	155 Riverside Portland, ME	Rooms, meeting facilities	(207) 774-5861

RESOURCES US

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
RAYMOND STATION (See Also Portland Hotels)			
Maplewood Inn & Motel	Raymond, ME	Rooms	207) 655-4639
White Pines Inn at Sebago Lake	1262 Roosevelt Trail Raymond, ME	Rooms	207) 655-3345
Windham Way Motel	1111 Roosevelt Trail Windham, ME	Rooms	(207) 892-4762
Alyssa's Motel	11 Roosevelt Trail Casco, ME	Rooms	(207) 655-2223
Maplewood Inn & Motel	Casco, ME 04015	Rooms	207) 655-4639
Migis Lodge	30 Migis Lodge Road South Casco, ME	Rooms	(207) 655-4524
Northeastern Motel	322 Roosevelt Trail Windham, ME	Rooms	(207) 892-4834
NORTH WATERFORD STATION			
Waterford Inn	258 Chadbourne Road Waterford, ME	Rooms	207) 583-4037
Pleasant River Motel	RR 2 West Bethel, ME	Rooms	(207) 836-3575
Lake House	Rtes. 35 & 37 Waterford, ME	Rooms	(207) 583-4182
Bethel Spa Motel	88 Main Street Bethel, ME	Rooms	(207) 824-3341
River View Resort	357 Mayville Road Bethel, ME	Rooms	(207) 824-2808
Norseman Inn	Bethel. ME	Rooms	(207) 824-0640
Snowcap Inn	9 Snowcap Lane Bethel, ME	Rooms	(207) 824-7669
Sudbury Inn	151 Main Street Bethel, ME	Rooms	(207) 824-2174
Chapman Inn	1 Mill Hill Road Bethel, ME	Rooms	(207) 824-2657
Rostay Inn	186 Mayville Road Bethel, ME	Rooms	(207) 824-3111

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
SHELBURNE STATION			
Town & Country Motor Inn	Route 2 Gorham, NH	Rooms, meeting facilities	(603) 466-3315
Gateway	Route 2 Gorham, NH	Rooms, meeting facilities	603) 466-5069
MT Madison Motel	365 Main Street Gorham, NH	Rooms	(603) 466-3622
Traveler Motel	25 Pleasant Street Berlin, NH	Rooms	(603) 752-2500
Moose Brook Motel	65 Lancaster Road Gorham, NH	Rooms	(603) 466-5400
Royalty Inn	130 Main Street Gorham, NH	Rooms	(603) 466-3312
Colonial Comfort Inn	370 Main Street Gorham, NH	Rooms	(603) 466-2732
Gorham Motor Inn	324 Main Street Gorham, NH	Rooms	(603) 466-3381
Hiker's Paradise	370 Main Street Gorham, NH	Rooms	(603) 466-2732
LANCASTER STATION			
Elms Hotel	30 Elm Street Lancaster, NH	Rooms	(603) 788-4983
Cabot Motor Inn	Rt 2 Lancaster, NH	Rooms, meeting facilities	(603) 788-3346
Pine Tree Motel	1034 Lancaster Road Lancaster, NH	Rooms	(603) 636-2479
Coos Motor Inn	209 Main Street Lancaster, NH	Rooms	(603) 788-5130
Lancaster Motor Inn	112 Main Street Lancaster, NH	Rooms	(603) 788-4921

RESOURCES US

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING			
US ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
SUTTON STATION			
Lynburke Motel Inc	791 Main Street Lyndonville, VT	Rooms	(802) 626-3346
Changing Seasons Motor Lodge	Route 5 Lyndonville, VT	Rooms	(802) 626-5832
Holiday Motel	222 Hastings Hill Saint Johnsbury, VT	Rooms	(802) 748-8192
Yankee Traveler Motel	342 Portland Street Saint Johnsbury, VT	Rooms	(802) 748-3156
Colonnade Inn	28 Back Center Road Lyndonville, VT	Rooms	(802) 626-9316
Lakeview Cabins	West Burke Road Barton, VT	Rooms	(802) 525-4463
Lyndon Motor Lodge	6148 Memorial Drive Lyndon, VT	Rooms	(802) 626-3548
Canterbury Inn	46 Cherry Street Saint Johnsbury, VT	Rooms	(802) 748-5556

FIGURE 2.14 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

AIRPORTS & LANDING STRIPS			
US ADDITIONAL RESPONSE RESOURCE			
Airport	**ADDRESS**	**RESOURCES**	**CONTACT INFORMATION**
MAINE			
Portland International Jetport	1003 Westbrook Portland, ME	Aircraft Support Equipment & Services	(207) 828-1300
Biddeford Airport	88 Landry Street Biddeford, ME	Airport	(207) 282-1893
Auburn-Lewiston Airport	80 Airport Drive Auburn, ME	Airport	(207) 786-0631
Limington Airport Authority	Route 111 Limington, ME	Aircraft Modification & Overhaul, Airports	(207) 637-2121
Twitchell's Airport & Seaplane	40 Airport Road Turner, ME	Airport	(207) 225-3490
Millinocket Municipal Airport	152 Medway Road Millinocket, ME	Airport	(207) 723-6649
Bangor International Airport	207 Godfrey Boulevard Bangor, ME	Airport	(207) 992-4600
Eastern Slope Airport Authority	Layman Drive Fryeburg, ME	Airport	(207) 935-3657
Swans Field Airport	Rr 2 Box 2480 Dixfield, ME	Airport	(207) 562-7706
NEW HAMPSHIRE			
MT Washington Regional Airport	60 Airport Road Whitefield, NH	Airport	(603) 837-9532
Berlin Municipal Airport	Berlin, NH	Airport	(603)-449-2768
Manchester-Boston Airport	One Airport Road, Manchester, NH	Airport	(603) 624-6539
Nashua Airport Authority	93 Perimeter Road Nashua, NH	Airport	(603) 882-0661
Pease INTL Airport-Portsmouth	36 Airline Avenue Portsmouth, NH	Airport	(603) 433-6536
VERMONT			
Caledonia County State Airport	2107 Pudding Hill Road Lyndonville, VT	Airport	(802) 626-3353
Lakeview Aviation Newport State Airport	2628 Airport Rd Newport, VT	Airport	(802) 334-5001
Burlington International Airport	1200 Airport Drive S. Burlington, VT	Airport	(802)-863-2874

FIGURE 2.15
EXTERNAL NOTIFICATION REFERENCE

RESOURCES CANADA

CONTRACTORS / SERVICES			
CANADA ADDITIONAL RESPONSE RESOURCES			
Service	**Location**	**Company / Contact**	**Telephone Number**
Aerial Patrol		Helicraft (Passport Québec Hélico) Cargair	450-464-5290 450-656-4483
Cranes		Armand Guay / Richard Ross	514-354-4420
Storage and Disposal	Anjou	Veolia Canada	514-645-1621 800-465-0911
	St-Amable	RSR Environment	450-922-2200
	Chambly	Veolia Canada	450-447-5252
	Tracy	Veolia Canada	450-746-0006
	Saint-Augustin-de-Desmaures Beloeil	Safety-Kleen Canada Ltd	418-878-4570
	Brossard Ville Sainte-Catherine	Safety-Kleen (Quebec) Ltd Clean Harbors Qc.	800-669-5740 450-632-6640
Laboratories		Laboratoire d'environnement S.M. inc.	514 332-6001
	Lachine	Maxxam Analytique Inc.,	877-706-7678
The following resources have been identified as being capable of providing services and/or equipment to specific locations along the pipeline.			
Highwater Station Area			
Construction	(Cowansville)	Excavation St-Pierre & Tremblay	450-266-2100 450-531-7380
		Julien Pouliot Excavation	450-292-3225 450-292-3010 819-573-2205 (Cellular)
	(Lac Brome)	Roger Choinière Excavation	450-242-3959
		SIMDEV	514-409-1804 (Cellular) 514-863-0073 (Cellular) 514-968-8599 (Cellular)
Security		Pro-Sec Security	514-313-6131 514-718-8254 (Cellular)
Saint-Césaire Station Area			
Construction	Farnham	Excavation C.M.R	450-293-5510
	Farnham	Laroche Excavation	450-293-6598
Richelieu River Area			
Electricity Provider	Saint-Hyacinthe	Hydro-Quebec	450-771-3002/3003

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

CONTRACTORS / SERVICES			
CANADA ADDITIONAL RESPONSE RESOURCES			
Service	**Location**	**Company / Contact**	**Telephone Number**
Montreal Area			
Construction		Soudure Lessard	514-645-9446
		Black & McDonald	514-753-6671
		SIMDEV	514-409-1804 (Cellular) 514-863-0073 (Cellular) 514-968-8599 (Cellular)
Clean-up Contractors	Montreal-East	Veolia	514-645-4242
	Pointe-aux-Trembles	Veolia	514-645-1621 800-361-8920
	St-Amable	RSR Environnement	450-922-2200
		Amnor	514-494-4242
	Montreal	Environnement Rive-Nord	450-430-8666 514-975-4478 866-430-8666
Electricity Provider	Metropolitan Area Montreal Area – Power Failure and Emergencies	Hydro-Québec	800-790-2424 514-387-6201
Equipment Rental		A-1 Rent-A-Tool	514-737-7666 (24 hour)
		Dickie Moore Rentals	514-333-1212 (24 hour)
		Simplex	514-331-7777 (24 hour)
Boating Equipment (Tugs, boat rental, etc.)		Ocean Towing Ltd	514-849-2221 514-849-5511 (24 hour)
		Montreal Boatman Ltd.	514-640-4970 (24 hour)
		Urgence Marine	514-640-3138 (24 hour)
Security and Fire Protection / Detection System		Signal	514-488-0790 (24 hour)
Security	Montreal	Pro-Sec Security	514-313-6131 514-718-8254 (Cellular)

RESOURCES CANADA

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

MONTREAL MUTUAL AID INFORMATION						
Company	**Responsible**	**Tel. 24 hour**	**Office**	**Home**	**Pager/Cell.**	**Fax**
Suncor Energy, Inc. 11701 Sherbrooke East St. Montreal H1B 1C3	Carmel Alain	514-640-8320	514-640-8178		514-410-6961(pager) 514-229-7882(cell)	514-640-8304
Shell Canada 10501 Sherbrooke St. Montreal-East H1B 1B3		514-645-1661	514-640-9809		514-988-0425(pager)	514-640-8610
Ultramar Marine Terminal 7000 Marien Montreal-East H1B 4W3	Sonia Leonard	640-2339/2340	514-640-2350			514-645-5779
Montreal-East Fire Department 11371 Notre-Dame St. Montreal-East H1B 2W7	Firehouse #8 Alain Rouleau	911 514-280-7800	514-645-7431			
Ashland 10515 Notre-Dame St. Montreal-East H1B 2V1	Kahner Bill	514-726-1282	514-650-3862	(b) (6) [redacted]	514-726-1282 (cell)	514-650-3819
A.I.E.M. 12500, Industriel P.A.T. H1B 5P5	Dimitri Tsingakis		514-645-2258-22		514-212-6323 (cell)	514-645-0143
CUM Police Station 49 1498 Saint-Jean-Baptiste St. Pointes-aux-Trembles H1B 4A4	Commander Fournel	514-280-0149	280-0449			514-280-0649

RESOURCES CANADA

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

MONTREAL MUTUAL AID INFORMATION (Cont'd)						
Company	**Responsible**	**Tel. 24 hour**	**Office**	**Home**	**Pager/Cell.**	**Fax**
Petrochimie 3500 Broadway St. Montreal-East H1B 5B4	Jean-Paul Glinel	514-640-2444 514-640-2201	450-640-2208	(b) (6) [redacted]	514-704-2208	514-640-2585
ChemTrade Montreal 11450 Cherrier St. Montreal-East H1B 1A6	Thibeault Guy	514-645-1636 ext.224	514-645-1636 ext.244	[redacted]	514-936-9629 (cell)	514-645-6070
MDDEP Emergency	Dézainde Patrick coordinator	1-866-694-5454	514-873-3636 ext 284 Substitute Fagnan Sylvain ext 283			514-864-4120

RESOURCES CANADA

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING/ MEETING ROOMS			
CANADA ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
Missisquoi River Area - Quebec			
Des Appalaches	234 Maple St., Sutton, QC	14 rooms, meeting facality	450-538-5799
Horizon Hotel-Motel	297 Maple St., Sutton, QC	44 rooms	450-538-3212
La Paimpolaise Inn	615 Maple St., Sutton, QC	28 rooms	514-538-3213 800-263-3213
Les Rochers Bleus	550 Route 139, Sutton	22 rooms	450-538-2324
Le St-Amour Inn	1 Pleasant St. (corner Maple St.), Sutton, QC	8 rooms	450-538-6188
Owl's Head Inn	40 Mont Owl's Head Rd., Mansonville, QC	20 rooms	450-292-3342 800-363-3342
Owl's Head Hotel and Apartments	115 Panorama Rd., Mansonville, Qc	42 rooms	450-292-3318 800-363-3342
Station de Montagne au Diable Vert	168 Staines Rd., Sutton, QC	Dormitory & rooms for 15 persons	450-538-5639 888-779-9090
Missisquoi River Area – United States			
Black Flys Lodge	Montgomery, Vermont	18 rooms	802-326-4572 888-326-4572
Black Lantern Inn	Montgomery, Vermont	10 rooms	802-326-4507 800-255-8661
Dairy Centre Ent	Enosburg Falls, Vermont	15 rooms	802-933-2030
Jay Peak Resort	Route 242, Jay, Vermont	138 rooms	802-988-2611
Riverview Victoria Country Inn	Richford, Vermont	6 rooms	802-848-7054 800-715-2260
The Crossing Motel	14 Province St., Richford, Vermont	14 rooms	802-848-3393
The Inn On Trout River	Montgomery, Vermont	Rooms	802-326-4391

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING/ MEETING ROOMS			
CANADA ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
Richelieu River Area			
Comfort Inn Motel	96 de Mortagne Blvd., Boucherville	100 rooms, meeting facility	450-641-2880 800-267-3837
Auberge De la Rive Inn	165 Sainte-Anne Rd., Sorel	98 rooms, meeting facility	450-742-5691 800-369-0059
Governor Hotel – Charron Island	2405 Charron Island Rd., Longueuil	125 rooms, meeting facility	450-651-6510 888-910-1111
Handfield Inn and Motels	555 Richelieu Rd., Saint-Marc-sur-Richelieu	53 rooms, meeting facality	450-584-2226 450-990-0468
Hostellerie les Trois Tilleuls	290 Richelieu Rd., Saint-Marc-sur-Richelieu	41 rooms, meeting facality	450-856-7787 800-263-2230
Hostellerie Rive-Gauche	1810 Richelieu Rd., Beloeil	24 rooms, meeting facility	450-467-4477 888-608-6565
Le Transit Hotel-Motel	30 Brunet Rd., Mont-Saint-Hilaire	45 rooms, meeting facality	450-467-2222 800-467-2880
Mathieu Lusignan Sports Centre Loisirs	61 Benoit Square, Saint-Charles-sur-Richelieu	Meeting rooms	450-584-3484
Rouville-Campbell Manor	125 des Patriotes Rd., Mont-Saint-Hilaire	26 rooms. meeting facality	450-446-6060 800-714-1214

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

HOTELS / LODGING/ MEETING ROOMS			
CANADA ADDITIONAL RESPONSE RESOURCE			
HOTEL/FACILITY	ADDRESS	RESOURCES	CONTACT INFORMATION
Montreal Region			
Best Western Hotel National	7746 Taschereau Blvd., Brossard	114 rooms, meeting facility	450-466-6756 800-465-0041
Best Western Ville-Marie Hotel	3407 Peel St., Montreal	170 rooms, meeting facility	514-288-4141 800-361-7791
Governor Island Charron Hotel	2405 Île Charron, Longueuil	125 rooms, meeting facility	450-651-6510 888-910-1111
Holiday Inn Montreal Longueuil	900 St Charles E, Longueuil	142 rooms, meeting facility	450-646-8100 800-263-0159
Le Chablis Cadillac Motel	5800 Sherbrooke East St.	55 rooms, meeting facility	514-259-4691 800-369-4401
Le Prestige Sherbrooke Hotel	12555 Sherbrooke East St.	72 rooms, meeting facility	514-640-5500 877-918-5500
Quality Inn Hotel	8100 Neuville Av., Anjou	157 rooms, meeting facility	514-493-6363
Quality Inn Hotel & Suites	6680 Taschereau Blvd., Brossard	101 rooms, meeting facility	450-671-7213
Universel Inn	5000 Sherbrooke East St.	230 rooms, meeting facility	514-253-3365 800-567-0223
Auberge Royal Versailles	7200 Sherbrooke East St	132 rooms, meeting facility	514-256-1613 888-832-1416
WelcomInns Hotel	1195 Ampère St., Boucherville	116 rooms, meeting facility	450-449-1011 800-779-2659

FIGURE 2.15 (Cont'd)
EXTERNAL NOTIFICATION REFERENCE

AIRPORTS and LANDING STRIPS	
CANADA ADDITIONAL RESPONSE RESOURCE	
Name of Airport or Landing Strip	**Telephone Number**
Bromont Aerodrome, Bromont	450-531-6736 (emergency) 450 534-2324
Dorval International Airport Airport Security Emergency Airport General Information Line	 514-420-5000 514-394-7377
Granby Heliport, Granby	
Heliports Montreal-Saint-Hubert (Helicraft) Montreal-Charron Island Montreal-Longueuil	 450-468-3431 450-651-6510 450-651-4223
Highwater Landing Strip	Day: Evening:
Saint-Hubert Airport 5700 de l'aéroport Rd., Saint-Hubert	450-678-6030
Saint-Jean-sur-le-Richelieu Airport Chemin de l'Aéroport, Saint-Jean-sur-le-Richelieu	
Sherbrooke Airport 900 de l'Aéroport Rd., RR4, Canton Easton, Quebec	819-832-4314 819-570-2931 (Call-out number)
Sorel Airport	450-782-3188

OTHER REFERENCES	
ENVIRONMENT AND WILDLIFE RESCUE	
Committee on the Status of Endangered Wildlife in Canada (COSEWIC)	819-997-4991
Directorate of Natural Heritage and Lasting Development	613-237-1066 866-964-1066
WEATHER	
Environment Canada Weather	 514-283-3010 1 800 463-4311
Environment Canada Weather Forecasts (one-on-one) Weather of Specific Locations	 900-565-4455 900-565-4000
Road Conditions (from November 1st to the end of April)	511

RESOURCES CANADA

3.0 RESPONSE ACTIONS

This section describes the action to take for the different types of emergencies that could arise at PMPL. Topics 3.1 – 3.11 enumerate steps to be taken for Fire Emergencies, Spills, Vessel and Gas Pipeline emergencies, beginning with initial response actions and ending with final documentation. Figure 3.1 provides a consolidated checklist to be followed during any of these emergencies. Topic 3.12 outlines steps for Bomb threats, Hostage Situations, Natural Disaster, and Medical Emergencies. Figure 3.3 provides a checklist for these types of emergencies.

3.1 INITIAL RESPONSE ACTIONS – FIRE, LEAKS, SPILLS, PNGTS

The Operation Section members of the SMT (described in Section 4.0) are the first operational responders to any type of fire, spill/leak or gas line incident at the facility. These include pipeline leak/break, tank leak/break, fire, rescue, etc. Timely implementation of these initial steps is of the utmost importance because they can greatly affect the overall response operation.

It is important to note that **these actions are intended only as guidelines**. The appropriate response to a particular incident may vary depending on the nature and severity of the incident and on other factors that are not readily addressed. Note that, **without exception, personnel and public safety is first priority**.

The first trained PMPL responder on scene will function as the Incident Commander until relieved by an authorized supervisor who will assume the role. Transfer of command will take place as more senior management respond to the incident. For response operations within the control of the Spill Management Team, the role of IC will typically be assumed and retained by Company Management. The IC also serves as the Emergency Coordinator for Hazardous Waste or Hazardous Material spills; for purposes of this plan the term Incident Commander will also mean Emergency Coordinator when the incident is a hazardous waste or hazardous materials spill.

The person functioning as **Incident Commander** during the initial response period **has the authority to take the steps necessary to control the situation and must not be constrained by these general guidelines**.

INITIAL RESPONSE ACTIONS – SUMMARY
♦ Personnel and Public Safety is first priority;
♦ Eliminate sources of ignition;
♦ Isolate the source of the discharge or the origin of the spill or fire (if the incident is a spill or a fire); Minimize the oil spillage;
♦ Make internal notifications;
♦ Make external notifications;
♦ Activate the Spill Management Team as necessary;
♦ Activate response contractors and other external resources as necessary;
♦ Monitor and control the containment and clean-up efforts.

3.1 INITIAL RESPONSE ACTIONS (cont'd)

In addition to the potential emergency events outlined in this section, PMPL has identified several "abnormal operations" that could be experienced in the pipeline facilities. The pipeline has defined the events and established procedures to identify, eliminate or mitigate the threat of worst case discharge due to these events. In compliance with 49 CFR 195.402(d), these procedures are defined in the Portland Montreal Pipe Line System Operations and Maintenance Manual.

3.1.1 Response Actions in Case of a Fire or an Explosion

It is the responsibility of the first employee on-scene (Incident Commander) to call the appropriate Fire Departments. The local or municipal Fire Departments will be called for assistance for any type of fire or explosion at all PMPL facilities

The primary objectives of Portland Montreal Pipe Line in the event of a fire/ explosion are:

Minimize the fire (area of conflagration)
When a fire is reported, the flow of oil from the pipeline must be stopped in the shortest possible time. This typically requires immediately reducing the pressure in the section of the line where the fire is occurring and stop the oil leaking from the lines if such is the case.

Rescue Injured Persons
When a fire is reported, a check must be made to determine whether there are any persons injured on the premises (see Appendix D, Evacuation Procedures). If so, a rescue plan must be developed immediately by the Emergency Response Team or the Unified Command Team as the case may be. Consult Section 3.6, Rescue for more information.

Protect the surrounding community
Attention must be given to the protection of the surrounding community. Issues such as the propagation of fire to the immediate neighbours (ex. Schools in South Portland or Shell Canada and Coastal Canada in Montreal) and emission of toxic fumes must be addressed.

Evacuation of the surrounding community, if necessary, is the responsibility of the municipal authorities (Consult Appendix D).

Protect PMPL facilities
Ultimately, all attempts should be made to minimize the loss of immovable facilities, equipment and materials giving **prime importance to the protection of personnel and of the environment.**

3.1 INITIAL RESPONSE ACTIONS (cont'd)

Unattended facilities:

An important concern is the fact that the premises are unattended at certain periods of time and that the local Fire Department could be first on site. Immediate initial response actions to be taken when a fire/explosion is first reported or observed are described in the Fire / explosion check-list.

The procedure related to **explosions** is identical to the one for fires. Nonetheless, the Incident Commander must make sure that no one has been injured by flying debris, and that no damage was caused by the debris. It is the responsibility of the Supervisor to have the area patrolled by PMPL Response Personnel, at a maximum distance of 500 metres / 550 yards from the site of the explosion, to verify the extent of the damages.

Also, if the explosion has affected an area outside of the site's property, the designated spokesperson (see Figure 4.3 or as designated by the Incident Commander) must call the local municipality in order to inform the surrounding population of the event.

3.1.2 North Tank Field specific responses; Line Break / Leak or Storage tank leak,

In both cases, O_2, explosivity (LEL), H_2S and benzene measurements must be taken in order to verify that the area is secure for response actions.

If a spill arises at the North Tank Field, two (2) submersible pumps are installed in the collection basins in order to discharge drainage water into the municipal sewer network located along Broadway North. In case of a spill or leak, oil eventually reaching the collection basin would accumulate at the water surface. Oil would not be discharged into the municipal sewer because the pump intakes are located at the bottom of the collection basin. It would be possible to transfer accumulated oil around a tank into the retention basin of an adjacent tank or towards the drainage collection basin where it could then be recovered using vacuum trucks.

3.1.3 Determination of Spill Volume and Extent

NOTE: Subsequent to the initial notifications, external communication of estimated physical volumes of a spill or leak must be cleared with the President or President's Delegate.

The volume of a spill should be determined as soon as possible in order to facilitate planning and initiate response actions. This volume will be needed to evaluate equipment and personnel needs as well as requirements for storage and disposal of recovered oil or hazardous material. A rough estimate of the spill volume should be attempted from visual observation of the oil or material on the surface of the water or on land. Estimated spill volumes should be rounded off to avoid the appearance of a precise determination.

In the event of a sizeable spill, a rough estimate of the spill's total volume provides preliminary data to plan and initiate clean-up operations. Generating this estimate early in the spill response aids in determining:

- The equipment and personnel needed;
- The amount of oil or material that may reach shorelines and/or sensitive areas;
- The requirements for temporary storage and disposal of recovered materials.

3.1 INITIAL RESPONSE ACTIONS (cont'd)

A rough estimate of spill volume can be generated from observations of the oil or hazardous material slick's size and thickness. However, in water, the appearance of oil varies with the oil type and thickness as well as ambient light conditions.

For example, slick thickness greater than 0.25 mm is preferable to obtain direct measurements of slick parameters, when feasible.

Reports of oil spills, both oral and written, should conform to the following guidelines:

1. Basic Definitions:

- Sheen — The oil is visible on the water as a silvery sheen or with tints of color (rainbow colors). This is the thinnest thickness of oil.
- Dark Colors — The oil is visible with dark colors; it will still have traces of the rainbow color but is not black or dark brown.
- Black/Dark Brown — Fresh oil after the initial spreading will have a black or very dark brown color. This is the greatest thickness of non-emulsified oil.
- Mousse — This is a water-in-oil emulsion, which is often orange to rust colored. It is very thick and viscous and may contain about 30% of oil.

2. Spill Factors

The factors given in the table below will be used to estimate the volume of oil contained in the spill unless a more accurate amount is known by other means. These factors should be compared whenever possible to volumes estimated from the source of the spill, for example, piping volume, sump volume, tank capacity, or compartment size. Exact calculations of the volume of a spill are not possible by visual observation of the oil on the surface of the water or on land. For this reason, the spill volumes should be rounded off to avoid the appearance of a very accurate determination.

Appearance of Oil (This gives the thickness of oil)	**Assumed Thickness** mm	**Factor** Gallons/ Sq. Yd	**Factor** BBL/ Sq. Nautical Miles
Sheen (silvery or with colors)	0.0003	0.000066	6.3
Dark Colors	0.002	0.00044	42
Black/Dark Brown	0.1	0.022	2100
Mousse (Note: 30% Oil)	1.0	0.066	6300

3.1 INITIAL RESPONSE ACTIONS (cont'd)

3. Estimating Procedures

Estimate dimensions (length and width) of each part of the spill in yards/meters or nautical miles (2,000 yards) for each of the four appearances that may be observed in the spill. Multiply length times width to calculate area covered by sheen, by dark colors, by black/brown oil, and by mousse.

Multiply each of the areas calculated in step (a) by the appropriate factor from the Spill Factor Table. Add the individual parts together.

The answer is the estimated volume of the spill in gallons or in barrels of oil. This volume is to be reported and entered on the accident report form (consult Appendix H). Spills that are calculated to be less than one gallon should be reported as "less than one gallon", rather than the decimal amount. Round off the volume to the nearest gallon or 0.1 barrel for spills less than 7 barrels. For spills larger than 7 barrels, round off to the nearest barrel or to no more than two significant Figures (i.e., 637 barrels would be reported as 640 barrels). Generally, any volume less than one barrel should be reported in gallons.

3.1 INITIAL RESPONSE ACTIONS (cont'd)

3.1.4 Toxicity of Hydrogen Sulfide

Portland Montreal Pipe Line transports oil containing hydrogen sulfide (H_2S). Any crude oil having an odor resembling the smell of "rotten eggs" should be suspected of containing H_2S and appropriate safety precautions should be implemented. However, it should be noted that the **sense of smell is not an adequate indicator of the presence of H_2S as at high concentration and with time, the odor will no longer be perceptible.**

The following list gives some characteristics of hydrogen sulfide.

- Highly toxic, flammable, and colorless gas;
- Heavier than air, will accumulate in low areas such as man holes, ditches, or other low lying areas;
- Detectable by smell only at low concentrations, higher concentrations can deaden the sense of smell;
- Can cause respiratory paralysis, sudden collapse and death.

Figure 3.5 contains the MSDS for Hydrogen Sulfide (from the PMPL MSDS Subscribed Solutions web site).

3.1.5 Emergency Operations Center (EOC)

When a crude-oil leak is discovered, it is important to set up an EOC as quickly as possible. This center enables the involved organizations (PMPL, municipalities, provincial, state and federal agencies or others, depending on the situation) to exchange information and plan their response according to the available resources and concerns of each party. The checklist following will help to establish quickly an EOC, in terms of logistics requirements. This EOC must be set up as close as possible to the site of the operations for an easier and more efficient information exchange.

The EOC's location must also be chosen according to the extent of the oil leak. For example, if a minor leak whose damaging effects are limited to the vicinity of the pipeline, the command center should be set up as close as possible to the pipelines.

The EOC may also be set up in a hotel or a municipal center in the area, depending on the extent of the oil slick. Generally, municipalities have access to command centers already equipped with the appropriate material. PMPL could make an arrangement with a municipality in order to use its command center during an emergency.

In the case of a major leak, spreading of the operations along the river should be planned. It would therefore be best to choose the EOC location downstream from the leak.

3.1 INITIAL RESPONSE ACTIONS (cont'd)

Emergency Operation Center - Checklist

Material Required

Most Recent Copy of the Emergency Response Plan

Blank Forms

Computer (s) and Printer (s)

Telephones

Faxes (incoming and outgoing) with refill paper

Photocopiers

Tables and Chairs

Maps (road, topographical, marine, etc.)

Camera and Video camera (to record the event and the operations)

Television and VCR/DVD (to view news bulletins and other televised information)

AM/FM Radio and Audio Recorders

Office Supplies

Log Books for each Responders

Other: _____

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3.2 STABILIZATION OF EMERGENCY SITE

Once the emergency phase of the response has been initiated and the response operations stabilized, the continuing response operations will be prioritized in such a way as to minimize the release volume and the extent of the impacted area while maintaining adequate responder and public safety. Repairs to the pipeline system that primarily serve to isolate the release source and prevent release of additional product shall take precedence over repairs which primarily serve to restore pipeline service. The practice is not intended to restrict repair activities which can accomplish both goals simultaneously. See Section 6.0 for additional discussion of the company's protection priorities.

3.2.1 Secure the Site

- The Operations Section Chief should place suitable warnings where the nature of the hazard and the likelihood of public access to the area warrant.
    - NO SMOKING, DANGER and/or CAUTION placards or signs should be posted about such defined areas.
    - Use of flash cameras in these areas should be forbidden.
- Surface terrain, direction and velocity of prevailing winds, and proximity to possible sources of ignition, such as found on highways, railroads, or in residences, should be considered by the Operations Section Chief. Roadblocks should be set up immediately if considered necessary in his judgment.
    - A "wind sock" or flag may be erected to assist in detecting changes in air currents.
- If working where the public normally has access, such as near streets, highways, etc:
    - Employees or barricades should be placed as necessary to prevent the public from entering the defined area.
    - Assistance from law enforcement agencies should be requested if necessary by the Incident Commander ("IC") or any other PMPL personnel designated by the IC.
    - Spectators should not be permitted within the work area at any time.

3.2.2 Initial Entry into Potentially Hazardous Areas

Consult the Emergency Response Site Safety and Health Plan (Appendix K) as needed.

- Using Level B Personal Protective Equipment and the Buddy System, have properly trained employees or contractors conduct an air monitoring survey of potentially hazardous areas for:

3.2 STABILIZATION OF EMERGENCY SITE (Cont'd)

3.2.2 Initial Entry into Potentially Hazardous Areas (cont'd)

- Oxygen levels. No personnel shall enter a confined space with Oxygen levels below 19.5% or above 23.0% unless a confined space entry permit has been issued.
- Explosive vapors. NO PERSONNEL SHALL ENTER ANY AREA WITH EXPLOSIVE VAPORS OVER 10% LEL. No personnel shall enter a confined space area with explosive vapors over 10% LEL unless the activity has been approved by the On-Scene Commander.
- Verify concentration of H_2S using the proper instrumentation;
  - If concentration exceeds 5 ppm, SCBA must be used;
  - Be aware of the wind direction when handling crudes containing even low concentrations of H_2S and remain upwind while avoiding low lying areas;
  - Good ventilation is the best safety precaution;
- Benzene and total hydrocarbon levels (Note: in areas where oxygen levels are within acceptable levels, this portion of the initial entry survey may be conducted using Level C Personal Protective Equipment).

- Establish "Warm" Zone(s) by marking the outer perimeter (include all areas above 10% LEL) with yellow safety ribbon, signs or barricades whenever practical.
- Establish "Hot" Zone(s) if needed within the Warm Zone based upon the results of the initial air monitoring survey. Isolate Hot Zones to the extent possible with red safety ribbon, signs or barricades
- Install portable windsocks or streamers to assist in monitoring for possible changes in wind direction.
- Establish "Cold" Zone(s) for site security. Control access with blue safety ribbon, signs or barricades if useful.
- Assign Safety Coordinator overall responsibility for controlling Warm and Hot Zone access. Request assistance as needed from local responders for controlling Cold Zone access. All responders except essential trained personnel should remain outside Hot and Warm Zones.

3.2 STABILIZATION OF EMERGENCY SITE (Cont'd)

3.2.2 Initial Entry into Potentially Hazardous Areas (con't)

- Should a person be overcome by petroleum vapours do not enter the area until testing and the use of SCBA assures your own safety (see 3.6 – Rescue) A victim who has passed out and stopped breathing should be removed as quickly as possible to a gas-free area and artificial respiration should begin immediately. Start CPR as soon as possible, do not waste time by trying to get help if you are alone and are trained to administer CPR, AR. Of course, if a second person is available, they should be sent to quickly summon help.
- Establish Forward Command Center upwind and upgrade of Warm Zone(s).
- Establish communications with Operations Section Chief.
- If evacuation has occurred, the Logistics Coordinator makes arrangements for transportation and accommodations of evacuees as needed.
- Trucks, hand tools, and power equipment should not be moved into the area of leak until the foregoing precautions have been taken.

3.2.3 Containment and Recovery of Spilled Product

- See Section 6.7 for detailed containment procedures.

3.3 ISOLATION OF RELEASE SOURCE POINT

Consult the following sections and appendices:

Section 3.1 Response Actions in Case of a Spill
Section 6, Spill Impact Considerations

3.3.1 Excavation

- Contact "one call" center.
- Continuously monitor air at appropriate intervals to ensure safety of personnel working in the immediate vicinity of the excavation site. Refer to Vapor Control Procedure below as needed for further precautionary activities (Section 3.7).
- Assign personnel to fire extinguishers upwind and around the sides of the active work area.
- Excavate with caution to prevent possible damage to unknown and unidentified underground facilities.

3.3 ISOLATION OF RELEASE SOURCE POINT (cont'd)

- Place excavated spoils that may contain hydrocarbon liquids or vapors downwind and handle in a manner that prohibits migration of vapors back into the work area if possible.
- Place spoils on plastic sheeting to prevent additional migration of hydrocarbons into the ground. Also, cover spoil with plastic sheeting to prevent rainfall from washing released product away.
- Slope or shore trench in accordance with current company standards.
- If repair work must be performed within a confined space, all work must be performed in accordance with Corporate Procedures.
- Whenever safely possible, make temporary repairs (without welding or torch cutting) to stop the release of product. Permanent repairs requiring welding and cutting shall be delayed until containment (free product cleanup and vapor dissipation) has been completed in the immediate surrounding area.
- Use mechanical pipe cutters. Use bonding cables. Refer to Vapor Control Procedure for further precautionary activities (Section 3.7).
- Remove free product and saturated soil from the source point excavation and adjacent areas prior to welding. Spread 6 to 12 inches of uncontaminated soil on bottom of excavation. Do not weld if atmosphere exceeds 10% LEL.

3.4 POST-STABILIZATION ACTIVITIES

3.4.1 Demobilization of Response Team

Once the Response Team has gained control of the incident, there is typically a strong incentive to remove personnel from the response organization as quickly as possible in order to return them to their regular duties. This action can have the unintended consequence of undermining the Response Team's ability to bring the incident to its most rapid and successful conclusion if not conducted in a coordinated fashion. As activities wind down in some functions of the response organization, the response can often be further supported by reassigning personnel to other functions within the ICS organization until the entire response is adequately completed. <u>It is the responsibility of the Incident Commander to assure that Response Team demobilization occurs at a pace which best supports the successful conclusion of all aspects of the response</u>. This is best achieved by gaining a consensus of the Section Chiefs prior to the release of personnel from their response duties.

3.4 POST-STABILIZATION ACTIVITIES (cont'd)

3.4.2 Clean-up Activities

- Emergency response personnel will complete the recovery of free product and dispose of contaminated soil and absorbent materials in an environmentally acceptable and safe manner (consult with the Environmental Specialist Unit Leader).

- Environmental Specialist will ensure that proper decontamination procedures are adhered to during release recovery as needed by site personnel.

3.4.3 Restoration of Pipeline Service

- Obtain approval of completed repair from Operations Section Chief and the Director of Operations responsible for area in which incident occurred regarding restart of the pipeline/ facility.

- Advise management of completed repairs and need to prepare for start up.

- Refer to Operations and Maintenance Procedures Manual for required management approvals prior to start-up. Obtain needed approvals.

- Follow LO/TO procedures to unlock and open and operationally lock line block valves.

- Start up at reduced rate.

- Vent air from the pipeline, if necessary, into a tank truck.

- Check all repairs during pipeline start up to ensure they are satisfactory.

- Turn on rectifiers.

- Complete onsite leak documentation and required inspection reports prior to backfilling excavations.

- Backfill excavations with uncontaminated soil.

3.5 SITE DISCONTINUATION

- Notify all appropriate parties of intention to discontinue emergency response activities.

- Continue long-term clean-up and site remediation efforts if necessary as part of normal maintenance activities.

3.5 SITE DISCONTINUATION (cont'd)

- Consult the following appendices:
  - Appendix E, Follow up Investigation
  - Appendix F, Disposal Plan

3.6 RESCUE

3.6.1 Local responders

If a pipeline emergency occurs involving injuries, it is possible that rescues may become necessary. Time permitting, it is always preferable to have local responders (fire department, EMS, etc.) perform rescue work. These personnel will almost always be the best option in terms of adequate training and proper equipment to perform rescue work. Time permitted this option should always be exercised. The appropriate local responders should always be summoned to incidents involving injuries, as well as notified of incidents in progress where the threat to public safety is unusually high.

3.6.2 General

Decisions concerning rescue require careful judgment on the part of the potential rescuer. Do not attempt a rescue unless you are properly trained. There is no benefit gained from a rescue attempt that results in additional injuries to the rescued or to the rescuers. There can be several reasons not to attempt a rescue:

- Explosive atmosphere levels exceeding 10%.
- Confined space/unknown airborne hazards
- Proper personal protective equipment unavailable for site hazards.
- Not enough time to complete the rescue without endangering your own and/or other lives
- Inadequate number of trained personnel available
- Lack of familiarity with the safety requirements to effect rescue at a hazardous site.

Ultimately, rescue decisions must be based on individual judgment, and this judgment should never unduly endanger additional lives. Before any rescue attempt is made, the conditions which caused a rescue to become necessary must be identified and corrected or controlled. Rescues should not be attempted unless the situation has been carefully evaluated and potential rescuer feels quite certain the rescue can be safely attempted.

3.6 RESCUE (cont'd)

3.6.3 Further Considerations

If a rescue becomes necessary, potential rescuers must always remember to be prepared in case the situation deteriorates. If time or the number of victims prevent potential rescuers from moving them to an area of complete safety, it may be wise to at least move them to a less hazardous area. Those victims who are easiest to rescue should be removed first, even if there are other victims who are injured more severely or who are exposed to a greater threat. This is a general rule observed by fire departments and other response agencies. The safety and well being of rescue personnel is the highest concern.

3.7 VAPOR CONTROL PROCEDURES

Caution must be utilized at all times to minimize the possibility of unnecessary creation or accidental ignition of vapors during emergencies as well as during routine maintenance of facilities. During routine maintenance activities involving potential fuel sources (liquids and vapors) and/or heat sources (flame and sparks), engineering controls and other safety devices can in most cases be utilized to minimize the likelihood of accidental ignition or exposure.

It is always good practice to pre-select an evacuation route for each work location where the potential exists for petroleum products or vapors to collect and/or be accidentally ignited. This includes discussing evacuation plans with all personnel planning to enter the area and a procedure for accounting for all personnel after evacuation occurs.

3.7.1 Spill Avoidance

An important first step in reducing the possibility of accidental ignition is in avoidance of spills (uncontrolled releases of petroleum products). This includes additional or unnecessary spills at a pipeline emergency site. Good practices that will help avoid spills include:

All Activities

- Follow lockout/tagout and other appropriate procedures for isolating work area from the system prior to commencing work.
- Place adequately sized containers under pipe openings to catch product that may seep or drip from openings in spite of the prior precautions.
- Care must be taken to avoid spilling products. Do not handle products in leaking containers or use damaged hoses or fittings.

3.7 VAPOR CONTROL PROCEDURES (cont'd)

3.7.1 Spill Avoidance (cont'd)

- Tank filling, product transfer, and other operations which involve exposure of product to air shall be carried out away from all possible ignition sources.
- Tank dike drain valves must be kept closed except when water is actually being drained from the dike area.
- If products are spilled, care must be taken to avoid physical contact with the spilled material. Employees must use their own judgment to determine the appropriate response to a spill, with this judgment always erring on the side of prudence and safety.
- Based on the size and volatility of a spill (and potential for explosive vapors to arise), employees must determine whether evacuation is necessary and/or whether the assistance of the Spill Management Team or local responders (fire & police) are needed. Spilled products must be contained in the immediate area and prevented from entering storm drains and other underground intakes to the extent that safety considerations will allow.

Maintenance and Emergency Response

- Estimate volumes conservatively when planning maintenance involving "drain-up" of petroleum products. An adequate number of tank trucks or other suitable containers should be arranged for <u>in advance</u> to collect all quantities of product anticipated to be removed from the system during maintenance.
- Always drain, displace or pump as much product from the line or appurtenance as possible <u>before</u> unbolting, cutting, or removing a section of pipe or equipment.
- After removal of product, close all valves that will prevent refilling of the drained section. Seal off any line where seepage occurs using spheres, plugs, or other approved sealing methods or devices. Proper lockout/tagout practices should be followed to protect against the accidental opening of valves or start up of units.

3.7.2 Vapor Avoidance

A second important step in minimizing the possibility of accidental ignition is the prevention or minimization of explosive vapors. Good practices that will reduce or eliminate these vapors include:

All Activities

- Action shall be taken whenever possible to prevent products from being released into the atmosphere in the form of a spray or mist.
- Product-soaked materials such as rags or clothing shall be stored well away from possible ignition sources.

3.7 VAPOR CONTROL PROCEDURES (Cont'd)

Maintenance and Emergency Response

- All work shall commence only after providing an adequate means of ventilation to disperse any vapors concentrated at levels above 10% LEL or remove them from areas with potential ignition sources. Never use an ordinary electric fan for ventilation purposes. Care shall be taken to minimize spark-producing activities (discussed later) in areas with vapor levels above 10% LEL. Petroleum products are heavier than air and will settle in any depression such as a trench or ditch and can migrate for long distances to areas of lower elevation.

- Material excavated from a release area should be stockpiled downwind of the work area and ventilated as necessary.

- Petroleum products shall not be used for cleaning purposes (clothes, floors, paint brushes) nor for killing grass, weeds or insects.

- Product samples shall be stored in sample storage buildings.

3.7.3 Vapor Detection

Under certain atmospheric conditions, a release of petroleum products will form a visible "vapor cloud" of misted product. All employees shall be made aware of the dangers of a vapor cloud situation. The only proper action in the presence of a vapor cloud is to get away from it and monitor the situation from a safe and prudent distance. Never enter a vapor cloud for any reason.

It is important to understand that unsafe atmospheric conditions can exist even when no visible vapor cloud is present. Thus, another vital step in minimizing the likelihood of an accidental ignition is the diligent use of explosive atmosphere detectors to detect explosive vapors seen or unseen.

PMPL occasionally transports oil containing hydrogen sulfide (H_2S). Any crude oil having an odor resembling the smell of "rotten eggs" should be suspected of containing H_2S. However, it should be noted that the **sense of smell is not an adequate indicator of the presence of H_2S** (consult Section 3.1 for additional toxicity information on H_2S)**.**

If the stream in the section of the pipeline where the leak or break occurs contains a "sour" crude, the leak or oil-soaked ground should be approached cautiously, **testing with a hydrogen sulfide tester** from the point where the odor of the oil is first detected.

3.7 VAPOR CONTROL PROCEDURES (Cont'd)

3.7.3 Vapor Detection (cont'd)

Tests should be completed for:

- Oxygen (consult Appendix K Site Safety and Health Plan).
- L.E.L.;
- H_2S;
- Benzene;
- Total hydrocarbons (< 300ppm)

An area in which the H_2S test registers over 5 ppm H_2S must be marked by best means available and all persons, unless wearing approved personal protection equipment, must be kept out of the area until it tests less then 5 ppm H_2S. The Operations Section Chief will arrange for testing.

Fixed Detectors

The Company has permanently fixed explosive atmosphere detectors in strategic locations in station, terminal, pier and tank farm manifolds. These detectors sound an alarm in the control room at the appropriate staffed remote terminal or pumping station or control center. If the vapor detector alarm or the containment basin alarm at a remote terminal or pumping station is received, the controller should evaluate shutting down the facility and notify the appropriate maintenance personnel to take the appropriate action.

The rapid investigation of the causes of fixed vapor detector alarms and isolation of an uncontrolled product release point will reduce the likelihood of accidental ignition by passing motorists, smoking passersby, residential pilot lights, etc. It is important that these activities be conducted in accordance with the appropriate vapor cloud response procedures.

Portable Vapor Detectors

Portable vapor detectors should be diligently used at all work sites where the potential exists for an uncontrolled release of petroleum products. Knowledge of the presence of explosive vapors is imperative in reducing the possibilities of accidental ignition. If an explosive atmosphere reading of 10% LEL or greater is registered on a portable vapor detector, personnel are to evacuate the affected area until the vapors subside or can be otherwise dispersed.

3.7 VAPOR CONTROL PROCEDURES (Cont'd)

3.7.4 Spark And Flame Avoidance

When working around petroleum products or the vapors they can generate, it is important to take care in avoiding the creation of sparks or open flames which may result in accidental ignition.
Good practices that will help avoid spark or flame include:

All Activities

- Proper and functional fire extinguishing equipment must be on hand when released products are encountered or products are to be handled in the open.
- Remove all potential ignition sources (operating vehicles, electrical power sources, gasoline-powered appliances, open flames, pilot lights, etc.) from a release area, provided they can be eliminated without endangering human life. Electrical switches or power cords in the hazardous area should not be parted or unplugged, as these activities can generated an unwanted spark.
- Open flames are forbidden in areas above 10% LEL.
- Smoking is forbidden; or permitted only in specific pre-designated areas.
- Matches, cigarette lighters and torch lighters are not permitted in fenced areas or areas above 10% LEL .
- Always use spark-resistant tools and explosion-proof equipment where appropriate. To the maximum extent possible, avoid striking tools together and avoid striking rocks and stones with tools.
- Do not allow flash photography, video cameras, cell phones, or other spark-producing electronic devices to be used in a work area where explosive atmosphere conditions may exist.
- Sparks originating from static electricity discharge shall be avoided by:
    - Use bonding cables during the cutting, removal or replacement of pipe. Install the bonding cable across a section of pipe to be cut or removed. Leave the bonding cables in place until the pipe is rejoined. Turn off local cathodic protection rectifiers when a situation requires use of bonding cables.
    - For activities which involve removal and/or addition of product to the pipeline system (such as drain-ups), metal containers and hose nozzles should be properly bonded to the vessels supplying and receiving the product.
    - Rags of silk, wool, rayon or synthetic fabrics which can build up a static charge shall not be used in or near areas where petroleum product vapors are present. Avoid wearing clothing made of such materials in hazardous areas if possible.

3.7 VAPOR CONTROL PROCEDURES (Cont'd)

3.7.4 Spark And Flame Avoidance (cont'd)

Maintenance and Emergency Response

- Always approach a suspected uncontrolled release area from a higher elevation and/or upwind. Keep all nonessential vehicles and motorized equipment from the release site. Keep essential motorized equipment on the windward side and as far away as practical. Never attempt to start or drive a vehicle or other motorized equipment into or out of a vapor cloud.

- Take necessary steps (including enlisting the assistance of local law enforcement agencies if necessary) to warn and/or evacuate all persons in the release area, and to stop all traffic (foot, motor and rail) through an into the release area. Arrange detours as is necessary. Unauthorized personnel should be kept out of the release area if possible until the situation can be stabilized.

- When power equipment is moved into the area to expedite repairs, it should be done on a planned schedule. The equipment should be removed from the area as soon as the work has been completed. Personnel not required to operate this equipment should be kept out of the immediate work area.

- Matches, lighters (including friction lighters), and materials should be kept in a place designated as "SAFE" by the Operations Section Chief. Smoking will be permitted only at a safe location away from the defined area

- The hazard of fire and explosion should be recognized throughout any repair work. Fire extinguishers should be available and ready for instant use while the work is in progress.

- When excavating or digging is required in congested municipal or residential areas, the Incident Commander should contact the city engineer, fire chief, police, other utilities, or other indicated public officials to obtain assistance in providing spectator barricades and in the elimination of potential ignition sources such as cigarettes, lighters, flash cameras, etc.

- A flow of carbon dioxide or other inert gas, water, or good grade of cutting oil should be used be eliminate sparks when cutting pipe.

- The following precautions should be taken when making emergency welding repairs to damaged facilities:

    - A safety meeting specific to the planned welding activities at hand shall be conducted, with all personnel involved at the work being assigned specific duties and having a definite understanding of what to do in case of fire or accident.

    - Where possible, delay making welding repairs to damaged facilities until vapors have had ample time to dissipate.

3.7 VAPOR CONTROL PROCEDURES (Cont'd)

3.7.4 Spark And Flame Avoidance (cont'd)

- If possible, clear the area of all product, then cover soil and bottom of bell hole with product-free dirt.
- Monitoring of the area by portable vapor detector shall be conducted while welding is in progress. If vapor levels of 10% LEL or higher are detected, welding shall cease until the area is properly ventilated to reduce these levels.
- Care must be taken that welding sparks are prevented from causing fires.
- At least two fire extinguishers shall be manned and readily available during welding operations.

Operations and Tank Cleaning

- Keep water bottoms at a minimum on a tank that is being filled.
- Never take a product sample, then pour it freely back into the gauge hatch or tank. Ropes made of nylon or other synthetic fiber shall not be used as rope for sample containers.
- Before using a hose and water to wash down a tank, attach a bonding cable to the tank and the hose nozzle.
- Tank gauge lines shall remain in contact with the edge or side of the gauging hatch at all times including raising and lowering.
- Care in general shall be taken around all tanks which contain or have recently contained petroleum products. Tanks shall not be entered by Company employees until they have been properly declared gas-free.

3.8 PROCEDURE FOR EMERGENCY INVOLVING NATURAL GAS

This section of the emergency manual is intended to give Company employees general guidance in dealing with possible contingencies associated with the 24-inch third party natural gas pipeline owned by Portland Natural Gas Transmission System (PNGTS). In addition, this section provides the basis for instructions to appropriate operating and maintenance personnel which will minimize the hazard resulting from a gas pipeline emergency.

Portland Montreal Pipe Line System (PMPL) may be notified of a Portland Natural Gas Transmission System natural gas emergency because the PNGTS and PMPL pipeline facilities occupy parallel rights of way between Gorham, New Hampshire and Westbrook, Maine. Although the primary responsibility for a natural gas emergency belongs to PNGTS, PMPL personnel may be the first to arrive at the site in an emergency. PMPL personnel should assist in securing the affected area until PNGTS representatives arrive. Emergency control of a natural gas incident is the responsibility of PNGTS. PMPL's primary responsibility in a natural gas emergency is the maintenance and protection of the PMPL crude oil pipelines that are adjacent to the PNGTS natural gas pipeline.

3.8 PROCEDURE FOR EMERGENCY INVOLVING NATURAL GAS (cont'd)

3.8.1 Receipt of emergency notice by Controller

The Controller receives notification of a natural gas incident via telephone and takes actions as outlined in Figure 3.1.

3.8.2 Immediate Response Steps

Field response to the notification of a natural gas emergency is the responsibility of PNGTS. However, due to the close proximity of the crude oil pipeline and the PNGTS pipeline, PMPL field personnel may be the first field personnel on site. A common sense approach, together with a policy of mutual cooperation with PNGTS personnel, is expected to be followed.

The National Incident Management System (NIMS) Incident Command System provides for modular expansion to include appropriate specialists/teams as determined by situation objectives.

The importance of PNGTS representatives assuming immediate responsibility for supervising the emergency actions required must be emphasized. PMPL representatives on site will exercise due diligence in taking logical and timely action in the field as requested by PNGTS for assistance only. PNGTS has full responsibility for emergency activities related to their PNGTS pipeline.

The list of field responses in Figure 3.1 is not meant to be all inclusive, but is shown merely as a suggested guide for actions or responses which may be taken by a company Field representative. Obviously these tasks may be rearranged and modified depending on the particular circumstances of an emergency at any specific time. While awaiting the arrival of the PNGTS Supervisor in charge of the natural gas pipeline emergency, the company On-Site Representative should confirm that actions on the list have been completed as appropriate for the situation.

3.8.3 Emergency Assessment and Control

In the event that a company Field Representative arrives at the scene first, the Field Representative should make every effort to use judgment to assess the danger of the situation and minimize the potential safety hazard to people in the immediate area. Communication should be established as soon as practicable with the Controller and the PNGTS Dispatcher. If a fire or explosion has already occurred prior to the Field Representative's arrival, he/she should identify himself/herself to the local police/fire officials in charge who may have arrived before him. In addition, he/she should advise these officials of the location of the crude oil pipelines and make sure that any emergency containment proposals do not adversely inflict additional damage to the pipeline system.

The PMPL Field Representative should maintain communications with the controller and be prepared to provide information and possible response to special requests from PNGTS personnel prior to their arrival on site. Upon arrival of the PNGTS supervisor, the PMPL Supervisor should be prepared to brief the PNGTS supervisor on any emergency actions that were implemented prior to the PNGTS supervisor's arrival.

3.8 PROCEDURE FOR EMERGENCY INVOLVING NATURAL GAS (cont'd)

The Incident Commander serves as the central point in the company system for information control. All requests from outside sources regarding the Company position relative to contingency results should be referred to the Incident Commander. The Incident Commander will direct outside inquiries to the Public Affairs Officer, the

President, or the President's authorized representative.

3.9 THIRD PARTY VESSEL OWNERS/OPERATORS (SOUTH PORTLAND TERMINAL)

It is the responsibility of third party vessel owners/operators to have spill contingency plans developed and in place. In the event of a spill involving a third party vessel at the Facility, it is the responsibility of the vessel owner/operator to immediately respond and mitigate the spill and to coordinate response efforts with the Spill Management Team.

If a spill occurs when the vessel is enroute to the company's docks, it is the responsibility of the vessel owner/operator to immediately respond and mitigate the spill. PMPL will advise the shipper of record and the PMPL Board of Directors.

3.10 DOCUMENTATION OF INITIAL RESPONSE ACTIONS

Although it is difficult, particularly during the first few minutes of an initial response operation to think about the importance of documentation, each responder with some level of authority in the Plan (e.g., the Incident Commander, the Deputy Incident Commander, the Operations Section Chief, the Environmental Specialist, etc.) has to keep a log during an emergency response. The Controller must also keep a log of all the calls made and actions performed during the emergency response. PMPL Uses NIIMS ICS 214 CG unit log form for logging incident events (See Appendix K-16)

Also, since actions taken during an emergency might have legal implications, the logbook becomes instrumental in legal proceedings. It is therefore important to fill out the log carefully and to avoid omitting any details; therefore, here are some important guidelines for documentation of response actions:

- Write your name on the top of the first page.
- Record only factual information, avoid personal comments, opinions or speculation.
- Do not criticize the efforts and / or methods of other people / operations.
- Do not speculate on the cause of the spill.
- Do not skip lines between entries or make erasures. If an error is made, draw a line through it, add the correct entry above or below it, and initial the change.
- Record the recommendations, instructions, and actions taken by government / regulatory officials.

3.10 DOCUMENTATION OF INITIAL RESPONSE ACTIONS (cont'd)

- Document conversations (telephone or in person) with government / regulatory officials.
- Request that government / regulatory officials document and sign their recommendations or orders (especially if company personnel do not agree with the suggestions, instructions, or actions).

- Write legibly.
- Record information concisely and in the following order: date, time (00:00), individual/organization contacted, description of the actions/calls.
- When the logbook is transmitted to the Documentation Leader, note the date and time of transmittal, as well as the recipient's name.
- Leave a margin for special notes.
- Never remove any pages of the logbook. To make a correction, just cross out the incorrect entry and initial it.

3.11 DOCUMENTATION OF INCIDENT

3.11.1 Documentation of Incident - General

Documentation of an incident provides an historic account of the events during the entire period from the occurrence of the incident, to clean-up actions, to final post assessment. It will provide the necessary data to determine the accuracy of the prediction of the event's progression, of the assessment of the extent of the emergency, of the success of the mitigation methods and clean-up operations with a view of modifying and improving the existing emergency response plan. It will also be used to determine what further control and monitoring actions need to be undertaken.

Documentation should commence immediately upon notification of the incident with the writing of logbooks by ERT members and by gathering of information by the Documentation Leader. It is the duty of the Documentation Leader to ensure adequate documentation is being made throughout the emergency. The Documentation will continue until termination of all operations, including clean up and rehabilitation operations and will continue until termination of all operations. The Documentation Leader will compile a master file, which will contain a complete and comprehensive set of all documentation gathered.

The Documentation Unit Leader will coordinate and retain the documentation of the incident. The information gathered will be utilized to prepare the necessary reports to government agencies, to keep owners informed and to provide information to the news media, and to produce final reports on the incident.

The following table indicates the type of information required, providing adequate documentation, and the person who will be in charge of obtaining/gathering this information or ensuring it is gathered/obtained.

3.11 DOCUMENTATION OF INCIDENT (cont'd)

	Person responsible for ensuring the information is obtained	Type of information
☐	Controller	Cause of Incident: Information described in the Emergency Response Check-List
☐	Deputy Incident Commander	1. Emergency's Characteristics: information reported in the Incident Reports sent to the TSB and NEB (see App. K forms) 2. Preliminary Incident Report
☐	Incident Commander	Detailed Incident Report (See App. K forms)
☐	Documentation Leader	Field Information Photographic Survey Weather Reports
☐	Documentation Leader in collaboration with Environmental Specialist and Legal/Regulatory Advisor	Records of: 1) contacts with and directives from regulatory agencies, 2) all permits obtained for specific operations which are subject to regulations
☐	Logistic Section Chief	1) Costs Analyses: prepared for the Finance/Accounting Advisor, 2) Equipment utilization and evaluation,
☐	Finance/Accounting Advisor	Costs analyses and claims,

The following paragraphs describe the above documentation requirements.

1. Emergency's Characteristics
All relative information pertaining to the emergency should be recorded throughout the incident. Records should include, but not be limited to, the following information:

- Person first noticing the incident;
- Date and time incident occurred or was first observed;
- Location of incident and geographical area affected by the incident;
- If a spill, actual or estimated spill volume and direction of movement;
- Type of pollutant involved;
- Rate of release, known or estimated, if a spill or leak of hazardous material;
- Injuries, if any, and possible hazards to human health and/or the environment;
- This information will be recorded in the Emergency Reporting Check-List by the Controller

3.11 DOCUMENTATION OF INCIDENT (cont'd)

2. Cause of the incident
All factors, which led to the emergency, must be documented. This should include such information as:

- Description of exact piece of equipment that failed;
- Persons responsible for causing the emergency, including their affiliation with contractors or other organizations;
- Apparent cause of equipment failure;
- If safety or operation practices were violated, state details;
- If act of vandalism, report any indications leading to identity of persons involved.
- Effectiveness of containment;
- Apparent cause of incident.

This information will be recorded in the different Incident Reports which must be sent to different governmental authorities. It is the duty of the Deputy Incident Commander to complete these reports and to send them to the appropriate authority.

3. Photographic Surveys
Photographic coverage of all phases of the incident will commence as soon as safely possible and should provide representative coverage of the incident until termination of all operations. Photographic record of the incident from aircraft may be taken during initial assessment procedures if light conditions are adequate. It is the responsibility of the Surveillance Unit Leader to take photographs and the Documentation Unit Leader to obtain the photographs taken by other SMT member.

All photographs must be properly identified with respect to location, date, subject, time, direction, photographer's name, and any witnesses present.

4. Climate Reports
Meteorological data to be gathered for the affected areas during the incident will include:

- Temperature;
- Precipitation;
- Humidity;
- Wind direction and speed;
- Surface currents (estimate velocity), if spill in a waterway;
- Wave heights;
- Ice and snow cover;

It is the responsibility of the Situation Unit Leader to fill climate reports for every day of the response.

3.11 DOCUMENTATION OF INCIDENT (cont'd)

5. Cost Information
A complete record of all costs incurred during the incident will be maintained, including costs of:

- Equipment;
- Contractual support (labour and equipment);
- Supplies and materials;
- Property damage claims;
- Repairs;
- Support services (photographic, sample analysis, transportation, food, etc.);
- Legal services.

The Logistic Section Chief will have to periodically prepare Cost Analyses for the Finance/Accounting Advisor. The latter will provide the Documentation Contractor with complete analyses of all costs, claims, etc., related to the incident.

6. Equipment Utilization and Evaluation
The Logistics Section Chief will maintain records of all equipment utilized during the incident. He/She will obtain necessary data and information to allow an evaluation of the performance of major equipment items, i.e., skimmers, booms, fire protection equipment, utilized during the incident.

7. Record of Contacts and Permits Obtained from Regulatory Agencies
The Documentation Unit Leader will, in cooperation with the Regulatory/Legal Advisor and the Environmental Specialist, record all contacts with and directives from regulatory agencies and will record all permits obtained for specific operations which are subject to regulations such as disposal of oil materials, utilization of government owned equipment, access to land and utilization of chemical agents.

8. Reports to Governmental Agencies See Figures 2.8 – 2.12 for definitions of reportable incidents to various agencies.

3.12 INITIAL RESPONSE ACTIONS – BOMB THREATS, HOSTAGE SITUATIONS, NATURAL DISASTERS, EMERGENCY MEDICAL SITUATIONS

Initial response actions are those taken by local personnel immediately upon becoming aware of an emergency incident, before Senior Management or others are notified. Timely implementation of these initial steps is of the utmost importance because they can greatly affect the overall outcome of the emergency.

It is important to note that **these actions are intended only as guidelines**. The appropriate response to a particular incident may vary depending on the nature and severity of the incident and on other factors that are not readily addressed. Note that, **without exception, personnel and public safety is first priority**.

3.12 INITIAL RESPONSE ACTIONS – BOMB THREATS, HOSTAGE SITUATIONS, NATURAL DISASTERS, EMERGENCY MEDICAL SITUATIONS (cont'd)

The first Company person on scene will function as the Incident Commander until relieved by an authorized supervisor. Transfer of command will take place as more senior management respond to the incident.

The person functioning as **Incident Commander** during the initial response period **has the authority to take the steps necessary to control the situation and must not be constrained by these general guidelines.**

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3.12.6 MEDICAL EMERGENCY

The procedure in Figure 3.3 Check-List will be used when there is a medical emergency at a PMPL facility.

The Company has arrangements for medical emergencies and first aid. Local ambulance services and hospitals will be utilized for the transportation and care of injured employees. This information can also be found on the bulletin boards at the various locations. On-site emergency medical response requires the same rapid assessment of the patient as any other situation, but requires the responders to be aware of other considerations that may affect the way they handle the patient. These considerations include the following:

- The potential for contamination of the patient, responders, and equipment should be addressed. Responders should arrange to treat all patients **AFTER** the injured party has been decontaminated.
- Site personnel should make the initial assessment of the patient and determine the severity of the injury/illness.
- If the treatment needed is critical care or "life saving" treatment, rapid decontamination of the injured/ill party should be started. Refer to the Site Safety and Health Plan for steps to be taken in an "abbreviated" decontamination for medical treatment.
- **The need for full decontamination should be carefully weighed against the need for prompt medical treatment.**
- The ambulance responding to medical emergencies shall be contacted as soon as possible and instructed exactly where to respond when needed and the nature of the contaminant. Telephone references are provided in Figure 2.10 – 2.13.
- MSDS information is available in Figure 3.4 & 3.5. The MSDS of the product involved in the medical emergency shall be provided to medical personnel in order to alert them of decontamination requirements.

Acknowledgment to the family of an injured worker

The family of an injured employee will be advised when:

- There is a critical injury or an unconscious victim ;
- Victim is sent to a hospital.

The Incident Commander shall give the following information to the family of the injured employee:

3.12 INITIAL RESPONSE ACTIONS – BOMB THREATS, HOSTAGE SITUATIONS, NATURAL DISASTERS, EMERGENCY MEDICAL SITUATIONS (cont'd)

- ☐ The IC's name and phone number (identification of the speaker);
- ☐ The name of the victim (confirmation that you have the right person);
- ☐ Location of the victim.

It is important to remember the following guidelines:

- ☐ Remain event oriented;
- ☐ Do not add personal comments on the seriousness of the injury;
- ☐ Always talk to an adult. Do not give details to a person under 16 years of age ;
- ☐ Do not give details on the circumstances of the incident as they will be investigated in details later on.

Whatever the nature of the injury, only a medical doctor may confirm a death.

FIGURE 3.1
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

Remember, Without Exception, Personnel Safety Is First Priority.

FIRST COMPANY PERSON NOTIFIED/ ON SCENE (All Incidents)

_____ Call the pipeline controller to activate Company Response.

_____ **Within your competences and abilities**, take safe measures to control the situation until the arrival of the First Operational Responders / Spill Management Team

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

_____ Unless personal safety is at risk, stays on-site until authorized to leave by the Operations Section Chief.

FIRST OPERATIONAL RESPONDER (All Incidents)

INITIAL FIRE EXPLOSION

_____ Assume the role of **Incident Commander** until relieved or incident is over.

_____ Call the pipeline controller to activate Company Response.

_____ Ensure Notifications are being made. (Figures 2.2 & 2.3)

_____ Take steps necessary to minimize threats to public health and safety and to reduce the severity of the incident.

_____ Utilize local emergency services as necessary (police, fire, medical, 911 and Figures 2.10 -2.13)

For EXPLOSIONS AND/OR FIRE, SPECIFIC RESPONSE

_____ Call the Fire Department (911 or Figures 2.10 – 2.13) Be certain to clearly state your name, company, location and the type and extent of the emergency. Stay on the phone until instructed to hang up.

_____ Sound the nearest fire alarm / Alert all facility areas of the exact location and extent of the fire.

_____ Return to the scene and check to see if there are injured persons and form a rescue plan if needed.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

INITIAL FIRE EXPLOSION

_____ If practical, extinguish the fire IF SAFE TO DO SO.

_____ In the event the fire is too large for an individual to fight alone, the individual sounding the alarm or making the phone call should stand by at a safe distance to direct the fire department to the scene of the fire and keep personnel and vehicles from entering the danger area.

_____ Alert all terminal areas of the exact location and extent of the fire.

_____ Evacuate area, as the situation demands.

ADDITIONAL GENERAL PROCEDURES FOR TERMINALS AND PUMP STATIONS

_____ Shut off pumps or call pipeline controller to shut off pumps.

_____ If product is being received from pipelines or ships, notify the appropriate pipeline personnel of the fire and request that the pipeline or ship be shut down. The tank which is receiving product must not be closed until assurance is received that the pipeline or vessel is down, unless that tank is involved in the fire.

_____ After confirmation has been received that pipelines have been shut down, close the pipeline header valves as directed by the controller.

_____ Close valves for the tanks in the tank farm / field as directed by the controller.

ALL SPILL RESPONSE INCIDENTS – INITIAL RESPONSE

INITIAL ALL SPILLS

_____ Restrict access to the spill site and adjacent area except by emergency personnel.

_____ Take any other steps necessary to minimize any threat to personal, public, and safety.

_____ Stop all traffic in hazardous area (inside and outside of property boundaries), as the situation demands.

_____ Take appropriate personal protective measures to ensure safety of personnel.

_____ Use testing and sampling equipment to determine potential safety hazards, as the situation demands including; Combustible Gas Indicator, O_2 meter, H_2S meter, proper colorimetric indicators (e.g. Benzene) and other air sampling measurements to assure that areas are safe to enter for continued response operations.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

INITIAL MAIN LINE

MAIN LINE BREAK/LEAK SPILL RESPONSE INCIDENTS – INITIAL RESPONSE

_____ Shut down Pipeline System and isolate emergency site from pipeline system.

- Verify that Operations has shutdown appropriate portion of the system (See Appendix I for pipeline valve locations).
- Close, tag, and lock upstream and downstream block valves if removed from potentially hazardous area.
- Attempt to drain line section, as the situation permits.

_____ Eliminate possible sources of ignition in the near vicinity of the spill to minimize potential for fire or explosion.

_____ Turn off power to area facility rectifiers (if removed from potentially hazardous area).

_____ Contact appropriate authorities to isolate known public water supply intakes from emergency if necessary. Water intake contact phone numbers are listed in Figure 2.10.

_____ If possible, verify the type of product and quantity released (Material Safety Data Sheets are in Section 3 and are available separately at the Facility).

_____ Identify/Isolate the source and minimize the loss of product.

INITIAL PIPING / MANIFOLD

STATION/ TERMINAL PIPING OR MANIFOLD BREAK/ LEAK – INITIAL RESPONSE

_____ Shut down pumping equipment.

_____ Close upstream and downstream (Incoming / Outgoing) block valves.

_____ If located within containment area, ensure that drainage valve(s) is "closed".

INITITIAL TANK

STORAGE TANK LEAK OR OVERFLOW, INITIAL RESPONSE

_____ Shut down all tank battery product movement operations and isolate the tank.

_____ Initiate Confined Space Entry procedures, as applicable.

_____ Ensure that the containment area drainage valve(s) is "closed".

_____ If near tank bottom, consider filling tank with water and maintain water bottom to suspend the discharge.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Block drainage of spilled material from traveling offsite.

_____ Remove product from containment area (at a sump or in a low area) with an explosion proof pump, oil skimmer, and/or vacuum truck w/ skimmer attachments.

_____ If applicable, process remaining product through the separator system.

_____ Empty tank as soon as possible.

UNLOADING ARM OR TRANSFER EQUIPMENT FAILURE – INITIAL RESPONSE

INITIAL UNL ARM

_____ Shut down all unloading operations by emergency stop methods (Marine Terminal Operations Manual).

_____ Stop all transfer operations from terminal to tank farm.

_____ Close upstream and downstream block valves.

_____ If located within containment area, ensure that drainage valve(s) is "closed".

EQUIPMENT FAILURE, INITIAL RESPONSE

INITIAL EQUIPT.

_____ Shut down pumping equipment.

_____ Close upstream and downstream block valves.

_____ If located within containment area, ensure that drainage valve(s) is "closed".

ALL SPILL RESPONSE INCIDENTS – CONTINUED INITIAL RESPONSE

CONTINUED RESPONSE

_____ Mitigate spreading of the product, as the situation demands. Potential containment strategies include:

- Containment Booms
- Earthen dike/berm
- Ditching
- Spreading sorbent material over the spill

_____ Prevent the spill from entering the waterways, sewer, etc. to the greatest extent possible.

_____ Clean up spilled product to eliminate any possible environmental problems. Be alert for underground cables.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY/ SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Determine the direction and expected duration of spill movement. Refer to the maps in Section 6.0.

_____ Drain the line section or empty the tank, as the situation demands.

ALL SPILL RESPONSE INCIDENTS – CONTINUED RESPONSE

_____ Inform local operators such as utilities, telephone company, railway.

_____ If the spill escapes the containment area, review the location of socio-economic and environmentally sensitive areas identified in Section 6.0. Determine which of these may be threatened by the spill and direct the response operation to these locations. Initiate protection and recovery actions.

FINAL RESPONSE

ALL SPILL RESPONSE INCIDENTS – FINAL RESPONSE

_____ Make all necessary repairs. Return the line/ piping / tank / equipment to service when repairs are complete and tested.

_____ If necessary, call one of the approved waste removal companies to remove the remaining sludge and residue from the containment area. Contact the SMT Environmental Specialist, if necessary, to remove waste from the Facility for disposal. During temporary storage on site, ensure proper containerization and labeling and locate in designated area for storing the identified type of waste.

_____ Complete follow-up and written reporting, as the situation demands.

VAPOR CLOUD (from a massive spill, line rupture, etc.), SPECIFIC RESPONSE

VAPOR CLOUD

_____ The person who discovers the vapor cloud will sound the alarm, call the appropriate fire department, and notify the supervisor on duty and vacate the area.

_____ **Remember: the only proper action in the presence of a vapor cloud is to get away from it. Do not shut off electrical equipment.**

_____ Vapor may travel to source of ignition and cause "flash back" fire.

_____ Vapor explosion hazard is confined spaces (indoor, outdoor, or sewer).

_____ All personnel will report to the evacuation muster point for roll call and further instructions.

_____ Shut down pipeline.

_____ Evacuation of adjacent property.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Permit only the fire department to enter the terminal.

_____ Contact the appropriate agencies and potentially affected neighbors (refer to Figures 2.8-2.15).

EMERGENCY INVOLVING PNGTS NATURAL GAS PIPELINE

_____ Minimize the risk to public health, safety, and private property by isolating the affected surrounding areas.

_____ Evaluate the risk to the crude oil pipelines and establish immediate contact with the Controller.

_____ Initiate the obvious field procedures deemed necessary to protect and minimize the potential hazards to the PMPL system, including, with the cooperation of the Controller, a shutdown of the crude oil mainlines.

_____ Contact the local law enforcement/fire chiefs and enlist their assistance in providing public safety.

_____ Use judgment in deciding if it is safe and appropriate to implement any interim field procedures requested by PNGTS Dispatcher, pending on-site arrival of PNGTS Field Supervisors. Emergency shutdown and pressure reduction in any section of the natural gas pipeline system is the responsibility of PNGTS.

_____ Refer all questions about property damage, personal injury, and liability from outside sources, including the news media, to PNGTS.

_____ Be prepared to brief the PNGTS supervisor on any emergency actions taken upon arrival on scene.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

Remember, Without Exception, Personnel Safety Is First Priority.

PIPELINE CONTROLLER (All Incidents)

_____ Initiate the Internal Emergency Notification Procedure (Figures 2.2 & 2.3).

ALL SPILL RESPONSE INCIDENTS – INITIAL RESPONSE

_____ Identifies the location of the emergency / leak.

_____ Minimizes the line pressure at the leak's location.

_____ Shuts down pump stations upstream from the leak's location.

_____ Isolates the leak by directing field people to the closest main line block valves.

For EXPLOSIONS AND/OR FIRE, SPECIFIC RESPONSE

FIRE / EXPLOSIONS

CONTROLLER RECEIVING NOTIFICATION OF FIRE

Fire Reported On Main Line

_____ Verify that the appropriate fire department has been notified (911 or Fig. 2.10-2.13).

_____ Reduce the Main Line Operating Pressure.

Fire Signaled Or Reported From Remotely Operated Station

_____ Evaluate the need to shut down all pumping units at the involved station.

_____ Verify that the appropriate fire department has been notified.

_____ Ensure nearest available PMPL field representative has been notified.

Additional Procedures for the South Portland Marine Terminal

_____ In the event of a fire on a vessel, a series of ten (10) - second blasts on the ship's whistle would be sounded.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

_____ Terminal personnel shall raise alarm at fire box mounted on the Dock Building and alert all ship / shore personnel via radio or voice command. (Refer to the Marine Terminal Operations Manual, Figure 8A – Instructions in Case of Fire.)

Additional procedures for the Montreal Terminal

_____ Evaluate the need to shutdown the main lines

_____ Notify Shift Supervisor at Suncor

_____ Notify Shift Supervisor at Petrochemie Coastal and Dispatcher at Ultramar (Figure 2.15)

_____ Initiate the Internal Emergency Notification Procedure. (Figures 2.2 & 2.3)

EMERGENCY INVOLVING PNGTS NATURAL GAS PIPELINE

_____ Log the information reported in the Emergency Reporting Checklist (Figure 2.1)

_____ Immediately calls the PNGTS controller (See Figure 2.10) and communicate all pertinent information, noting the time and determining when other representatives will be on site.

_____ Initiate the Internal Emergency Notification Procedure. (Figures 2.2 & 2.3)

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

Remember, Without Exception, Personnel Safety Is First Priority.

OPERATIONS SECTION CHIEF (All Incidents)

_____ Ensure the area has been secured.

_____ Determine accurate location and cause of the emergency / threat / leak in collaboration with the Controller or First Company Person Notified / On scene.

_____ Evaluate emergency / leak potential (quantity, type, which line, speed and direction of flow, how far it has already travelled, weather conditions).

_____ Coordinate safety precautions to minimize hazards of fire and road mishaps if oil flow is on travelled ways.

_____ Direct line or other repair operations, as necessary.

COMPANY MANAGEMENT (All Incidents)

_____ **Evaluate the Severity**, Potential Impact, Safety Concerns, and Response Requirements based on the initial data provided by the first person on scene.

_____ Assume the role of **Incident Commander**.

_____ **Confirm safety** aspects at site, including need for personal protective equipment, sources of ignition, and potential need for **evacuation**.

_____ Contact and involve local **Law Enforcement / Fire Officials** as needed.

_____ Activate the **Spill Management Team and primary response contractors**, as the situation demands. The South Portland Marine Terminal has designated personnel listed in Figure 2.6.

_____ Coordinate/perform **activation of additional spill response contractors,** as the situation demands (telephone reference is provided in Figures 2.14 & 2.15).

_____ Perform further/ additional notifications as per Figures 2.2 & 2.3.

_____ Coordinate/perform **regulatory agency notification,** as the situation demands (notification procedures and telephone references are provided in Figure 2.8-2.13.

_____ Proceed to spill site and **coordinate response and clean-up operations.**

_____ Direct containment, dispersion, and/or clean-up operations.

FIGURE 3.1 (cont'd)
FIRE EMERGENCY / SPILL RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

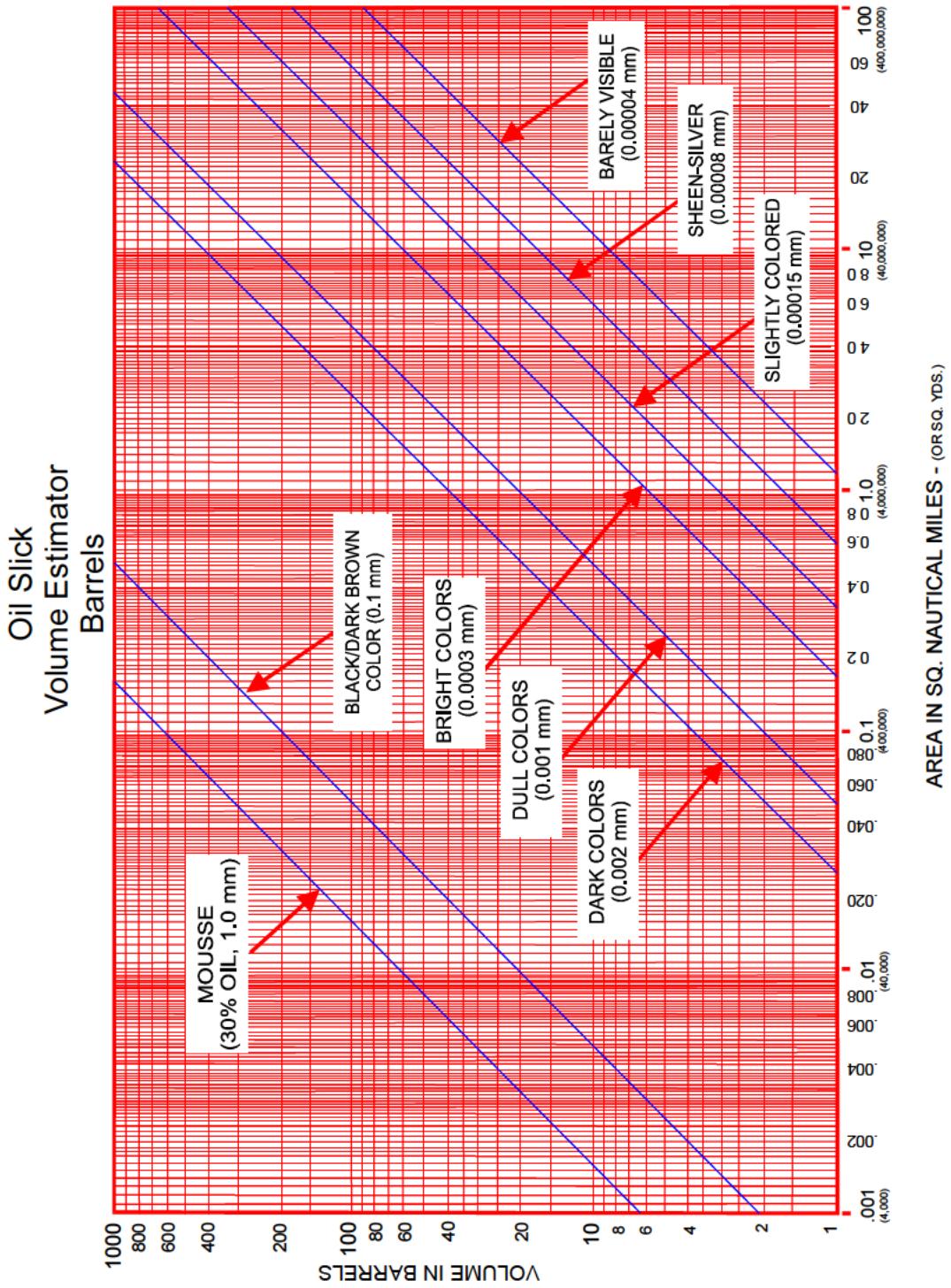
SPILL MANAGEMENT TEAM (All Incidents)

_____ Assigned personnel will immediately respond to an emergency /discharge from the Facility, as the situation demands.

_____ Perform response / clean-up operations as directed or coordinated by the Incident Commander.

_____ Assist as directed at the emergency / spill site.

FIGURE 3.2


Oil Slick
Volume Estimator
Barrels
MOUSSE
(30% OIL, 1.0 mm)
BLACK/DARK BROWN
COLOR (0.1 mm)
BRIGHT COLORS
(0.0003 mm)
DULL COLORS
(0.001 mm)
DARK COLORS
(0.002 mm)
BARELY VISIBLE
(0.00004 mm)
SHEEN-SILVER
(0.00008 mm)
SLIGHTLY COLORED
(0.00015 mm)
VOLUME IN BARRELS
1000
800
600
400
200
100
80
60
40
20
10
8
6
4
2
1
AREA IN SQ. NAUTICAL MILES - (OR SQ. YDS.)
.001 (4,000)
.002
.004
.006
.008
.01 (40,000)
.020
.040
.060
.080
0.1 (400,000)
0.2
0.4
0.6
0.8
1.0 (4,000,000)
2.0
4.0
6.0
8.0
10 (40,000,000)
20
40
60
100 (400,000,000)

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Although many disasters cannot be prevented or predicted, preparation can significantly reduce losses. In the event of a severe weather condition or a natural disaster, the most senior member present will be the Incident Commander.

_____ **Be Aware of Changing Weather Conditions**

1. Tornado watch - conditions are right for the formation of a tornado.
2. Hurricane watch – there is a threat of a hurricane.
3. Tornado warning - a tornado has been sighted but is not in the area at this time.
4. Hurricane warning – a hurricane is expected within 24 hours.
5. Tornado alert - a tornado has been sighted in the immediate area - take cover immediately.

_____ **If Severe Weather Conditions Threaten**

1. Sound fire alarm.

FIGURE 3.3 (cont'd)
BOMB THREAT, HOSTAGE CRISIS, NATURAL DISASTER, MEDICAL EMERGENCY RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

2. Alert terminal personnel of condition.
3. If time permits, all personnel should assemble at the terminal warehouse or in an inside room in the terminal office for shelter.
4. If time does not permit, seek shelter in low level area away from glass.
5. Make certain terminal personnel are aware of the condition.
6. Stay in shelter until **"all clear"** has been issued.

_____ **Immediately After the Storm**

1. Account for all personnel.
2. Survey for damages to terminal property.
3. Initiate team for any repairs if needed (i.e. high tank alarms, lighting, etc.).
4. Refer to this Plan for additional response guidance regarding fires, spills, etc., as needed.

MEDICAL EMERGENCY, SPECIFIC RESPONSE

MEDICAL EMNERGENCY

_____ DO NOT ENDANGER YOURSELF ATTEMPTING A RESCUE. Call 911 or rescue squad instead.

_____ If victim can be reached safely and can be moved, move them to fresh air.

_____ Apply appropriate first aid, if trained to do so, for injury and shock, exercising care not to cause further injury.

_____ If victim is unconscious and not breathing, immediately apply artificial respiration (if trained in CPR) and continue without interruption until natural breathing is restored or revived by other CPR trained personnel or other qualified medical personnel.

_____ Call for ambulance or other medical evacuation resources, if appropriate.

_____ Notify hospital of patient arrival and extent of injury.

_____ The Incident Commander will notify victim's immediate family.

_____ Complete follow-up and written reporting, as the situation demands.

_____ In case of contact with released material:

- Immediately flush eyes with running water for at least 15 minutes.
- Wash skin with soap and water.
- Remove and isolate contaminated clothing and shoes at the site.

FIGURE 3.3 (cont'd)
BOMB THREAT, HOSTAGE CRISIS, NATURAL DISASTER, MEDICAL EMERGENCY RESPONSE CHECKLIST
INITIAL RESPONSE ACTIONS

PIPELINE CONTROLLER (All Incidents)

_____ Initiate the Internal Emergency Notification Procedure (Figure 2.2 & 2.3).

_____ Ensure nearest available PMPL field representative has been notified.

_____ Implement the Incident Commander's instructions for shutting down and securing operations and facilities. Support IC's evaluation of the following potential actions:

_____ Evaluate shutting down individual pump stations based on the threat/ incident.

_____ Evaluate the need to shutdown the main lines

_____ For Montreal Terminal, notify Shift Supervisor at Petrochemie Coastal, Shell Terminal and Dispatcher at Ultramar, Suncor and Enbridge (Figure 2.15)

COMPANY MANAGEMENT (All Incidents)

_____ **Evaluate the Severity**, Potential Impact, Safety Concerns, and Response Requirements based on the initial data provided by the first person on scene.

_____ Assume the role of **Incident Commander**.

_____ **Confirm safety** aspects at site, including need for personal protective equipment, sources of ignition, and potential need for **evacuation**.

_____ Contact and involve local **Law Enforcement / Fire Officials** as needed.

_____ Perform further/ additional notifications as per Figures 2.2 & 2.3.

_____ Coordinate/perform **regulatory agency notification,** as the situation demands (notification procedures and telephone references are provided in Figure 2.8-2.13.

ALL INCIDENTS

FIGURE 3.4
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: (see Section 16 for Synonyms) **CRUDE OIL, SOUR**
Product Description: Petroleum Crude Oil (>0.005% H2S)
MSDS Number: 3277

Intended Use: Feedstock

COMPANY IDENTIFICATION

Supplier: **Imperial Oil - Crude Oil Supply & Marketing**
Products & Chemicals Division
P.O. Box 2480, Station M
Calgary, ALBERTA. T2P 3M9 Canada

24 Hour Environmental / Health Emergency Telephone 1-866-232-9563
Transportation Emergency Phone Number 1-866-232-9563
Supplier General Contact 1-800-567-3776

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*	Acute Toxicity
HYDROGEN SULPHIDE	7783-06-4	0.1 - 1%	Inhalation Lethality: LC50 444 ppm (Rat)
PETROLEUM CRUDE OIL	8002-05-9	100%	Dermal Lethality: LD50 > 2.0 g/kg (Rat); Oral Lethality: LD50 > 4.3 g/kg (Rat)

Hazardous Constituent(s) Contained in Complex Substance(s)

Name	CAS#	Concentration*	Acute Toxicity
BENZENE	71-43-2	1 - 5%	None
CYCLOHEXANE	110-82-7	1 - 5%	Dermal Lethality: LD50 > 2000 mg/kg (Rabbit); Inhalation Lethality: LC50 > 19.1 mg/l (Rat)
ETHYL BENZENE	100-41-4	0.1 - 1%	Inhalation Lethality: LC50 17.8 mg/l (Rat); Oral Lethality: LD50 3.5 g/kg (Rat)
n-Hexane	110-54-3	1 - 5%	Dermal Lethality: LD50 > 2000 mg/kg (Rabbit); Inhalation Lethality: LC50 > 17.6 mg/l (Rat)
NAPHTHALENE	91-20-3	0.1 - 1%	Dermal Lethality: LD50 > 2500 mg/kg (Rat); Inhalation Lethality: LC50 > 0.4 mg/l (Rat); Oral Lethality: LD50 622 mg/kg (Mouse)
POLYNUCLEAR AROMATIC HYDROCARBONS		0.1 - 1%	None

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Esso Imperial Oil

TOLUENE	108-88-3	1 - 5%	None
XYLENES	1330-20-7	0.1 - 1%	Oral Lethality: LD50 > 5000 mg/kg (Rat)

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 3 HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

PHYSICAL/CHEMICAL EFFECTS

FLAMMABLE. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Material can accumulate static charges which may cause an ignition.

HEALTH EFFECTS

Very toxic by inhalation. Irritating to skin. Danger of serious irreversible effects by a single exposure. If swallowed, may be aspirated and cause lung damage. Under conditions of poor personal hygiene and prolonged repeated contact, some polycyclic aromatic compounds (PACs) have been suspected as a cause of skin cancer in humans. Hydrogen sulphide, a highly toxic gas, is expected to be present. Signs and symptoms of overexposure to hydrogen sulphide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odour does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. May be irritating to the eyes, nose, throat, and lungs. May cause cancer. Aliphatic hydrocarbon gases may build up in confined spaces and may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in narcosis, unconsciousness, and possibly lead to death. May cause central nervous system depression. High-pressure injection under skin may cause serious damage. Exposure to benzene is associated with cancer (acute myeloid leukaemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders (see Section 11).

NFPA Hazard ID:	Health: 2	Flammability: 3	Reactivity: 0
HMIS Hazard ID:	Health: 2*	Flammability: 3	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4 FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

SKIN CONTACT

Remove contaminated clothing. Dry wipe exposed skin and cleanse with waterless hand cleaner and follow by washing thoroughly with soap and water. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This light hydrocarbon material, or a component, may be associated with cardiac sensitisation following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop a leak. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Highly flammable. Vapour is flammable and heavier than air. Vapour may travel across the ground and reach remote ignition sources, causing a flashback fire danger. Exposure to fire can generate toxic fumes. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Hydrogen sulphide, Smoke, Fume, Sulphur oxides, Incomplete combustion products, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: -20℃ (-4℉) - 93℃ (199℉) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.6 UEL: 15
Autoignition Temperature: >400℃ (752℉)

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

required, due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H2S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Chemical goggles are recommended if splashes or contact with eyes is possible. Work gloves that are resistant to aromatic hydrocarbons are recommended. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Note: gloves made of PVA are not water-resistant, and are not suitable for emergency use. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic and, if necessary, heat resistant and thermal insulated material is recommended.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Large Spills: Water spray may reduce vapour, but may not prevent ignition in enclosed spaces.

Water Spill: Stop leak if you can do so without risk. Eliminate sources of ignition. Warn other shipping. If the Flash Point exceeds the Ambient Temperature by 10 deg C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the Flash Point does not exceed the Ambient Air Temperature by at least 10C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Use booms as a barrier to protect shorelines. Use containment booms when the ambient temperature is below the flash point of the material. Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

H2S is present. Avoid all personal contact. Avoid contact with skin. Crude oils can contain trace levels of natural impurities including heavy metals, such as mercury, nickel or lead, as well as naturally occurring radioactive material. As the impurity content may concentrate during refining/processing, process operations, including equipment, materials and products should be evaluated to identify and manage any potential risks to health, safety or the environment or regulatory concerns.
Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapour may be evolved from heated or agitated material. Use only with adequate ventilation. Do not enter storage areas or confined spaces unless adequately ventilated. The toxic and olfactory (sense of smell) fatigue properties of hydrogen sulfide require that air monitoring alarms and respiratory protection be used where the concentration might be expected to reach a harmful level, such as in an enclosed space, heated transport vessel, or in a spill or leak situation.

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

Material may contain trace amounts of naturally occurring radioactive material (NORM), which will accumulate in process equipment and storage vessels. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE

Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. Storage containers should be earthed and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Substance Name	Form	Limit/Standard			Note	Source
BENZENE		STEL	1 ppm			Supplier
BENZENE		TWA	0.5 ppm			Supplier
BENZENE		STEL	2.5 ppm		Skin	ACGIH
BENZENE		TWA	0.5 ppm		Skin	ACGIH
CYCLOHEXANE		TWA	100 ppm			ACGIH
ETHYL BENZENE		TWA	20 ppm			ACGIH
HYDROGEN SULPHIDE		STEL	14 mg/m3	10 ppm		Supplier
HYDROGEN SULPHIDE		TWA	7 mg/m3	5 ppm		Supplier
HYDROGEN SULPHIDE		STEL	5 ppm			ACGIH
HYDROGEN SULPHIDE		TWA	1 ppm			ACGIH
n-Hexane		TWA	50 ppm		Skin	ACGIH
NAPHTHALENE		STEL	15 ppm		Skin	ACGIH
NAPHTHALENE		TWA	10 ppm		Skin	ACGIH
TOLUENE		TWA	20 ppm			ACGIH
XYLENES		STEL	150 ppm			ACGIH
XYLENES		TWA	100 ppm			ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Use explosion-proof ventilation equipment to stay below exposure limits.

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Positive-pressure, air-supplied respirator in areas where H2S vapours may accumulate.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practise good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Colour: Dark Brown
Odour: Rotten Egg
Odour Threshold: N/D

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Esso Imperial Oil

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 ℃): 0.7 - 0.95
Flash Point [Method]: -20℃ (-4℉) - 93℃ (199℉) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.6 UEL: 15
Autoignition Temperature: >400℃ (752℉)
Boiling Point / Range: > 35℃ (95℉)
Vapour Density (Air = 1): N/D
Vapour Pressure: > 0.36 kPa (2.7 mm Hg) at 20℃
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/D
Solubility in Water: Negligible
Viscosity: [N/D at 40℃] | <15 cSt (15 mm2/sec) at 20℃
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: -60℃ (-76℉) - 20℃ (68℉)

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity (Rat): No end point data for material.	Highly toxic. Based on assessment of the components.
Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity (Rat): LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation (Rabbit): Data available.	May dry the skin leading to discomfort and dermatitis. Based on test data for structurally similar materials.

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Esso Imperial Oil

Eye	
Irritation (Rabbit): Data available.	Irritating and will injure eye tissue. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS

For the product itself:

Vapour/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous system effects including death. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias.
Crude oil: Contains polycyclic aromatic compounds (PACs). Prolonged and / or repeated exposure by skin or inhalation of certain PACs may cause cancer of the skin, lung, and of other sites of the body. In animal studies, some crudes produced skin tumors in mice, while other crudes produced no tumors. Developmental studies of crude oil in lab animals showed reduced fetal weight and increased fetal resorptions at maternally toxic levels. Repeated dermal exposure to crude oils in rats resulted in toxicity to the blood, liver, thymus, and bone morrow.

Contains:

BENZENE: Caused cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders in human studies. Caused genetic effects and effects on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus and cancer in laboratory animal studies. HYDROGEN SULPHIDE: Chronic health effects due to repeated exposures to low levels of H2S have not been established. High level (700 ppm) acute exposure can result in sudden death. High concentrations will lead to cardiopulmonary arrest due to nervous system toxicity and pulmonary edema. Lower levels (150 ppm) may overwhelm sense of smell, eliminating warning of exposure. Symptoms of overexposure to H2S include headache, fatigue, insomnia, irritability, and gastrointestinal problems. Repeated exposures to approximately 25 ppm will irritate mucous membranes and the respiratory system and have been implicated in some eye damage. NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.
N-HEXANE: Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown. TOLUENE : Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects. ETHYLBENZENE: Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.
XYLENES: High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo/fetus. These effects were often at levels toxic to the mother. The significance of these findings to humans has not been determined.

CMR Status:

Chemical Name	CAS Number	List Citations
BENZENE	71-43-2	1, 4, 5

FIGURE 3.4 (cont'd)
CRUDE OIL
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Imperial Oil

CYCLOHEXANE	110-82-7	4
ETHYL BENZENE	100-41-4	3, 4
HYDROGEN SULPHIDE	7783-06-4	4
n-Hexane	110-54-3	4
NAPHTHALENE	91-20-3	3, 4
TOLUENE	108-88-3	4
XYLENES	1330-20-7	4

--REGULATORY LISTS SEARCHED--

1 = IARC 1	3 = IARC 2B	5 = ACGIH A1
2 = IARC 2A	4 = ACGIH ALL	6 = ACGIH A2

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

More volatile component -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.
Less volatile component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Low molecular wt. component -- Expected to be inherently biodegradable
High molecular wt. component -- Expected to biodegrade slowly.

Photolysis:

More water soluble component -- Expected to degrade at a moderate rate in water when exposed to sunlight.

Atmospheric Oxidation:

More volatile component -- Expected to degrade rapidly in air

BIOACCUMULATION POTENTIAL

Components -- Has the potential to bioaccumulate.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (TDG)

Proper Shipping Name: PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC
Hazard Class & Division: 3 (6.1)
UN Number: 3494
Packing Group: II

Footnote: If shipped over water, product TDG classification as shown below for SEA (IMDG).

LAND (DOT)

Proper Shipping Name: PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC
Hazard Class & Division: 3
ID Number: 3494
Packing Group: II
ERG Number: 131
Label(s): 3 (6.1)
Transport Document Name: UN3494, PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC, 3 (6.1), PG II

SEA (IMDG)

Proper Shipping Name: PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC
Hazard Class & Division: 3
EMS Number: F-E, S-E
UN Number: 3494
Packing Group: II
Label(s): 3 (6.1)
Transport Document Name: UN3494, PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC, 3 (6.1), PG II, (21℃ c.c.), MARINE POLLUTANT

AIR (IATA)

Proper Shipping Name: PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC
Hazard Class & Division: 3
UN Number: 3494
Packing Group: II
Label(s) / Mark(s): 3 (6.1)
Transport Document Name: UN3494, PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC, 3 (6.1), PG II

SECTION 15 REGULATORY INFORMATION

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

WHMIS Classification: Class B, Division 2: Flammable Liquids Class D, Division 1, Subdivision A: Very Toxic Material Class D, Division 2, Subdivision B: Toxic Material

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations.

CEPA: All components of this material are either on the Canadian Domestic Substances List (DSL), exempt, or have been notified under CEPA.

Complies with the following national/regional chemical inventory requirements AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
BENZENE	71-43-2	6
CYCLOHEXANE	110-82-7	6
n-Hexane	110-54-3	6
TOLUENE	108-88-3	6

--REGULATORY LISTS SEARCHED--

1 = TSCA 4
2 = TSCA 5a2
3 = TSCA 5e
4 = TSCA 6
5 = TSCA 12b
6 = NPRI

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
No revision information is available.
SYNONYMS: DRAYTON VALLEY SOUR CRUDE (PREVIOUSLY CALLED PEMBINA SOUR), EDMONTON HIGH SOUR CRUDE (SHE), EDMONTON LOW SOUR CRUDE (ELE), LIGHT SOUR BLEND CRUDE, MIXED BLEND SOUR CRUDE, SOUR CRUDE OIL, CRUDE OIL, HIGH H2S, CRUDE OIL (>0.005% H2S)

PRECAUTIONARY LABEL TEXT:
WHMIS Classification: Class B, Division 2: Flammable Liquids Class D, Division 1, Subdivision A: Very Toxic Material Class D, Division 2, Subdivision B: Toxic Material

HEALTH HAZARDS
Very toxic by inhalation. Irritating to skin. Danger of serious irreversible effects by a single exposure. If swallowed, may be aspirated and cause lung damage.
PHYSICAL HAZARDS
FLAMMABLE. In use, may form flammable/explosive vapour-air mixture. Material can accumulate static charges which may cause an ignition.

FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

PRECAUTIONS
H2S is present. Avoid contact with skin. Avoid contact with eyes. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapour may be evolved from heated or agitated material. Use only with adequate ventilation. Do not enter storage areas or confined spaces unless adequately ventilated. Use proper bonding and/or earthing procedures.However, bonding and earthing may not eliminate the hazard from static accumulation. The toxic and olfactory (sense of smell) fatigue properties of hydrogen sulfide require that air monitoring alarms and respiratory protection be used where the concentration might be expected to reach a harmful level, such as in an enclosed space, heated transport vessel, or in a spill or leak situation.

FIRST AID
Inhalation: Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Oral: Seek immediate medical attention. Do not induce vomiting.

Skin: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. Remove contaminated clothing. Dry wipe exposed skin and cleanse with waterless hand cleaner and follow by washing thoroughly with soap and water. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA
Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.

SPILL/LEAK
Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Fully encapsulating, vapour-protective clothing should be worn for spills and leaks with no fire.

Water Spill: Stop leak if you can do so without risk. Eliminate sources of ignition. Warn other shipping. Report spills as required to appropriate authorities. If the Flash Point exceeds the Ambient Temperature by 10 deg C or more, use containment booms and remove from the surface by skimming or with suitable absorbents when conditions permit. If the Flash Point does not exceed the Ambient Air Temperature by at least 10C, use booms as a barrier to protect shorelines and allow material to evaporate. Seek the advice of a specialist before using dispersants.
Use
Not intended or suitable for use in or around a household or dwelling.

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FIGURE 3.4 (cont'd)
CRUDE OIL
MATERIAL SAFETY DATA SHEET

Imperial Oil

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Prepared by: Imperial Oil Limited, IH and Product Safety

FIGURE 3.5
HYDROGEN SULFIDE
MSDS

Material Safety Data Sheet

AIR LIQUIDE

Hydrogen Sulfide

Section 1. Chemical product and company identification

Commercial name(s).	:	**Hydrogen sulfide**
Synonym	:	Sulfur hydride; Hydrosulfuric acid; Hepatic gas.
Material uses	:	Various.
Supplier/Manufacturer	:	Air Liquide Canada Inc. 1250, René-Lévesque West, Suite 1700, Montreal, QC H3B 5E6
In case of emergency	:	(514) 878-1667

Section 2. Hazards identification

Physical state	:	Gas.
Emergency overview	:	DANGER! MAY BE FATAL IF INHALED. FLAMMABLE GAS. HIGH PRESSURE GAS. MAY CAUSE FLASH FIRE. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CAN CAUSE TARGET ORGAN DAMAGE. Keep away from sources of ignition. Keep away from heat (<52°C/125°F). Use only with adequate ventilation. Extremely hazardous gas/liquid under pressure. Keep cylinder valve closed when the product is not used. Gas may accumulate in confined areas.
Routes of entry	:	Dermal contact. Eye contact. Inhalation.
Potential acute health effects		
Inhalation	:	Very toxic by inhalation. Irritating to respiratory system.
Skin	:	Irritating to skin.
Eyes	:	Irritating to eyes.
Ingestion	:	Since the product is a gas, it will probably be inhaled rather than ingested. Consider first the preventive measures in case of inhalation. May cause burns to mouth, throat and stomach.
Potential chronic health effects	:	**CARCINOGENIC EFFECTS**: Not available. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS**: Not available.
Medical conditions aggravated by over-exposure	:	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

Section 3. Composition, Information on Ingredients

	CAS number	mole %
Canada		
Hydrogen sulphide	7783-06-4	> 99

This material is classified hazardous under the WHMIS Controlled Product Regulation in Canada.
See Chapters 8, 11, 14 and 15 for details.

Section 4. First aid measures

Prompt medical attention is mandatory in all cases of overexposure to this gas. Rescue personnel should wear a self-contained breathing apparatus and be aware of extreme fire and explosion hazard.

Inhalation : In case of inhalation, all persons, still conscious, must be brought far from the contaminated area and allowed to breath fresh air. The short time taken for this operation is essential. All unconscious persons must be carried outside from the contaminated area and given cardiopulmonary resuscitation (CPR) with a supplementary of oxygen. Others should be treated according to their symptoms and needs. Get medical attention immediately.

FIGURE 3.5 (cont'd)
HYDROGEN SULFIDE
MSDS

	Hydrogen Sulfide
Skin contact	: In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
Eye contact	: Individual in contact with a gas should not wear contact lenses. Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.
Ingestion	: Since the product is a gas, it will probably be inhaled rather than ingested. Consider first the preventive measures in case of inhalation.
Notes to physician	: Effects of contact or inhalation may be delayed. Provide general supportive measures. Oxygen may be beneficial. The medical doctor must be warned that the person inhaled a very toxic gas.

Section 5. Fire-fighting measures

Flammability of the product	: Flammable.
Auto-ignition temperature	: 259.85°C (499.7°F)
Flammable limits	: Lower: 4% Upper: 44%
Products of combustion	: Decomposition products may include the following materials: sulfur oxides
Fire hazards in the presence of various substances	: Container explosion may occur under fire conditions or when heated.
Fire-fighting media and instructions	: Use an extinguishing agent suitable for the surrounding fire. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Contains gas under pressure. Flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions	: EVACUATE ALL PERSONNEL FROM AFFECTED AREA. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is on container or container valve, contact the closest Air Liquide Canada location.
Environmental precautions	: Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for cleaning up	: Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

Handling	: Keep away from heat, sparks and flame. To avoid fire, eliminate ignition sources. Use explosion-proof electrical equipment (ventilating, lighting and material handling). Valve protection caps must remain in place unless cylinder is secured with valve outlet piped to usage point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure regulator when connecting cylinder to lower pressure piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow to the cylinder. Do not tamper with (valve) safety device. Close valve after

FIGURE 3.5 (cont'd)
HYDROGEN SULFIDE
MSDS

each use and when empty.

Storage : Protect cylinders from physical damage. Store in cool, dry, well-ventilated area of non combustible construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 52°C/125°F. Cylinders must be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in - first out" inventory system to prevent full cylinders being stored for excessive periods of time. Post "No Smoking or Open Flames" signs in the storage or use area. There should be no source of ignition in the storage or use area. Segregate from oxidizing materials.

Section 8. Exposure controls/personal protection

Engineering controls : Use only in well-ventilated areas. Gas may accumulate in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Wear suitable gloves for the application.

Eyes : Splash goggles.

Skin/Body : Wear appropriate personal protective suit. Fire retardant clothing may be required when handling or using flammable products.
Metal cap, safety shoes are recommended when handling cylinders.

Some applications of this product may require additionnal or other specific protective clothings. Please consult your supervisor.

Personal protection in case of a major leak : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Metal cap, safety boots. Wear MSHA/NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling		
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other
hydrogen sulphide	US ACGIH 2/2010	1	-	-	5	-	-	-	-	-
	AB 4/2009	10	14	-	-	-	-	15	21	-
	BC 9/2010	-	-	-	-	-	-	10	-	-
	ON 7/2010	10	-	-	15	-	-	-	-	-
	QC 6/2008	10	14	-	15	21	-	-	-	-

In Canadian provinces where no value is specifically suggested, the lowest value above should be used. Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

Physical state : Gas.

Color : Colorless.

Odor : Rotten eggs. [Strong]

Molecular weight : 34.08 g/mole

Molecular formula : H_2S

pH : <7 [Conc. (% w/w): 10%]

Boiling/condensation point : -59.99°C (-76°F)

Melting/freezing point : -82.77°C (-117°F)

Vapor density : 1.19 [Air = 1]

Odor threshold : 0.13 ppm

FIGURE 3.5 (cont'd)
HYDROGEN SULFIDE
MSDS

	Hydrogen Sulfide
Solubility	: Partially soluble in the following materials: cold water.

Section 10. Stability and reactivity

Stability and reactivity : The product is stable.

Incompatibility with various substances : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Toxicity data

Canada

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
hydrogen sulphide	LC50 Inhalation Gas. LC50 Inhalation Vapor	Rat Rat	444 ppm 700 mg/m3	4 hours 4 hours

IDLH : 100 ppm

Acute Effects

Inhalation : Very toxic by inhalation. Irritating to respiratory system.

Skin : Irritating to skin.

Eyes : Irritating to eyes.

Ingestion : Since the product is a gas, it will probably be inhaled rather than ingested. Consider first the preventive measures in case of inhalation. May cause burns to mouth, throat and stomach.

Potential chronic health effects : **CARCINOGENIC EFFECTS**: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

Target organs : Causes damage to the following organs: lungs, heart, upper respiratory tract, central nervous system (CNS).

Section 12. Ecological information

Ecotoxicity data

Canada

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
hydrogen sulphide	Acute EC50 540 ug/L Fresh water Acute LC50 <2 ug/L Fresh water	Crustaceans - Crangonyx richmondensis lauren - 10 mm Fish - Perca flavescens - Yolk-sac fry	48 hours 96 hours

Products of degradation : These gases are released as is in the atmosphere.

Section 13. Disposal considerations

Disposal : Do not attempt to dispose of waste or unused quantities. Return in the shipping container properly labeled, with any valve outlet plugs or caps secured and valve protection cap in place to Air Liquide Canada for proper disposal. For emergency disposal, contact the closest Air Liquide Canada location.

FIGURE 3.5 (cont'd)
HYDROGEN SULFIDE
MSDS

Section 14. Transport information

NAERG : 117

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
TDG Classification	UN1053	HYDROGEN SULFIDE	2.3 (2.1)	-	
IMDG Class	UN1053	HYDROGEN SULFIDE	2.3 (2.1)	-	
IATA-DGR Class	UN1053	HYDROGEN SULFIDE	2.3 (2.1)	-	

PG* : Packing group

Additional information

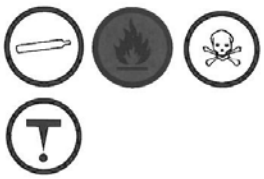
Cylinders should be transported in a secure position, in a well ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards and should be discouraged.

UN	TDG	IMDG	IATA
-	**Explosive Limit and Limited Quantity Index** 0 **ERAP Index** 500 **Passenger Carrying Ship Index** Forbidden **Passenger Carrying Road or Rail Index** Forbidden	**Emergency schedules (EmS)** F-D, S-U	**Passenger and Cargo Aircraft**Quantity limitation: Forbidden Packaging instructions: Forbidden **Cargo Aircraft Only**Quantity limitation: Forbidden Packaging instructions: Forbidden **Limited Quantities - Passenger Aircraft** Quantity limitation: Forbidden Packaging instructions: Forbidden

Section 15. Regulatory information

Canada

WHMIS (Canada) : Class A: Compressed gas.
Class B-1: Flammable gas.
Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).



Canadian lists : **CEPA Toxic substances**: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

Canada inventory (DSL/NDSL) : This material is listed or exempted.

FIGURE 3.5 (cont'd)
HYDROGEN SULFIDE
MSDS

Section 16. Other information

Hazardous Material Information System (U.S.A.) :

Health	*	4
Fire hazard		4
Physical Hazard		0
Personal protection		G

National Fire Protection Association (U.S.A.) :

References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. CGA C-7 Guide to the Preparation of Precautionary Labels and Marking of Compressed Gas Containers. CGA P-20 Standard for Classification of Toxic Gas Mixtures. CGA P-23 Standard for Categorizing Gas Mixtures Containing Flammable and Nonflammable Components.

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4.0 RESPONSE TEAMS

4.1 INTRODUCTION

The Company uses the National Incident Management System (NIMS)-Incident Command System (ICS) (Figure 4.1) to manage emergency response activities. The NIMS-ICS is a management tool which is readily adaptable to very small incidents as well as those of considerable significance and will be implemented for all discharge incidents with staffing levels adjusted as required to meet the specific needs (size and severity) of the incident.

First response to a discharge will be provided by the Local Response Team (Section 4.3). **In the event that the response operation is beyond the capability of the Local Response Team (LRT),** the Incident Commander will consult with Management to evaluate the severity of the situation and determine whether activation of the Spill Management Team (SMT) is necessary.

The Company has adapted the NIMS-ICS-based response team to facilitate a rapid and efficient assessment of the situation and transition from reactive to proactive response operations. The activation, notification and roles and responsibilities of key Spill Management Team members are included within this Plan.

The goal of incident and crisis response operations is the restoration of normal operations while minimizing impacts to people, property, the environment, and the Company. To achieve this goal, response personnel must be able to move from a reactive to a project mode of operations by establishing and maintaining command and control over the situation. For incident response operations, this objective should be addressed by observing standard operating procedures that allow response personnel to rapidly and efficiently determine and communicate effectively about the incident and what is being done to address the incident.

During crisis response operations, crisis managers should address this objective by analyzing the information generated by incident response personnel and determining the implications of the incident on the Company. The analysis should focus on human resource, financial, business, legal, and external affairs issues.

If an incident escalates to require significant NIMS-ICS staffing, then additional support resources may be activated. Corporate Office management may activate supplemental team members to travel to the site to evaluate the incident, report back and to provide staffing to the NIMS-ICS if required. Additional support can be established at a Command Center to provide technical, logistical and operational support. Finally, a team of senior management and staff can be formed to provide a focal point for communications and coordination. This group coordinates policies, procedures, and develops and selects appropriate strategies.

A detailed explanation of the NIMS-ICS and the roles and responsibilities for primary members of the Spill Management Team is provided in Appendix B.

4.2 QUALIFIED INDIVIDUAL

Vital duties of the Qualified Individual (QI) include ensuring the following are accomplished:

- Activate internal alarms and hazard communication systems to notify all Facility personnel.
- Notify all response personnel, as needed.
- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification.
- Notify and provide necessary information to the appropriate Federal, State, Provincial and Local authorities with designated response roles, including the National Response Center (NRC) and State Emergency Response Commission (SERC) in the U.S., the Transportation Safety Board (TSB) and MDDEP in Canada, concerned municipalities in Quebec, and local response agencies.
- Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify response personnel at the scene of that assessment.
- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion).
- Assess and implement prompt removal actions to contain and remove the substance released.
- Coordinate rescue and response actions as previously arranged with all response personnel.
- Activate and engage in contracting with oil spill removal organizations.
- Use authority to immediately access company funding to initiate clean-up activities.
- Direct clean-up activities until properly relieved of this responsibility.

Specific Requirements for Qualified Individual

- Available on a 24 hour basis and able to arrive at the facility in a reasonable time.
- Be familiar with the implementation of the facility response plan.
- Be trained in the responsibilities of the qualified individual under the response plan.
- Be located in the United States (for U.S. Spills / Emergencies).
- Must speak fluent English (for U.S. Spills / Emergencies).

4.2 QUALIFIED INDIVIDUAL (cont'd)

Training / Experience Requirements for the Qualified Individual (computer - based and seminar).

- Training in or has knowledge of applicable OSHA standards.
- Knowledge of how to implement response plan.
- Knowledge of the US National Contingency Plan (NCP) and US Area Contingency Plan (APC) requirements.
- Knowledge of response plan scope and qualified individual responsibilities.
- Has authority to commit resources and effectively assess and adjust resource requirements.
- Knowledge of procedures to obtain and obligate funds.
- "First Responder Awareness Level" training and refresher per U. S. 29 CFR 1910.120(q) (for US Emergencies).

4.3 LOCAL RESPONSE TEAM (LEVEL 1 AND 2)

- The first person on scene will function as the Incident Commander and person-in-charge until relieved by an authorized supervisor.
- Once the Director of Operations arrives on-scene, he will assume the position of Incident Commander (IC). Depending on the circumstances, transfer of command may take place as more senior management respond to the incident.
- The number of positions/personnel required to staff the Spill Management Team will depend on the size and complexity of the incident. The duties of each position may be performed by the IC directly or delegated as the situation demands. The IC is always responsible for directing the response activities and will assume the duties of all the primary positions until the duties can be delegated to other qualified personnel.
- A typical Local Response Team is detailed in Figure 4.2. Job descriptions are detailed in Appendix B for the primary response team positions.
- Response times for the Local Response Team is as follows:
  - South Portland Tank Farm & Pier - immediate to 30 minutes
  - Mainline and Pump Stations - Immediate to 2 hours
  - Montreal terminal - Immediate to 2 hours

4.4 SPILL MANAGEMENT TEAM (LEVEL 2 AND 3)

For spill response operations outside the capabilities of the Local Response Team, the QI (or QI/A) and Incident Commander will determine the need for mobilization of the PMPL Spill Management Team (SMT). The members of the Local Response Team will become members of the Spill Management Team. The

4.4 SPILL MANAGEMENT TEAM (LEVEL 2 AND 3) (cont'd)

number of positions/personnel required to staff the Spill Management Team will depend on the size and complexity of the incident. PMPL's Spill Management Team is detailed in Figure 4.3.

Organization

The Spill Management Team includes five (5) functional areas: Command, Operations, Planning, Logistics, and Finance. The functional areas are illustrated in Figure 4.3.

Responsibilities

The responsibilities of the Spill Management Team are as follows:

- Operations, Planning, Logistics, and Finance report directly to Command.
- When IC does not assign the position, IC retains that responsibility.
- The five (5) functional areas of the Team are modular in design and can be expanded with additional staff, reporting under the main areas, to meet the requirements of large scale or complex emergencies.
- The IC can set up functional groups or assign groups that are assigned to geographical areas.

The Spill Management Team job positions are described in Appendix B. Response time for the Spill Management Team is: immediate to 2 hours.

4.5 RESPONSE TEAM TRAINING

Knowledge of roles and responsibilities

One of the key elements of a well-planned emergency response is the knowledge that each responder has of their role and responsibilities. If everyone knows what their tasks are, if there is a trained substitute for all the key positions, then the response will be coordinated and tasks will not be duplicated. These roles and responsibilities must be well understood and accepted by every responder. It is the responsibility of every responder to have a trained substitute, who comprehends well his role and responsibilities as a substitute. The responder, in choosing his substitute, must make sure that he has the appropriate authority to perform his tasks during an emergency. It is important to verify that the emergency response responsibilities of a responder are not in conflict with his normal responsibilities at the Facility. During an emergency, the responders must safely stop their assigned duties and establish a priority of actions that must be performed in order to terminate the emergency.

Emergency responders have two levels of responsibilities:

A legal responsibility is associated with the National, Provincial and State Laws.

A moral responsibility since when a procedure is not observed, there could be

4.5 RESONSE TEAM TRAINING (cont'd)

consequences for the responder himself, for other employees, for the surrounding population, for the environment, and for the Company.

The Company provides training related to discharge prevention, testing and response, including measures to repair pipeline ruptures and mitigate discharges, as well as emergency measures regarding Fire/Explosion, Security and medical incidents.

The Department Heads are responsible for the coordination of employee schedules, location and implementation of the emergency response training exercises throughout the year. The Health, Safety and Environmental Coordinator is responsible for coordinating the annual corporate exercise. The Human resources specialist is responsible for records maintenance for the training and exercises.

The effectiveness of each training program is closely monitored by the Department Heads.

Through the various training methods described below the Company's training program is intended to ensure the following results:

That all personnel know:

- Their responsibilities under the Plan.
- The name, address and procedures for contacting the operator on a 24-hour basis.
- The name of, and procedures for contacting the Qualified Individual on a 24-hour basis.

That all reporting personnel know:

- The storage facilities, pipelines and response zone details for the affected area (Figures 1.5, 1.10 & 1.11).
- The telephone number of the National Response Center or MDDEP and other required notifications (Section 2.0 & Figures 2.8 – 2.13).
- The notification process. (Section 2.0 & Figures 2.2 & 2.3).

That all response personnel know:

- The characteristics and hazards of the oil possibly discharged from PMPL installations (Section 3.0).
- The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions, and the appropriate corrective actions.
- The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity or environmental damage (Section 3.0).
- The Company requires that all response personnel, including contractors and casual labor, have the appropriate training necessary to serve on a response team during an emergency. Team members will receive training in the following:

4.5 RESPONSE TEAM TRAINING (cont'd)

Response Plan Review

- All Local Response Team Members should review their Integrated Contingency Plan whenever their job position or responsibilities change under the Plan. A copy of this Plan will be available at all times to Team Members.

HAZWOPER (29 CFR 1910.120)

- In the U.S., Federal and state regulations require that response team members maintain up-to-date HAZWOPER training necessary to function in their assigned positions. At a minimum, The U.S. Company employees will receive "First Responder Awareness Level" training. All "Non-Company" personnel responding to an incident must satisfy the applicable HAZWOPER training requirements of 29 CFR 1910.120.

OSHA HAZWOPER TRAINING REQUIREMENTS		
Responder Classification	**Required Training Hours**	**Refresher**
29 CFR 1910.120(q) Emergency Response		
First Responder - Awareness Level	2-4 hrs demonstration of competency	same
First Responder - Operations Level	8 hrs	8 hrs
Hazardous Materials Technician	24 hrs plus competency	8 hrs
Hazardous Materials Specialist	24 hrs plus competency in specialized areas	8 hrs
Incident Commander	24 hrs plus competency	8 hrs
29 CFR 1910.120(e) Clean Up Sites		
General Site Workers	40 hrs / 3 days on the job training	8 hrs
Occasional Workers (Limited Tasks)	24 hrs / 1 day on the job training	8 hrs
General Site Workers (Low Hazard)	24 hrs / 1 day on the job training	8 hrs
Supervisors	8 hrs supervisor training	8 hrs
29 CFR 1910.120(p)(7)(8) RCRA TSD Sites		
New Employees	24 hrs	8 hrs
Current Employees*	24 hrs	8 hrs

* Previous work experience and/or training certified as equivalent by employer.

Incident Command System

- Response team members will receive ICS training and may also receive supplemental training in other, related general topics.

Volunteers

- The Company will not use volunteers for emergency incident response and no company provisions exist to train them. Volunteers may be used by government response entities, as allowed by applicable policies/procedures.

4.5 RESPONSE TEAM TRAINING (cont'd)

Supervisor/Team Meetings

- Periodic Supervisor/Team meetings are conducted by the various Areas and Teams with essential personnel assigned to the Response Team in attendance. These meetings typically include a review of various emergency response procedures contained in this Plan. The standard agenda could include some or all of the following:
  - Overview of emergency response.
  - Review and discussion of the Company response actions (with a focus on notification, assessment of severity of the event, functional activities/roles, and organization structure).
  - Review of the emergency response equipment and site plans.
  - A table top emergency response exercise.

Training Records Maintenance

- The Company maintains records sufficient to document training of its facility personnel and Spill Management Team. In the US, these records will be maintained at the company's Corporate Headquarters in South Portland for a minimum of three years and will be made readily available for inspection upon request by the U.S. Coast Guard, U.S. Environmental Protection Agency, or any other regulatory agency. In Canada, these records will be maintained at the Montreal Pipe Line Offices in Montreal and will be made readily available for inspection upon request by Environment Canada, MDDEP or other regulatory agency. PMPL's oil spill recovery organizations will maintain records sufficient to document training of the organization's personnel for a minimum period of three years. These records would be readily available for inspection upon request by PMPL's management personnel, its Qualified Individual(s), the U.S. Coast Guard, the U.S. Environmental Protection Agency, and the National Energy Board, Environment Canada or other regulatory agencies.

Contractor Training

- The Company also recognizes that contract personnel must also have sufficient training to respond to the Company's emergency response situations. In the US, at a minimum, contractors are required to be trained in accordance with US 29 CFR 1910.120. The Company communicates this training need to its key contractors during contract negotiations and often specifically spells out this requirement in its contracts. The Company also tends to use well-known spill response contractors whose reputation and experience levels help ensure personnel who respond will be trained to appropriate levels.

4.5 RESPONSE TEAM TRAINING (cont'd)

Training Qualifications

- As no formalized method of certifying training instructors has been provided by OSHA or by Canadian Legislation, the Company ensures the competency of its instructors and training organizations by selecting trainers and/or organizations with professional reputations and extensive hands-on and classroom experience in their subject matter. Company personnel with responsibility to coordinate the training program also conduct periodic informal audits of training courses selected for the Company's training program to ensure their suitability for the program.

Educating and Informing Municipalities and Associated Response Agencies

- The Onshore Pipeline Regulation, 1999, from the National Energy Board Act, specifies education and information responsibilities in Articles 33, 34 and 35. See Appendix A, "Onshore Pipeline Regulations" (SOR 99/294) for descriptions.

Onshore Pipeline Regulation requirements - Canada

- The Onshore Pipeline Regulation, 1999, from the National Energy Board Act, specifies:

  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.

  A company shall develop a continuing education 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.

4.6 RESPONSE TEAM EXERCISES

Local and Spill Management Team members, government agencies, contractors, and other resources must participate in response exercises required by Federal, state, or local regulations and as detailed in the "National Preparedness for Response Exercise Program (PREP) Guidelines". The Company will conduct announced and unannounced drills to maintain compliance, and each plan-holder must conduct at least one exercise annually. The following table lists the triennial exercise cycle for U.S. facilities (see PREP Guidelines for full details).

4.6 RESPONSE TEAM EXERCISES (cont'd)

Triennial Cycle		
Total Number	**Frequency**	**Exercise Type/Description**
12	Quarterly	QI Notification Exercise
6	Annual (DOT) Semi-Annual (EPA)	Equipment Deployment Exercise *(May consist entirely of operator owned equipment, a combination of OSRO and operator equipment or OSRO equipment).*
3	Annual	Response Team Tabletop Exercise
3	Not more than Tri-annually	Unannounced Exercise *(not a separate exercise)* Actual response can be considered as an unannounced exercise.
NOTE: All response plan components must be exercised at least once in the Cycle.		

Quarterly QI Notification Exercise

- **Scope:** Exercise notification process between key facility personnel and the qualified individual to demonstrate the accessibility of the Qualified Individual.

- **Objective:** Contact by telephone, radio, message-pager, or facsimile and confirmation established as indicated in Response Plan.

- **General:** All personnel receiving notification shall respond to the notification and verify their receipt of the notification. Personnel who do not respond should be contacted to determine whether or not they received the notification.

Annual and Semi-Annual Equipment Deployment Exercise (for facilities with equipment)

- **Scope:** Demonstrate ability to deploy spill response equipment identified in the ICP.

  - May consist entirely of operator owned equipment, a combination of OSRO and operator equipment, or OSRO equipment.

  - The number of equipment deployment exercises conducted should be such that equipment and personnel assigned to each response zone are exercised at least once a year. If the same personnel and equipment respond to multiple zones, they need only exercise once per year. If different personnel and equipment respond to various response zones, each must participate in an annual equipment deployment exercise.

4.6 RESPONSE TEAM EXERCISES (cont'd)

- **Objective:** Demonstrate personnel's ability to deploy and operate response equipment. Ensure that the response equipment is in proper working order. Test different intervention scenarios that reflect all circumstances of its operations such as winter operations.

- **General:** The Facility may take credit for actual equipment deployment to a spill, or for training sessions, as long as the activities are properly documented.

Annual Response Team Tabletop Exercise

- **Scope:** Demonstration of the response team's ability to organize, communicate, and make strategic decisions regarding population and environmental protection during a spill event.

- **Objective:** Designated Spill Management Team members should demonstrate the following:

  - Knowledge of the Plan.
  - Ability to organize team members effectively.
  - Communications system.
  - Interface with a unified command.
  - Coordination for response capability as outlined in Response Plan.

- **General:** Credit should be taken for an actual spill response when these objectives are met, the response is evaluated and, a proper record is generated.

Government-Initiated Unannounced Exercise (US Only)

- **Scope:** Demonstrate ability to respond to a worst case discharge spill event.

- **Objectives:** Designated Spill Management Team members should demonstrate adequate knowledge of their Response Plan and the ability to organize, communicate, coordinate, and respond in accordance with that plan.

- **General:** Maximum of 20 unannounced PHMSA exercises conducted annually for the pipeline industry as a whole. A single owner or operator will not be required to participate in a PHMSA-initiated unannounced exercise, if they have already participated in one within the previous 36 months.

4.6 RESPONSE TEAM EXERCISES (cont'd)

Exercise Documentation

- PMPL would ensure that records sufficient to document drills for its facility personnel and the Spill Management Team and equipment are maintained for a minimum of three years following completion of drills. Similarly, PMPL would ensure that records sufficient to document the drills of its oil spill response organization and response resources identified in this plan are maintained for a minimum of three years. In the US, all records will be stored at the corporate headquarters and made readily available for inspection upon request by the U.S. Coast Guard, the U.S. Environmental Protection Agency, or any other regulatory agency. In Canada, these records will be maintained at the Montreal Pipe Line Offices in Montreal and will be made readily available for inspection upon request by Environment Canada, MDDEP or other regulatory agency.

- PMPL conducts its exercises in accordance with the National Preparedness for Response Exercise Program guidelines in the US and CAN/CSA Z731-03 in Canada. These exercises are self-evaluated and certified. Detailed records of these drills are maintained by the Operations department and the Health, Safety and Environmental Coordinator and typically consist of:

  - The type of exercise;
  - Date and time of the exercise;
  - A description of the exercise;
  - Agendas;
  - Attendance Rosters/ Sign-in sheets;
  - The objectives met in the exercise;
  - Exercise critique comments;
  - National Preparedness for Response Exercise Program and Exercise forms;
  - Exercise supporting documentation;
  - Certificates of completion for personnel and the organization
  - Photographs of exercise; and
  - Evaluation forms

How to conduct exercises

The following information are excerpts of guidelines taken from CAN/CSA Z731-03. An exercise enables a person to learn by putting into practice concepts learned in courses. There are two categories of exercises: management exercises and operational exercises. Management exercises are the more difficult exercises to plan. The objective of these exercises is to determine, to mobilize, to direct, and to support personnel, equipment, and response procedures necessary during an incident at the facility. Management exercises may be of two types: a functional management exercise and a combined management exercise. The functional exercise will test a specific function without any regards to other functions normally managed during an incident (ex.: how to obtain the necessary resources during a major spill). A combined exercise will test more than one function: safety of employees, clean up of the site, etc.

4.6 RESPONSE TEAM EXERCISES (cont'd)

How to conduct exercises (Cont'd)

Amongst the principal activities to consider during a response are:

- Gathering and assessing appropriate data;
- Acknowledgement of major problems and their classification by priority;
- Problem solving;
- Assignment of human resources and material;
- Decision making;
- Elaboration of strategic and tactical action plans.

The goals of a management exercise are to verify the ability of the company to manage effectively different response functions (see list below), to assess the knowledge of the response teams (Local Response Team – LRT and Spill Management Team- SMT), and to promote collaboration between the responders.

A response function has:

- A clearly stated objective and realistic and reachable sub-objectives;
- A series of tasks performed in order to reach the different objectives;
- Means, such as human resources and equipment, needed to reach the objectives;
- Terms and conditions for the organization, the classification and the orientation of tasks needed to reach the objectives.

The following list describes the major response functions and their management objective during an exercise:

1. Notification: The capacity of PMPL to notify, to inform, and to mobilize the necessary personnel during an emergency;
2. Management of incident/integration of plans (e.g. municipal Plan, governmental procedures, etc.): The ability of PMPL to direct, coordinate and control a response operation with an appropriate response structure;
3. Analysis of the situation: The capacity of PMPL to evaluate the gravity and the consequences of an incident, as well as to determine the major problems associated with the incident;
4. Elaboration of a strategy: The ability of PMPL to establish an appropriate response strategy, as well as a resource mobilization strategy;
5. Utilization of emergency equipment: The level of preparation of the LRT and SMT, and of the LRT and SMT to deploy the proper equipment;
6. Rescue: Ability of the LRT / SMT to arrange for rescue of personnel with appropriate equipment and in collaboration with other external resources;

7. Protection of the environment: Ability of the LRT / SMT to protect the environment using appropriate equipment;

4.6 RESPONSE TEAM EXERCISES (cont'd)

How to conduct exercises (Cont'd)

8. Evaluation and clean-up of the site: Ability of PMPL to coordinate the clean-up actions in order to mitigate the impacts of the incident on the environment;
9. Specific procedures: Ability of the LRT/SMT to react to specific risks associated with the activities of the Company and according to specific weather or seasonal conditions;
10. Communications: Ability of the Company to allow easy communications between internal and external responders, and between the EOC and the field personnel;
11. Logistics: Ability of the Company to ensure the availability of personnel and equipment during an emergency response;
12. Management of wastes and clean-up: Ability of the Facility to manage all wastes produced during the emergency, with respect to provincial and federal legislations;
13. Public affairs and media relation: Ability of the Facility to forward precise information to the media (on a regular basis);
14. Legal support: Documentation and legislative conformity with respect to prevention of incidents, emergency procedures, notification procedures, and responsibility during emergencies;
15. Safety of operations: Ability of the Facility to give information relative to the risks involved with response operations and clean up of sites during an emergency.

4.7 SITE SAFETY AND HEALTH PLAN(S) DEVELOPMENT

The Safety Representative will be responsible for preparing a Site Safety and Health Plan (SSHP) that will establish site specific policies, practices, and procedures to protect workers and the public from coming into contact with potential chemical and/or physical hazards. The SSHP or designee must be available at the site for worker and government review (upon request). Workers entering the site for the first time must review the SSHP prior to entry. Daily SSHP briefings should be conducted. The SSHP must be modified as necessary and address multiple work environments, if applicable. The SSHP will contain the following information:

- Guidance on who is responsible for monitoring site safety.
- A characterization of the risks associated with each operation that will be conducted in the area covered by the plan.
- A description of known chemical and physical hazards, and the measures that have been instituted to eliminate the hazards or reduce them to an acceptable level.

- Guidance on the level of HAZWOPER training required for workers commensurate with their job responsibilities.
- A definition of site control measures, including a site map.

4.7 SITE SAFETY AND HEALTH PLAN(S) DEVELOPMENT (cont'd)

- A description of decontamination procedures for personnel and equipment.

The following should be included:

  - Contaminated Personnel Protective Equipment (PPE) cleaning and removal Procedures
  - Containment PPE cleaning precautions for decontaminating personnel.

The Site Safety and Health Plan format that will be used is located in Appendix K.

FIGURE 4.1
NATIONAL INCIDENT MANAGEMENT SYSTEM
INCIDENT COMMAND SYSTEM
(NIMS – ICS)

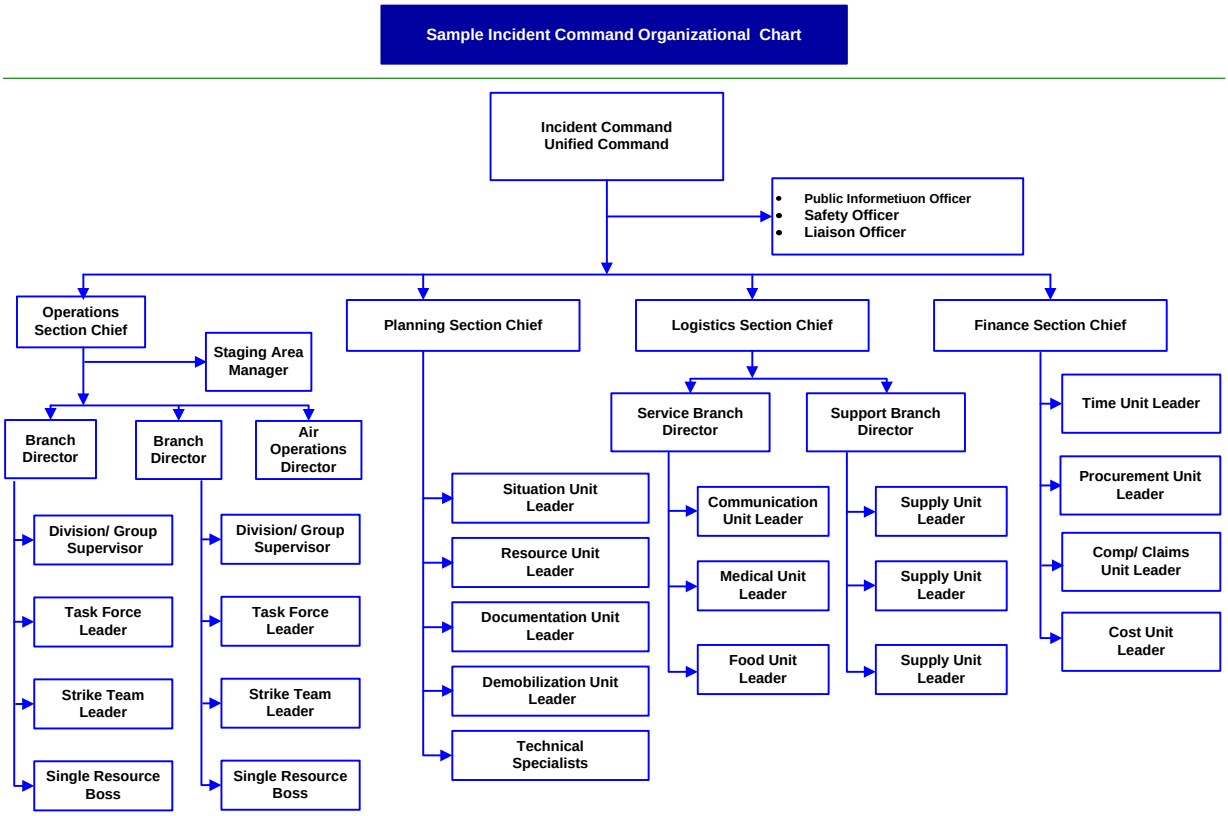


FIGURE 4.2

LOCAL RESPONSE TEAM

(Level 1 and Level 2 Spills)

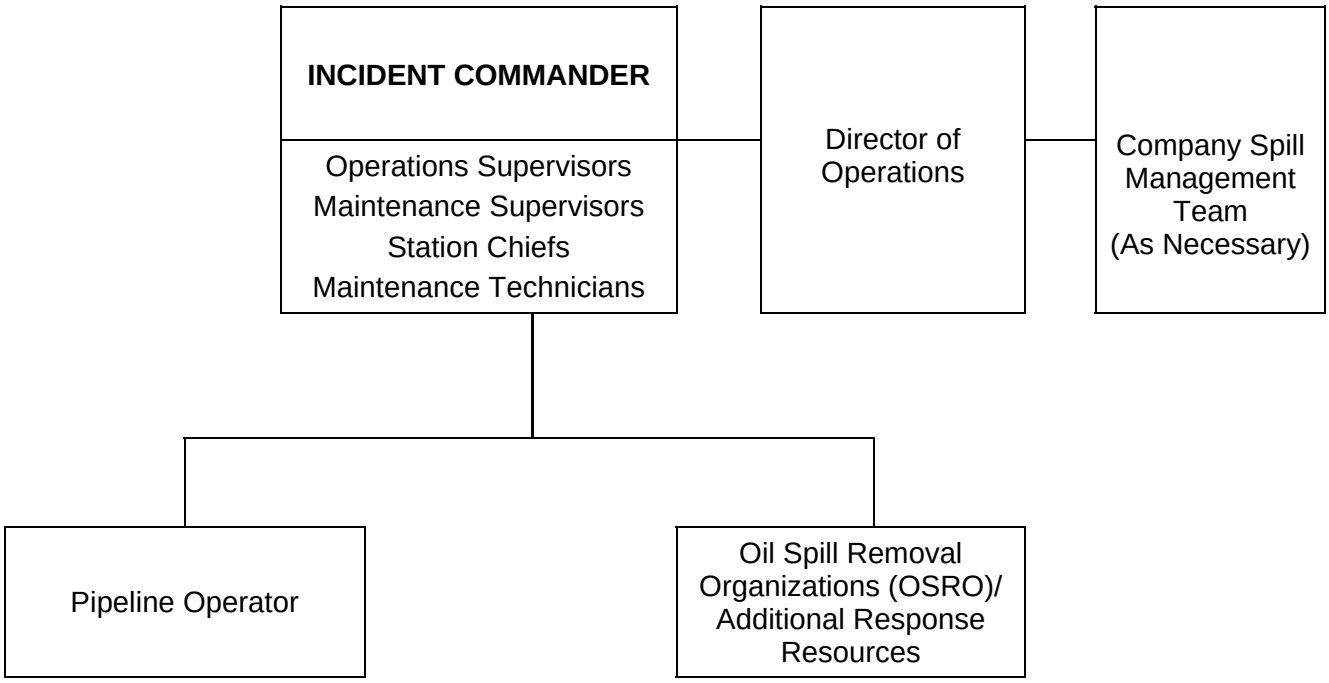


FIGURE 4.3

FIGURE 4.3 US Response Unit

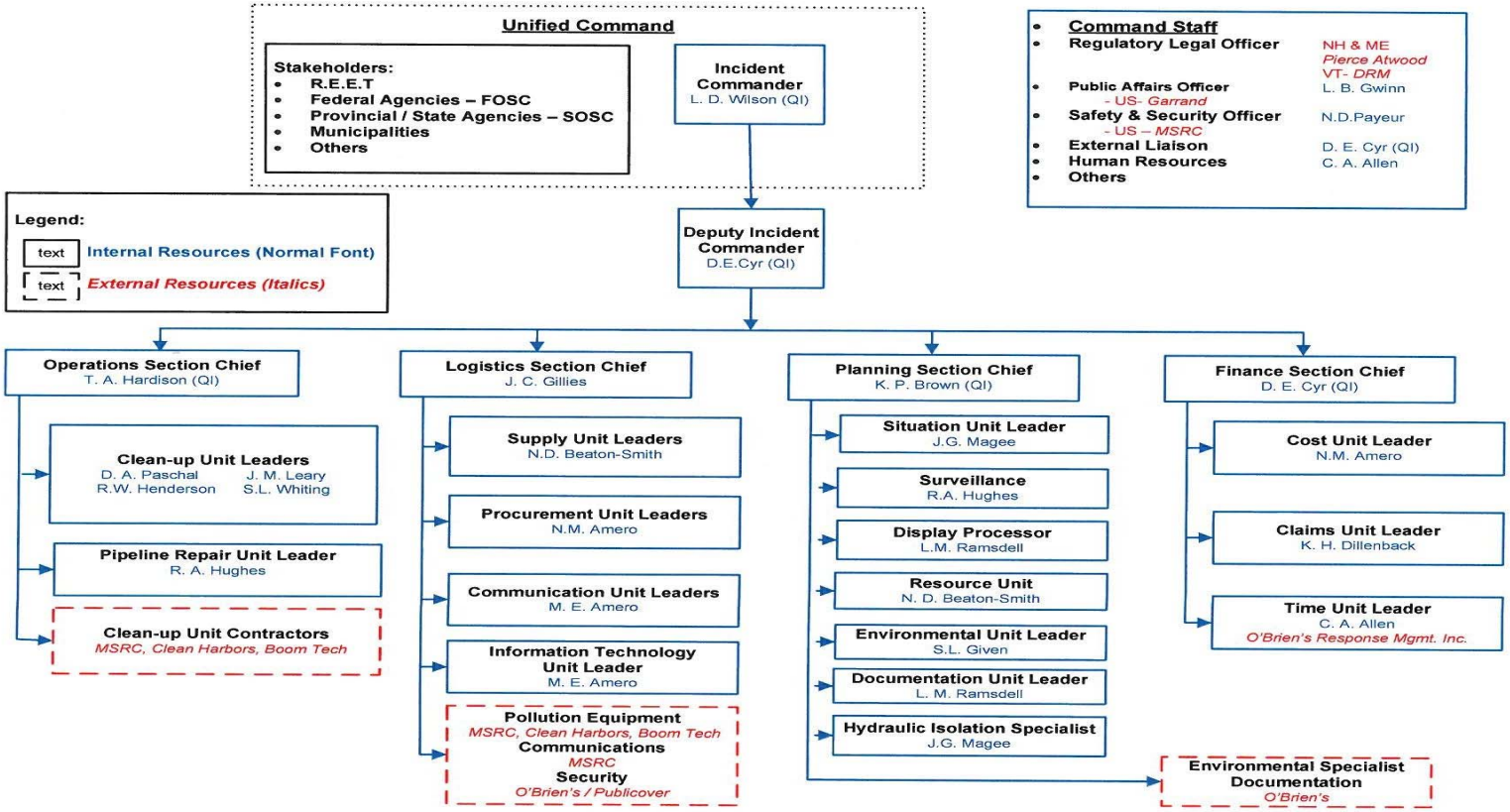
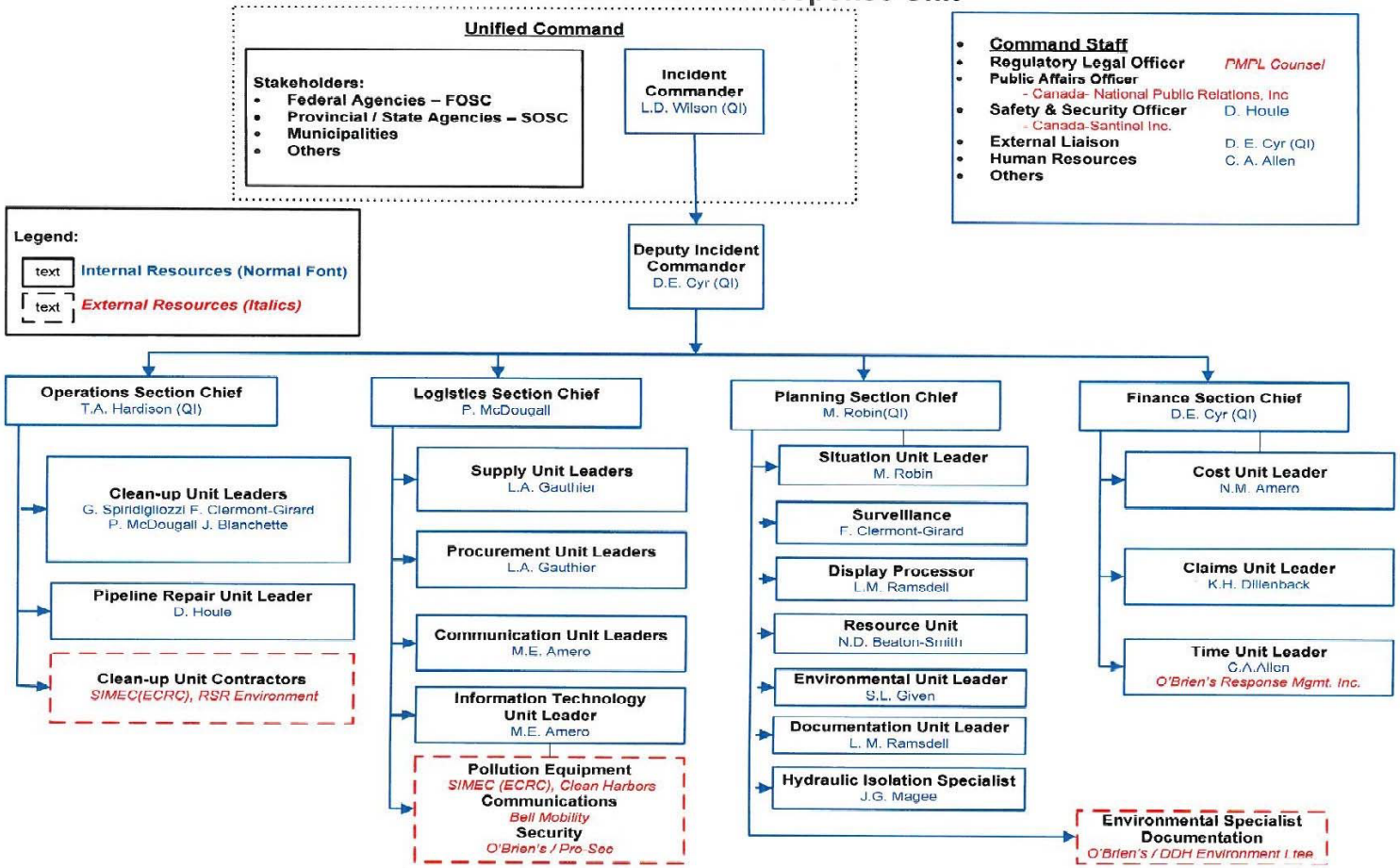


FIGURE 4.3b Canadian Response Unit



5.0 RESPONSE EQUIPMENT/RESOURCES

The following sections outline the various response equipment/resources available from the Facility, Oil Spill Removal Organizations, and other outside resources.

5.1 COMPANY RESPONSE EQUIPMENT

Various locations along the pipeline system are equipped with response equipment including response trailers and command vehicles, pipeline repair equipment, personal protection equipment, and boom and sorbents. This equipment is stored at nine primary locations throughout the system as detailed in Appendix C. Section 1 provides directions to all response equipment storage locations. All PMPL owned response equipment is available 24 hour a day.

The Company also has contracts in place with Oil Spill Removal Organizations and other clean-up contractors for response to a discharge. Appendix C lists the Company's contracted OSRO's and other companies available to the company in the event of a spill.

The Qualified Individual has the authority to activate these and other Company resources or that of private contractors (OSRO's) and other experts and consultants as the situation demands.

5.2 EQUIPMENT TESTING

The Company conducts regular maintenance testing of all equipment along the system as part of its scheduled maintenance program.

System Equipment

- Line maintenance personnel conduct a scheduled inspection of all equipment in accordance with either 49 CFR Part 195.420 (for DOT regulated items such as valves) CSA Z-662, Oil and Gas Pipeline Systems, the Onshore Pipeline Regulations or company policy.
- Discharge prevention and mitigation equipment, including block valves, are included in a scheduled maintenance program.

Emergency Response Equipment

- Response equipment is checked by Company personnel and any deficiencies noted on the Equipment Maintenance Log.
- Motorized equipment (compressors, generators, boat motors, etc.) are also checked regularly and any deficiencies noted accordingly.
- The communications equipment for these systems is owned by PMPL and maintained under a maintenance contract. Repair and maintenance contracts will be coordinated by the Maintenance Department. Radio users should not contact service providers directly, except in case of emergency. If a unit requires repairs, the Supervisor for the particular district to which the unit is assigned should be contacted to arrange for repairs with the local service shop.

5.3 OTHER COMPANY RESOURCES

- A general inventory of communications equipment, audio/video equipment, and other support items are available from the various office/facility locations of the company through all Company field locations.

5.4 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the local responders and response equipment, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation on land, water, or adjacent shorelines. The resources will be secured from an approved contractor. Notification/implementation of these resources will typically be handled by the QI. OSRO data, including equipment inventories and/or USCG certification data, is provided in Appendix C. **Telephone references are provided in Figures 2.14 and 2.15.** *(Note: Portland Pipe Line Corporation has a program in place to ensure that each OSRO has a maintenance program and applicable training / drills programs in place.)*

5.5 COOPERATIVE/MUTUAL AID RESOURCES

Cooperative/Mutual Aid resources will be utilized when available and/or necessary. (See Section 2, Figure 2.15)

5.6 MARINE SPILL RESPONSE CORPORATION (MSRC)

Marine Spill Response Corporation (MSRC) resources are available and will be utilized if necessary.

EASTERN CANADA RESPONSE CORPORATION (ECRC / SIMEC)

ECRC resources are available and will be utilized if necessary, consult Appendix B, response team job descriptions, for the responsibilities of ECRC during a spill in a waterway.

5.7 EXPERTS AND CONSULTANTS

The Company maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation. Implementation of these services should be coordinated through the Incident Commander. Various telephone references are provided in Section 2.0.

5.8 VOLUNTEERS

Volunteers will not be utilized for responding to spills. All volunteers will be referred to the State or Federal On-Scene Coordinator.

5.9 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/ diversion, repair, traffic control, public control or evacuation, and restoration.

Lines of communication between the Incident Commander, local responders, and the Emergency Response Team members are demonstrated in the organization charts provided at the end of this section. Communication of the overall spill response operation between the Company and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator. Appendix J provides additional detail on the U.S. Federal Response Organization.

5.9.1 Central Communications System

Prearranged communication channels are of the utmost importance in dealing with System emergencies. The notification procedures and telephone contacts documented in Section 2.0 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of emergency telephone numbers for internal management and emergency response personnel (Figures 2.4 – 2.7).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Figure 2.8-2.15).
- A list of emergency telephone numbers for contract response resources (Figure 2.14 – 2.15).

5.9.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing System communications network. This network will utilize existing radios, telephones, beepers, FAX machines, and computers and will be maintained by System personnel. In the event of a Worst Case Discharge, field communications will be enhanced with other Company and contract resources as the situation demands.

PMPL has handheld intrinsically safe radios that are used for internal operation communications. During the initial response activities, these would be temporarily used for short term emergency communications until contracted OSRO's arrive with their radios with separate frequencies. Contractor radios would include those from Clean Harbors, MSRC and ECRC (See Equipment Lists in Appendix C for Clean Harbors' radios and MSRC's Communications Suite).

It is the responsibility of the Logistics Section Chief to provide all responders with appropriate means of communications during and emergency. The Communication Contractor will provide the Logistics Section Chief with proper equipment.

5.9 COMMUNICATIONS (cont'd)

5.9.3 Communication Types

VHF/UHF Radios - Handheld radio sets are the most effective means of communication for the field response operation. The units are battery operated, multi-channeled, and have a typical range that will cover the area of the response operation. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional) - Conventional land line telephones are the most effective means of communication for regulatory and advisory notifications during a spill response operation. Additional telephone lines can be installed in the event of a prolonged response operation.

Telephone (Cellular) - Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain Facility personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

FAX Machines - FAX machines allow for a rapid transfer of urgent information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers - Computers are commonly used in networks which allow access to various other locations and company personnel. Computers also speed the consolidation of information and preparation of written reports.

6.0 SPILL IMPACT CONSIDERATIONS

6.1 CRITICAL AREAS TO PROTECT

During an emergency situation, it is important to identify all critical areas which may be impacted by the incident, in order to minimize the damages caused by the incident. The major critical areas for a spill in a waterway have been identified in the Environmental Sensitivity maps (Figure 6.1). Whenever there is an environmental emergency, the Environmental Specialist will identify, in collaboration with governmental authorities, which critical area is susceptible to being affected. The appropriate government (United States and Canada) authorities will further clarify these categories at the time of the response. These critical areas will require mitigation measures to be implemented by the Incident Commander.

The critical areas to protect are classified as high, moderate, and low sensitivity to oil for coastal and inland environments. The categories are defined as follows:

HIGH SENSITIVITY

- Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species.
- Areas which consist of forested areas, brush/grassy areas, wooded lake areas, freshwater marshes, wildlife sanctuaries/refuges, and vegetated river/stream banks.
- Areas which consist of shallow seagrass flats, tidally influenced marshes/wetlands, and sheltered tidal flats with vegetated margins.
- Areas which are abundant in many species and are very difficult to clean and rehabilitate.

MODERATE SENSITIVITY

- Areas of moderate productivity, somewhat resistant to the effects of oiling.
- Areas which consist of degraded marsh habitat, clay/silt banks with vegetated margins, and gravel/cobble beaches.
- Areas which consist of the riparian zone along freshwater rivers with saltwedge, oyster reefs, exposed tidal flats, dredged spoil deposits, and partially exposed bay margins.

6.1 CRITICAL AREAS TO PROTECT (cont'd)

LOW SENSITIVITY
● Areas of low productivity, man-made structures, and/or high energy.
● Areas which consist of gravel, sand, or clay material, barren/ rocky riverbanks and lake edges, man-made structures, and concrete/compacted earthen drainage ditches.
● Areas which consist of sand-shell substrate, fine-grained sand, seawalls, jetties, bulkheads, revetments, and erosional scarps.

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/Socio-economic Sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

Measures to prevent damages to the fauna and flora and response techniques will be determined by the IC assisted by the Environmental Specialist, in collaboration with external authorities (governmental authorities, fire department, police, etc.).

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related state agencies
- Canadian Wildlife Services and related provincial and local agencies;
- Environment Canada;
- Ministere du Development durable, de l'environnement et des Parcs
- Applicable Area Contingency Plans
- Environmental Sensitivity Maps (Section 6.0; Figure 6.1)
- Section 7.2 MPL Oil Spill Specific Response Plan
- Other industry and private experts
- Municipalities

The environmental and socio-economic sensitivities in the vicinity of the incident can be divided into a number of categories. The following environmental/socio-economic sensitivity summary describes these categories which may be impacted by a discharge and should be addressed in the response:

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (cont'd)

Environmental:

- Environmentally sensitive areas are prevalent throughout any marine and/or terrestrial environment and may be affected by any potential discharge incident.
- Environmentally sensitive areas subjected to stress and sudden change may be severely damaged. All means of exclusion/diversion should be utilized during a response effort to minimize the impact on these areas.

Historical Areas:

- Properties listed in the National Register of Historic Places and Natural Landmarks in the US.
- Properties listed as Historical Sites by the Ministry of Canadian Heritage (Canadian Conservation Institute) and by Parks Canada.
- These areas may need to be boomed off or otherwise protected to minimize impact.

Major Recreational Areas:

- A discharge affecting these areas may pose a public safety/health risk during a response effort.
- Shoreline access for personnel and equipment deployment (boats, boom, etc.) is typically available in these areas.

Marinas:

- These areas have a high degree of public exposure (personal and property) and should be boomed for protection.
- Boats and other water deployed equipment can often be deployed and/or obtained in these areas.

Commercial Navigation:

- These areas have a high public and business disruption impact.
- Clean up should focus on maintaining or re-opening waterway access for commercial traffic.

Residential Areas:

- These are areas with high public impact and may warrant evacuation in extreme cases.
- Cleanup must be performed with extreme caution due to extensive public exposure.

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (cont'd)

Commercial Farming/Ranching Areas:

- Commercial Farming/Ranching Areas have the potential of human and livestock impact, as well as socio-economic impact in the potential loss of crops or loss of property use.

Water Intake Points:

- Commercial, industrial, municipal, and private water intakes are subject to impact.
- These areas may need to be boomed off or otherwise protected to minimize impact.
- Water Intakes in each applicable watersheds are listed in Watershed Section.

Wildlife Management Areas and Refuges:

- These areas have a high degree of exposure to threatened/endangered species and many other types of wildlife.
- Protection booming and clean-up efforts are high priority in these areas.

6.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with federal, provincial, state, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the coordination of Company's wildlife preservation activities with federal, provincial, state, and local agencies during an oil spill is the responsibility of the Incident Commander as part of the Unified Command. The Operations Section implements wildlife protection in the field supported by the Planning Section to identify potential areas or locations for wildlife protection. Contractors specializing in wildlife protection will provide the Incident Commander and the SMT with guidance on the proper handling of impacted wildlife and the necessary permits required for such efforts.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

6.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 6.2. Additional detail is also provided in the "Emergency Response Mapping" booklets contained under separate cover (See Figure 6.1 for a listing).

6.3 WILDLIFE PROTECTION AND REHABILITATION (cont'd)

The Canadian Wildlife Service and related provincial agencies have numerous available inventories on:

- Threatened bird species in Quebec
- Threatened bird breeding sites in Quebec
- Migratory bird sanctuaries sites
- List of species at risk in Canada
- Lists of National wildlife areas

6.3.2 Wildlife Rescue

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, including encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
    - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
    - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
    - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
    - Use of capture and relocation.

6.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**

- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/provincial/state agency and the Incident Commander.**

- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.

- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife of their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**

- The regulatory agencies and response personnel should be providing the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.

6.3 WILDLIFE PROTECTION AND REHABILITATION (cont'd)

- External resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Figures 2.14 & 2.15. This list includes:
  - Outside rehabilitation organizations
  - Other resources
  - Regulatory agencies that can assist with wildlife rescue and rehabilitation are in Figures 2.8 – 2.13

6.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Facility discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

  See mapsets listed Figure 6.1 for pre-identified staging areas.

6.5 SPILL VOLUME ESTIMATES

Consult Section 3.13 "Determination of Spill Volume and Extent".

6.6 TRAJECTORY ANALYSIS

Oil spilled on water will react primarily to the effects of wind and current. The oil will tend to spread to a thin layer under the influence of gravity (primary) and chemical (secondary) forces. The following describes the behavior of oil on water:

- Oil will move in the direction and at the rate of the current under negligible wind conditions.
- Oil will move in the direction and at approximately 3.4 % of the velocity of the wind under negligible current conditions.
- The combined effects of wind and current on the oil should be carefully analyzed. A method of vector analysis can be performed to determine the net direction of movement (wind forces can work in addition to, against, or in many other combinations with the current).
- The primary method of surveillance for the Facility will be visual. Visual surveillance is not effective however in rain, fog, darkness, or heavy cloud cover. It is difficult to observe a slick on the water from a boat, dock or land due to the angle of observation. Aerial surveillance is the preferred method of visual surveillance because of the elevated view and the ability to cover a large area in a short period.

6.6 TRAJECTORY ANALYSIS (cont'd)

During immediate response stages of a spill, the Clean-up Unit Leaders will be responsible for estimating the trajectory of an oil spill. As the spill management progresses from the emergency to the project phase, the Environmental Specialist will do so.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT

General descriptions of various specific response techniques that may be applied during a response effort are discussed below. Company responders are free to use all or any combination of these methods as incident conditions require, provided they meet the appropriate safety standards and other requirements relative to the situation encountered. Data was obtained from reports, manuals and pamphlets prepared by the American Petroleum Institute, Environmental Protection Agency and the United States Coast Guard. The most effective cleanup of a product spill will result from an integrated combination of clean-up methods. Each operation should complement and assist related operations and not merely transfer spillage problems to areas where they could be more difficult to handle.

The spill should be assessed as soon as possible to determine the source, extent and location of travel. Terrain and other physical conditions downgradient of the spill site will determine the methods of control at a point in advance of the moving product. Often, the bulk of a spill can be contained at a single location or a few key locations in the immediate vicinity of the source point. When possible the executions of these types of initial containment strategies help confine a spill to a relatively limited area.

General procedures applicable to all containment activities include:

- Operations Section Chief will discuss with work crews <u>before</u> entering Warm or Hot Zones:
  - Work plan
  - Emergency Response Site Safety and Health Plan
  - Evacuation signals and routes
  - Fire safety precautions
  - Other site safety considerations
- Place air driven blowers on the upwind side of Hot Zones to purge explosive vapors and contaminated air from work site, if necessary, and complete atmospheric testing before entering without SCBA protection. Refer to Vapor Control Procedures as needed for further precautionary activities (Section 3.0).
- The operations section will contain product.
- Allow only trained and permitted personnel and needed equipment to enter and work in the designated Hot, Warm and Cold Zones
- Operations Sections Chief will assign relief personnel to the emergency site as needed.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.1 Spill on Land (Soil Surfaces)

- **Confinement Methods**

Product can be trapped in ditches and gullies by earth dams. Where excavating machinery is available, dams can be bulldozed to contain lakes of product. Dams, small and large, should be effectively employed to protect priority areas such as inlets to drains, sewers, ducts and watercourses.

These can be constructed of earth, sandbags, absorbents, planks or any other effective method. If time does not permit a large dam, many small ones can be made, each one holding a portion of the spill as it advances. The terrain will dictate the placement of the dams. If the spill is minor, natural dams or earth absorption will usually stop the product before it advances a significant distance. Cleanup is the main concern in such situations.

- **Removal Methods**

The recovery and removal of free product from soil surfaces is a difficult job. The best approaches at present seem to be:

- Removal with suction equipment to tank truck if concentrated in volumes large enough to be picked up. Channels can be formed to drain pools of product into storage pits. The suction equipment can then be used.

- Small pockets may have to be dipped up by hand.

- If practicable after removal of the bulk of the spill, controlled burning presents the possibility of a fast, simple, and inexpensive method of destruction of the remainder of the product. If all other options have been executed and the site is still unsafe for further activity because explosive vapors persist, the vapors may need to be intentionally ignited to prevent an accumulation sufficient to become an explosive mixture, provided the other requirements of these guidelines for controlled burning are met.

Intentional ignition to remove released product should be utilized only if <u>all</u> of the following conditions are met:

- Other steps and procedures have been executed and a determination has been made that this is the safest remaining method of control.

- Intentional burning will not unduly damage the pipeline, adjacent property, or the environment.

- Controlled burning is permitted by some government authorities. Local government authorities to be contacted may include city council, county board of commissioners, city or county fire chiefs, the county forestry commission or firetower, and the local environmental protection agency. In seeking permission from these authorities, be prepared to convince

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.1 Spill on Land (Soil Surfaces) (cont'd)

them that adequate safety precautions have been and will be taken during the operation.

- Controlled burning is conducted with the consent of local landowners.
- Safety must always be a prime consideration when considering controlled burning of product. Sparks and heat radiation from large fires can start secondary fires and strong winds make fire control difficult. There must be no danger of the fire spreading beyond control limits. All persons must be at a safe distance from the edge of the inflammable area. Remember that all burning must be controlled burning.
- Considerations for contaminants in smoke plume.

6.7.2 Spill on Lake or Pond (calm or slow-moving water)

- **Confinement Methods**

A lake or pond offers the best conditions for removal of product from water. Although the removal is no easy task, the lake or pond presents the favorable conditions of low or no current and low or no waves.

The movement of product on a lake or pond is influenced mainly by wind. The product will tend to concentrate on one shore, bank or inlet. Booms should be set up immediately to hold the product in the confined area in the event of a change in wind direction.

If the spill does not concentrate itself on or near a shore (no wind effect), then a sweeping action using boats and floating booms will be necessary. The essential requirement for this operation is that it be done very slowly. The booms should be moved at not more than 40 feet per minute, approximately 0.5 mph. Once the slick is moved to a more convenient location (near shore), the normal operations of removal should begin.

If the slick is small and thin (rainbow effect) and not near the shoreline, an absorbent boom instead of a regular boom should be used to sweep the area very slowly and absorb the slick. The product may not have to be moved to the shoreline.

- **Removal Methods**

If the confined slick is thick enough, regular suction equipment may be used first; however, in most instances, a floating skimmer should be used. If judged appropriate or useful, a surface collecting agent should be applied once the slick is isolated to facilitate the removal. The surface collecting agent will concentrate the product into a smaller area and make the floating skimmer work more efficiently. If the floating skimmer starts picking up excess water (slick becomes thin), stop using it if it is not removing any appreciable amount of product.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.2 Spill on Lake or Pond (calm or slow-moving water) (cont'd)

Additions of more surface collecting agent from time to time may improve the skimming efficiency of the skimmer. It will continue to concentrate the slick into a smaller area, thus making the film thickness greater. Drawing the boom closer to the bank as product is removed will also keep film of product thicker. However, when the slick becomes too thin, the skimmer should be stopped and an absorbent applied (with a boat if necessary) to remove the final amounts.

The floating skimmer (if speed is a must) or hand skimmers (if water is shallow enough) or both can be used to pick up the product-soaked absorbent. Before pumping the product-soaked absorbent with a floating skimmer, insure that the absorbent in question can be pumped and will not harm the pump. Several types are nonabrasive to pump internals. If the floating skimmer is used first, the product-soaked absorbent/water mixture should be pumped into a tank truck.

A better method of retrieving the product-soaked absorbent is to draw it in as close to the shore as possible with the booms used to confine the product initially. The absorbent can then be hand skimmed from the water surface and placed in drums, on plastic sheets or in lined roll-off boxes. It should then be disposed of by acceptable means.

The final rainbow on the surface can be removed with additions of more absorbent.

6.7.3 Spill on Small to Medium Size Streams (relatively fast-flowing creeks)

- **Confinement Methods**

The techniques used for product containment on fast-flowing shallow streams are quite different from the ones used on lakes, ponds, or other still bodies of water. The containment and removal processes require a calm stretch of water to allow the product to separate onto the surface of the water. If a calm stretch of water does not exist naturally, a deep slow-moving area should be created by damming. The dam can be constructed by using sandbags, planks or earth. If a dam is required, it should be situated at an accessible point where the stream has high enough banks. The dam should be constructed soundly and reinforced to support the product and water pressure.

- Underflow dam - The underflow dam is one method that can be used, especially on small creeks. The water is released at the bottom of the dam using a pipe or pipes which are laid during construction of the dam. The flow rate through the pipe must be sufficient to keep the dam from overflowing. One method is to lay the pipe at an angle through the dam (while dam is being constructed) so that the height of the downstream end of the pipe will determine the height the water will rise behind the dam.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.3 Spill on Small to Medium Size Streams (relatively fast-flowing creeks) (Cont'd)

- Overflow dam – Another method of containment is the overflow type dam. The dam is constructed so that water flows over the dam, but a deep pool is created which slows the surface velocity of the water. Therefore, the condition of a calm stretch of water is met. The overflow dam may be used where larger flow rates (medium size creeks) of water are involved. With this type dam, a separate barrier (floating or stationary boom) must be placed across the pool created by the dam. The separate barrier arrests the surface layer of product, at the same time, the water is flowing under the barrier and over the top of the dam. The barrier should be placed at an angle of 45 % across the pool to decrease the effective water velocity beneath it. Also, it helps to concentrate the product at the bank and not all along the barrier. A second barrier should be placed approximately 10 to 15 feet downstream of the first one as a secondary back-up.

The stationary boom type barrier should be made of wood planks or other suitable material. The stationary boom should be soundly constructed and sealed against the bank. The ends of the planks can be buried in the banks of the stream and timber stakes driven into the stream bed for support as needed. The necessary length of the boom will be approximately 1-1/2 times the width of the waterway. The plank boom should extend six to eight inches deep into the water and about two inches or higher above the water level. If the increase in velocity under the stationary boom is causing release of trapped product, it should be moved upward slightly. At no time should barrier be immersed more than 20% of the depth of the pool at the barrier location; that is, if the pool created by damming is three feet deep, do not exceed an immersion depth of seven inches with the barrier at the position the barrier is installed.

Another method used with the underflow dam is having the pipe or pipes sized to carry only a portion of the flow needed. The pipe would be placed at the bottom of the dam and level with the creek bed. The remaining flow of the creek could be siphoned or preferably pumped around the dam from a point away from the dam and from the deepest portion of the pool. The pumping or siphoning can be controlled to maintain the desired water level at the dam. The key is the removal of water through or around the dam at the lowest point in the basin. This prevents the oil from escaping with the released water.

A floating boom can be used in place of the stationary type if the created pool's size (bank to bank) and depth will permit. The advantages of using a floating boom are the speed of deployment and the fact that there is not need for additional support as with the stationary boom.

Multiple Impoundments – Since emergency built dams (either underflow or overflow) are seldom perfect, a series of dams is usually required. The first one or two will trap the bulk and the ones that are downstream will trap the last traces of product. Precautions should be taken to ensure that the foundations of emergency dams are not washed away by the released water. If earth is used to construct an overflow dam, a layer of earth-filled bags should be placed on top of the dam so erosion will not take place.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.3 Spill on Small to Medium Size Streams (relatively fast-flowing creeks) (Cont'd)

- **Removal Methods**

Once the containment dams are constructed, the problem or removal of the product from the water surface should be the prime consideration. The removal must be continuous or else build-up of product behind the dams or booms might lead to product escaping the traps.

The type of removal procedures used depends largely on the amount of product being trapped in a given span of time, if the amount of product moving down the stream is of sufficient quantity, the first dam or fixed boom would quite possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and possibly some water to a tank truck or other holding tank. Separated water may, with regulatory approval, be released from the bottom of the tank truck if it becomes necessary. It is inadvisable to place an absorbent in the stream prior to or at the first dam in anticipation of the arriving product. Let the product accumulate at the first dam and use the floating skimmer to recover the product.

Follow directions on use of each absorbent. Plastic sheets should be used to place the product-soaked absorbent on as it is removed from the water. Alternatively, the material may be placed in drums or lined roll-off boxes. Disposal of gross amount of product-soaked absorbent would not then be a problem.

If the amount of product in the stream is minor, a straw-bale dam may be constructed to filter out the product. The slowing of the water would not be necessary, but several dams might be necessary to ensure complete removal. The downstream dams would also offer protection when the upstream bales are removed, releasing traces of product. Straw-bale dams can also be used downstream from underflow and overflow dams for added protection.

Thus, the containment and removal of spilled product on small to medium fast-flowing streams might require a combination of underflow or overflow dams, fixed booms, skimmers, absorbents, and straw-bale dams to ensure a complete cleanup.

6.7.4 Spill on Large Streams and Rivers

- **Confinement Methods**

The containment techniques differ considerably on large streams and rivers versus small streams. First, the smooth calm area of water necessary for product-water separation must be found along the stream or river rather than making one as with small streams. Floating booms (rather than fixed booms or dams) must be used to trap the surfaced product.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.4 Spill on Large Streams and Rivers (Cont'd)

Local conditions of current and wind must be considered when selecting the site for the boom. A point with a low water velocity near the bank, sufficient depth to operate the product removal equipment, and good access are required. The fact that wind may tend to concentrate the product against one bank must be considered. A smooth, undisturbed area of water is required immediately upstream of the boom to ensure that the product has opportunity to separate out onto the surface. The boom should be positioned where the current is at a minimum. It is more effective to boom at a wide, slow position than on a narrow, fast stretch of water.

If the booms are positioned straight across a river or stream, at right angles to the flow, surface water tends to dive beneath the barrier (boom) when current velocities exceed about ½ knot (0.8 ft./sec.). However, if the current of the entire river is ½ knot or less, then a boom can be positioned straight across the river or large stream, but angled slightly in relation of the banks. By placing the boom at an angle to the banks, product on the surface is diverted along the boom to the side of the river.

The current velocity is usually much slower near the river bank than in the center and the product will move along the boom toward the bank for removal. A water-tight seal between the bank and the boom is essential. A secondary boom should be set up immediately downstream of the first one to capture the amounts that escape the upstream boom. A boom can be employed parallel to the river flow at the bank to form the seal with the booms used to trap the product.

Where the current velocity of the chosen site exceeds ½ knot, the boom should be positioned in two smooth curves from a point of maximum velocity (usually the center of the river) to both banks. However, this double-boom requires product to be removed from both sides of the river. To determine the appropriate angle of boom placement and support (mooring) needed to hold the booms in position, the current velocity should be measured by timing a floating object which is 80% submerged over a distance of 100 feet. A time of 60 seconds over this distance indicates a water current of approximately 1 knot. For currents from 1 to 2.5 knots (1.7 to 4.2 ft./sec.), the more the boom will have to be angled acute to the bank. The length of the boom will have to be such to reach the center of the river. For currents between ½ and 1 knot (0.8 and 1.7 ft./sec.), the angle of employment can be enlarged.

The major load on the boom is taken by the terminal moorings, particularly the one in the center of the river. However, intermediate moorings are also required both to maintain the smooth curve of the boom to prevent breaking of the boom and to assist with preventing skirt deflection. The intermediate moorings are preferably positioned every 25 feet and must be adjusted to avoid the formation of indentations in the boom profile. These trap product in pockets, prevent its deflection to the bank, and also encourage diving currents. The moorings' ropes should be five times the water depth.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.4 Spill on Large Streams and Rivers (Cont'd)

In certain situations, it might be advantageous to position booms to deflect the approaching spilled product to a slower moving area. Naturally, additional booms would have to be positioned around this slower moving area prior to deflecting the product to the area. This approach has been used along rivers which have lagoons, etc., with a very low current action. The recovery would take place in the lagoons and not along the river bank.

- **Removal Methods**

The product collected upstream of the floating booms in a large stream or river should be removed from the water surface as it accumulates. Regular suction equipment, a floating skimmer, and/or absorbents (including absorbent booms) should be used to remove the product as appropriate to the quantity being trapped in a given span of time. If the amount moving down the stream is of sufficient quantity, the primary floating boom would possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and some water to a tank truck or other holding tank.

The absorbents (type that can be placed on water before product arrival would then be used upstream of the secondary boom to absorb the underflow from the primary boom. An absorbent boom can also be placed between the primary and secondary booms to help the other absorbents control the underflow from the primary boom. If the underflow from the primary boom is significant, then the type absorbent which can be placed on the water only after product is collected may be used. It is best to hand skim the saturated absorbents and place on plastic sheets. However, if the absorbent used can be pumped after product absorption and speed of removal is a necessity, the floating skimmer can be used to remove the product-soaked absorbent.

The disadvantage of pumping the product-soaked absorbent to a truck is the volume that will accumulate (skimmer will pump excess water) and the disposal problems associated with the large water/product-soaked absorbent mixture.

If the volume of product moving toward the boomed area is expected to be small, an absorbent should be placed in the river upstream of the primary and secondary booms. If regular booms are not necessary, an absorbent boom could be stretched across the river to contain the oil. Boats (either rented or furnished by contractors) would be necessary to retrieve the product-soaked absorbent boom.

6.7.5 Spill on Stream which Flows into Lake of Pond

There are certain locations along the pipeline where streams (small and large ones) flow into lakes or ponds at relatively short distances from the pipeline. It is conceivable that a spill that reached the streams in question could reach or almost reach the lakes before containment and recovery operations could be set up. If time permits for containment operations to be set up on the stream in question, it then would be handled as described above depending upon the stream size involved.

6.7 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (cont'd)

6.7.5 Spill on Stream which Flows into Lake of Pond (Cont'd)

However, if product in the stream is near the lake site or if product is flowing into the lake with a significant amount yet to arrive, a different containment should be employed.

- **Confinement Methods**

  Product on a stream flowing into a lake should be boomed as close to the entrance as possible. The boom should be positioned on the lake at an angle to the residual stream current so as to direct the surface water to a slower moving area. The area where the product is being deflected should be enclosed by booms to contain it. An additional boom for sweeping the product to the bank will be required. This area of containment should not have a current velocity of more than 1/2 knot (0.8 ft./sec.), preferably less.

- **Removal Methods**

  The removal of product from the lake or pond's surface would be handled as described earlier.

  For sizable releases, collected product will usually be pumped into tank trucks and transported to a storage facility. Tank trucks are available at several locations throughout.

FIGURE 6.1

ENVIRONMENTAL SENSITIVITY MAPS

The following sets of Environmental Sensitivity Maps have been prepared as an aid to identify sensitive areas in the area of PMPL Operations. The maps include a key to the reference symbols located on each map.

- South Portland Marine Terminal Emergency Response Mapping, including:
  - Casco Bay Region – Geographic Response Plans*
  - Maine Environmental Vulnerability Index Maps*
- Portland Pipe Line Corporation Trunk Lines – Emergency Response Mapping
- Montreal Pipe Line Limited Trunk Lines - Emergency Response Mapping
- Montreal Pipe Line Limited Oil Spill Specific Response Plans
  - Environmental Socio-Economic Sensitivities Maps
    - Missisquoi River Area
    - Richelieu River Area
    - St. Lawrence River Area
  - Access Direction Maps to Facilities
- Portland Pipe Line Corporation Spill Response Field Document

*The Geographic Response Plans and Maine Environmental Sensitivies Maps are maintained by the Maine DEP and are held in hard copy by South Portland based PMPL plan holders. Electronic copies can be found on the Maine DEP website at: http://www.maine.gov/dep/rwm/emergspillresp/geoplans.htm and http://www.maine.gov/dep/rwm/emergspillresp/evi/intro.htm.

There are also a series of maps created by Environment Canada stating all the vulnerable areas along the St. Lawrence River.

Remember these maps are to be utilized as guidelines only. During a real response effort federal, provincial, state, municipal and local agencies should be contacted to provide further assistance in the proper identification and protection of the various environmental and socio-economic sensitive areas.

FIGURE 6.2

ENDANGERED/THREATENED SPECIES LISTING

MAINE

The following species are listed as endangered or threatened in Maine:

F = Federally Endangered under the U.S. Endangered Species Act
f = federally threatened under the U.S. Endangered Species Act
S = State Endangered under the Maine Endangered Species Act
s = state threatened under the Maine Endangered Species Act

Beetles

American Burying Beetle (*Nicrophorus americanus*) **F**

Birds

American Pipit (*Anthus rubescens*) (Breeding population only) **S**

Arctic Tern (*Sterna paradisaea*) **s**

Atlantic Puffin (*Fratercula arctica*) **s**

Barrow's Goldeneye (*Buchephala islandica*) **s**

Black-crowned Night Heron (*Nycticorax nycticorax*) **s**

Black Tern (*Chlidonias niger*) **S**

Common Moorhen (*Gallinula chloropus*) **s**

Eskimo Curlew (*Numenius borealis*) **F**

Golden Eagle (*Aquila chrysaetos*) **S**

Grasshopper Sparrow (*Ammodramus savannarum*) **S**

Great Cormorant (*Phalacrocorax carbo*) (Breeding population only) **s**

Harlequin Duck (*Histrionicus histrionicus*) **s**

Least Bittern (*Lxobrychus exilis*) **S**

Least Tern (*Sterna antillarum)* **S**

Peregrine Falcon (*Falco peregrinus*) (Breeding population only) **S**

Piping Plover (*Charadrius melodus*) **S f**

Razorbill (*Alca torda*) **s**

Roseate Tern (*Sterna dougallii*) **S F**

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING

Sedge Wren (*Cistothorus platensis*) **S**

Short-eared Owl (*Asio flammeus*) (Breeding population only) **s**

Upland Sandpiper (*Bartramia longicauda*) **s**

Fish

Atlantic Salmon (*Salmo salar*) **F**

Redfin Pickerel (*Esox americanus americanus*) **S**

Shortnose Sturgeon (*Acipenser brevirostrum*) **F**

Swamp Darter (*Etheostoma fusiforme*) **s**

Invertebrates

Butterflies and Skippers

Clayton's Copper (*Lycaena dorcas claytoni*) **S**

Edwards' Hairstreak (*Satyrium edwardsii*) **S**

Hessel's Hairstreak (*Callophrys hesseli*) **S**

Juniper Hairstreak (*Callophrys gryneus*) **S**

Karner Blue (*Lycaeides melissa samuelis*) **F**

Katahdin Arctic (*Oeneis polixenes katahdin*) **S**

Purple Lesser Fritillary (*Boloria chariclea grandis*) **s**

Sleepy Duskywing (*Erynnis brizo*) **s**

Dragonflies and Damselflies

Boreal Snaketail (*Ophiogomphus colubrinus*) **s**

Rapids Clubtail (*Gomphus quadricolor*) **S**

Ringed Boghaunter (*Williamsonia lintneri*) **s**

Freshwater Mussels

Brook Floater (*Alasmidonta varicosa*) **s**

Tidewater Mucket (*Leptodea ochracea*) **s**

Yellow Lampmussel (*Lampsilis cariosa*) **s**

Mayflies

Flat-headed Mayfly (Roaring Brook Mayfly) (*Epeorus frisoni*) **S**

Tomah Mayfly (*Siphlonisca aerodromia*) **s**

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING

Moths
Pine Barrens Zanclognatha (*Zanclognatha martha*) **s**

Twilight Moth (*Lycia rachelae*) **s**

Mammals

Canada Lynx (*Lynx canadensis*) **f**

Eastern Cougar (*Felis concolor couguar*) **F**

Finback Whale (*Balaenoptera physalus*) **F**

Gray Wolf (*Canis lupus*) **F**

Humpback Whale (*Megaptera novaeangliae*) **F**

New England Cottontail (*Sylvilagus transitionalis*) **S**

Northern Bog Lemming (*Synaptomys borealis*) **s**

Northern Right Whale (*Eubalaena glacialis*) **F**

Sei Whale (*Balaenoptera borealis*) **F**

Sperm Whale (*Physeter catodon*) **F**

Reptiles

Snakes
Black Racer (*Coluber constrictor*) **S**

Turtles
Atlantic Ridley (*Lepidochelys kempi*) **F**

Blanding's Turtle (*Emys blandingii*) **S**

Box Turtle (*Terrapene carolina*) **S**

Leatherback (*Dermochelys coriacea*) **F**

Loggerhead (*Caretta caretta*) **f**

Spotted Turtle (*Clemmys guttata*) **s**

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING

NEW HAMPSHIRE

Endangered wildlife are those native species whose prospects for survival in New Hampshire are in danger because of a loss or change in habitat, over-exploitation, predation, competition, disease, disturbance or contamination. Assistance is needed to ensure continued existence as a viable component of the state's wildlife community.

Threatened wildlife are those species which may become endangered if conditions surrounding them begin, or continue, to decline.

* = Federally threatened

**= Federally endangered.

This State of New Hampshire maintained list was updated in October 2008.

MAMMALS

Endangered:

* Canada lynx, *Lynx canadensis*

small-footed bat, *Myotis leibii*

** Gray wolf, *Canis lupus*

New England cottontail, *Sylvilagus transitionalis*

Threatened:

American marten, *Martes americana* (formerly pine marten)

BIRDS

Endangered:

common nighthawk, *Chordeiles minor*

northern harrier, *Circus cyaneus*

golden eagle, *Aquila chrysaetos*

* piping plover, *Charadrius melodus*

upland sandpiper, *Bartramia longicauda*

** roseate tern, *Sterna dougallii*

least tern, *Sterna antillarum*

sedge wren, *Cistothorus platensis*

Threatened:

common loon, *Gavia immer*

American three-toed woodpecker, *Picoides dorsalis*

grasshopper sparrow, *Ammodramus savannarum*

pied-billed grebe, *Podilymbus podiceps*

bald eagle, *Haliaeetus leucocephalus*

peregrine falcon, *Falco peregrinus*

common tern, *Sterna hirundo*

FISH

Endangered:

American brook lamprey, *Lampetra bifrenatus*

** shortnose sturgeon , *Acipenser brevirostrum*

Threatened:

Bridle shiner, *Notropis bifrenatus*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING NEW HAMPSHIRE

REPTILES

Endangered:

timber rattlesnake, *Crotalus horridus*

Blanding's turtle, *Emydoidea blandingii*

Eastern hognose snake, *Heterodon platyhinos*

Threatened:

spotted turtle, *Clemmys guttata*

black racer, *coluber constrictor*

AMPHIBIANS

Endangered:

marbled salamander, *Ambystoma opacum*

Threatened:

(none currently listed)

INVERTEBRATES

Endangered:

cobblestone tiger beetle, *Cicindela marginipennis*

** dwarf wedge mussel, *Alasmidonta heterodon*

brook floater, *Alasmidonta varicosa*

frosted elfin butterfly, *Callophrys irus*

** Karner blue butterfly, *Lycaeides melissa samuelis*

Persius dusky wing skipper, *Erynnis persius persius*

ringed bog haunter dragonfly, *Williamsonia lintneri*

* puritan tiger beetle, Cicindela puritana

White Mountain fritillary, *Boloria titania montinus*

Threatened:

pine pinion moth, *Lithophane lepida lepida*

White Mountain Arctic, *Oeneis melissa semidea*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING

VERMONT

The following species are listed as endangered or threatened in Vermont (as of February 3, 2008):
LE = Federally Endangered under the U.S. Endangered Species Act
LT = federally threatened under the U.S. Endangered Species Act
E = State Endangered under the Vermont Endangered Species Act
T = state threatened under the Vermont Endangered Species Act

Fishes

E – Northern Brook Lamprey *(Ichtyomyzon fossor)*
T – American Brook Lamprey *(lampetra appendix)*
E – Lake Sturgeon *(Aceipenser fulvescens)*
E - Stonecat *(Noturus flavus)*
T – Eastern Sand darter *(Ammocrypta pellicida)*
E- Channel Darter *(Percina copelandi)*

Amphibians

E- Western Chorus Frog *(Pseudacris maculata)*

Reptiles

E - Spotted Turtle *(Clemmys guttata)*
T - Spiny Softshell (Turtle) *(Apalone spinifera)*
E – Common Five-lined Skink *(Plestiodon fasciatus)*
T – North American racer *(Coluber constrictor)*
T- Eastern ratsnake *(Pantherophis alleghaniensis)*
E – Timber rattlesnake *(Crotalus horridus)*

Mammals

T – Eastern Small-footted Bat *(Myotis leibii)*
LE,E – Indiana bat *(Myotis sodalis)*
E,LT – Canadian Lynx *(Lynx canadensis)*
E,LE – eastern Mountain Lion *(Puma concolor couguar)*
E – American marten *(Martes americana)*

Birds

E – Spruce grouse *(Falcipennis canadensis)*
E – Bald Eagle *(Haliaeetus leucocephalus)*
E – Upland Sandpiper *(Bartramia lomgicauda)*
E – Black Tern *(Chlidonas niger)*
E – Common tern *(Sterna hirundo)*
E – Migrant Loggerheads Shrike *(lanius ludovicianus migrans)*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING, VERMONT

E – Sedge Wren *(Cistothorus henslowii)*
E – Henslows Sparrow *(Ammodramus henslowii)*
E – Grasshoppers Sparrow *(Ammodramus savannarum)*

Amphipods

E – Taconic Cave Amphipod *(Stygobromus borealis)*

Freshwater Mussels

T – Eastern Pearlshell *(Margaritifera margaritafera)*
E,LE – Dwarf Wedgemussel *(Alasmidonta heterodon)*
T – Brook Floater *(Alasmidonta varicosa)*
E – Cylindrical papershell *(Anodontoides ferussacianus)*
E – Pocketbook *(lampsilis ovata)*
E – Fluted-Shell *(Lasmigona costata)*
E – Fragile Papershell *(Leptodea fragilis)*
E – Black Sandshell *(Ligumia recta)*
E – Pink Heelsplitter *(Potamilus grandis)*

Beetles

T – Beach-dune Tiger Beetle (Cicindela hirticollis)
T – Cobblestone Tiger beetle (Cincindela marginipennis)
T,LT – Puritan Tiger Beetle (Cincindela puritana)

Plants

F – Milk Vetch, Jesup's *(astragalus robbinsii jessupi)*
F – Bulrush, Nothereastern *(Scirpus ancistrochaetus)*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING

QUEBEC

In 1976, the Canadian government created the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) to determine and monitor the status of wildlife in Canada. This committee is composed of representatives from each provincial and territorial government wildlife agency, four federal agencies (Canadian Museum of Nature, Canadian Parks Service, Canadian Wildlife Service and Department of Fisheries and Oceans) and the following national conservation organizations: the Canadian Nature Federation, the Canadian Wildlife Federation and World Wildlife Fund (Canada). These representatives usually have a biology-based scientific background or traditional community knowledge of species at risk. If COSEWIC is alerted that a species is suspected of decreasing in numbers, it commissions a status report (funding permitting) and classifies the species in one of five categories: vulnerable, threatened, endangered, extirpated or extinct.

Of the 10 provinces in Canada, four have specific endangered species legislation: Manitoba, New Brunswick, Ontario and Quebec. Even though COSEWIC creates an endangered species list, the provinces are under no obligation to recognize this list. Ultimately it is a government minister who designates which species are to appear on a province's list.

The legislation in Quebec contains provisions that ensure that the protection of endangered species is a coordinated effort between the Ministère du Développement Durable, de l'Environnement et des Parcs ("MDDEP") and the Ministère du resources naturalles et de la fauna. You will find in Figure 6.2 the endangered and threatened species listing for Quebec.

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING, QUEBEC

Following pages obtained from: http://www3.mrnf.gouv.qc.ca/faune/especes/menacees/liste.asp

---

Ressources naturelles et Faune Québec

Liste des espèces désignées menacées ou vulnérables au Québec

The list of species **designated as** threatened or vulnerable in Quebec, under the Endangered Species Act or vulnerable (LEMV) includes **38 species,** of which **20 are classified as endangered** and **18 vulnerable.** There is also the list of wildlife species likely to be designated threatened or vulnerable , which includes **115 species.**

It should be noted that, for purposes of applying the LEMV, the term "species" includes species, subspecies or population of a species.

List of species of wildlife designated as threatened or vulnerable

- Vulnerable species
- Threatened Species

Vulnerable species

Pisces	
Shad	*Alosa sapidissima*
River Redhorse	*Moxostoma carinatum*
Smelt rainbow sky, people of southern Gulf of St. Lawrence	*Osmerus mordax*
Darter	*Percina copelandi*
Bridle Shiner	*Notropis bifrenatus*

Amphibians	
Chorus Frog Western	*Pseudacris triseriata*
Salamander	*Gyrinophilus porphyriticus*

Turtles	
Wood turtle	*Glyptemys insculpta*
Map turtle	*Graptemys geographica*

Birds	
Golden Eagle	*Aquila chrysaetos*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING,QUEBEC

Harlequin	*Histrionicus histrionicus*
Peregrine falcon	*Falco peregrinus anatum*
BAGO	*Bucephala islandica*
Bicknell's Thrush	*Catharus bicknelli*
Least Bittern	*Ixobrychus exilis*
Bald Eagle	*Haliaeetus leucocephalus*

Mammals	
Woodland caribou, forest ecotype	*Rangifer tarandus*
Polar bear	*Ursus maritimus*

Threatened Species

Pisces	
Redhorse	*Moxostoma hubbsi*
Sand Darter	*Ammocrypta pellucida*
Northern Brook Lamprey	*Ichthyomyzon fossor*

Amphibians	
Mountain Dusky Salamander	*Desmognathus ochrophaeus*

Turtles	
Leatherback Turtle	*Dermochelys coriacea*
Blanding	*Emys blandingii*
Musk turtle	*Sternotherus odoratus*
Spiny Softshell	*Apalone spinifera*

Birds	
Horned Grebe	*Podiceps auritus*
Cerulean Warbler	*Dendroica cerulea*
Loggerhead Shrike	*Lanius ludovicianus*
Red-headed Woodpecker	*Melanerpes erythrocephalus*
Piping Plover	*Charadrius melodus*
Yellow Rail	*Coturnicops noveboracensis*
Caspian Tern	*Sterna caspia*
Roseate tern	*Sterna dougallii*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING, QUEBEC

Mammals	
Beluga population of the St. Lawrence	*Delphinapterus leucas*
Wolverine	*Gulo gulo*
Woodland caribou, mountain ecotype, Gaspésie population	*Rangifer tarandus*

Insects	
Maritime ringlet	*Coenonympha nipisiquit*

List of wildlife species likely to be designated threatened or vulnerable

- Pisces
- Amphibians
- Snakes
- Turtles
- Birds
- Mammals
- Bivalves
- Gastropods
- Insects

Pisces	
American eel	*Anguilla rostrata*
Yellow bullhead	*Ameiurus natalis*
Pickerel	*Esox Niger*
Pickerel	*Esox americanus vermiculatus*
Cusk	*Tusk tusk*
Fourhorn	*Myoxocephalus quadricornis*
Deepwater Sculpin	*Myoxocephalus thompsonii*
Madtom Rapids	*Noturus flavus*
Margined madtom	*Noturus insignis*
Spring Cisco	*Coregonus artedi*
Long-eared sunfish	*Lepomis megalotis*
Dard arc-en-ciel	*Etheostoma caeruleum*
Sturgeon	*Acipenser fulvescens*
Sturgeon	*Acipenser oxyrinchus*
Wolffish	*Anarhichas denticulatus*
Wolffish	*Anarhichas lupus*
Spotted wolf	*Anarhichas minor*
Porbeagle	*Lamna nasus*
Brassy minnow	*Hybognathus hankinsoni*
Cod, Maritimes population	*Gadus morhua*
Atlantic cod, Laurentian North population	*Gadus morhua*
Char *oquassa*	*Salvelinus alpinus oquassa*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING, QUEBEC

Winter Skate	*Leucoraja ocellata*
Blue shark	*Prionace glauca*
Pink head	*Notropis rubellus*

Amphibians	
Pickerel Frog	*Lithobates palustris*
Boreal Chorus Frog	*Pseudacris maculata*
Four-toed salamander	*Hemidactylium scutatum*
Northern Dusky Salamander	*Desmognathus fuscus*

Snakes	
Snake	*Diadophis punctatus*
Brown snake	*Storeria dekayi*
Water Snake	*Nerodia sipedon*
Milksnake	*Lampropeltis triangulum*
Ribbonsnake	*Thamnophis sauritus*
Green snake	*Liochlorophis vernalis*

Turtles	
Spotted Turtle	*Clemmys guttata*

Birds	
Red Knot *rufa*	*Calidris canutus rufa*
Nelson's Sparrow	*Ammodramus nelsoni*
Grasshopper Sparrow	*Ammodramus savannarum*
Barn Owl	*Tyto alba*
Whip-poor-	*Caprimulgus vociferus*
Nighthawk	*Chordeiles minor*
Peregrine *tundrius*	*Falco peregrinus tundrius*
Short-eared Owl	*Asio flammeus*
Chimney Swift	*Chaetura pelagica*
Olive-sided Flycatcher	*Contopus cooperi*
Leach's Storm-Petrel	*Oceanodrama leucorhoa*
Warblers	*Vermivora chrysoptera*
Canada Warbler	*Wilsonia canadensis*
Louisiana Waterthrush	*Seiurus Motacilla*
Rusty	*Euphagus carolinus*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING, QUEBEC

Sedge Wren	*Cistothorus platensis*

Mammals	
Whale	*Eubalaena glacialis*
Weasel	*Mustela nivalis*
Beluga population of eastern Hudson Bay	*Delphinapterus leucas*
Beluga population of Ungava Bay	*Delphinapterus leucas*
Rock vole	*Microtus chrotorrhinus*
Southern bog lemming Cooper	*Synaptomys cooperi*
Pine vole	*Microtus pinetorum*
Silver-haired bat	*Lasionycteris noctivagans*
Hoary bat	*Lasiurus cinereus*
Bat Eastern Pygmy	*Myotis leibii*
Red bat	*Lasiurus borealis*
Cougar	*Puma concolor*
Porpoise	*Phocoena phocoena*
Morse	*Odobenus rosmarus*
Gaspé shrew	*Sorex gaspensis*
Shrew longicauda	*Sorex dispar*
Flying squirrel	*Glaucomys volans*
Harbor seal Lacs des Loups Marins	*Phoca vitulina mellonae*
Eastern Pipistrelle	*Perimyotis subflavus*
Blue Whale	*Balaenoptera musculus*
Fin	*Balaenoptera physalus*

Bivalves	
Rough Brook	*Alasmidonta marginata*
Alewife floater	*Anodonta implicata*
Elliptio for strong teeth	*Elliptio crassidens*
Elliptio sharp	*Elliptio dilatata*
Leptodée fragile	*Leptodea fragilis*
Pearl mussel-East	*Margaritifera margaritifera*
Hickorynut olive	*Obovaria olivaria*
Potamile winged	*Potamilus alatus*

Gastropods	
Limpet freshwater sharp	*Mountain Acroloxus coloradensis*

FIGURE 6.2 (cont'd)

ENDANGERED/THREATENED SPECIES LISTING,QUEBEC

Somatogyre globular	*Birgel subglobosus*

Insects	
Acronicta commas to reddish	*Acronicta rubricoma*
Hawker Cyrano	*Nasiaeschna pentacantha*
Hawker pygmy	*Gomphaeschna furcillata*
Bourdon red spot	*Bombus affinis*
Bourdon soilborne	*Bombus terricola*
White tiger beetle	*Cicindela lepida*
Pine green tiger beetle	*Cicindela patruela*
Ladybug two points	*Adalia bipunctata*
Ladybug nine points	*Coccinella novemnotata*
Cordula dusky	*Williamsonia fletcheri*
Cordula curved	*Somatochlora incurvata*
Coppery Saltmarsh	*Lycaena dospassosi*
Dolichoderus mariae	*Dolichoderus mariae*
Dynast rhino	*Xyloryctes jamaicensis*
Erythema ponds	*Erythemis simplicicollis*
Érythrodiplax coastal	*Erythrodiplax berenice*
False longhorn scalar	*Cephaloon ungulare*
Dark fairy with long antennae	*Adela caeruleella*
Variegated fritillary	*Euptoieta claudia*
Gomphi potbellied	*Gomphus ventricosus*
Skipper to Glassywing	*Pompeius verna*
Skipper Dione	*Euphyes dion*
Spotted Skipper	*Erynnis martialis*
Lasius minutus	*Lasius minutus*
Morning Leste	*Lestes vigilax*
Mélanople Gaspé	*Melanoplus gaspesiensis*
Northern ribbed white Gaspé	*Oeneis boron gaspeensis*
Motley Ophiogomphe	*Ophiogomphus anomalus*
Spotted-necked Phymatode	*Phymatodes maculicollis*
Spondyle mealworm	*Neospondylis upiformis*
Sympetrum brawler	*Sympetrum corruptum*
Trechine to large scapes	*Trechus crassiscapus*

Updated: March 2010

7.0 PPL / MPL SPECIFIC PLANS

7.1 PPL SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) PLAN

PORTLAND PIPE LINE CORPORATION

TANK STORAGE FACILITIES AND ASSOCIATED PIPING

Issued December 2008

Portland Pipe Line Corporation
30 Hill Street
South Portland, ME 04106
PHONE: (207) 767-3231
(866) 253-7351
FAX: (207) 767-0411

Prepared by:

O'Brien's Response Management Inc.
6620 Cypresswood Drive, Suite 200
Spring, Texas 77379
(281) 320-9796 Phone ● (281) 320-9700 FAX
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SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

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OTHER SPCC DATA

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ICP-K Miscellaneous Forms
ICP-L Glossary of Terms and Acronyms

PROFESSIONAL ENGINEER CERTIFICATION

By means of this Professional Engineer Certification, I hereby attest to the following:

- I am familiar with the requirements of 40 CFR Part 112 and have verified that this Plan has been prepared in accordance with the requirements of this Part.
- I or my agent have visited and examined the Facility(s).
- I have verified that this Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards.
- I have verified that the required inspection and testing procedures have been established as described in this Plan.
- I have verified that the Plan is adequate for the Facility.
- My certification of this Plan in no way relieves the owner/operator of the Facility(s) of their duty to prepare and fully implement the Plan in accordance with the requirements of 40 CFR Part 112. I in no way assume any liability of whatsoever kind or nature by my certification.
- The owner/operator, by "Management Approval" located on the following page, acknowledges this certification and the compliance measures described herein.

(Seal)

Registered Professional Engineer

Eric G. Politte, P.E.
O'Brien's Response Management Inc.
State of Texas Registration No: 77962

Date: December 17 2008

PROFESSIONAL ENGINEER CERTIFICATION FOR SPECIFIC FACILITY MODIFICATION

Facility Modification

- Date of Review: March 2011
- Description of Change: 1. Restoration of original secondary containment.
- Impact of Change:
  1. Attestation on secondary containment's ability to retain spilled oil until cleanup occurs remains unchanged.
  2. Secondary containment volume is adequately sized based on survey provided to O'Brien's Response Management Inc.

Professional Engineer Certificate

- I have evaluated the change in Facility design and have determined that it does not materially affect the Facility's potential for a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.
- This Technical Amendment is only valid for the certification of the item(s) listed above and further certified below.

(Seal)

STATE OF TEXAS
GAUTAM K. AGRAWALA
101909
LICENSED
PROFESSIONAL ENGINEER

Registered Professional Engineer

Gautam K. Agrawala, Ph.D., P.E.
Compliance Consultant
O'Brien's Response Management Inc.
State of Texas Registration No.101909

Date: 03/29/2011

MANAGEMENT APPROVAL

- Owner/Operator responsible for Facility: Portland Pipe Line Corporation
- Facility Name and (Physical) Location: South Portland Tank Farm - Hill and Dunscomb Street, South Portland, ME 04106; Raymond Station, 388 Meadow Road, Raymond ME 04071; North Waterford Station, 471 Hunts Corner Road, North Waterford, ME 04267; Shelburne Station, U.S. Route 2, Coos County, NH 03581; Lancaster Station, U.S. Route 2, Coos County, NH 03584; Sutton Station, U.S. Route 5, Caledonia County, VT 05867
- By signature below, the Manager approves this Plan and acknowledges that the elements identified within this Plan have been implemented.
- This page may be used for the initial Management Approval or for subsequent change of management and/or change of designated person accountable.

- This SPCC Plan will be implemented as herein described.

Signature: _____

Name: T.A. Hardison

Date: _____

Title: Director of Operations

Designated person accountable for oil spill prevention at the Facility:

Name: T.A. Hardison

Title: Director of Operations

- This SPCC Plan will be implemented as herein described.

Signature: _____

Name: _____

Date: _____

Title: _____

Designated person accountable for oil spill prevention at the Facility:

Name: _____

Title: _____

- This SPCC Plan will be implemented as herein described.

Signature: _____

Name: _____

Date: _____

Title: _____

Designated person accountable for oil spill prevention at the Facility:

Name: _____

Title: _____

LOG OF PLAN REVIEW AND AMENDMENTS

NON TECHNICAL AMENDMENTS

- Non-technical amendments are not certified by a Professional Engineer.
- Examples of changes include, but are not limited to, phone numbers, name changes, or any non-technical text change(s)

TECHNICAL AMENDMENTS

- Technical amendments are certified by a Professional Engineer.
- Examples of changes include, but are not limited to, commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacements, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes or product or service; or revision of standard operation or maintenance procedures at a facility.
- An amendment made under this section will be prepared within six (6) months of the change and implemented as soon as possible but not later than six (6) months following preparation of the amendment.

MANAGEMENT REVIEW

- Management will review this SPCC Plan at least each five (5) years and document the review on the form below.

Review/Amend Date	Signature	Amend Plan (will/will not)	Description of Review Amendment	Affected Page(s)	P.E. Certification (Y/N)
02.04.09	Original signed by Tim Hendrix	Will Not	Edited figure references to align with consolidated ICP; clarified wording, combined section 9 drawing list to one page	1-1, 1-4, 2-1, 3-1, 4-2, 9-10, Contents	N
August 2009	Original signed by Tim Hendrix	Will Not	Edited Section 1 to remove reference to loading truck; edited Section 4 to clarify storm water drainage procedures; and edited Section 8 to remove reference to oil product pump starter and modify starter controls accordingly.	1-1, 4-2, 8-1	N
September 2009	Original Signed by PE	Will	Dikes of Tanks 25 and 10 joined to provide stated retention within intermediate dikes. Dike 23 lowered for access during construction. Add Mobile Fueling Container	9-3	Y
March 2011	Original Signed by PE	Will	Dikes of Tanks 23, 25 and 10 returned to original configuration. Removed Mobile Fueling Container. Removed references to Loading rack systems. Clarified buried tank testing. Added reference to lube oil drums in maintenance building. Noted 40 CFR 112.7(K)(1) is met.	FWD-iva, FWD-vi, 1-5, 5-1, 5-2, 7-1, 9-1 thru 9-11, Figure 9-10(j) and (k)	Y

Review/Amend Date	Signature	Amend Plan (will/will not)	Description of Review Amendment	Affected Page(s)	P.E. Certification (Y/N)
November 2012	Original Signed by Nick Payeur	Will Not	Added additional 1-866-253-7351 emergency number, removed Director of Safety and Environmental Protection and added four security cameras to South Portland Tank Farm facility.	FWD i, 1-3, 8-1	N
December 5, 2013	Original Signed by Nick Payeur	Will Not	I have completed review and evaluation of the SPCC plan for Portland Pipe Line Corporation on December 5, 2013 and will not amend the plan as a result	N/A	N

1.0 INTRODUCTION, ADMINISTRATION AND COMPLIANCE

1.1 FACILITY DESCRIPTION

This Spill Prevention, Control, and Countermeasure (SPCC) Plan has been developed in accordance with the regulatory requirements of 40 CFR Part 112 (EPA) for the Portland Pipe Line Corporation Tank Storage Facilities and Associated Piping (hereinafter referred to as "Facility"). The Facility has the following general operating and design characteristics:

- The Facility is an onshore (type) Facility.
- The Facility typically stores the following products:
  - Crude oil;
  - No. 2 fuel oil;
  - Transformer oil; and
  - Rectifier oil.
- The Facility receives product in via ship.
- The Facility ships products out via pipeline.
- Drums (i.e. waste oil, fuel oil) and other portable containers deliveries are transferred via truck.
- See ICP Figures 1.5 – 1.10 for additional details of the physical layout.
- The "Potential Spill Sources and Container Identification" table is provided in SPCC Section 9.
- Diagrams of the Facility are provided in SPCC Section 9.0 and ICP Appendices.

1.2 PLAN PURPOSE/OBJECTIVES

The specific objectives of this Plan are to define the spill prevention, control, and countermeasures for the Facility and to assist Facility personnel in establishing and maintaining an efficient and effective program. This is accomplished in the Plan by addressing:

- Personnel, Training and Spill Prevention Procedures.
- Inspections and Records.
- Facility Drainage.
- Bulk Storage Containers and Qualified Oil-Filled Operational Equipment.
- Transfer Operations, Pumping, and In-Plant Processes.
- Tank Truck Unloading.
- Security.

1.3 PLAN DISTRIBUTION PROCEDURES

The Plan Administrator shall have the responsibility for distribution of the Plan. Distribution will be handled in the following manner:

- Distribution of the Plan is controlled by the number on the cover page.
- The Facility shall maintain a complete copy of the Plan at the Facility if it is normally attended at least four (4) hours per day, or at the nearest field office if the Facility is not so attended. The Plan will be available to the Regional Administrator for on-site review during normal working hours.

1.4 PLAN REVIEW AND UPDATE PROCEDURES

The "Designated Person Accountable for Oil Spill Prevention" (identified on the Management Approval page in the Foreword) with support from the Plan Administrator will coordinate the following plan review and update procedures:

Facility Changes requiring Plan Revision

- This Plan will be revised when there are changes in the Facility's design, construction, operation, or maintenance that materially affects the Facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Such amendments shall be prepared within six (6) months, and implemented as soon as possible, but not later than six (6) months following preparation of the amendment.

  Changes requiring revision may include, but are not limited to:

  - Commission or decommission of containers.
  - Replacement, reconstruction, or movement of containers.
  - Reconstruction, replacement, or installation of piping systems.
  - Construction or demolition that might alter secondary containment structures and/or drainage systems.
  - Changes of product or service.
  - Revision of standard operating or maintenance procedures at the Facility.

Revisions that are made to the Plan are classified into either “Technical Amendments” or Non-Technical Amendments”.

Technical Amendments

- All technical amendments, such as the ones listed earlier in this Section and on the “Log or Plan Review and Amendments” page must be certified by a Registered Professional Engineer to satisfy the requirements of 40 CFR Part 112.

Non-Technical Amendments

- All non-technical amendments such as changes to phone numbers and/or contacts or other non-technical text changes need only to be signed off by management. The “Log of Plan Review and Amendments” located in the Foreword will be used to record such changes.

1.4 PLAN REVIEW AND UPDATE PROCEDURES (Cont'd)

- Each certified technical amendment will be stamped and dated in its appropriate section of Plan and recorded on the "Log of Plan Review and Amendments" located in the Foreword.

Inclusion of Amendments into the Plan

- The Health, Safety and Environmental Coordinator will coordinate the word processing, publication, and distribution efforts of completing the revisions and maintaining the Plan.
- The **plan holder**, immediately upon receipt of any revisions, shall review and insert the revised pages into the Plan and discard the obsolete pages. This action should then be recorded on the "Log of Plan Review and Amendments" and "Revision Record" page in the Foreword.

Five-Year Review

- At least once each five (5) years the Facility will complete a review and evaluation of this SPCC Plan and make amendments within six (6) months of the review. This review will include, at a minimum, a review of the following:
  - Applicability of new prevention and control technology which may significantly reduce the likelihood of a spill event from the Facility if such technology has been field-proven at the time of the review.
  - Accuracy of the SPCC Plan as compared to the current Facility operation and SPCC Regulations.
  - Capacity and structural integrity of secondary containment structures.
  - SPCC inspection and record files to ensure continuity for a minimum period of three (3) years.

Training and Emergencies

Opportunities to review the Plan may arise from regularly scheduled training sessions or actual emergencies which require the activation of the Plan.

- Examples of these types of opportunities may occur during:
  - Tabletop Exercises
  - Discharge Prevention Meetings
  - Actual emergency responses

1.5 REGULATORY COMPLIANCE

This plan addresses the following regulatory requirements:

- Federal Spill Prevention, Control, and Countermeasures Regulations: U.S. EPA Final Rule for Oil Pollution Prevention; Non-Transportation Related On-shore and Offshore Facilities (40 CFR Part 112 - as published on July 17, 2002).

1.5 REGULATORY COMPLIANCE (Cont'd)

A detailed cross-reference between the format of this Plan and that of the regulations is provided in Appendix A of the ICP "Cross Reference".

General Applicability

This requirement applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, and that meet each of the following criteria:

- Due to their location, could reasonably be expected to discharge oil in harmful quantities into or upon the navigable waters of the United States or adjoining shorelines **and**;
- Has an aggregate aboveground storage capacity in excess of 1,320 gallons, excluding containers less than 55 gallons **or;**
- Completely buried storage capacity in excess of 42,000 gallons, excluding any tanks, connected underground piping, underground ancillary equipment, and containment systems subject to the technical requirements of 40 CFR Part 280 or 281.

Submission of Spill Documentation

The Facility shall submit the documentation required by 40 CFR Part 112.4 (Appendix K of the ICP) to the EPA Regional Administrator within sixty (60) days whenever the Facility has a discharge event(s) which meets one of the following conditions:

- Discharges more than 1,000 gallons of oil (or oil products) into or upon the navigable waters of the United States or adjoining shorelines in a single spill event **or,**
- Discharges more than 42 gallons of oil (or oil products) into the navigable waters of the United States in two (2) spill events within any 12-month period.

1.6 CONFORMANCE WITH OTHER REQUIREMENTS

- The State of Maine does not have more stringent discharge prevention and containment procedures than federal regulations.
- The State of New Hampshire does not have more stringent discharge prevention and containment procedures than federal regulations.
- The State of Vermont does not have more stringent discharge prevention and containment procedures than federal regulations.

1.7 QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT (AS APPLICABLE)

Per the 40 CFR 112.7 (k), select Oil-Filled Operational Equipment (see table listing in SPCC Section 9) has been identified as "qualified" for general secondary containment requirement exemption.

- Scheduled rounds are made at all locations by Facility personnel. Inspection for equipment failure and discharge is conducted in accordance with Company procedures during scheduled rounds.

- The Facility has an Integrated Contingency Plan (ICP) in place which provides considerable detail of the Facility's response capability including notification procedures, response actions, clean-up capabilities (including contractor capabilities), response equipment available at the Facility, response team organization and identification of environmental and socio-economic sensitivities.

- The Facility meets the discharge history for qualified oil filled operational equipment per 40 CFR 112.7(K)(1)

2.0 NOTIFICATION AND RESPONSE PROCEDURES

This section is a guide for notification and response procedures that should be implemented immediately after discovering a discharge incident and securing the source (if at all possible). All notifications are of extreme importance and must be completed in a timely manner.

2.1 COUNTERMEASURES

The Facility discharge discovery, response and cleanup capabilities are described as follows:

- The discharge discovery capabilities of the Facility are provided by the engineering controls (see SPCC Sections 4, 5, 6, 7, and 8) and the training and inspection programs (see SPCC Section 3) in place at the Facility.
- The discharge response and notification capabilities of the Facility have been summarized in this Section.
- The Facility has an Integrated Contingency Plan (ICP) in place which provides considerable detail of the Facility's response capability including notification procedures, response actions, clean-up capabilities (including contractor capabilities), response equipment available at the Facility, response team organization and identification of environmental and socio-economic sensitivities.
- Oil Spill Response Contract Agreements are located at the Facility and in Appendix C of the ICP.

2.2 INTERNAL NOTIFICATION

- Internal notifications are discussed in ICP Section 2.3.

2.3 EXTERNAL NOTIFICATION

- External notifications are discussed in ICP Section 2.4.

2.4 RESPONSE PROCEDURES

- Response procedures are discussed in ICP Section 3.0.

2.5 DISPOSAL METHODS

The Facility has established the following methods of disposal for recovered materials in accordance with applicable legal requirements:

- Disposal methods are discussed in ICP Appendix F, Waste Disposal.

2.6 PREVENTION

In addition to being prepared to respond to an oil spill, the Facility also has prevention measures in place to minimize the chances of an accidental discharge. The Facility discharge prevention measures, including procedures for routine handling of products (loading, unloading, and facility transfers, etc.), are described as follows:

- The Company's training and briefing program ensures oil-handling personnel are familiar with the Plan and are capable of reporting a discharge (see SPCC Section 3).
- The Facility has been designed, and is maintained, in order to prevent discharges as described in this Plan (see SPCC Sections 4, 5, 6 and 7).
- Security measures prevent access of unauthorized persons to the Facility (see SPCC Section 8).

3.0 TRAINING AND INSPECTIONS

3.1 PERSONNEL, TRAINING, AND DISCHARGE PREVENTION PROCEDURES

Training (Initial)

- The Facility provides the following minimum initial training to oil-handling personnel:
  - Operation and maintenance of equipment to prevent oil discharges;
  - Oil discharge procedure protocols;
  - Applicable oil spill prevention (State & Federal) laws, rules, and regulations;
  - General facility operations; and,
  - The contents of the facility SPCC Plan and applicable pollution control laws, rules, and regulations.

- Operations personnel receive training by trained and competent Company instructors. General training includes study of the Company's oil transfer and storage systems and related equipment. Operational training covers gauging and inspection practices, along with operation of tank roof drains, dike drain valves, reservoir control valves, fixed and portable pumping units and vacuum equipment used in controlling, containing and removing any spilled oil. Training also includes instruction on the hazards of crude oil, applicable Federal, State and City regulations governing storage and transfer of crude oil, and emergency notification procedures as listed in the Oil Spill Contingency Plans.

- The Training Program is conducted by:
  - Computer-based Training Program
  - Classroom instruction
  - On-the-Job Training (Operation & Maintenance)

- Training records are maintained at the Facility for a minimum period of three (3) years.

Briefings (Annual)

- The Facility conducts prevention briefings for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for the Facility.

- These briefings include discussion of potential discharges or component failures and precautionary measures.

- Briefing records are maintained at the Facility for a minimum period of three (3) years.

- A sample Discharge Prevention Briefing Log is provided in Appendix K of the ICP.

3.2 INSPECTIONS, TESTS AND RECORDS

3.2.1 Container Testing and Inspections

- All aboveground containers are integrity tested on a regular schedule and when material repairs are made.

- Comparative records are kept. Comparative records are maintained at the Facility in South Portland, Maine.

- The container's supports and foundations are inspected. Tank bottom inspections; five year elevation shot cycle; and routine visual inspection throughout the week.

- The container inspection programs conducted and maintained by Facility personnel are as follows:

  - The containers are visually inspected by operating personnel for signs of deterioration, leaks, or the accumulation of liquids inside the containment areas.
  - Each storage container is inspected per company policy, as required by age, condition, and service. (Refer to Portland Pipe Line Corporation Storage Tank and Connected Piping Testing and Inspection Program).
  - Based on these conditions, the aboveground storage containers are professionally inspected and non-destructive thickness testing is performed.

- The required inspections are divided into three categories:

  - Routine, in-service inspections
  - In-service, external inspections
  - Out-of-service, internal inspections

- If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture, the container will be evaluated (see Sample Log in Appendix K of the ICP).

- Drums, totes or mobile refueling tanks brought on-site are built or tested to the standard(s) or in-process inspection and testing procedures established by the drum manufacturer or the drum recycler, as applicable.

- While on-site, the drums, totes or mobile refueling tanks will be visually inspected at least monthly.

3.2 INSPECTIONS, TESTS AND RECORDS (Cont'd)

3.2.1 Container Testing and Inspections (Cont'd)

- Each crude oil storage tank is equipped with an automatic tank gauge. The tanks have Saab radar gauging system and transmitter. Tank level and tank valve status are communicated to a computer display that is monitored by the Controller in the Control Center on a 24-hour basis. For static tanks, the computer continuously monitors for unexpected changes in gauge level, and provides a "creep" alarm to the Controller if such a change is detected. Tanks that are being pumped to the mainlines are continuously monitored for a volumetric imbalance associated with the pipeline operations. The computer system provides an alarm to the Controller when an imbalance occurs. PPLC personnel verify the automatic gauge by hand gauging each tank on a regular basis.

- Each crude oil storage tank is equipped with two independent high level transmitters which activate audible and visual alarms if the safe filling height of a tank is exceeded. The alarm system also activates remote indicators located at Pier 2, alerting vessel personnel to immediately stop transfer operations when an alarm is received. The "high/high alarm" also activates the alarms in the control center of PPLC's system monitoring company who notify the South Portland Fire Department. Operations personnel test the alarm system on each tank once a month.

3.2.2 Above Ground Valves and Pipelines Inspections

The Facility's above ground valves and pipelines are examined as follows:

- All aboveground valves and pipes/pipelines are regularly examined during operating personnel rounds. During these examinations, operating personnel assess the general condition and necessity for corrective actions of items such as:

  - Flange joints
  - Valve glands and bodies
  - Pipe supports
  - Metal surfaces
  - Expansion joints
  - Catch pans
  - Valves locks and/or seals
  - Other appurtances

- Periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

3.2 INSPECTIONS, TESTS AND RECORDS (Cont'd)

3.2.2 Above Ground Valves and Pipelines Inspections (Cont'd)

- Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction. Most of the pipelines within the Tank Farm are buried; however, the common suction and discharge line to each tank is above-ground within the tank dike area for approximately 75 feet. This piping is designed with two 90° elbows to allow for normal expansion and contraction. Near the elbow closest to the tank, an adjustable spring hanger is installed to hold all of the weight of the piping in that area, thus reducing the stress on the shell of the tank. The underside of the piping that rests on the supports is protected by a pad on the pipe to eliminate any abrasion to the pipe.

- T-1 and T-2 manifolds are within an impervious lined enclosure. Drainage from these areas is via a manually operated valve into the Facility's stormwater system.

3.2.3 Buried Piping Inspections

- Buried piping is present at the Facility.

- Buried piping integrity and leak testing is performed at the time of installation, modification, construction, relocation, or replacement.

- The unloading lines are subject to a program of periodic internal inspections, using intelligent pipe pigs to document pipe condition and integrity.

3.2.4 Documentation

- Records of the inspections and tests (including those maintained under usual and customary business practices), signed by the appropriate supervisor or inspector are retained on file at the Facility and/or other Corporate location for a minimum period of three (3) years.

- Sample inspection and test records are provided in Appendix K of the ICP.

4.0 FACILITY DRAINAGE

4.1 DIKED STORAGE AREA DRAINAGE SYSTEMS

Drainage of storm water or other liquids accumulated within the Facility's diked storage area is controlled as follows:

- Drainage from diked storage area(s) is restrained by manually controlled valves.
- Dike drain valves are secured in the closed position when not draining containment area(s).
- Flapper-type drain valves are not used to drain diked areas.
- Stormwater drainage from diked area(s) is manually activated and emptied by gravity.
- Water is visually inspected for product and discharged only if no product sheen is visible.
- The preferred method of removal of accumulated storm water is by natural evaporation providing that the accumulation does not damage the equipment/ structures or inhibit operations conducted within the containment area.
- Storm water which does accumulate within the diked area, and does not dissipate naturally, is drained in accordance with the stormwater drainage procedures.
- Facility drainage does not flow directly into an open watercourse. It goes through the oil/water separator and is collected in a retention pond that is segregated by a manual valve into an adjacent creek.
- The dike drainage at the tank farm is conveyed by storm drains and ditches to the facility oil/water separator and spill retention reservoir.
- The oil/water separator is located at the inlet end of the reservoir. The reinforced concrete separator design includes six under-and-over baffle/weirs to separate and retain oil. The separator treats the drainage from both diked and undiked areas of the tank farm. A trash rack and gate valve at the separator inlet control the influent flow.
- The containment area(s) is/are capable of containing product until clean-up occurs because of the clay liner, native soil with sufficient impermeability, and ponded water observed.

4.2 UNDIKED AREA DRAINAGE

Drainage from undiked areas is controlled as follows:

- The Facility drainage system is designed in a manner that will enable undiked areas with the potential for discharge to flow into the spill retention reservoir.
- Drainage from the tank farm is directed to the facility spill retention reservoir, at the downstream end of the oil/water separator. The reservoir has a capacity of approximately 64,000 barrels. The discharge from the reservoir passes through a skimmer box, flow-control gate valve, and storm drain to the municipal separate storm sewer that discharges into Anthoine Creek.
- In the unlikely event of an oil release within the tank farm, oil collected within the reservoir would be recovered using skimmers and vacuum trucks. Recovered oil would be returned to the oil storage tanks in the Tank Farm.
- The spill retention reservoir is not located in areas subject to periodic flooding.
- Drainage of stormwater from other undiked areas (non-storage) of the Facility is not controlled due to its origination from non-spill potential areas. Oil, which may get into these areas would be cleaned up immediately and not allowed to drain off the property.

4.3 STORM WATER DRAINAGE PROCEDURES

The procedure for supervising the drainage of storm water from secondary containment into a storm drain or an open watercourse is as follows:

- Drainage from the firewalls of the two (2) 268 Mbbl terminal crude oil storage tanks is discharged under supervision to the municipal separate storm sewer. The two (2) 138 Mbbl terminal crude oil storage tanks are not equipped with drains; captured precipitation is lost to evaporation.
- At the Tank Farm, the Facility does not have a wastewater treatment plant nor does it treat water prior to discharge off site, other than the treatment provided for storm water by the oil/water separator and storm water reservoir. Drainage from the firewalls of the 19 Tank Farm crude oil storage tanks is discharged as follows:
  - Uncontaminated rainwater is inspected to ensure compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.
  - Adequate records are kept of such drainage events.
    - Records of drainage events are maintained at the Facility.
    - A sample Drainage Record is provided in Appendix K of the ICP.

4.4 EFFLUENT TREATMENT FACILITIES

The Facility does have a mechanical oil water separator at the retention pond but does not have an effluent treatment facility to chemically treat the water.

5.0 BULK STORAGE CONTAINERS

5.1 CONTAINER DESIGN AND CONSTRUCTION

Aboveground Bulk Storage Containers

The Facility's bulk oil and oil products storage containers have the following design characteristics, materials of construction, and fail-safe engineering features:

- Containers are constructed of a material that is compatible with the oil and oil products stored and the conditions of storage (including pressure and temperature).
- Most bulk storage containers have high and high-high liquid level computer alarms at a constantly manned operation or surveillance station.
- The Facility does use a fast response system for determining the liquid level of each bulk storage tank such as digital computers and direct vision gauges.
- Visible oil leaks which result in a loss of product from containers sufficiently large to cause the accumulation of product in diked areas will be promptly corrected and removed.
- Tanks are operated within "Safe Fill" levels positioned below the operating limits of the tank.
- Tank bottoms and associated buried appurtenances are cathodically protected.

Secondary Containment

The secondary containment system provided for the bulk oil and oil product storage containers has the following design and construction characteristics:

- Containment or diversionary structures or equipment to prevent oil from reaching navigable waters are practicable.
- Diked areas are sufficiently impervious to contain spilled oil.
- All bulk storage tank installations are constructed so that a secondary means of containment is provided for the entire contents of the largest single container plus sufficient freeboard to allow for precipitation.
- The containment areas other than the fuel oil storage tank, are constructed of compacted earthen material.

5.1 CONTAINER DESIGN AND CONSTRUCTION (Cont'd)

- Each crude oil storage tank is situated within earthen dike (firewall) secondary containment. The firewalls are designed to contain 110% of the volume capacity of the largest tank within each containment area. The firewalls were constructed with a core of lower-permeability soil materials to inhibit the flow of liquid through the walls. The firewall design includes sideslopes of 1 ½ to 1, and a three (3) foot wide walkway on top. The firewall design, tank spacing and layout conform to the City of South Portland and State of Maine Codes in effect at the time the installation was constructed. The #2 fuel oil storage tank is surrounded by a reinforced concrete dike designed to contain 125% of the volume of the tank.

- Earthen tank dikes are inspected monthly for integrity as part of the informal monthly inspection program. Any deficiencies are reported to the maintenance department, repairs are made and when necessary, an animal control contractor is scheduled to trap, remove and relocate unwanted burrowing animals that may compromise dike integrity.

5.2 COMPLETELY AND PARTIALLY BURIED TANKS

- The Facility does have one completely buried metallic sump tank that was installed on or after January 10, 1974, and is not covered by 40 CFR Part 280 or 281. The tank is located at the South Portland Tank Farm near the pump rooms.

  - Corrosion protection is provided by cathodic protection.
  - Completely buried tank is regularly pressure tested to confirm its integrity.

- The Facility does not have partially buried or bunkered metallic tanks.

5.3 MOBILE OR PORTABLE OIL STORAGE CONTAINERS

- Mobile or portable oil storage containers (drums) are located at the Facility.

- A secondary means of containment, such as dikes or catchment basins, is provided for the largest single compartment or container plus sufficient freeboard for precipitation.

5.4 INTERNAL HEATING COILS

- The Facility does not utilize internal steam heating coils.

- When necessary, the crude oil from the storage tanks is heated by transferring the oil through the external heat exchanger located near the tank farm heating plant.

6.0 TRANSFER OPERATIONS, PUMPING, AND IN-PLANT PROCESS

6.1 BURIED PIPING INSTALLATIONS

The Facility's buried piping installations are provided with corrosion protection as follows:

- The Facility does have buried piping.
- Buried piping installations are wrapped and coated to reduce corrosion.
- When a section of buried line is exposed for any reason, it is examined for deterioration.
- If corrosion damage is found, additional examination and corrective action will be taken as indicated by the magnitude of damage.

6.2 CATHODIC PROTECTION OF UNDERGROUND PIPING

- If installed, buried piping, new or replaced after August 16, 2002, will be:
  - Protectively wrapped and coated.
  - Cathodically protected, unless a corrosion expert determines the location is not to be corrosive enough to cause it to have a release due to corrosion during its operating life.

6.3 OUT-OF-SERVICE PIPING

- Out of service piping terminal connections will be capped or blank-flanged and marked when the piping is not in service or in standby service for extended periods.

6.4 VEHICLE WARNING PROCEDURES

The procedures for warning vehicles entering the Facility to avoid damaging aboveground piping or other equipment is as follows:

- Vehicular traffic granted entry into the Facility are warned by barriers to be sure that the vehicle will not endanger aboveground piping.
- Vehicle access to all oil storage areas and any construction involving excavating, welding, burning or the use of any equipment or tools not classified as “explosion proof” (Class I, Group D) is strictly controlled by written internal Safe Work Permit (Exhibit 4). All safe work permits must be signed by a qualified pipe line representative and may be issued only following an on-site inspection and discussion with a contractor’s representative relative to specific testing and safety procedures which must be followed in conducting the work involved. Above-ground piping is protected from damage by vehicles by suitable above-ground barricades or by being set back at a distance from traffic surfaces.

7.0 TANK CAR AND TANK TRUCK LOADING/UNLOADING RACK

7.1 FACILITY OPERATIONS

- Truck loading operations are not conducted at this Facility.
- Vacuum Trucks may discharge recovered oil to a tank during spill response.
- Tank car (rail) operations are not conducted at this Facility.
- Loading/unloading procedures meet the minimum requirements and regulations established by the Department of Transportation.

7.2 LOADING/UNLOADING RACK CONTAINMENT SYSTEM

- There is not a loading rack at this Facility.

7.3 WARNING SYSTEMS

Not Applicable

7.4 UNLOADING PROCEDURES

Not Applicable

(b) (7)(F)

(b) (7)(F)

9.0 FACILITY SPECIFIC INFORMATION

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

(Any container that stores oil)

(b) (7)(F) [redacted]

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow *	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow
		AND - BULK STORAGE CONTAINERS					
1	Crude	Floating	1941	Rupture	-----	Overflow due to incorrect remote tank gauge readings. 74,340 gal. loss to containment (5/29/75)	Note "A"
2	Crude	Floating	1941	Rupture	-----	N/A	
27	Crude	Floating	1966	Rupture	-----	N/A	Note "B"
28	Crude	Floating	1969	Rupture	-----	N/A	
3	Crude	Floating	1950	Rupture	-----	N/A	Note "C"
4	Crude	Floating	1950	Rupture	-----	N/A	
5	Crude	Floating	1950	Rupture	-----	N/A	
6	Crude	Floating	1950	Rupture	-----	N/A	
8	Crude	Floating	1944	Rupture	-----	N/A	
9	Crude	Floating	1944	Rupture	-----	N/A	
10	Crude	Floating	1941	Rupture	-----	Overflow when wrong tank opened to receive oil from vessel. 10,080 gal. loss to containment. (10/5/60)	
11	Crude	Floating	1941	Rupture	-----	N/A	
12	Crude	Floating	1941	Rupture	-----	N/A	
13	Crude	Floating	1941	Rupture	-----	N/A	
18	Crude	Floating	1971	Rupture	-----	N/A	
19	Crude	Floating	1953	Rupture	-----	N/A	

(b) (7)(F) [redacted]

* Varies from pinpoint leak to catastrophic collapse.

** The containment volumes were supplied by Portland Pipe Line Corporation and were presented to RMA as a third-party survey company's verification of containment.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

(Any container that stores oil)

Container I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Container Type *(i.e. floating roof, fixed roof, etc.)*	Year Built	Potential Failure *(Leak/Rupture/ Overflow)*	Rate of Flow *	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity** *(Volume - Gallons)*
SOUTH PORTLAND - BULK STORAGE CONTAINERS (Cont'd)										
20	Crude	(b) (7)(F) [redacted]		Floating	1953	Rupture	-----	N/A	Note "C"	(b) (7)(F) [redacted]
21	Crude			Floating	1955	Rupture	-----	N/A		
22	Crude			Floating	1955	Rupture	-----	N/A		
23	Crude			Floating	1960	Rupture	-----	N/A		
24	Crude			Floating	1965	Rupture	-----	N/A		
25	Crude			Floating	1965	Rupture	-----	N/A		
26	Crude			Floating	1957	Rupture	-----	N/A		
#2 Fuel Oil Storage Tank	Fuel Oil			Horizontal	1983	Leak	-----	N/A		
Waste Oil/Rags Drums Storage	Waste Oil & Rags			55 Gal Drums	-----	Leak	-----	N/A		
Pier 2 Diesel Generator Tank	Diesel Fuel			-----	2002	Leak	-----	N/A	Note "A"	
Maintenance Building Lube Oil Storage	Lubricating oil			55 Gal Drums	-----	Leak	-----	N/A		
TOTALS:										
PIPELINE PUMP STATIONS - BULK STORAGE CONTAINERS										
Raymond	Lube Oil/Wast	(b) (7)(F) [redacted]		55 Gal Drums	-----	Leak	-----	N/A	Note "E"	Note "F"
North Waterford	Lube Oil/Wast			55 Gal Drums	-----	Leak	-----	N/A		
Shelburne	Lube Oil/Wast			55 Gal Drums	-----	Leak	-----	N/A		
Lancaster	Lube Oil/Wast			55 Gal Drums	-----	Leak	-----	N/A		
Sutton	Lube Oil/Wast			55 Gal Drums	-----	Leak	-----	N/A		
TOTALS:										

* Varies from pinpoint leak to catastrophic collapse.
** The containment volumes were supplied by Portland Pipe Line Corporation and were presented to RMA as a third-party survey company's verification of containment.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION
(Any container that stores oil)

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Year Built	Potential Failure	Rate of Flow *	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity**
SOUTH PORTLAND – OPERATIONAL EQUIPMENT										
Boiler #1	Fuel Oil	(b) (7)(F) [redacted]		Boiler	1983	Leak/Rupture	-----	N/A	Note "C"	(b) (7)(F) [redacted]
Boiler #2	Fuel Oil			Boiler	1983	Leak/Rupture	-----	N/A		
Pier 2 Genset	Diesel Fuel			Generator	Unk	Leak/Rupture	-----	N/A	Note "A"	
SOUTH PORTLAND – QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT										
Glycol/Oil Heat Exchanger	Glycol/Oil	(b) (7)(F) [redacted]		Heat Exchanger	1983	Leak/Rupture	-----	N/A		Note "D"
Rectifier TF1 @T1	Mineral Oil			Rectifier	Unk	Leak/Rupture	-----	N/A		
Rectifier TF2 @T2	Mineral Oil			Rectifier	Unk	Leak/Rupture	-----	N/A		
Rectifier TF3 @T3	Mineral Oil			Rectifier	Unk	Leak/Rupture	-----	N/A		
TRF1 @T1	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF2 @T1	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3 @T1	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF1 @ Ops Bldg	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF2 @ Ops Bldg	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3 @ Ops Bldg	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
Spare @ Ops Bldg	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		

* Varies from pinpoint leak to catastrophic collapse.
** The containment volumes were supplied by Portland Pipe Line Corporation and were presented to RMA as a third-party survey company's verification of containment.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION
(*Any container that stores oil*)

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Year Built	Potential Failure	Rate of Flow *	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity
SOUTH PORTLAND – QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT (Cont'd)										
TRF5 @ Ops Bldg	Mineral Oil	(b) (7)(F) [redacted]	[redacted]	Transformer	Unk	Leak/Rupture	-----	N/A	Note "C"	Note "D"
TRF6 @ Ops Bldg	Mineral Oil	[redacted]	[redacted]	Transformer	Unk	Leak/Rupture	-----	N/A		
TRF7 @ Ops Bldg	Mineral Oil	[redacted]	[redacted]	Transformer	Unk	Leak/Rupture	-----	N/A		
TRF8 @ Ops Bldg	Mineral Oil	[redacted]	[redacted]	Transformer	Unk	Leak/Rupture	-----	N/A		
TRF9 @ Ops Bldg	Mineral Oil	[redacted]	[redacted]	Transformer	Unk	Leak/Rupture	-----	N/A		
TRF10 @ Ops Bldg	Mineral Oil	[redacted]	[redacted]	Transformer	Unk	Leak/Rupture	-----	N/A		
TRF @ Eng Bldg	Mineral Oil	[redacted]	[redacted]	Transformer	Unk	Leak/Rupture	-----	N/A		
Pier 1 Rectifier for TK 1 & 2	Mineral Oil	[redacted]	[redacted]	Rectifier	Unk	Leak/Rupture	-----	N/A	Note "A"	
Pier 1 Rectifier #2 (East)	Mineral Oil	[redacted]	[redacted]	Rectifier	Unk	Leak/Rupture	-----	N/A		
Pier 1 Rectifier #3 (West)	Mineral Oil	[redacted]	[redacted]	Rectifier	Unk	Leak/Rupture	-----	N/A		

* Varies from pinpoint leak to catastrophic collapse.
** The containment volumes were supplied by Portland Pipe Line Corporation and were presented to RMA as a third-party survey company's verification of containment.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION
(Any container that stores oil)

Equipment I.D.	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Equipment Type *(i.e. transformer, oil-filled equipment, etc.)*	Year Built	Potential Failure	Rate of Flow *	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity
SOUTH PORTLAND - QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT (Cont'd)										
Pump 5 Area TRF1	Mineral Oil	(b) (7)(F) [redacted]		Transformer	Unk	Leak/Rupture	-----	N/A	Note "B"	Note "D"
Pump 5 Area TRF2	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
Pump 5 Area TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
Pump 5 Area Rectifier for TK 27 & 28	Mineral Oil			Rectifier	Unk	Leak/Rupture	-----	N/A		
Pier 2 Unloading Arm Hydraulic Unit	Hydraulic Oil			Hydraulic Unit	Unk	Leak/Rupture	-----	N/A	Note "A"	
Gangway Hydraulic Unit	Hydraulic Oil			Hydraulic Unit	Unk	Leak/Rupture	-----	N/A		
Fire Monitor 1 Hydraulic Unit	Hydraulic Oil			Hydraulic Unit	Unk	Leak/Rupture	-----	N/A		
Fire Monitor 2 Hydraulic Unit	Hydraulic Oil			Hydraulic Unit	Unk	Leak/Rupture	-----	N/A		
TOTALS:										

* Varies from pinpoint leak to catastrophic collapse.
** The containment volumes were supplied by Portland Pipe Line Corporation and were presented to RMA as a third-party survey company's verification of containment.

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION
(Any container that stores oil)

Source I.D.	Substance Held (Oil & Haz. Substance)	Average Quantity (Gallons)	Maximum Capacity (Gallons)	Source Type (i.e. piping, separation equipment, etc.)	Year Built	Potential Failure	Rate of Flow *	Failure / Cause (Record cause and date of any Tank failure which has resulted in a loss of tank contents)	Direction of Flow	Secondary Containment Capacity (Volume)
RAYMOND PUMP STATION – QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT										
TRF1	Mineral Oil	(b) (7)(F) [redacted]		Transformer	Unk	Leak/Rupture	-----	N/A	Southeast towards Hemlock Lane	Note "D"
TRF2	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TOTALS:										
NORTH WATERFORD PUMP STATION – QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT										
TRF1	Mineral Oil	(b) (7)(F) [redacted]		Transformer	Unk	Leak/Rupture	-----	N/A	Southeast towards Fisk Road	Note "D"
TRF2	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF4	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TOTALS:										
SHELBURNE PUMP STATION – QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT										
TRF1	Mineral Oil	(b) (7)(F) [redacted]		Transformer	Unk	Leak/Rupture	-----	N/A	Northwest towards pond	Note "D"
TRF2	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF4	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TOTALS:										

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

(Any container that stores oil)

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Year Built	Potential Failure	Rate of Flow *	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity *(Volume)*
LANCASTER PUMP STATION – QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT										
TRF1	Mineral Oil	(b) (7)(F) [redacted]		Transformer	Unk	Leak/Rupture	-----	N/A	Southeast towards creek	Note "D"
TRF2	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF4	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF5	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
Spare TRF	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TOTALS:										
SUTTON PUMP STATION – QUALIFIED OIL-FILLED OPERATIONAL EQUIPMENT										
TRF1	Mineral Oil	(b) (7)(F) [redacted]		Transformer	Unk	Leak/Rupture	-----	N/A	West towards Sutton River	Note "D"
TRF2	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TRF3	Mineral Oil			Transformer	Unk	Leak/Rupture	-----	N/A		
TOTALS:										

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION

(Any container that stores oil)

Source I.D.	Substance Held *(Oil & Haz. Substance)*	Average Quantity *(Gallons)*	Maximum Capacity *(Gallons)*	Source Type *(i.e. piping, separation equipment, etc.)*	Year Built	Potential Failure	Rate of Flow *	Failure / Cause *(Record cause and date of any Tank failure which has resulted in a loss of tank contents)*	Direction of Flow	Secondary Containment Capacity** *(Volume)*
SOUTH PORTLAND - OTHER POTENTIAL SPILL SOURCES										
Glycol Expansion TK	Glycol***	(b) (7)(F) [redacted]		Horizontal	1983	Leak/Rupture	-----	N/A	Note "A"	(b) (7)(F) [redacted]
TOTALS:										

* Varies from pinpoint leak to catastrophic collapse.

** The containment volumes were supplied by Portland Pipe Line Corporation and were presented to RMA as a third-party survey company's verification of containment.

*** Chemical

POTENTIAL SPILL SOURCES AND CONTAINER IDENTIFICATION
(*Any container that stores oil*)

Source I.D.	Substance Held (*Oil & Haz. Substance*)	Average Quantity (*Gallons*)	Maximum Capacity (*Gallons*)	Potential Failure	Rate of Flow *	Failure / Cause (*Record cause and date of any Tank failure which has resulted in a loss of tank contents*)	Direction of Flow	Secondary Containment Capacity** (*Volume*)
SOUTH PORTLAND – COMPLETELY BURIED TANKS								
Sump Tank	Oil	(b) (7)(F) [redacted]		Overflow/Rupture	-----	N/A	North	(b) (7)(F) [redacted]
TOTALS:		[redacted]						[redacted]

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*)
		There are no Surface Impoundments at this Facility used for Product Storage				

* Varies from pinpoint leak to catastrophic collapse.
** The containment volumes were supplied by Portland Pipe Line Corporation and were presented to RMA as a third-party survey company's verification of containment.

Note[A]: Primary drainage is to the containment area. Drainage outside of, or escaping containment would flow northwest to Portland Harbor.
Note[B]: Primary drainage is to the containment area. Drainage outside of, or escaping containment would flow north across Pickett Street towards Portland Harbor.
Note[C]: 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[D]: Identified as Qualified Oil-Filled Operational Equipment for which alternate requirements (see SPCC §1.7) to general secondary containment are in place per 40 CFR 112.7 (k).
Note[E]: 55 gallon drums are stored inside Pump Station buildings. Any Drainage out of the supplied containment would pool inside the building.
Note[F]: 55 gallon drum is stored on factory produced drum containment pallet sufficient to hold the entire contents.

FACILITY DRAWINGS

The following drawings are attached for reference:

SOUTH PORTLAND TANK FARM DRAINAGE DIAGRAMS

Figure 9-10(a)	**D4923:**	**Drainage and Hydrants – Tank Farm**
Figure 9-10(b)	**D4924:**	**Drainage and Hydrants - Terminal**
Figure 9-10(c)	**B1154:**	**Drainage Diagram – Tank Farm & Anthoine Creek**
Figure 9-10(d)	**B1153:**	**Drainage Diagram – Terminal and Mill Cove**

MAIN LINE PUMP STATIONS PLOT PLANS

Figure 9-10(e)	**D2819:**	**Plot Plan - Raymond Station**
Figure 9-10(f)	**D2421:**	**Plot Plan - North Waterford Station**
Figure 9-10(g)	**D2824:**	**Plot Plan - Shelburne Station**
Figure 9-10(h)	**B2424:**	**Plot Plan - Lancaster Station**
Figure 9-10(i)	**B2829:**	**Plot Plan - Sutton Station**

SPCC SITE PLAN AND DIAGRAM

Figure 9-10(j)	**D4925:**	**Piping, Transformers, Rectifiers - Tank Farm**
Figure 9-10(j)	**D4926:**	**Piping, Transformers, Rectifiers - Terminal**
Figure 9-10(k)	**D4927:**	**Piping, Transformers, Rectifiers - Pier 2**

7.0 PPL / MPL SPECIFIC PLANS

7.2 MPL OIL SPILL SPECIFIC RESPONE PLANS

Canada Specific Reporting Requirements:

In respone to an industry suggestion, the National Energy Board (NEB) and the Transportation Safety Board of Canada (TSB) have agreed to introduce single-window reporting during pipeline incidents/occurrences. Arrangements have been made for the TSB to receive these reports on behalf of both agencies. All incidents and occurrences should be reported to the TSB Occurrence Hotline (819) 997-7887. Preliminary and detailed incidents reports should also be repored to the TSB. The TSB will forward all applicable reports to the NEB.

TSB Contact Information
24 Hour Occurrence Hot Line: (819) 997-7887
Email: PipelineNotifications@tsb.qc.ca

Preliminary reports will be directed to the TSB at:
Transportation Safety Board of Canada
Place du centre, 4th floor
200 Promenade du Portage
Hull, Quebec
K1A 1K8
Facsimile: 819-953-7876

Section 1 of the National Energy Board's Regulations (Onshore Pipeline Regulation) "Incident" means an occurrence that results in:

(a) The death of or serious injury to a person
(b) A significant adverse effect on the environment
(c) An unintended fire or explosion
(d) An unintended or uncontained release of LPV hydrocarbons in excess of 1.5 m3
(e) An unintended or uncontrolled release of gas or HPV hydrocarbons
(f) The operation of a pipeline beyond its design limits as defined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board

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

As lead regulatory agency, the NEB:

- Monitors, observes and assesses the overall effectiveness of the company's emergency response in terms of:
    - Emergency Management
    - Safety
    - Security
    - Environment
    - Integrity of operations and facilities: and
    - Energy Supply

7.2MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

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

NEB 24/7 Incident Line: (403) 807-9473

The TSB roles and responsibilities are to advance transportation safety in the marine, pipeline, rail and air modes of transportation by

- Conducting independent investigations, including public inquiries when necessary, 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, and
- Reporting publicly on our investigations and on the findings in relation thereto.

As part of its ongoing investigations, the TSB also reviews developments in transportation safety and identifies safety risks that it believes government and the transportation industry should address to reduce injury and loss.

The TSB is an independent agency, separate from other government agencies, and departments, that reports to Parliament through the President of the Queen's Privy Council for Canada.

In making its findings as to the causes and contributing factors of a transportation occurrence, it is not the function of the Board to assign fault or determine civil or criminal liability. However, the Board does not refrain from fully reporting on the causes and contributing factors merely because fault or liability might be inferred from the Board's findings. No findings of the Board should be construed as assigning fault or determining civil or criminal liability. Findings of the Board are not binding on the parties to any legal, disciplinary, or other proceedings.

The National Energy Board is responsible for regulating pipelines under federal jurisdiction. The TSB is responsible for advancing transportation safety in marine, pipeline, rail and air modes of transportation through the conduct of independent investigations, the identification of safety deficiencies, and the making of recommendations to eliminate or reduce such deficiencies.

When the TSB investigates an accident, no other federal department (except the Department of National Defense and the Royal Canadian Mounted Police) may investigate for the purpose of making findings as to the causes and contributing factors of the accident. Transport Canada and the National Energy Board may investigate for any other purpose, such as regulatory infractions.

The main vulnerable areas outside the MPL property limits are described in the following table (Figure 7.1) and can also be found in each of the Oil Spill Specific Plans in Section 7.2 following

Figure 7.1
MPL VULNERABLE AREAS

Type of Activity / Area	Location
Lakes and Streams:	**Missisquoi River** Dufour Brook Brock River Ruiter Brook Sutton Creek **Yamaska River,** South-West River À la barbue River **Richelieu River,** Lahaise Brook Bessette-Charbonneau Brook Des Trentes Brook Voghel-Lusignan Brook Voghel Brook Small Leboeuf Brook Brodeur BrookVoghel-Blanchard Brook Ducharme Brook Richer Brook de l'Église Brook Coderre Brook Grand des Trente Brook des Chênes Brook de la Rouchière Brook La Prade Brook des Atocas Brook Décharge du Trait Carré (Outlet) Raimbault Brook des Prairies Brook **St.Lawrence River**
(b) (7)(F) [redacted]	
Recreational areas: marinas, beaches, campgrounds, boat launches, etc.	Figure 7.3 - Campgrounds in the Missisquoi River area Figure 7.5 – Nautical Activities and Campgrounds in the Richelieu River area Figure 7.7 – Nautical Activities, Campgrounds and Parks in the St.Lawrence River area
Spawning areas and wetlands	Figure 7.7 - Environmental Sensitivities – St. Lawrence River Figure 7.4 - Richelieu River – General Information
Parks	Missisquoi National State Park, Vermont Lake Carmi State Park Bellerive Park, Saint-Ours St.Lawrence Park, Repentigny Lebel Island Park, Repentigny Island of Boucherville Provincial Park Pointe-aux-Prairies Nature Park, Montreal
Navigational Locks	Saint-Ours Lock, Saint-Ours
Commercial and Industrial area	Figure 7.9 – Montreal East – Environmental, Socio Economic Sensitivities

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

7.2.1 MISSISQUOI RIVER - Oil Spill Specific Response Plan

The purpose of this section is to provide the necessary information to enable a quick and efficient response in case of a crude-oil spill in the Missisquoi River.

U. S. and Canadian topographic maps (United States Geological Survey, 1:24 000 and Department of Energy, Mines and Resources, Canada, 1:50 000) should be used during emergency operations since they present the concerned section of the Missisquoi River downstream from the pipeline and constitute good information sources.

These maps are essential working tools and are presented in Appendix A. General information is contained in the first parts of this section. Figures 2.8 & 2.13 show the mandatory notifications for the United States. Figure 7.3 provides information on environmental socio-economic sensitivities.

Figure 7.2
Missisquoi River General Information

Description of the area

The Missisquoi River is the largest tributary of the Missisquoi Bay Drainage Basin. It can be described as a transborder system covering an area of 2231 km^2 / 864 mi^2 crossing the Eastern Townships Region in Quebec and the northern part of Vermont (Franklin County). The river valley is characterized by a large "U" shape flood plain. The Missisquoi River Drainage Basin is located in the Appalachian Mountains and Foothills Geological Region.

The Missisquoi River sections, which would be threatened, in the event of a pipeline rupture are represented by the sector between Highwater and Swanton (Missisquoi Bay). This segment encompasses a total distance of about 105 km / 65 mi of which 20 km / 12 mi falls into Quebec's Territory while 85 km is located inside U.S. Territory.

In Quebec

The Missisquoi river segment in Quebec follows a large valley, generally cultivated, which is created by the Sutton Mountains and Jay Peak Foothills. The river takes sinuous forms (meanders), measuring about fifteen (15) m / (16) yd in width by one (1) m/yd in depth, and flowing over a rocky soil.

This Quebec section is largely used for recreational purposes. Camping, canoeing, cycling and fishing represent some of the most common outdoor activities associated with the valley. Mostly occupied by forests the area is sparsely populated. Drinking water is supplied in a large proportion by artesian wells. With the exception of the Highwater Pumping Station and an old Talc Mine, there is no identified industry along the river, which could be impacted by a petroleum spill.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

Figure 7.2
Missisquoi River General Information (cont'd)

Many fish species such as trout, pike, small-mouth bass and perch have been seen in the Missisquoi river. There are also many species of amphibians and reptiles, which colonize the river. Forest Turtles, quite common in this sector, might also be impacted by a petroleum spill. Many mammals are identified in the Missisquoi River Valley. Amongst the most common, there are raccoons, minks, muskrats, foxes and deer.

No section of the river is identified as representing a high value from a biological standpoint. However, small stream and ditch discharge areas can offer excellent access ramps for turtles and mammals, taking into account that the riverbanks are generally steep (about 1 to 2 m/yd in height). In case of an eventual oil spill into the river, special attention should be given to these affluents.

On the Quebec side, access by roads to the Missisquoi River is quite simple and efficient. Two roads border the valley. On the north bank, the riverbed can be reached by taking the Missisquoi valley road. To access it, one must take Route 243, to the East, or Route 139 (by the Scenic road), to the West. On the south bank, the Burnett road and Quebec-Estrie railway line provide access points along the river. To access them, one must cross the river by taking bridges located either at Glen Sutton or Highwater. Leisure boating is limited to small crafts (rowboat, canoe, etc.) due to physical river constraints. There is a boat-launching ramp located at the "Carrefour des Campeurs" Campground, near Highwater, and another one, not developed, near the Glen Sutton bridge.

In Vermont

The U.S. river segment in question crosses Franklin County from East to West. By studying this sector, one can observe that the riverbed takes sinuous forms and flows inside a "U" shape valley. This valley is set up between a hill system corresponding to the Appalachian Mountains and Foothills. The Missisquoi river ends its course by crossing part of the Champlain Lake Lowlands. In Swanton, the river measures 100 m in width. It discharges from a large and shallow marshy delta into the Missisquoi Bay.

The main activity of the region is agriculture. Numerous farms are present but only few industries, most of which corresponding to hydroelectric dams and small to medium enterprises. Recreational activities along the Missisquoi river are not well developed. Most of them are taking place in the Missisquoi National Wildlife Refuge near Swanton (fishing sites, migratory and aquatic bird observation areas, spawning grounds, etc.). In addition, some campgrounds are found close to the river (see Figure 7.3). There is no water intake along the Vermont part of the River.

In Vermont, it is also quite easy to access the river by road. Route 105 follows the valley, between the border and the village of Sheldon Junction. After that, Route 78 follows up to the Missisquoi Delta. The same route crosses the Champlain Lake. A railway network is present all along the valley. The Central Vermont R.Y manages this network. There is also an airport in the municipality of Swanton, near Route 78. The only two boat launching ramps are found in Swanton, downstream from the dam.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

Figure 7.2
Mississiquoi River General Information (cont'd)

Currents and Weather Information

Current speeds in the Missisquoi River vary considerably depending on the season. This river is recognized for its high fluctuation in water levels, which play also an important role in current speed. Water level is highly influenced by the quantity of precipitation in the drainage basin.

According to data recorded by the Hydrometric Division of the United States Geological Survey (USGS) at the East Berkshire Station [redacted] (b) (7) (E) [redacted] the average monthly rate of flow in the Missisquoi river from 1984 to 1988 is presented in the following table.

Average Flow of the Missisquoi River

Month	Average Flow (m^3/sec)	Average Flow (ft^3/sec)
January	15.91	9.36
February	14.74	8.68
March	38.35	22.57
April	83.74	49.29
May	38.38	22.59
June	18.01	10.60
July	10.55	6.21
August	10.22	6.02
September	12.10	7.12
October	20.16	11.87
November	28.20	16.60
December	23.89	14.06

Based on table above it is observed that current speeds (flows) are at their fastest during the spring, between the months of March and May, and at their slowest during the summer, between June and September.

In order to assess the drift speed of an oil slick on the river, Orion-type floaters designed to travel like an oil slick on water were placed in the River at the pipeline level and their drift has been followed during the course of two consecutive days. These tests were carried out in April of 1998.

The resulting average drift speed during the tests was about 1.7 km/hr (1 mi/hour). However, this speed will vary significantly according to precipitations, as the river collects part of the water coming from the surrounding mountains.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

Figure 7.2
Mississiquoi River General Information (cont'd)

During a spill, it is possible that the oil slick might drift more quickly or more slowly, depending on the time of the year or level of rainfall during the previous days. Consequently, it will be important to measure the real drift speed between two markers on a map and readjust the delays accordingly.

The wind speed and direction also play an important role in the speed and direction of an oil slick. Wind data from various weather stations have been collected. Abercorn and Philipsburg Stations were retained. At the Abercorn Station, prevailing winds are coming from the south and the southwest. Average wind speeds on an annual basis along these two directions are respectively 8.16 km/hr (5 mi/hr) and 9.81 km/hr (6 mi/hr). At the Philipsburg Station, data show that winds are coming mainly from the south, the southwest and the west.

Average wind speeds along these directions are respectively 17.81 km/hr (11 mi/hr), 16.93 km/hr (10.5 mi/hr) and 15.87 km/hr (10 mi/hr). By applying these observations to a petroleum spill, it can be predicted that the oil slick will follow the riverbank opposite to the wind direction. As prevailing winds are mostly coming from the south, there is a strong likelihood that the oil slick (depending on the river segment) will drift along the north riverbank.

From the Abercorn meteorological station (45°02'N 72°40'W) located 19 km/ 11.8 mi west of Highwater, the average temperature in the area is 5.4^{o}C / 42°F, ranging from a mean temperature of –10.7^{o}C / 12.7^{o}F in January to 19.3^{o}C / 66.7^{o}F in July (75 days during the year show maximum temperatures below 0°C / 32°F).

The yearly mean precipitation is 1265.4 mm / 49.8 in; 76% is in the form of rain, while 24% is snow.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

(b) (7)(F)

[redacted]

Campgrounds and Parks

- **Brookside Campground North** (26 sites) 802-933-4376
- RD 2, Enosburg, Vermont802-933-8309 **Carrefour des campeurs Campground** (119 sites) **– Boat Launching Ramp**
  2733, Vallée Missisquoi Rd., Mansonville 819-292-3737
- **Champlain Valley Campground** (79 sites)
  Swanton, Vermont 802-524-5146
- **Diable Vert Mountain Station Campground** (25 sites) 450-538-5639
  168, Staines Rd., Sutton 888-779-9090
- **Lake Carmi State Park** ..... Summer: 802-933-8383
  RD 1, Swanton, Vermont ..... Winter: 802-879-5674
- **Lakewood Campground** (262 sites)
  Tabor Rd. Swanton, Vermont 802-868-7270
- **Missisquoi National Wildlife Refuge**
  Swanton, Vermont 802-868-4781

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

7.2.2 RICHELIEU RIVER - Oil Spill Specific Response Plan

The purpose of this section is to provide the necessary information to enable a quick and efficient response in case of a crude-oil spill in the Richelieu River.

- For ease of photocopying and electronic transmission, the marine maps showing the portion of the Richelieu River downstream from the pipelines have been divided into 17 sheets, each measuring 216 cm X 280 cm (8.5" X 11"), (See Figure 6.1 and the Montreal Pipe Line Limited Oil Spill Specific Response Plans binder. For each sheet, the information pertaining to the area shown on the map is presented on the adjoining page.

General information is contained in Figure 7.4. Figure 7.5 presents the environmental socio-economic sensitivities of the region.

FIGURE 7.4
RICHELIEU RIVER – General Information

Description of the Area

The Richelieu River is the largest southern tributary of the St. Lawrence River. It flows south to north across the St. Lawrence lowlands and joins the St. Lawrence River near Sorel.

The River area that would be threatened in the case of a pipeline break near Saint-Mathias is known as the Lower Richelieu area.

This section of the River is widely used for recreational purposes such as pleasure boating, and is also a source of drinking water. Four water plants draw their drinking water downstream from the pipelines to supply more than twenty (20) municipalities in the region. In addition, a golf club located in Sorel-Tracy draws water from the River to water its grounds (consult Figure 7.5). The River is inhabited by a number of fish species: 60 to 116 freshwater fish species in Quebec live in the River and at least 25 reproduce in it. Due to urbanization, the construction of artificial riverbanks, industrialization and agricultural activities the water is considered of poor quality.

Although the riverbanks have largely been artificially remodelled, there are still some natural wetlands, mainly around the islands. Some waterfowl (ducks, geese, seagulls, shore birds, etc.) live on the River during the summer season or stop there during migration.

In the Lower Richelieu area, there is one lock (Saint-Ours), six marinas or boating clubs and several private docks. The banks are generally accessible via Route 133 (des Patriotes Road) on the east bank and via Route 223 (Richelieu and Saint-Roch Roads) on the west bank. However, there are relatively few points giving public access to the River.

Generally, private homes are built on lots along the east bank, while the road separates homes from the River on the west bank, except downstream from the Saint-Ours lock where there are numerous houses along both banks.

In some places the banks are taken up by agricultural land, and on occasion cattle can be seen bathing at the River's edge.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.4 (cont'd)
RICHELIEU RIVER – General Information

Currents and Weather Information

Current speeds in the Richelieu River vary considerably depending on the season, which is due mostly to the artificial regulation of the flow rate by valves at the Saint-Ours locks. Water levels also play an important role in current speed. Water level is highly influenced by the quantity of precipitation in the drainage basin.

Average rate of flow in the River for 1984-1985, according to data recorded by Environment Canada's hydrometric division at the Fryer's Station (Lat.: 45°23'51"N, Long.: 73° 15'32"O) are presented in the table following:

Average Flow of the River Richelieu

Month	Average Flow (m^3/sec)	Average Flow (ft^3/sec)
January	256	151
February	248	146
March	361	212
April	708	417
May	688	405
June	467	275
July	274	161
August	183	108
September	159	94
October	194	114
November	251	148
December	278	164

Based on the data above, it can be seen that currents are at their fastest during the months of April and May, and at their slowest during the months of August and September.

In order to assess the drift speed of an oil slick on the River, Orion-type floaters designed to travel like an oil slick on water were placed in the River at the pipeline level and their drift have been followed over the course of three (3) consecutive days. These tests were carried out in July of 1997.

The average drift speed obtained during these tests was about 0.75 km/hr (0.5 mi/hr). The approximate location of the floaters was recorded every 1/2 hour on the maps, presented in the Montreal Pipe Line Limited Oil Spill Specific Response Plans binder. These locations may serve as indicators of the response time of an oil slick.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.4 (cont'd)
RICHELIEU RIVER – General Information

During a real spill, it is possible that the oil might drift more quickly or more slowly, depending on the time of the year or level of precipitation during the previous days. It is important to measure the real drift time between two markers on the map and to adjust the time limits accordingly. For example, if the oil slick reaches in 30 minutes instead of one hour marker + 1.0 h on map No. 01, it is necessary to divide all indicated times by 2 in order to determine the time limits available for a response.

NOTE: In order to estimate the drift time for the entire section of the River up to the St. Lawrence River, certain measurements have been extrapolated from observed measurements.

Wind speed and direction also play an important role in the speed and direction of an oil slick. An oil slick will follow the shoreline opposite the direction of the wind. As the region's dominant winds come mostly from the west, there is a strong likelihood that an oil slick will drift along the east bank.

From the Rougemont meteorological station (45°26'N 73°06'W), the average temperature in the area is 6°C / 42.8°F, ranging from a mean temperature of –10.5°C / 13°F in January to 20.6°C / 69°F in July (80 days during the year show maximum temperatures below 0°C).
The yearly mean precipitation is 1051.9 mm / 41.4 in; 80% is in the form of rain, while 20% is snow.

During the winter season, the River's surface is entirely frozen over.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

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Nautical Activities and Campgrounds

- **Bellerive Park Campsite / Marina** (304 campsites**)**

  1992 des Patriotes Rd., Saint-Ours 450-785-2272

- **Otterburn Park Canoeing Club**

  90 Oxford St., Otterburn Park 450-536-0286

- **Phare de Beloeil Marina**

  700 Richelieu St., Beloeil 450-464-5257

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.5
Environmental Socio-Economic Sensitivities – Richelieu River (cont'd)

- **Phare de Beloeil Marina**

  700 Richelieu St., Beloeil 450-464-5257

- **Saint-Mathias Marina**

  874 des Patriotes Rd., Saint-Mathias-sur-Richelieu 450-467-6845

- **Saint-Charles Boating Harbour**
  219 des Patriotes Rd., Saint-Charles-sur-Richelieu 450-584-2017

Locks

- **Saint-Ours**
  2930 des Patriotes Rd., Saint-Ours 450-785-2212

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

7.2.3 ST.LAWRENCE RIVER - Oil Spill Specific Response Plan

The purpose of this section is to provide the necessary information to enable a quick and efficient response in case of a crude oil spill in the St. Lawrence River.

Canadian marine maps (Hydrographic Service of Canada, nos. 1310 and 1311), represent the geographical scope of this specific response plan, downstream from the pipeline, up to Verchères. These maps constitute good information sources and are essential working tools. They are presented in the Montreal Pipe Line Limited Oil Spill Specific Response Plans binder.

This section presents a description of the area and a general description of the currents and weather conditions in the area. Figure 7.7 covers the environmental sensitivities of the region.

FIGURE 7.6
ST. LAWRENCE RIVER General Information

Description of the Area

The St. Lawrence River stretches over 1 167 km and is the major tributary of the Great Lakes. It drains a total area of 1 420 000 km^2 / 550,000 mi^2 (including the drainage basin of the Great Lakes). Its major tributaries are: the Outaouais River, the Richelieu River, the Saint-François River, the Saint-Maurice River, the Chaudière River, and the Saguenay River. The width of the St. Lawrence increases progressively from 3 km / 1.86 mi to 145 km / 90 mi at its meeting point with the Atlantic Ocean, where its average recorded discharge is 14 000 m^3/s (18,311 yd^3/sec).

A spill in the river would have an impact on the recreational activities, the St. Lawrence seaway and on the water intakes for some municipalities and industries.

The River sustains many different fish species, some of commercial interest. Many spawning areas have been documented by Environment Canada and numerous marshes are located on the riverbanks. These marshes sustain life for many fish species but also for migratory and native waterfowl, as well as for small mammals.

Many islands are located in the area and houses are built directly on the riverbanks, both on the north and the south shore. Numerous federal and private harbours/peers (3), boat launches (3), marinas or nautical clubs (6), and parks are right on the St. Lawrence's banks and are used by the population. Access is easy from both sides of the River but may be more difficult on the many islands present in this section of the River.

The area of the St. Lawrence River covered in this plan is the area that would be threatened in the event of a pipeline leak at Boucherville. This area comprises some of the Boucherville islands (Dufaut and Grosbois Islands), the Islands of Varennes, the Sainte-Thérèse Island, and the Islands of Verchères. This segment encompasses a total distance of about 20 km / 12.4 mi downstream of the pipeline crossing from Boucherville to the city of Verchères.

Other areas of the River, downstream from Verchères, could also be at risk if a major spill occurred at Boucherville. Although these areas are not covered in this document, the time the oil slick would take to reach these areas would be sufficient to allow for complete information gathering.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.6
ST. LAWRENCE RIVER General Information (Cont'd)

Currents and Weather

Current speeds in the St. Lawrence River vary considerably depending on the season. Precipitations (rain and snow) will influence the speed of the currents as well as the water level. In order to assess the drift speed of an oil slick on the River, drift experiments were made. These results are presented graphically in the Montreal Pipe Line Limited Oil Spill Specific Response Plans binder.

From the Verchères meteorological station (45°46'N 73°22'W), the average temperature in the area is 5.9°C / 42.6°F , ranging from a mean temperature of –10.5°C / 13°F in January to 20.8°C / 69.4°F in July (86 days during the year show maximum temperatures below 0°C / 32°F). The yearly mean precipitation is 988.3 mm / 38 in; 79% is in the form of rain, while 21% is snow.

During the winter season, the navigable route stays clear of ice but the riverbanks are frozen. Wind speed and direction also play an important role in the speed and direction of an oil slick. An oil slick will follow the shoreline opposite the direction of the wind. As the region's dominant winds come mostly from the west, there may be accumulation of oil in bays facing west (south shore of River), or on the shoreline of islands facing the dominant winds.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.7

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7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.7 (cont'd)
Environmental Socio-Economic Sensitivities – St. Lawrence River

Spawning Areas

- **Fisheries and Oceans (24 hour)** 418-775-0500

  Spawning area west of the Islands of Boucherville and Varennes

  Spawning area east of Boucherville and Varennes Islands

  Spawning area around the Islands of Varennes

  Spawning area between the Island aux Vaches and Sainte-Thérèse Island

  Spawning area at the Assomption River's mouth

  Spawning area around the Islands north of Sainte-Thérèse Island

  Spawning area on the north shore of the St. Lawrence, in front of Repentigny

  Spawning area north of Beauregard Island

  Spawning area on the west bank of Verchères Islands

  Spawning area between Verchères Islands and the Island aux Prunes

Wetlands

- **MDDEP – Regional Direction** 514-873-3636

  24 hour 1-866-694-5454

  There are wetlands south of the Islands of Verchères (Island Beauregard); on the majority of the St. Lawrence's banks, islands of Verchères, along the Richelieu River (upstream from Saint-Antoine up to Laplante's Brook, upstream from Danvard Island up to Lahaise's Brook).

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.7 (cont'd)
Environmental Socio-Economic Sensitivities – St. Lawrence River

Nautical Activities

- **Beach (windsurfing launch and swimming) – Municipality of Boucherville**
  Michel Huguerot 450-449-8233

- **Boat Launch – St. Lawrence Park**
  290 Notre-Dame St., Repentigny
  Public Works (24 hour) 514-236-5691

- **Bouchard Island Peer - Municipality of Saint-Sulpice**

  Michel Deschesne 514-386-3191

- **Boucherville Nautical Club inc.**
  535 Marie-Victorin Blvd., Boucherville 450-655-9247

- **Federal Peers/Wharves and Boat Launches – Fisheries and Oceans**
  Roland Lévesque 418-648-5507

- **Jean Beaudoin Marina inc.**
  2594 Pointe-aux-Trembles Av., Montreal 514-642-4521
  Security System (Reliance Protectron) 800-268-9797

- **Mezy Nautical Club**
  16 Mezy St., Boucherville
  President : Jean-Claude Vallée 450-655-0249
  Pierre Chartier 450-641-2408

- **Montreal Harbour**
  Harbour Master's Office 514-283-7039
  Deputy Harbour Master, Shore Division 514-283-7026

- **Pointe-aux-Trembles Marina inc.**
  12746 Notre-Dame East St., Montreal 514-645-4400
  Alain Valcourt 514-645-5419

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

FIGURE 7.7 (cont'd)
Environmental Socio-Economic Sensitivities – St. Lawrence River

- **Repentigny Marina**
  364 Notre-Dame St., Repentigny 450-581-7071

- **Rive-Nord Marina**
  9 Babin St., Repentigny 450-585-1125

Campgrounds and Parks

- **Islands of Boucherville Provincial Park**
  55 Sainte-Marguerite Island, Boucherville
  Administrative Office 450-928-5089

- **Lebel Island Park**
  396 Notre-Dame, Repentigny
  Public Safety (24 hour) 450-654-2380

- **Le Marquis Campground**

  1630 Notre-Dame, Saint-Sulpice 450-589-5147

- **Pointe-aux-Prairies Nature Park**
  Administrative Office - Rivière-des-Prairies Information Centre
  12 980, Gouin Blvd. East, Montreal 514-280-6767
  Cabin Héritage (Chalet Héritage)
  14 905 Sherbrooke East St., Montreal514-280-6691
  Pavilion des Marais
  12 300 Gouin St. East, Montreal 514-280-6688

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

7.2.4 MONTREAL-EAST TERMINAL - Emergency Procedures

FIGURE 7.8
MONTREAL EAST Weather Information

From the Montreal Jar Bot meteorological station (45°34'N 73°33'W), the average temperature in the area is 6.6°C / 43.9°F, ranging from a mean temperature of –10°C/ 14°F in January to 21.6°C / 70.9°F in July (80 days during the year show maximum temperatures below 0°C).
The yearly mean precipitation is 1044.4 mm / 41.1 in; 78% is in the form of rain, while 22% is snow.

FIGURE 7.9
MONTREAL EAST Environmental Socio-Economic Sensitivities

There are many industries neighbouring the Montreal-East Terminal. During an emergency, special attention must be paid in order to minimize the impacts to these industries. If there is a risk that the emergency will impact the neighbouring industries, the Incident Commander will communicate with them.
The IC will also communicate with municipal authorities if there is a risk to the neighbouring population. The municipal authorities will be responsible for the evacuation of the population.

Evacuation Procedures
Consult Appendix D.

7.2.5 NORTH TANK FIELD - Oil Spill Specific Response Plan

Weather Information
Consult FIGURE 7.8

Environmental Socio-Economic Sensitivities
Consult FIGURE 7.9

Specific Response Actions – Control of Spill
In the event of an oil spill and/or a fire, valves installed on the drainage conduits located at the base of the tank retention dykes can be operated, as needed, to confine the product into the tank retention basin, transfer it to an adjacent tank basin or in the main drainage ditches which discharge in the drainage collection basin. Depending on prevailing conditions, accumulated product in one or another of these locations could then be recovered by a contractor with vacuum oil recovery trucks.
For detailed scenarios of intervention, consult Appendix F.

Emergency Operation Centre
The main office of MPL's Terminal in Montreal-East will be used as the Emergency Operation Centre in case of an emergency.

Evacuation Procedure
Consult Appendix D.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

7.2.5 NORTH TANK FIELD - Oil Spill Specific Response Plan (Cont'd)

Fire Protection System and Alarms at the North Tank Field
The fire protection system and equipment in the North Tank Field are shown on the plan found in Appendix A. A description of the network is presented below.

Fire Hydrants Network
Fire hydrants are located along the service road provided at the top of the retention dikes in periphery of the three (3) groups of tanks. The hydrants are connected to the municipal water distribution system which can supply, in normal operating conditions, a water flow rate of approximately 30,280 litres (8,000 US gallons) per minute to the North Tank Field.

Estimates from the Montreal-East Fire Department indicate that a water flow rate of 37 850 litres (10,000 gallons) per minute would be necessary to protect the intervention team, to control a fire on a tank and to secure the other tanks.

In the event additional water would be required, it will be possible to supply water from six (6) fire hydrants located on both sides of the Henri-Bourassa Boulevard, northeast of the North Tank Field. As the hydrants are directly connected to the main water distribution loop of the Island of Montreal, they could supply by themselves the targeted water flow rate of 37 850 litres (10,000 gallons) per minute.

7.2.6 SAINT-CESAIRE PUMP STATION - Oil Spill Specific Response Plan

Containment of Surface Water for Saint-Césaire Pump Station
Saint-Césaire pump station is located in the Montérégie region, a fertile plain in the rich Saint-Lawrence valley. The natural landscape of the area is flat with a minimal slope of 1 to 3%. The station sits at 136 feet (41.4m) MSL.

The station itself is surrounded by crop fields on the north and east sides, a major roadway on its southerly side and an abutting farm with a well groomed yard on its west side. Three ditches surround the station yard on the north, south and east sides.

The natural slope of the yard and the adjacent ditches is in a south axis toward the roadside ditch. This ditch in turn crosses the roadway through a culvert located about 200 feet west of the station and leading to a natural depression heading into the Sud-Ouest river which is a tributary of the Yamaska river.

Monitoring wells (deep and shallow) have been installed at strategic locations in the station yard to monitor the conditions of the groundwater. Periodic checks and sample analysis are done to ensure there is no underground water contamination and to undertake the appropriate intervention measures if necessary. Ad hoc checks/sampling would be done on an as needed basis in case of a spill or seepage on the ground to assess the effect on the underground water and to determine what action might need to be taken.

Control of the surface water in case of a spill occurring at the station could be done by building a berm along the south and west side fences with mechanical equipment.

7.2 MPL OIL SPILL SPECIFIC RESPONSE PLANS (cont'd)

7.2.6 SAINT-CESAIRE PUMP STATION - Oil Spill Specific Response Plan (Cont'd)

Water/oil could also be intercepted at the entrance of the culvert crossing the road or at the foot of the depression prior to entering the Sud-Ouest River where containment or skimming dams could be built depending on the needs.

Ultimately, crude oil containment could be achieved by using a boat ramp located at the end of Union street in Saint-Césaire to launch equipment and deploy booms by navigating upstream of the Yamaska river up to the junction with the Sud-Ouest river.

7.2.7 HIGHWATER PUMP STATION - Oil Spill Specific Response Plan

Highwater pump station is located in the Eastern Township region, in a rather hilly part of the Townships and sits at the foothills of Jay and Sutton mountains. The elevation of the station is 868 feet (264.6m) MSL.

The pump station is located atop a knoll right along the U.S.-Canada border and is surrounded by wooded areas on all sides, except for a small road leading to the pump station and running on its west side. Two ditches surround the station: one that runs along the road and one partially piped on its south side, inside the yard itself.

The slope of the yard is toward the southwest corner of the pump station. From there the slope increase drastically toward the west, running along the boundary and heading toward a small brook leading to the Missisquoi river.

Monitoring wells (deep and shallow) have been installed at strategic locations in the station yard to monitor the conditions of the groundwater. Periodic checks and sample analysis are done to ensure there is no underground water contamination and to undertake the appropriate intervention measures if necessary. Ad hoc checks/sampling would be done on an as needed basis in case of a spill or seepage on the ground to assess the effect on the underground water and to determine what action might need to be taken.

Control of the surface water or any spill occurring at the station could be done by building berms along the south and west side fences with mechanical equipment. Water/oil could also be intercepted at the water collecting pond in the brook running down to the Missisquoi River, behind the 18-inch sub-station, where containment or skimming dams could be built depending on the needs.

Ultimately, crude oil containment could be achieved at the crossing of Chemin Lafond and Chemin de la Mine, approximately two miles (3 km) downstream of the station where the brook is about to enter the Missisquoi river.

7.3 MPL FIRE CONTROL FACILITIES

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

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APPENDIX A

GENERAL INFORMATION

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Environmental Policy....A-2

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UNITED STATES

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

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

§ 112.20 (h)	BRIEF DESCRIPTION	LOCATION in PLAN
(3)(ix)	A description of the duties of the qualified individual that include	
(3)(ix)(A)	Activate internal alarms and hazard communications systems	§ 4.2
(3)(ix)(B)	Notify all response personnel, as needed	§ 4.2
(3)(ix)(C)	Identify the character, exact source, amount, and extent of release	§ 4.2
(3)(ix)(D)	Notify and provide necessary information to the appropriate Federal, State, and local authorities	§ 4.2
(3)(ix)(E)	Assess the interaction of the spilled substance with water and/or other substances stored at the Facility	§ 4.2
(3)(ix)(F)	Assess the possible hazards to human health and environment	§ 4.2
(3)(ix)(G)	Assess and implement prompt removal actions	§ 4.2
(3)(ix)(H)	Coordinate rescue and response actions	§ 4.2
(3)(ix)(I)	Use authority to immediately access company funding	§ 4.2
(3)(ix)(J)	Direct cleanup activities until properly relieved	§ 4.2
(4)	***Hazard evaluation***	
	identifiable history of discharges reportable under 40 CFR part 110 for the entire life of the facility	App H
	identify areas within the facility where discharges could occur	App H
	what the potential effects would be on the affected environment	App H
(5)	***Response planning levels***	
(5)(I)	A worst case discharge, as calculated using the appropriate worksheet in appendix D	§ 1.2, App G
(5)(ii)	A discharge of 2,100 gallons or less provided this amount is less than the WCD amount	§ 1.2, App G
(5)(iii)	A discharge greater than 2,100 gallons and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank, whichever is less	§ 1.2, App G
(6)	***Discharge detection systems*** ... Describe the procedures and equipment used to detect discharges	§ SPCC 5.1
(7)	***Plan implementation***	
(7)(I)	Response actions to be carried out by facility personnel or contracted personnel	§ 3.1, Fig 3.1to 3.13
(7)(ii)	A description of the equipment to be used for each scenario	App C, G
(7)(iii)	Plans to dispose of contaminated cleanup materials	App F
(7)(iv)	Measures to provide adequate containment and drainage of spilled oil	§ 3.1, Fig 3.1 to 3.13
(8)	***Self-inspection, training, and meeting logs.***	
(8)(I)	A checklist and record of inspection for:	
	• tanks	App K
	• secondary containment	App K
	• response equipment	§ 5.2, App K

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

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

U.S. EPA 40 CFR Part 112.21
CROSS REFERENCE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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CROSS REFERENCE (Cont'd)

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

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§ 154.1035	DESCRIPTION OF GUIDELINE ITEM	SECTION(S)
(b)(3)(iii)	... describe the corporate organizational structure that will be used to manage the response actions, including ...	§ 4.3, 4.4
(b)(3)(iii)(A)..(H)	Command and control...Public Information...Safety... Liaison...Operations...Planning...Logistics...Finance.	§ 4.3, 4.4, Fig 4.3, App B
(b)(3)(iv)	... identify the oil spill removal organization(s) and the spill management team ...	§ 4.0, 5.0, App B, C
(b)(3)(iv)(A)	Be capable of providing the following response resources:	
(b)(3)(iv)(A)(1)	Equipment and supplies to meet...§154.1045, §154.1047 or...	§ 5.1, 5.2, 5.3, 5.4, Fig 4.1, 4.2. 4.3, App G, H, I
(b)(3)(iv)(A)(2)	Trained personnel necessary to continue operation...first 7 days of the response.	Fig 2.3 to 2.7, § 4.3, 4.4, 5.0, 5.1, Fig 4.2, 4.3
(b)(3)(iv)(B)	...job descriptions for each spill management team member...	App B
(b)(3)(v)	For mobile facilities ... the oil spill removal organization and the spill management team in the applicable geographic-specific appendix...	N/A
(b)(4)	Fish and wildlife and sensitive environments.	
(b)(4)(i)	...identify areas of economic importance and environmental sensitivity..	§ 6.0, Fig 6.1, 6.2, App H
(b)(4)(ii)	For a worst case discharge...this section must...	
(b)(4)(ii)(A)	List all fish and wildlife and sensitive environments identified in the ACP... ...	§ 6.3, Fig 6.1, 6.2, App H
(b)(4)(ii)(B)	Describe all the response actions ... to protect these fish and wildlife and sensitive environments...	§ 3.1, 6.0 Fig 3.1 to 3.15
(b)(4)(ii)(C)	Contain a map or chart showing the location of those fish and wildlife and sensitive environments ...	Fig 6.1, 6.2
(b)(4)(iii)	For a worst case discharge, ... identify appropriate equipment and required personnel to protect these areas...	§ 3.1, 4.2, 4.4, 5.0, 6.0, App C
(b)(4)(iii)(A)	Identify the appropriate equipment and required personnel to protect all fish and wildlife and sensitive environments ...	§ 2.0, 3.0, 4.0, 5.0, 6.0
(b)(4)(iii)(B)	Calculate the distances required by...by selecting one method described...	
(b)(4)(iii)(B)(1)	Distances calculated...	App G
(b)(4)(iii)(B)(2)	A spill trajectory or model may be substituted for distances...	N/A
(b)(4)(iii)(B)(3)	The procedures contained in the Environmental Protection Agency's regulations...may be substituted for distances...	N/A
(b)(4)(iii)(C)	Based on historical...COTP may require the additional fish and wildlife and sensitive environments	N/A
(b)(5)	Disposal plan ...describe any actions to be taken or procedures to be used to ensure that all recovered oil and oil contaminated debris ...	App F

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§ 154.1035	DESCRIPTION OF GUIDELINE ITEM	SECTION(S)
(c)	*Training and exercises.* To be divided into the following subsections:	
(c)(1)	Training procedures. ..must describe the training procedures ..	§ 4.5
(c)(2)	Exercise procedures. ... must describe the exercise program ...	§ 4.6
(d)	*Plan review and update procedures.* ... address the procedures ...	§1.3, 1.4
(e)	*Appendices.* ...must include appendices described...	
(e)(1)	Facility-specific information.. ... principal characteristics ...	
(e)(1)(i)	There must be a physical description of the facility...	Fig 1.5, Fig. 1.7, App H
(e)(1)(ii)	...must identify the sizes, types, and number of vessels...	Fig 1.7, App H
(e)(1)(iii)	...must identify the first valve(s) ...inside the secondary containment...	Fig 1.5, App H
(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

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CROSS REFERENCE (Cont'd)

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

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

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

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

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

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

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

DOT/PHMSA 49 CFR Part 194

Final Rule - January 5, 1993

CROSS REFERENCE (Cont'd)

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

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

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

DOT/PHMSA 49 CFR Part 194

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CROSS REFERENCE (Cont'd)

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

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

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

OSHA HAZWOPER
(29 CFR 1910.120)
CROSS REFERENCE

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

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

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

U.S. EPA 40 CFR Part 264
CROSS REFERENCE

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

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

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

Onshore Pipeline Regulations
(SOR 99/294)

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

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

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

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

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

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

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

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

The document "expected elements for emergency response" is intended for use by NEB auditors to determine if a company's emergency response program meets the NEB's goals. The following table states the requirements set out in sections 32 to 35 of the OPR-99 and which section in the Plan fulfills these requirements:

Item	Description	Location in Plan
1	Have an up-to-date emergency procedures manual.	Reviewed in 2008
2	Regularly review and update the emergency procedures manual.	Revision record
3	File the emergency procedure manual and all updates with the NEB.	Section 1.3
4	Establish and maintain liaison with all parties that may be involved in an emergency situation.	Section 2.0
5	Ensure these parties are aware of the practices and procedures to be followed in an emergency situation and that these procedures are consistent with those in the emergency procedures manual.	Section 4.5 & 4.6
6	Have a continuing education program for all appropriate agencies and organizations and the public adjacent to their pipeline to inform them of the location of the facilities, potential emergency situations and safety procedures to be followed.	Section 4.5
7	Stated emergency preparedness and response policy that recognized that emergency response is an integral part of a company's business performance.	Forward Section
8	A hazard analysis, risk determination or similar assessment undertaken to identify critical tasks/risks/hazards, evaluate their likelihood and severity, categorize the risks and identify preventive measures and required emergency response resources.	Appendix G
9	An appropriate training program for all staff and contractors who may be involved in an emergency response.	Section 4.5
10	A procedure to ensure that information from emergency response exercises and response activities from incidents are reviewed and incorporated into the emergency procedures manual and into staff training and continuing education programs.	Section 1.4 Sections 3.11, 3.12 Section 4.5 Appendix E
11	Description of applicable legislation and regulations that may influence or determine emergency response procedures.	Section 1.5 Appendix M

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

This NEB 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
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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 NEB 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-99). Companies should:

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

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

Information should include:

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

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

Guidelines for Filing Requirements of the National Energy Board

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-Z731-95 Emergency Planning for Industry
A National Standard of Canada
Cross Reference

Item	Article	Description	Location in Plan
1	3.2	Policy	Forward Section
2	3.3	Planning Coordinator	Section 4.4 Figure 4.3
3	3.5	Risk Analysis	Appendix H
4	3.6	Defined Legal Authority	Figure 2.5, App B
5	3.7	Organizational Flow Chart, Defined Roles and Responsibilities, Notification Procedures (internal and external)	Section 2.3 Figure 2.2, 2.3 Section 4.4 Figure 4.1, 4.2, 4.3 Sections 2.3 and 2.4
6	3.8	Resources (Internal, External, Personnel, Equipment)	Section 4.4 Figure 4.3 and Appendix C
7	3.9	Mutual Aid Agreements	Figures 2.9, 2.13, 2.15
8	3.10	Telephone lists of key responders: Internal External	 Section 2.3.1 Section 2.4.1
9	3.12	Public 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
10	4.1	Procedures for processing emergency calls, signal, or information	Section 2
11	4.3	Resource Mobilization Procedures (who, when, etc.)	Section 2
12	4.4	Appropriate Response Procedures	Section 3
13	4.5	Mandatory Notifications Internal External	 Section 2.3 Section 2.4 Figure 2.9, 2.13
14	4.6.2	Emergency Operations Centre Location Emergency Coordinating Centre Location	Section 3.1
15	4.7	Site Security and Safety Plan	Appendix K
16	4.8	Damage/Claims Assessment Procedure	Internal Procedures
17	4.9	Stress Management Program	Internal Procedures
18	5.1	Training of Responders	Section 4.5
19	5.2	Annual Testing of the Plan	Section 4.6
20	5.3	Distribution List Revision Record	Section 1.3 Forward Section
21	5.5	Approval of the Plan by Senior Management	Forward Section

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

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

Cross Reference

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

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

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

APPENDIX B

RESPONSE TEAM
JOB DESCRIPTIONS & RESPONSIBILITIES

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Pre-response Planning Responsibilities B-2

PMPL Initial Response Responsibilities B-6

Incident Command System B-8

Figure B-1 Sample Incident Command System Chart B-9

Figure B-2 Common ICS responsibilities B-11

Figure B-3 Command Section B-12

Figure B-4 Operations Section B-16

Figure B-5 Planning Section B-22

Figure B-6 Logistics Section B-27

Figure B-7 Finance Administration Section B-31

Roles and Responsibilities of External Resources B-34

Glossary of terms B-39

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES

A. President

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

Planning responsibilities:

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

B. Directors of Operations

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

Planning responsibilities:

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

C. Treasurer

Role: Ensures financial, media and logistical support is in place for a spill response.

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.

D. Engineering Manager

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

Planning responsibilities:

- Knows the design of the pipeline and dynamics of pipeline operations.
- Supports drawing and map development for the ICP.
- Trains engineers on hydraulic isolation of pipeline.

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES (cont'd)

D. Engineering Manager (cont'd)

- 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. Health, Safety and Environmental Coordinator

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

Planning responsibilities:

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

F. Human Resources Advisor and Procurement Specialist

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

Planning responsibilities:

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

G. Corporate Controller/Executive Assistant

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

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.

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES (cont'd)

H. Product Movements Manager

Role: prearrange for tools and resources needed to handle cost tracking and claims management during an emergency.

Planning responsibilities:

- Is knowledgeable about the various insurance programs of MPL 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.

I. Engineer I

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

Planning responsibilities:

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

J. Pipeline Controller

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

Planning responsibilities:

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

K. First Operational Responders - Field

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

Planning responsibilities:

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

PMPL PRE-RESPONSE PLANNING RESPONSIBILITIES (cont'd)

L. Spill Management Team Personnel

Role: Spill management in respective assigned roles.

Planning responsibilities:

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

PMPL INITIAL RESPONSE RESPONSIBILITIES

A. First Contact Awareness

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

Response Responsibilities:

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

1. The situation can be corrected safely:

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

2. The situation cannot be corrected safely:

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

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

B. Controller

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

Response responsibilities:

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

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

C. First Operational Responders

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

Response responsibilities:

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

PMPL INITIAL RESPONSE RESPONSIBILITIES (cont'd)

C. First Operational Responders (cont'd)

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

D. Spill Management Team (SMT)

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

Response responsibilities:

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

E. PMPL Management

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

Response responsibilities:

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

INCIDENT COMMAND SYSTEM

ICS SYSTEM INTRODUCTION

A. General

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

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

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

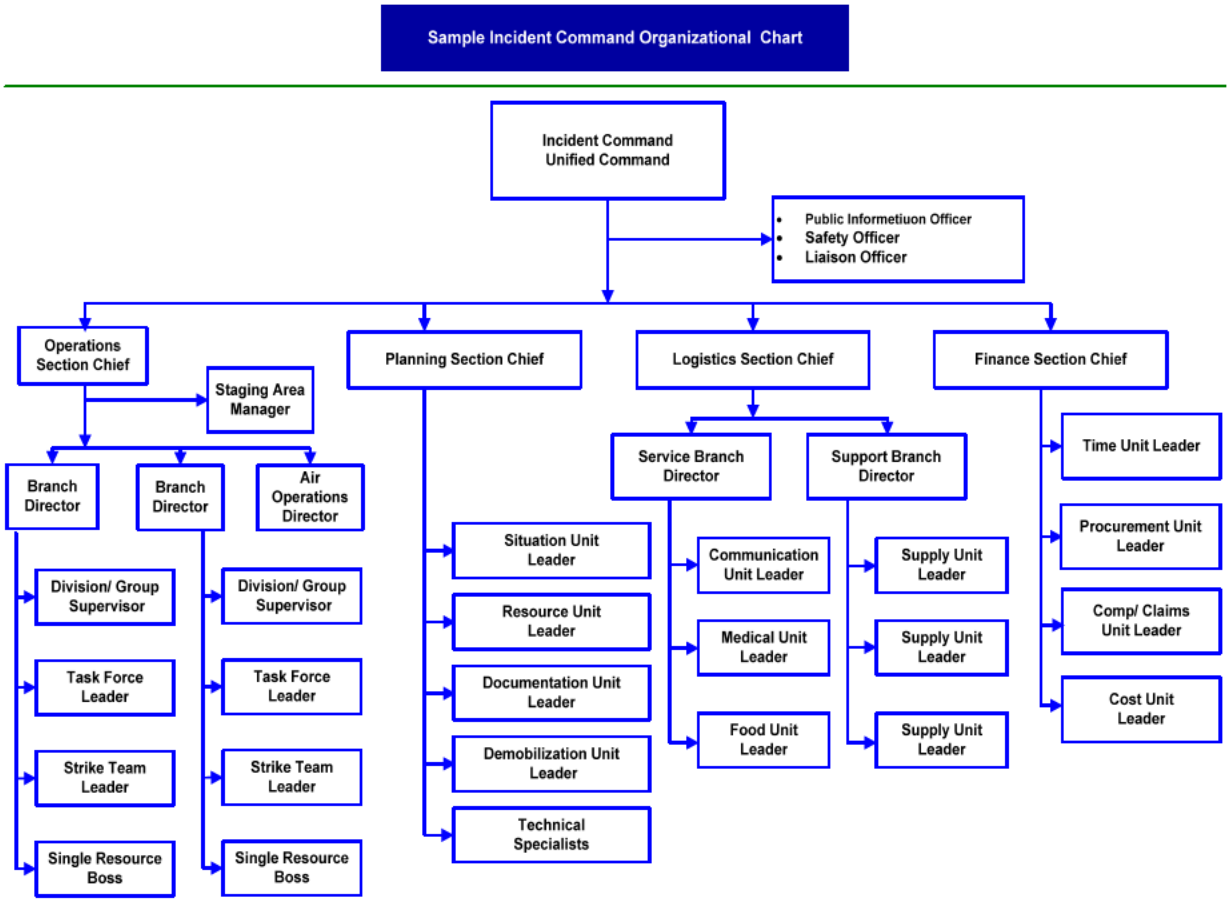
B. Activation

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

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

Figure B-1

Standard Incident Command System



INCIDENT COMMAND SYSTEM (cont'd)

ICS SYSTEM INTRODUCTION

C. ICS System Overview

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

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

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

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

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

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

Figure B-2
ICS COMMON REPONSIBILITIES

The following checklist is applicable to all personnel in an ICS organization:

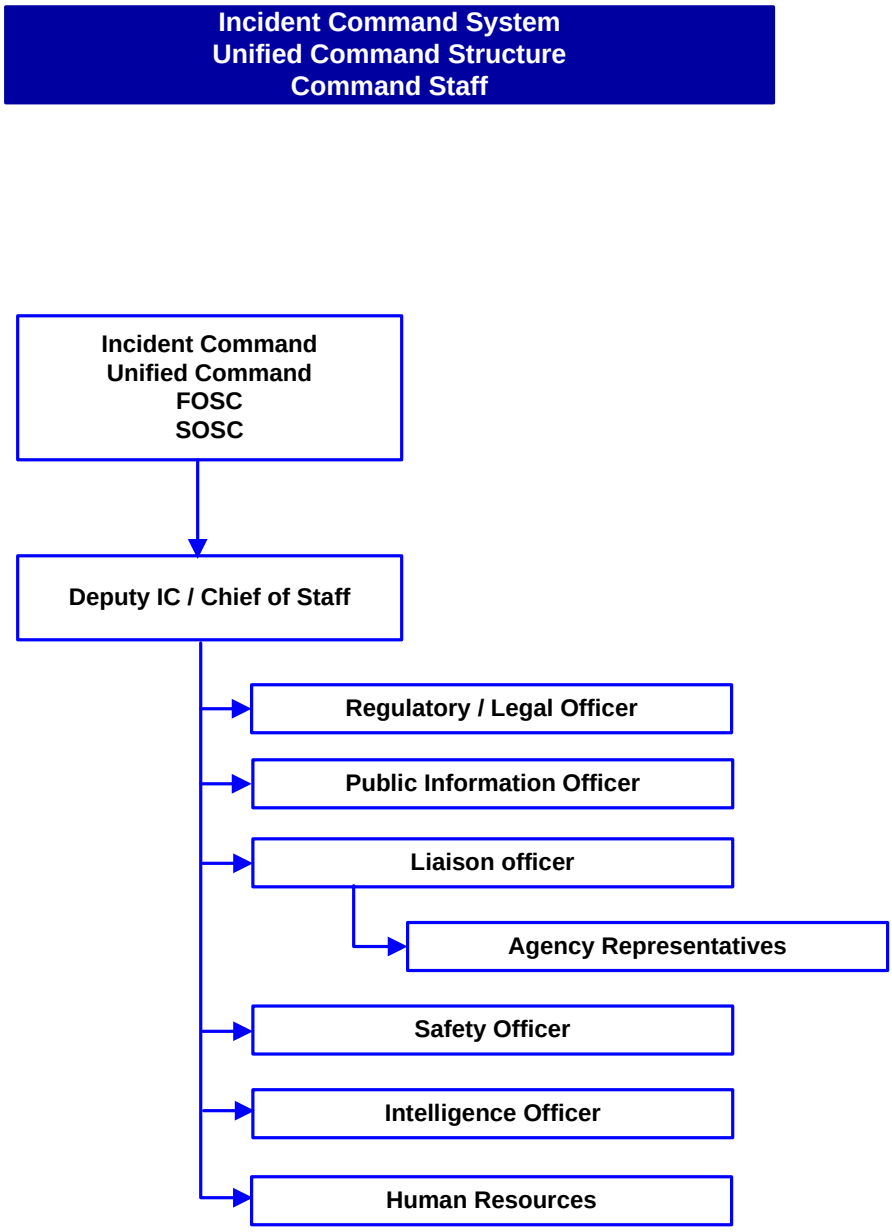
a. Receive assignment from your agency, including:
- Job assignment (e.g. designation, position, etc.).
- Brief overview of type and magnitude of incident.
- Travel instructions including reporting location and reporting time.
- Any special communications instructions (e.g. travel, radio frequency).
- Assess personal equipment readiness for specific incident and weather (e.g. medications, money, computer, etc.).
- Maintain a checklist of items and possibly a personal Go-Kit.
- Inform others as to where you are going and how to contact you.
- Review job Descriptions to which you may be assigned.

b. Upon arrival at the incident, check in at the designated check-in location.
Note: If you are instructed to report directly to an on-scene assignment, check in with the Division/Group Supervisor or the Operations Section Chief.

c. Receive briefing from immediate supervisor.
d. Acquire work materials.
e. Abide by PMPL safety procedures.
f. Participate in meetings and briefings as appropriate.
g. Ensure compliance with all safety practices and procedures. Report unsafe conditions to the Safety Officer or on-site supervisor. Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s), personal safety, and welfare at all times, especially when working in or around incident operations.
j. Organize and brief subordinates.
k. Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly. Use clear text and ICS terminology (no codes) in all radio communications.
m. Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit.
n. Ensure all equipment is operational prior to each work period.
o. Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
p. Brief shift replacement on ongoing operations when relieved at operational periods or rotation out.
q. Respond to demobilization orders and brief subordinates regarding demobilization.
r. Prepare personal belongings for demobilization.
s. Return all assigned equipment to appropriate location.
t. Complete Demobilization Check-out process before returning to home base.
u. Participate in After-Action activities as directed.
v. Carry out all assignments as directed.
w. Upon demobilization, ensure Resource Unit Leader (RESL) is notified of your departure.

Figure B-3

COMMAND STAFF



INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

PUBLIC AFFAIRS / INFORMATION OFFICER (PAIO) (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;
    - Ensure that PMPL representatives convey consistent messages to all audiences;

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

LIAISON OFFICER (LNO) (USCG IHM Pg. 6-5)
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. 6-5)
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. 6-6)
The SOFR function is to develop and recommend measures for assuring personnel safety and to assess and/or anticipate hazardous and unsafe situations. The Safety Officer will correct unsafe acts or conditions through the regular line of authority, although the Safety Officer may exercise emergency authority to stop or prevent unsafe acts when immediate action is required. The Safety Officer maintains awareness of active and developing situations, ensures the preparation and implementation of the Site Safety Plan, and includes safety messages in each Incident Action Plan.

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

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

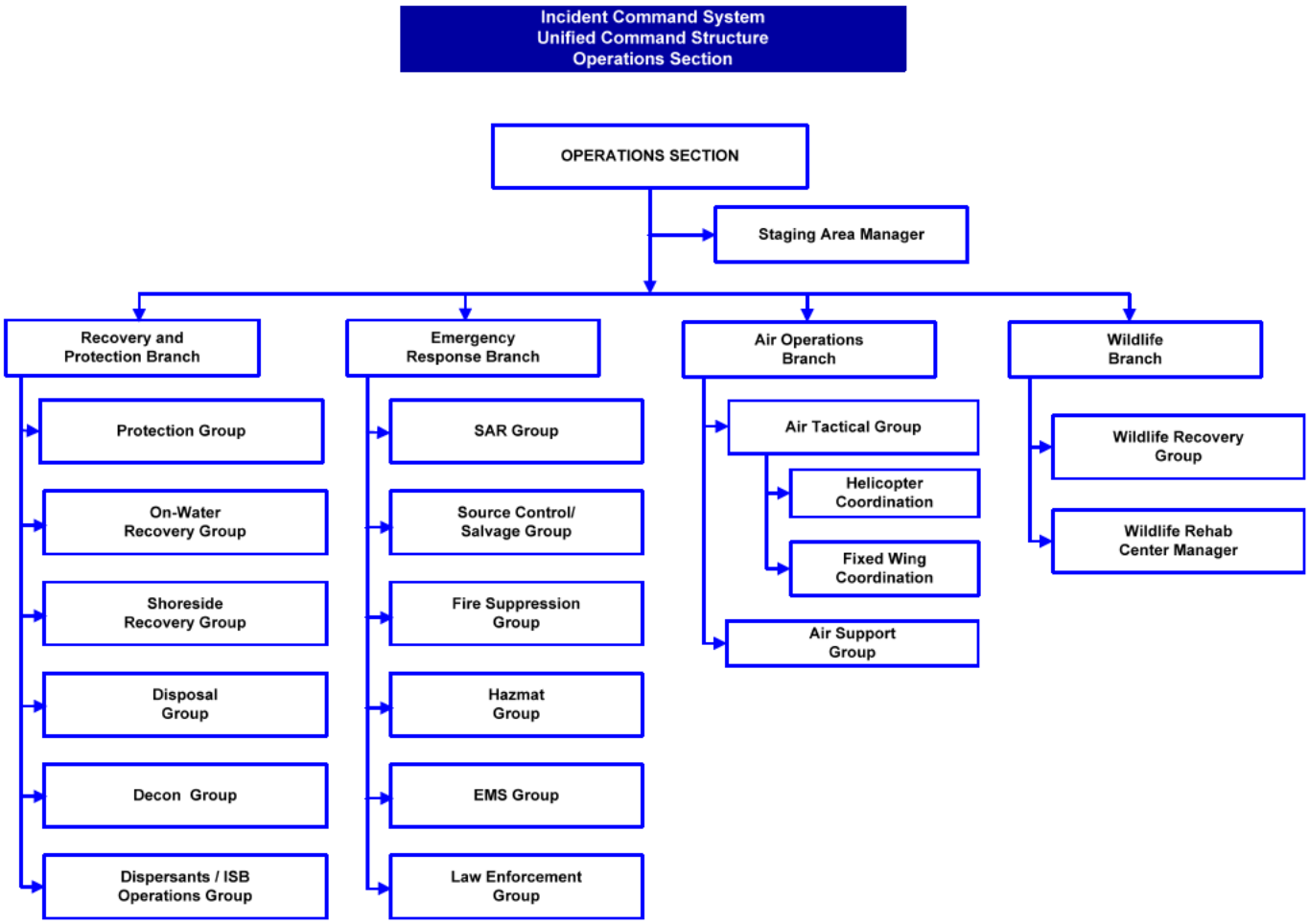
REGULATORY LEGAL OFFICER (RLO)

The RLO assesses the company's potential liability for the effects of the emergency and any actions associated with emergency intervention. As a person knowledgeable of laws concerning pipeline operations, the RLO will act in an advisory capacity during an oil spill response.
In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the RLO are;

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

Figure B-4

OPERATIONS SECTION



INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

CLEAN-UP UNIT LEADER (CLUL)

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

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

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

CLEAN-UP UNIT CONTRACTORS (CLUC)

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

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

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

HAZARDOUS MATERIALS GROUP SUPERVISOR (USCG IHM Pg. 20-20)

Under the direction of the Emergency Response Branch Director, the HAZMAT Group Supervisor is responsible for coordinating and directing all hazardous materials activities related to the incident.

INCIDENT COMMAND SYSTEM (cont'd)

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

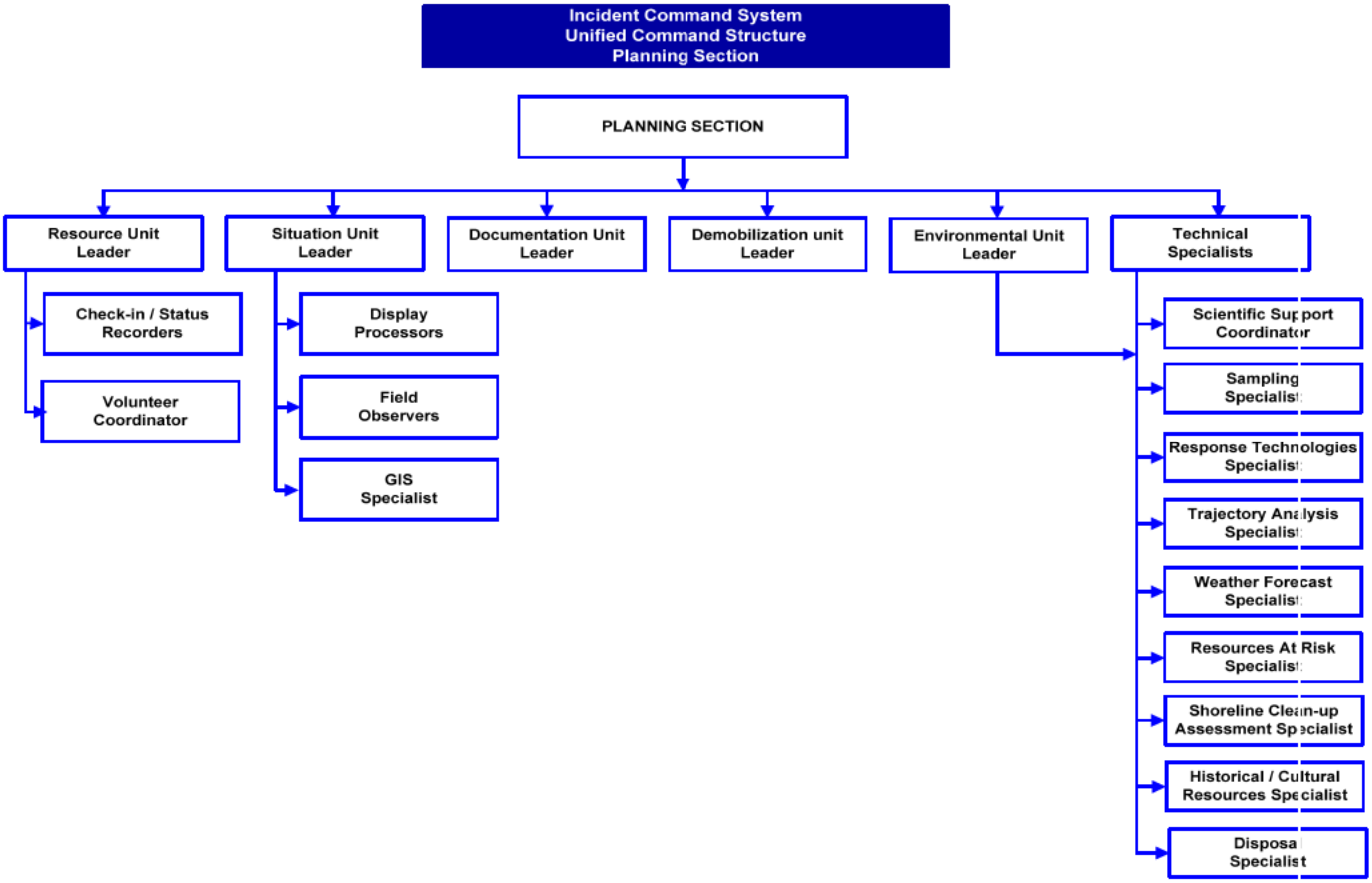
Under the direction of the Emergency Response Branch Director, the Security / Law Enforcement Group Supervisor is responsible for coordinating and directing all law enforcement activities related to the incident, which may include, but is not limited to isolating the incident, crowd control, traffic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

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

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

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

Figure B-5
PLANNING SECTION



INCIDENT COMMAND SYSTEM (cont'd)

PLANNING SECTION CHIEF (PSC) (USCG IHM Pg. 8-2)
The Planning Section Chief, a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to 1) understand the current situation, 2) predict the probable course of incident events, and 3) prepare alternative strategies for the incident.
In addition to roles in the USCG IHM, PMPL Specific Responsibilities for the PSC are;

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

RESOURCE UNIT LEADER (RESL) (USCG IHM Pg. 8-3)
The Resource Unit Leader (RESTAT) is responsible for maintaining the status of all resources (primary and support) of an incident. RESTAT achieves this through development and maintenance of a master list of all resources, including check-in, status, current location, etc. This unit is also responsible for preparing parts of the Incident Action Plan (ICS 203, 204 & 207) and compiling the entire plan in conjunction with other members of the ICS, (e.g., Situation Unit, Operations, Logistics) and determining the availability of resources.

CHECK-IN RECORDER(USCG IHM Pg. 8-4)
Check-in recorders are needed at each check-in location to ensure that all resources assigned to an incident are accounted for. Reports to the RESL

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

SITUATION UNIT LEADER (SITL) (USCG IHM Pg. 8-4)
The Situation Unit Leader is responsible for the collection and evaluation of information about the current and possible future status of the spill and the spill response operations. This responsibility includes the compilation of information regarding the type and amount of oil spilled, the amount of oil recovered, the oil's current location and anticipated trajectory, and impacts on natural resources. This responsibility includes providing information to the GIS Specialist(s) for the creation of maps to depict the current and possible future situation and the preparation of reports for the Planning Section Chief.

DISPLAY PROCESSOR (DPRO) (USCG IHM Pg. 8-5)
The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs and infrared data. Reports to the SUL.

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

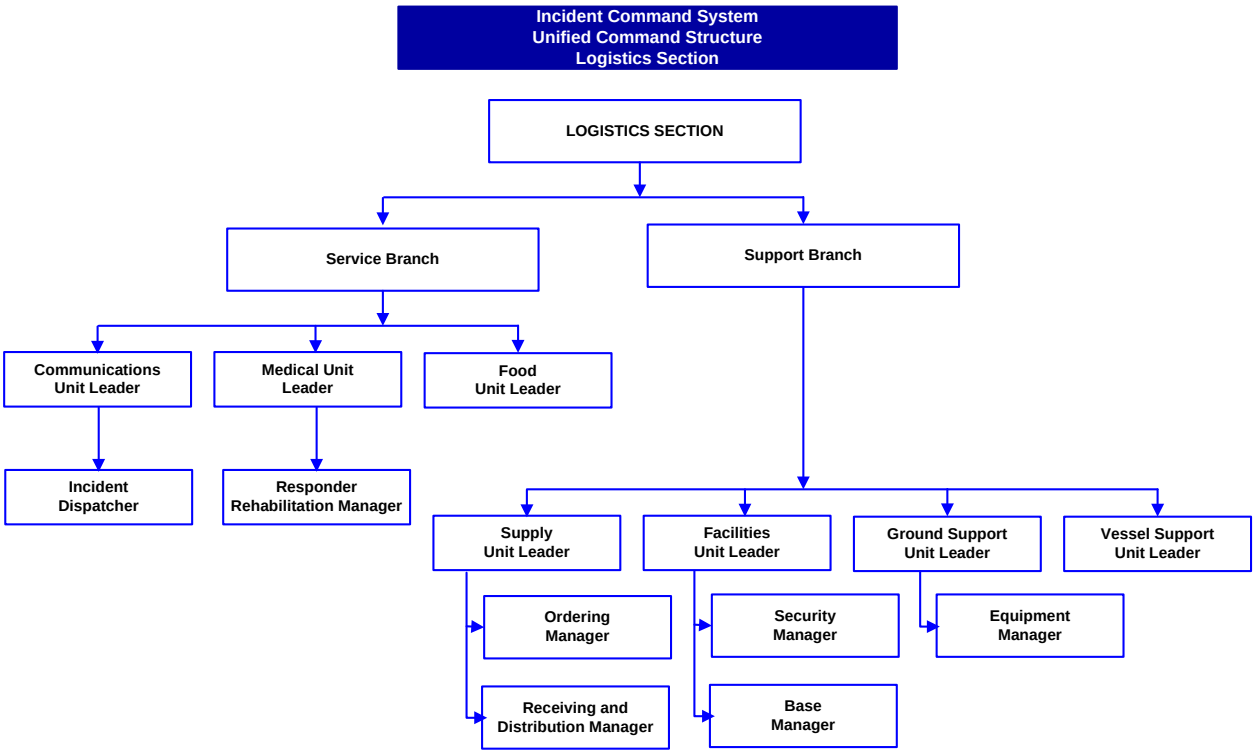
HISTORICAL CULTURAL RESOURCES (USCG IHM Pg. 19-26)
The Historical/Cultural Resources Technical Specialist is responsible for identifying and resolving issues related to any historical or cultural sites that are threatened or impacted. The Specialist must understand and be able to implement a "Programmatic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

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

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

Figure B-6

LOGISTICS SECTION



INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

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

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

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

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

INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

Incident Command System
Unified Command Structure
Finance Administration Section

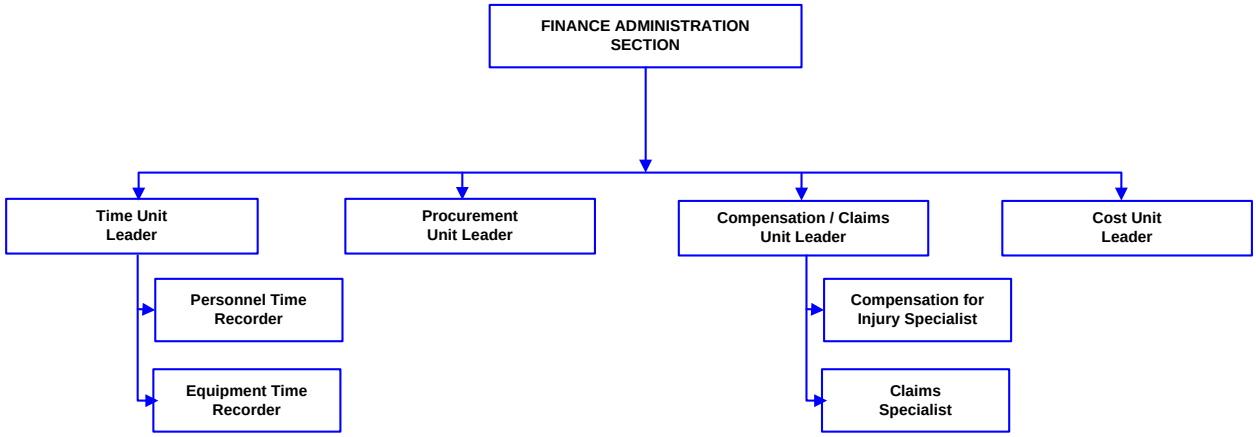
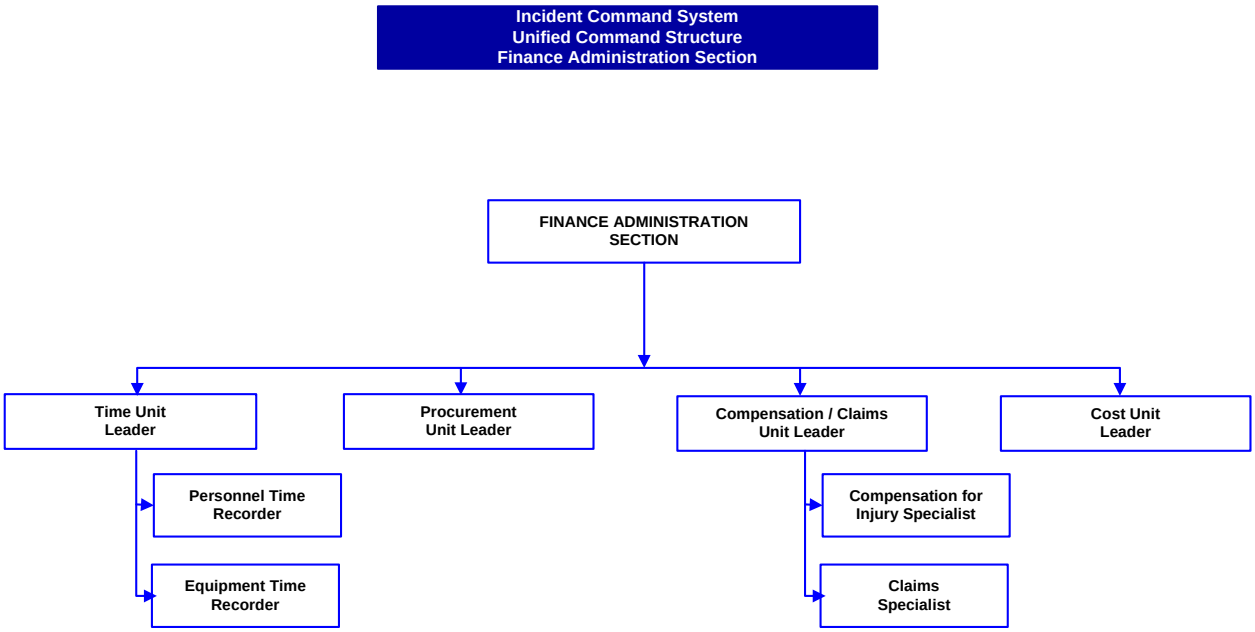


Figure B-7

FINANCE/ADMINISTRATION SECTION



INCIDENT COMMAND SYSTEM (cont'd)

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

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

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

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

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

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

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

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

ORGANIZATIONAL GUIDES

MODULAR DEVELOPMENT

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

INITIAL RESPONSE

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

REINFORCED RESPONSE

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

MULTIDIVISION/GROUP ORGANIZATION

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

MULTI-BRANCH ORGANIZATION

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

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES

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

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

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

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

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

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

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

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

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

Canada Specific

National Energy Board (NEB)

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

As lead regulatory agency, the NEB:

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

(b) (7)(F)

[redacted]

ECRC

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

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

Quebec Ministry of Sustainable Development, Environment and Parks
From Article 21 of the *Loi sur la qualité de l'environnement* (L.R.Q., chapter Q-2, 1998), the company shall notify the Quebec Ministry of Sustainable Development, Environment and Parks (MDDEP). The Ministry may oversee the cleaning operations or make an order relative to the restoration of the natural environment. The representatives of the Ministry may be of assistance for the choice and application of appropriate mitigation measures.

Environment Canada
Environment Canada's mandate is to preserve and enhance the quality of the natural environment, including water, air and soil quality; conserve Canada's renewable resources, including migratory birds and other no-domestic flora and fauna; conserve and protect Canada's water resources; carry out meteorology; enforce the rules made by the Canada - United States International Joint Commission relating to boundary waters; and coordinate environmental policies and programs for the federal government.
The goal of the renewed Canadian Environmental Protection Act (CEPA, 2000) is to contribute to sustainable development through pollution prevention and to protect the environment, human life and health from the risks associated with toxic substances. CEPA also recognises the contribution of pollution prevention and the management and control of toxic substances and hazardous waste to reducing threats to Canada's ecosystems and biological diversity.
During an emergency, Environment Canada may be of assistance for information gathering concerning sensible areas, response techniques, protection of fauna and flora, management of wastes, etc.

Transportation Safety Board
The TSB is an independent agency created by an Act of Parliament (the Canadian Transportation Accident Investigation and Safety Board), which came into force on March 29, 1990. Its role is to advance transportation safety through the investigation of transportation occurrences in the marine, pipeline, rail and aviation modes.
The Canadian Transportation Investigation and Safety Board Act provides the legal framework governing the TSB's activities. Basically, the TSB has a mandate to advance safety in the marine, pipeline, rail, and aviation modes of transportation by:

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

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

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

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

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

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

US Specific

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

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

Marine Safety Program.

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

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

Pipeline and Hazardous Material Safety Administration
PHMSA oversees the safety, security, and environmental protection of pipelines through analysis of data, damage prevention, education and training, enforcement of regulations and standards, research and development, grants for states pipeline safety programs, and emergency planning and response to accidents. The pipeline safety program is responsible for a national regulatory program to protect the public against the risks to life and property in the

transportation of natural gas, petroleum and other hazardous materials by pipeline. The enactment of the Oil Pollution Act of 1990 also expanded the role of the pipeline safety program

ROLES AND RESPONSIBILITIES OF EXTERNAL RESOURCES cont'd

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

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

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

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

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

GLOSSARY OF TERMS

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

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

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

ALLOCATED RESOURCES - Resources dispatched to an incident.

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

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

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

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

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

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

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

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

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

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

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

GLOSSARY OF TERMS (cont'd)

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

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

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

COMMAND POST - See Incident Command Post.

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

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

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

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

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

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

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

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

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

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

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

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

GLOSSARY OF TERMS (cont'd)

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

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

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

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

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

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

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

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

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

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

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

GLOSSARY OF TERMS (cont'd)

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

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

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

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

INCIDENT BASE - See BASE.

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

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

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

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

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

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

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

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

INITIAL RESPONSE - Resources initially committed to an incident.

GLOSSARY OF TERMS (cont'd)

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

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

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

LANDING ZONE - See Helispot.

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

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

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

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

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

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

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

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

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

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

GLOSSARY OF TERMS (cont'd)

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

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

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

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

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

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

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

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

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

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

POLREP - Pollution report.

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

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

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

GLOSSERY OF TERMS (cont'd)

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

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

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

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

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

R.P. - Responsible Party

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

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

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

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

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

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

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

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

STATE I.C. - State Incident Commander.

GLOSSERY OF TERMS (cont'd)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

APPENDIX C

RESPONSE RESOURCES

COMPANY OWNED SPILL / EMERGENCY RESPONSE EQUIPMENT

Response Equipment Tests and Deployment C-3

South Portland Marine Terminal & Pump Station C-3

Raymond Pump Station C-4

North Waterford Pump Station C-4

Shelburne Pump Station C-4

Lancaster Station Pump Station C-4

Sutton Station Pump Station C-5

Highwater Pump Station C-5

St. Cesaire Pump Station C-5

Montreal Pump Station C-5

Pipeline Repair Equipment C-6

Figure C-1: Response Equipment Inspection Checklist & Sample Work Order C-7

FIRE RESPONSE EQUIPMENT

Pier 1 and Pier 2 ..... C-10

South Portland Pump Station C-11

Raymond Pump Station C-13

North Waterford Pump Station C-13

Shelburne Pump Station C-14

Lancaster Pump Station C-14

Sutton Pump Station C-15

Highwater Pump Station C-16

St. Cesaire Pump Station C-16

Montreal Pump Station C-17

U.S. - OIL SPILL RESPONSE CONTRACTORS

Figure C-2 - USCG OSRO Classification requirements C-19

Figure C-3 External Response Resources (OSROs) – Portland COTP Zone C-20

Marine Spill Response Corporation C-21

Clean Harbors Environmental Services C-76

Other resources C-86

CANADA – OIL SPILL RESPONSE CONTRACTORS

ECRC C-87

Clean Harbors Environmental Services C-120

Local Contractor resources C-121

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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	In water at 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	Boom	50 ft. of 18-inch boom and 50 ft. of 6-inch boom	Tank Farm at Hill Street Garage
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
1	Radios – VHF Radio	Base – Op-Freq. 153.0900	Control Center
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

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

QUANTITY	TYPE	MAKE/MODEL/EQUIPMENT DESIGN	LOCATION
1	Boat	17' Steury Boat w/ 115 HP Evinrude motor	Garage
1	Boom	220' Uniroyal sealboom 17" wide	Garage – in boat
NORTH WATERFORD PUMP STATION (Shop)			
2	Boom Sea Serpent	Absorbent boom sea serpent, 50' lengths each	Shop

SHELBURNE PUMP STATION (Equipment Trailer)

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

LANCASTER PUMP STATION (Equipment Trailer)

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

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

HIGHWATER PUMP STATION (In Boat)			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boat	Fiberglass boat w/outboard motor	Motor Room
1	Boom	100' Slickbar Boom	Motor Room
1	Boom	100' Fast water boom	Motor Room

ST. CESAIRE PUMP STATION			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boat	Boat w/outboard motor	Garage
1	Boom	850' Bennett Boom	Trailer
1	Boom	200' Slickbar Boom	Trailer

MONTREAL PUMP STATION (In Garage)			
QUANTITY	**TYPE**	**MAKE/MODEL/EQUIPMENT DESIGN**	**LOCATION**
1	Boat	Boat w/ outboard motor	Garage
1	Trailer	Small Equipment Trailer	Garage
MONTREAL PUMP STATION (In Trailer)			
1	Boom	500' Bennett Boom	Trailer
1	Skimmer	Disc Air Operated	Trailer
1	Storage Tank	3000 Gallon portable tank	Trailer
1	Wash down pump	Gas operated wash down pump	Trailer

COMPANY OWNED PIPELINE REPAIR EQUIPMENT								
Dia.	**Nomenclature**			**Montreal**		**Mainline**		**South Portland**	
				Qty.	Loc.	Qty.	Loc.	Qty.	Loc.
	Plidco Smith Clamps								
10 in.	Pipe Size Plidco Smith/Clamps			1	Garage				
12 ¾ in.	Pipe Size Plidco Smith/Clamps)			1	Garage			1	Whse
16 in.	Pipe Size Plidco Smith/Clamps			1	Garage				
18 in.	Pipe Size Plidco Smith/Clamps (18")			1	Garage			1	Whse
22 in.	Pipe Size Plidco Smith/Clamps (22")			1	Garage	1	LS Whse		
24 in.	Pipe Size Plidco Smith/Clamps (24")			1	Garage	1	LS Whse	1	Whse
	Plidco Split Sleeves								
	Pipe Size	Overall Length	Inside Length Between Packing						
10 in.	10"	10"	5-1/2"	1	Garage				
12 in.	12"	10-1/2"	5-1/2"	1	Garage				
16 in.	16"	14"	8"	1	Garage				
18 in.	18"	14"	8"	1	Garage	1	LS Whse	2	Whse
18 in.	18"	13-3/4"	8"	1	Garage				
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
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 - PIER 2 2,200' OF 24" GLOBE BOOM (CONNEX BOX)	SP-P2BO002
South Portland	TRUCK GMC 9500 VACUUM TANK	SP-VHVH001
South Portland	SP-135 HP HONDA OUTBOARD ENGINE-4 CYLINDER	SP-ERENG001
South Portland	SP- 9.9 h.p. HONDA OUTBOARD ENGINE-2 CYLINDER	SP-ERENG002
South Portland	SP-21' RW TUFF BOAT TRAILER-RESPONSE EQUIPMENT	SP-ERTR001
South Portland	SP-21' RW TUFF BOAT-RESPONSE EQUIPMENT	SP-VHVH008
Raymond	RY - 280' Uniroyal sealboom 17" wide	RY-ERBM001
Raymond	RY - EMERGENCY RESPONSE BOAT ACME	RY-VHVH001
North Waterford	NW - 220' Uniroyal sealboom 17" wide	NW-ERBM001
North Waterford	NW - (2) 50' lengths "SEA SERPENT" absorbent boom	NW-ERBM002
North Waterford	NW - EMERGENCY RESPONSE BOAT STEURY	NW-VHVH002
Shelburne	SH - 1,000' of "GLOBE" boom	SH-ERBM003
Shelburne	SH - 3,000 gallon portable storage tank	SH-ERST001
Shelburne	SH - (5) Tank liners for 3,000 gallon portable storage tank	SH-ERST002
Shelburne	SH - EMERGENCY RESPONSE TRAILER (WELLS CARGO)	SH-ERTR001
Lancaster	LS - 290' Uniroyal Boom	LS-ERBM001
Lancaster	LS - 160' Slick Bar Boom (yellow)	LS-ERBM004
Lancaster	LS - 90' Slick Bar Boom	LS-ERBM004A
Lancaster	LS- VIKOMA DISK SKIMMER WITH DIESEL DRIVER AND PUMP	LS-ERSK001
Lancaster	LS - EMERGENCY RESPONSE BOAT ACME	LS-VHVH005
Lancaster	LS - EMERGENCY RESPONSE BOAT CRESTLINER	LS-VHVH006
Sutton	SU-90' Slick Bar Boom (previous # LS-ERBM004A)	SU-ERBM004
Sutton	SU - VIKOMA SKIMMER , KEBAB MODEL # T-12 FIT AND PUMP	SU-ERSK001
Sutton	SU - EMERGENCY RESPONSE BOAT	SU-VHVH002
Sutton	SU - EMERGENCY RESPONSE TRAILER " HIGHLAND SHORELINE"	SU-VHVH001
Highwater	HW- EMERGENCY RESPONSE BOAT	HWER001
Highwater	HW - EMERGENCY RESPONSE BOAT TRAILER	HWER002
Highwater	HW- GAS OPERATED FLUSHING , WASH DOWN PUMP	HWER003
Highwater	HW - GORMAN RUPP 3" DIAPHRAM PUMP	HWER004
St. Cesaire	SC- EMERGENCY RESPONSE BOAT	SCER001
St. Cesaire	SC- EMERGENCY RESPONSE (SINGLE AXLE) EQUIPMENT TRAILER	SCER004
St. Cesaire	SC- 200' SLICKER OIL RECOVERY BOOM	SCER005
St. Cesaire	SC- GAS OPERATED FLUSHING , WASH DOWN PUMP	SCER006
St. Cesaire	SC- SPATE PUMP - DIESEL OPERATED	SCER007
St. Cesaire	SC - GORMAN RUPP 3" DIAPHRAM PUMP	SCER008
St. Cesaire	SC - CHAIN SAW (GAS POWERED)	SCER009
St. Cesaire	SC - GENERATOR 120/240 V - 16.5 AMPS	SCER010
St. Cesaire	SC- EMERGENCY RESPONSE BOAT TRAILOR	SCER002
Montreal	MT - ROW BOAT 14'	MTER001
Montreal	MT - 14' BOAT TRAILER	MTER002
Montreal	MT- EMERGENCY RESPONSE (SINGLE AXLE) EQUIPMENT TRAILER	MTER003
Montreal	MT- 500' BENNET OIL RECOVERY BOOM	MTER004
Montreal	MT -2 / GORMAN RUPP 3" DIAPHRAM PUMP(S) 2	MTER005

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

Preventive work order | **061737**

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

Others Shop / Trade | **Assigned to**

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

Equipment **HWER001** **HW- EMERGENCY RESPONSE BAOT**

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

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

```
------------------------- SPRING INSPECTION -------------------------
PREPARATION
   [ ] REQUIRED TOOLS:     -GREASE GUN: NLGI GRADE #2
   [ ] REQUIRED PARTS:     -MOTOR OIL (RECOMMENDED BY MANUFACTURER)
                           -AIR FILTER
                           -SPARK PLUG
   [ ] REQUIRED MATERIAL: -OIL PAN
   [ ] REVIEW AND UPDATE EQUIPMENT DATA.
INSPECTION
   BOAT
       [ ] CHECK INTEGRITY OF ALL COMPONENTS.
       [ ] GREASE FITTING AS NEEDED.
       [ ] CHECK ELECTRICAL PLUG WIRING AND LIGHTS.
       [ ] CHECK FRAME ASSEMBLY (PAINT, CORROSION, WELDED JOINTS, ETC.).
   MOTOR
       [ ] START MOTOR FOR A VERY SHORT TIME, CHECK FOR UNUSUAL NOISES
           OR VIBRATIONS.
       [ ] CHECK AIR FILTER, CLEAN OR CHANGE AS NEEDED.
       [ ] CHECK SPARK PLUG, CLEAN OR CHANGE AS NEEDED.
       [ ] INSPECT FUEL LINES AND TANK, DAIN BOTTOM OF TANK.
       [ ] CHECK FRAME CONDITION AND ASSEMBLY OF PARTS (PAINT,
           CORROSION), CLEAN.
      OIL CHANGE (IF REQUIRED)
           [ ] DRAIN OIL INTO CLEAN PAN, CHECK APPEARANCE,
               ACCUMULATION OF METALLIC PARTICLES OR WATER.
            Note.. If there is excessive concentration of metallic
                   particles or deposits, have a work order issued for
                   an internal inspection or oil analysis.
           [ ] ADJUST OIL LEVEL: _________ GALS
RETURN TO SERVICE
   [ ] MAKE SURE UNIT IS LEFT IN OPERATING CONDITION.

------------------------- FALL INSPECTION -------------------------
```

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

Preventive work order	061737

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

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

Details :

Employee	Date	Time		Completed
		Reg	OT	

Cause _____ **Action** _____ **Downtime** _____

FIRE PROTECTION EQUIPMENT

PIER 1 and PIER 2

PIER NO. 2

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

PIER NO. 1

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

OUTSIDE EQUIPMENT AVAILABILITY

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

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

TANK FARM

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

OUTSIDE EQUIPMENT AVAILABILITY

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

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

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

EQUIPMENT FOR FIRE FIGHTING

SOUTH PORTLAND PUMP STATION (Cont'd)

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

EQUIPMENT FOR FIRE FIGHTING

RAYMOND PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

NORTH WATERFORD PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

SHELBURNE PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

LANCASTER PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING

SUTTON PUMP STATION

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

EQUIPMENT FOR FIRE FIGHTING			
HIGHWATER PUMP STATION			
EXTINGUISHERS			
Nº	MAKE	TYPE	LOCATION
74	Ansul	BC	Pump Room
75	Ansul	BC	Pump room
76	Ansul	BC	Motor Room
77	Ansul	BC	Stock Room
78	Ansul	BC	Work Room
79	Ansul	BC	Work Room
80	Ansul	PK	Control Room
81	Ansul	BC	Control Room
82	Ansul	BC	24 » Building
83	Ansul	BC	24 » Building
84	Ansul	PK	Boat
85	Ansul	PK	Pump Room

EQUIPMENT FOR FIRE FIGHTING			
ST. CESAIRE PUMP STATION			
EXTINGUISHERS			
Nº	MAKE	TYPE	LOCATION
51	Ansul	BC	Work Room
55	Ansul	BC	Garage
56	Ansul	PK	Boat
57	Ansul	PK	Control Room
58	Ansul	BC	Control Room
59	Ansul	PK	Sub-Station North Fence
60	Ansul	K5	Sub-Station East Fence
61	Ansul	BC	Large Trailer
62	Ansul	K5	Pump Room
63	Ansul	BC	Pump Room
64	Flag	Co_2	24 » Switch room

EQUIPMENT FOR FIRE FIGHTING			
MONTREAL EAST AREA			
EXTINGUISHERS			
N°	MAKE	TYPE	EMPLACEMENT
1	Ansul	BC	Vehicle Unit – Terminal Supervisor
2	Ansul	BC	Vehicle Unit – Terminal Maintenance
4	Ansul	BC	Pump Room West Wall
5	Ansul	BC	Pump Room East Wall
6	Ansul	Ansul	Terminal, South Wall
8	Ansul	BC	Motor Room
9	Ansul	PK	Terminal Supervisor Office
10	Buffalo	CO_2	Lunch Room
11	Walter Kid	CO_2	Control Room
13	Ansul	BC	Manifold 2 West Fence
14	York	BC	Manifold 2 East Fence
15	Ansul	CO_2	Manifold 2 Building
17	Ansul	PK	M&I Shop
20	Ansul	PK	Terminal Garage
21	Ansul	BC	Storage Building
22	Ansul	PK	Storage Building
23	Ansul	PK	Vehicle Unit – SC Station Chief
24	Ansul	BC	Meter Building
25	Ansul	BC	Meter Building
26	York	BC	Édifice des compteurs
27	Ansul	PK	Vehicle Unit – HW Station Chief
28	Ansul	BC	18" Sampling Building
30	Ansul	ABC	Main Office
31	Amer. Lafr.	CO_2	Main Office Basement
32	Ansul	ABC	Main Office Basement
35	Ansul	BC	Laboratory

EQUIPMENT FOR FIRE FIGHTING

MONTREAL EAST AREA (Cont'd)

N°	MAKE	TYPE	EMPLACEMENT
37	Ansul	BC	24" Sampling Building
38	Ansul	PK	Laboratory
39	Ansul	PK	Vehicle Unit – Maintenance Chief
40	Ansul	PK	Vehicle Unit – Maintenance Chief
41	Ansul	ABC	Main Office Attic
46	Ansul	BC	Office Garage

FIRE HYDRANTS

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

NORTH TANK FIELD

FIRE HYDRANTS AND EXTINGUISHERS

NUMBER AND DESCRIPTION	MAKE	LOCATION	INTEGRATED NOZZLE
7 (seven) 30 lbs extinguisher	Ansul BC	Booster Pumps & Tanks	
2 (two) CO_2 extinguisher	Ansul	Inside Substation #44	
23 (twenty-three) fire Hydrants	McAvity (6) Darling (17)	North Tank Field	2 (two) equipped with nozzles

US – OIL SPILL RESPONSE CONTRACTORS

FIGURE C-2

USCG OSRO CLASSIFICATIONS

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

SPECIFIC CLASSIFICATION STANDARDS BY OPERATING AREAS

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

FIGURE C-2 (Cont'd.)

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

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

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

EDRC = Effective Daily Recovery Capacity

TSC = Temporary Storage Capacity
BBLS = Barrels

HRS= Hours

FIGURE C-3

EXTERNAL RESPONSE RESOURCES

Portland Captain of the Port (COTP) Zone

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

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

MARINE SPILL RESPONSE CORPORATION (MSRC)
NPREP Exercise Letter
Equipment and Resources

MSRC
Marine Spill Response Corporation®

Don Toenshoff, Jr.
Executive Vice President

December 21, 2012

Mr. Larry Wilson
Portland Pipe Line Corporation
30 Hill Street P.O. Box 2590
South Portland, ME 04106

Dear Mr. ~~Wilson~~ Larry:

The National Preparedness for Response Exercise Program (NPREP) Guidelines require a response plan holder to ensure that Equipment Deployment Exercise requirements are met on an annual basis. The NPREP Guidelines identify the minimum amount of equipment that must be deployed in Equipment Deployment Exercises.

This letter provides documentation to you that MSRC has completed the NPREP Equipment Deployment Exercise requirements for 2012. For purposes of Equipment Deployment Exercises under NPREP, each MSRC Region is considered a separate Oil Spill Removal Organization (OSRO). MSRC is divided into four Regions, Atlantic (Maine – Georgia, including the Mid-Continent), Gulf (Florida – Texas including Puerto Rico), California (self-explanatory) and Pacific/Northwest (Washington, Oregon and Hawaii). MSRC has deployed, at a minimum, the NPREP required amounts of each type of boom and one of each type of skimming system in the applicable regional inventory. This equipment has been deployed, if required, in each of the three types of operating environments listed in NPREP ("River & Canal", "Inland", and "Ocean"). Each of the four MSRC Regions has met these equipment deployment requirements in 2012. In addition, each Region has conducted extensive personnel training and has maintained its equipment according to a detailed preventative and corrective maintenance schedule.

MSRC has an aerial dispersant program, which is comprised of two contracted C-130 aircraft (based in Mesa, AZ and Stennis, MS) and four contracted King Air BE-90A aircraft (based in Concord, CA; Salisbury, MD; Stennis, MS; and San Juan, PR). MSRC's Dispersant Program, including all aircraft, are exercised through internal training and drills.

Documentation and records of the specific information relating to MSRC Equipment Deployment Exercises and Equipment Maintenance records are maintained in each MSRC Region. Additionally, highlights of when each MSRC Region satisfied the equipment deployment requirements are available in the MSRC website (www.msrc.org) in the Customer Access section.

Please feel free to contact the MSRC regions directly or me at (703) 326-5610 for additional information.

Sincerely,

220 Spring Street | Suite 500 | Herndon, VA 20170 | Telephone 703.326.5600 | Fax 703.326.5660

MSRC
Marine Spill Response Corporation

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

April 17, 1998

MSRC Technical Information Bulletin 98-01

Dispersant Coverage for MPA Customers

Dear Customer:

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

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

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

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

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

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

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

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

MSRC
Marine Spill Response Corporation

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

April 30, 1998

MSRC Technical Information Bulletin 98-02

Response Equipment Airlift Contingency Transportation (REACT) Package

Dear Customer:

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

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

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

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

MSRC
Marine Spill Response Corporation

August 20, 1999

MSRC Technical Information Bulletin 99-02

Infrared Imaging Services for MSRC Customers

Dear Customer:

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

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

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

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

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

MSRC's Major Equipment - Atlantic/Gulf Region - Atlantic Region

Location		Skimmers	Effective Daily Recovery Capacity BBL/Day		Boom	Storage, SBS, Small Boats
Portland, ME						
Maine Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 620						**1 - 62,000 barrel offshore barge**
Saddleback Responder	1	WP-1	3,017	5,500	ft. Sea Sentry II	1 - Shallow Water Barge (self propelled/400 bbl)
Katahdin Responder	1	Desmi 250	2,112	1,000	ft. Texa Boom	1 - 500 bbl towable storage bladder
	1	Elastec Drum	288			2 - 100 bbl Towable Storage Barges
	1	Ro-Clean OM 260	362			1 - 200 bbl Towable Storage Barge
	1	Skim-Pack 1800	2,054	220	ft. Sea Sentry (11-16)	2 - 10 bbl Fastanks
	1	Komara 12K	362	60	ft. Mark II Boom	1 - 50 bbl Fastank
	1	Komara 30K	905	1,200	ft. 38" Carolina Boom	2 - 55 bbl Fastanks
	2	Lori side collector	2,714	4,650	ft. 27" Carolina Boom	1 - Lancer TSB
	1	Sea Devil	2,290	1,750	ft. 38" Amer B & B	Work boats (2-36', 2-30 1- 46')
	1	GT-185 w Adapter	1,371			
	1	Stress I	15,840	3,200	ft. 19" HarborBoom	
Boston, MA						
High Volume Port	1	Desmi Ocean	3,017	1,320	ft. Sea Sentry II	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Queensboro	905	1,000	ft. Texa Boom	1 - Shallow Water Push Boat (26' Munson)
				60	ft. Mark II Boom	
Providence, RI						
	1	GT-185 w Adapter	1,371	4,620	ft. Sea Sentry II	1 - Shallow Water Barge (non-self propelled/400 bbl)
				1,000	ft. Texa Boom	1 - Shallow Water Push Boat (26' Munson)
				60	ft. Mark II Boom	
Edison/Perth Amboy, NJ						
New Jersey Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 520						**1 - 52,000 barrel offshore barge**
High Volume Port	1	Desmi Ocean	3,017	5,500	ft. Sea Sentry II	1 - Shallow Water Push Boat (28' Munson)
	1	AardVAC	3,840	1,800	ft. Texa Boom	1 - Shallow Water Barges (self propelled/400 bbl)
	1	GT-185 w Adapter	1,371	990	ft. Sea Sentry (20-30)	2 - 500 bbl towable storage bladders
	1	Skim-Pak	548	770	ft. Sea Sentry (11-16)	3 - 10 bbl Fastanks
	1	Stress I	15,840			9 - 55 bbl Fastank
				120	ft. Mark II Boom	
Bayonne, NJ						
	1	GT-185 w Adapter	1,371	60	ft. Mark II Boom	1 - Shallow Water Barge (non-self propelled/400 bbl)
Chesapeake City, MD						
Delaware Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 401						**1 - 40,000 barrel offshore barge**
High Volume Port	1	Walosep W4	3,017	5,500	ft. Sea Sentry II	
	1	Skim-Pak	548	1,000	ft. Texa Boom	
	1	Queensboro	905	60	ft. Mark II Boom	2 - Shallow Water Barge (non-self propelled/400 bbl)
	1	GT-185 w Adapter	1,371			2 - Shallow Water Push Boats (2-26' Munson)
						10,725 Gallons Corexit 9500 Dispersant (1 ISO Tank, 20
	1	Stress I	15,840	60	ft. Mark II Boom	totes)
Baltimore, MD						
	1	GT-185 w Adapter	1,371			1 - Shallow Water Barge (non-self propelled/400 bbl)
				60	ft. Mark II Boom	1 - Shallow Water Push Boat (26' Munson)
Virginia Beach, VA						
Virginia Responder	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
MSRC 680	**1**	**Stress I**	**15,840**	**220**	**ft. Sea Sentry II**	**1 - 68,000 barrel offshore barge**
	1	AardVAC	3,840	3,300	ft. Sea Sentry II	
	1	GT-185 w Adapter	1,371	3,000	ft. Texa Boom	1 - 500 bbl towable storage bladder
	1	Walosep W4	3,017			2 - 10 bbl Fastanks
						1 - Shallow Water Barge (self propelled/400 bbl)
				60	ft. Mark II Boom	2 - 55 bbl Fastank

MSRC's Major Equipment - Atlantic/Gulf Region - Atlantic Region

Location		Skimmers	Effective Daily Recovery Capacity BBL/Day		Boom	Storage, SBS, Small Boats
Yorktown, VA						
	1	GT-185 w Adapter	1,371	60	ft. Mark II Boom	1 - Shallow Water Barge (non-self propelled/400 bbl)
						1 - Shallow Water Push Boat (28' Munson)
Savannah, GA						
MSRC 350	**1**	**Transrec 350**	**10,567**	**1,320**	**ft. Sea Sentry II**	**1 - 35,000 barrel offshore barge**
						1 - 50 barrel FRV Storage. 1-100 barrel Towable Stor
MSRC Relentless	**1**	**LORI Brush Pack**	**5,000**			**Bladder.**
	2	Walosep W4	6,034	8,140	ft. Sea Sentry II	1 - 3,000 bbl towable storage bladder
	1	Stress I	15,840			2 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Skim-Pak	548	1,000	ft. Texa Boom	2 - Shallow Water Push Boats (2 -28' Munson)
	2	GT-185 w Adapter	2,742	120	ft. Mark II Boom	6 - 500 bbl towable storage bladders
						1 - 10 bbl Fastanks
						1 - 55 bbl Fastank
Jacksonville, FL						
	1	GT-185 w Adapter	1,371	50	ft. OK Corral	1 - Shallow Water Barge (non-self propelled/400 bbl)
						1 - Shallow Water Push Boat (26' Munson)
Miami, FL						
Florida Responder	**1**	**Transrec 350**	**10,567**	**1,980**	**ft. Sea Sentry II**	**1 - 4,000 barrel OSRV Storage**
	1	WP 1	3,017	7,700	ft. Sea Sentry II	1 - Shallow Water Barge (self propelled/400 bbl)
	1	Desmi Ocean	3,017			8 - 500 bbl towable storage bladders
	1	Walosep 4	3,017			
	1	Stress I	15,840	50	ft. OK Corral	
	2	AardVac	7,680	2,000	ft. Quali-tech	
	1	GT-185 w Adapter	1,371			
St. Croix, VI						
MSRC 381	**1**	**Stress I**	**15,840**	**1,980**	**ft. Sea Sentry II**	**1 - 38,000 barrel offshore barge**
High Volume Port	1	AardVac	3,840	10,340	ft. Sea Sentry II	2 - Shallow Water Barges (self propelled/400 bbl ea)
	1	Stress I	15,840	5,940	ft. Slickbar	4 - 500 bbl towable storage bladders
	1	Queensboro	905	500	ft. Fire + 400' Guide	
	1	GT-185 w Adapter	1,371	100	ft. Quali-tech	
Ponce, Puerto Rico						
	1	Desmi Ocean	3,017	2,100	ft. Slickbar	1 - Shallow Water Barge (non-self propelled/400 bbl)
	2	Queensboro	1,810	100	ft. Quali-tech	1 - Shallow Water Barge (self-propelled/400 bbl)
						1 - Shallow Water Push Boat (28' Munson)
San Juan, Puerto Rico						
MSRC Brisa Rapida	**1**	**LORI Brush Pack**	**5,000**			**1 - 50 barrel FRV Storage**
	1	Queensboro	905	4,100	ft. Slickbar	1 - Shallow Water Barge (non-self propelled/400 bbl)
	1	Stress II	3,017	50	ft. Quali-tech	1 - Shallow Water Push Boat (28' Munson)
						1 - 100 bbl towable storage bladder
						900 Gallons Corexit 9527 dispersant - 3 totes
Yabacoa, Puerto Rico						
	1	Foilex 200	1,989	7,365	ft. Slickbar	1 - Shallow Water Barges (non-self propelled/400 bbl)
	1	Queensboro	905	50	ft. Quali-tech	1 - Shallow Water Push Boat (28' Munson)
Total Equipment	31	Skimmers	142,421	55,045	Feet	5 - Responder Class OSRVs with a total of 20,000 bbls storage
						2 - Smaller OSRVs
						2 - FRV's with a total of 50 bbls storage each
						6 - Offshore Barges with 295,000 bbls storage
						13 - Shallow Water Barges (non-self propelled) (5,200 bbls storage)
Bold entries denote resources associated with a vessel						7 - Shallow Water Barges (self propelled) (2,800 bbls storage)
						3 - Towable Storage Barges (non-self propelled) (400 bbls storage)
						13 - Shallow Water Push Boats
						24 - Towable Storage Bladders (11,200 bbls storage)
						3 - Work Boats
						23 - Fastanks (900 bbls)
						62,700 ft Ocean Boom
						10,725 Gallons Corexit 9500 Dispersant
						900 Gallons Corexit 9527 Dispersant

MSRC Spill Response Resources
Oil Spill Response Resources Cascade Planning Schedule

PORTLAND, ME
9/11/2007

EAST

					MSRC RESOURCES														STARs RESOURCES														CUMULATIVE CAPACITY													
Resource Area	Asset	Miles	Mob. Factor	Time (hours)	Skimmers	EDRC (bpd)	SBS	TSB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18	Small Boats > 18	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)	Skimmers	EDRC (bpd)	SBS	TSB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18	Small Boats > 18	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)	Skimmers	EDRC (bpd)	SBS	TSB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18	Small Boats > 18	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)
Portland ME	Site	0	2.0	2.0	9	12 761	1	1	1 300	180	0	0	0	3	5 500	14 230	0	19 730	3	928	0	3	221	991	3	4	8	10	0	2 500	16 900	5 400	24 800	12	13 689	1	4	1 521	1 171	3	4	8	13	0	8 000	31 130	5 400	44 530
Bow, NH	Site	84	2.0	4.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	1	0	1	0	0	0	200	0	200	12	13,689	1	4	1,521	1,289	4	4	9	13	0	8,000	31,330	5,400	44,730
Belfast, ME	Site	101	2.0	5.0	0	0	0	0	0	0	0	0	0	0	0	2,100	0	2,100	0	0	0	0	0	128	1	0	1	1	0	0	2,100	0	2,100	12	13,689	1	4	1,521	1,417	5	4	10	14	0	8,000	35,530	5,400	48,930
Boston, MA	Site	105	2.0	5.3	2	3,922	1	0	400	0	0	0	0	1	1,320	3,060	0	4,380	6	14,231	0	2	314	15,567	21	6	11	6	4	0	17,000	0	17,000	20	31,842	2	6	2,235	16,984	26	10	21	21	4	9,320	55,590	5,400	70,310
Cape Cod Canal MA	Site	127	2.0	5.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	20	31 842	2	6	2 235	16 984	26	10	21	22	4	9 320	55 590	5 400	70 310
North Grafton MA	Site	136	2.0	6.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	800	0	800	20	31 842	2	6	2 235	16 984	26	10	22	22	4	9 320	56 390	5 400	71 110
Providence RI	Site	162	2.0	6.8	1	1 371	1	0	400	0	0	0	0	1	4 620	2 960	0	7 580	2	4 629	0	5	193	968	4	1	6	4	0	0	7 500	0	7 500	23	37 842	3	11	2 828	17 952	30	11	28	27	4	13 940	66 850	5 400	86 190
Springfield MA	Site	191	2.0	7.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	650	0	650	23	37 842	3	11	2 828	17 952	30	11	29	27	4	13 940	67 500	5 400	86 840
New London, CT	Site	210	2.0	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	500	0	500	23	37,842	3	11	2,828	17,952	30	11	30	27	4	13,940	68,000	5,400	87,340
Berlin, CT	Site	214	2.0	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3,600	0	1	70	806	3	1	2	1	0	0	1,500	0	1,500	25	41,442	3	12	2,898	18,758	33	12	32	28	4	13,940	69,500	5,400	88,840
Bristol CT	Site	219	2.0	8.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 309	2	2	3	0	0	0	4 000	0	4 000	25	41 442	3	12	2 898	20 067	35	14	35	28	4	13 940	73 500	5 400	92 840
New Haven CT	Site	238	2.0	9.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3 897	0	3	292	3 045	8	5	6	5	5	0	9 200	0	9 200	31	45 339	3	15	3 190	23 112	43	19	41	33	9	13 940	82 700	5 400	102 040
Burlington VT	Site	256	2.0	9.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	45 339	3	15	3 190	23 112	43	19	41	33	9	13 940	82 700	5 400	102 040
Albany NY	Site	271	2.0	10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 657	6	3	4	2	0	0	2 100	0	2 100	31	45 339	3	15	3 190	25 769	49	22	45	35	9	13 940	84 800	5 400	104 140
Newburgh, NY	Site	296	2.0	10.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	920	3	2	3	2	0	0	4,400	0	4,400	31	45,339	3	15	3,190	26,689	52	24	48	37	9	13,940	89,200	5,400	108,540
Bayonne, NJ	Site	332	2.0	11.7	1	1,371	1	0	400	0	0	0	0	0	0	60	0	60	9	12,344	1	0	2,840	6,633	48	###	26	32	20	3,600	56,100	0	59,700	41	59,054	5	15	6,430	33,322	100	1,786	74	69	29	17,540	145,360	5,400	168,300
Edison NJ	Site	348	2.0	12.1	6	14 344	1	2	1 400	525	0	0	0	2	6 490	3 190	0	9 680	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	73 398	6	17	7 830	33 847	100	1 786	74	71	29	24 030	148 550	5 400	177 980
Port Jefferson NY	Site	354	2.0	12.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	12 090	0	1	402	6 968	7	16	13	4	9	0	25 500	0	25 500	51	85 488	6	18	8 232	40 815	107	1 802	87	75	38	24 030	174 050	5 400	203 480
Paulsboro NJ	Site	417	2.0	14.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5 658	1	3	176	3 910	21	3	23	20	1	1 000	20 100	0	21 100	54	91 146	7	21	8 408	44 725	128	1 805	110	95	39	25 030	194 150	5 400	224 580
Bear DE	Site	443	2.0	14.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	3	0	4	2	0	0	1 500	0	1 500	54	91 146	7	21	8 408	44 887	131	1 805	114	97	39	25 030	195 650	5 400	226 080
Chesapeake City, MD	Site	459	2.0	15.3	4	5,841	2	0	800	0	0	0	0	2	5,500	2,680	0	8,180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	96,987	9	21	9,208	44,887	131	1,805	114	99	39	30,530	198,330	5,400	234,260
Atlantic City, NJ	Site	441	2.0	15.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500	0	500	58	96,987	9	21	9,208	44,887	131	1,805	114	99	39	30,530	198,830	5,400	234,760
Baltimore MD	Site	507	2.0	16.7	1	1 371	1	0	400	0	0	0	0	1	0	2 025	0	2 025	3	720	0	4	143	4 447	24	4	10	5	0	0	18 500	200	18 700	62	99 078	10	25	9 751	49 334	155	1 809	124	105	39	30 530	219 355	5 600	255 485
Salisbury MD	Site	541	2.0	17.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	629	2	0	2	1	0	0	2 000	0	2 000	62	99 078	10	25	9 751	49 963	157	1 809	126	106	39	30 530	221 355	5 600	257 485
Stafford VA	Site	595	2.0	19.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	480	0	0	0	629	5	0	1	1	0	0	1 000	0	1 000	63	99 558	10	25	9 751	50 592	162	1 809	127	107	39	30 530	222 355	5 600	258 485
Fredericksburg VA	Site	605	2.0	19.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	178	2	0	1	0	0	0	0	500	500	63	99 558	10	25	9 751	50 770	164	1 809	128	107	39	30 530	222 355	6 100	258 985
Richmond, VA	Site	660	2.0	21.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	475	6	0	6	2	0	0	6,000	400	6,400	63	99,558	10	25	9,751	51,245	170	1,809	134	109	39	30,530	228,355	6,500	265,385
Virginia Beach, VA	Site	676	2.0	21.6	2	5,211	1	1	900	130	0	0	0	1	4,840	5,920	0	10,760	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	104,769	11	26	10,651	51,375	170	1,809	134	110	39	35,370	234,275	6,500	276,145
Norfolk, VA	Site	673	2.0	21.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4,478	0	3	147	3,188	10	4	17	9	1	0	33,600	100	33,700	71	109,247	11	29	10,798	54,563	180	1,813	151	119	40	35,370	267,875	6,600	309,845
Pittsburgh PA	Site	687	2.0	22.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5 321	19	22	0	0	17	0	8 000	1 600	9 600	71	109 247	11	29	10 798	59 884	199	1 835	151	119	57	35 370	275 875	8 200	319 445
Yorktown VA	Site	732	2.0	23.2	1	1 371	1	0	400	0	0	0	0	1	0	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	110 618	12	29	11 198	59 884	199	1 835	151	120	57	35 370	275 935	8 200	319 505
Wheeling WV	Site	725	2.0	23.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4 250	2 450	6 700	72	110 618	12	29	11 198	59 884	199	1 835	151	120	57	35 370	280 185	10 650	326 205
Cleveland OH	Site	740	2.0	23.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	880	3	1	0	4	1	0	4 200	0	4 200	72	110 618	12	29	11 198	60 764	202	1 836	151	124	58	35 370	284 385	10 650	330 405
Raleigh, NC	Site	814	2.0	25.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107	1	0	2	0	0	0	600	0	600	72	110,618	12	29	11,198	60,871	203	1,836	153	124	58	35,370	284,985	10,650	331,005
Detroit, MI	Site	813	2.0	25.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	802	0	0	0	1,628	16	0	5	6	0	0	9,600	0	9,600	77	111,420	12	29	11,198	62,499	219	1,836	158	130	58	35,370	294,585	10,650	340,605
Charleston WV	Site	847	2.0	26.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	583	0	0	0	1 047	6	0	2	0	0	0	3 000	4 600	7 600	79	112 003	12	29	11 198	63 546	225	1 836	160	130	58	35 370	297 585	15 250	348 205
Toledo OH	Site	856	2.0	27.0	3	2 090	1	0	400	0	0	0	0	1	0	60	0	60	2	480	0	0	0	1 532	16	1	4	2	0	0	8 000	500	8 500	84	114 573	13	29	11 598	65 078	241	1 837	164	133	58	35 370	305 645	15 750	356 765
Morehead City NC	Site	920	2.0	28.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1 000	1 500	2 500	84	114 573	13	29	11 598	65 078	241	1 837	165	133	58	35 370	306 645	17 250	359 265
Wilmington NC	Site	935	2.0	29.0	1	288	0	0	0	0	0	0	0	0	0	0	0	0	1	288	0	0	493	22 500	8	1	6	3	3	2 000	12 500	750	15 250	86	115 149	13	29	12 091	87 578	249	1 838	171	136	61	37 370	319 145	18 000	374 515
Dayton, OH	Site	927	2.0	29.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	686	0	0	0	3,333	17	4	0	0	0	0	0	470	470	87	115,835	13	29	12,091	90,911	266	1,842	171	136	61	37,370	319,145	18,470	374,985
Charlotte, NC	Site	952	2.0	29.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	480	0	0	0	0	1	0	2	0	0	0	2,000	0	2,000	88	116,315	13	29	12,091	90,911	267	1,842	173	136	61	37,370	321,145	18,470	376,985
Portsmouth OH	Site	942	2.0	29.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 500	5 450	6 950	88	116 315	13	29	12 091	90 911	267	1 842	173	136	61	37 370	322 645	23 920	383 935
Cincinnati OH	Site	956	2.0	30.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 524	17	2	2	1	0	0	3 000	300	3 300	88	116 315	13	29	12 091	93 435	284	1 844	175	137	61	37 370	325 645	24 220	387 235
Knoxville TN	Site	1027	2.0	31.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	226	0	0	2	0	0	0	800	0	800	88	116 315	13	29	12 091	93 661	284	1 844	177	137	61	37 370	326 445	24 220	388 035
Nashville TN	Site	1054	2.0	32.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	500	0	0	0	819	3	1	5	1	0	0	5 000	500	5 500	89	116 815	13	29	12 091	94 480	287	1 845	182	138	61	37 370	331 445	24 720	393 535

PHMSA 000055895

MSRC Spill Response Resources
Oil Spill Response Resources Cascade Planning Schedule

PORTLAND, ME
9/11/2007

EAST

					MSRC RESOURCES														STARs RESOURCES														CUMULATIVE CAPACITY													
Resource Area	Asset	Miles	Mob. Factor	Time (hours)	Skimmers	EDRC (bpd)	SBS	TSB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)	Skimmers	EDRC (bpd)	SBS	TSB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)	Skimmers	EDRC (bpd)	SBS	TSB	Water TS (bbls)	Land TS (bbls)	Vac Trucks	Frac Tanks	Small Boats < 18'	Small Boats > 18'	Large Boats	Ocean Boom (ft)	Inland Boom (ft)	R&C Boom (ft)	Total Boom (ft)
Louisville, KY	Site	1056	2.0	33.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	476	5	0	0	0	0	0	0	0	0	0	0	0	0	0	476	5	0	0	0	0	0	0	0	0
Whiting, IN	Site	1071	2.0	33.4	1	905	1	0	400	0	0	0	0	1	0	60	0	60	7	2,331	0	0	0	5,495	50	4	16	3	0	0	11,400	800	12,200	8	3,236	1	0	400	5,971	55	4	16	4	0	0	11,460	800	12,260
Charleston, SC	Site	1083	2.0	33.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1,165	0	2	124	1,310	8	0	10	9	0	0	8,700	1,400	10,100	10	4,401	1	2	524	7,281	63	4	26	13	0	0	20,160	2,200	22,360
Savannah, GA	Site	1129	2.0	34.6	6	9,570	2	13	9,800	65	0	0	0	2	8,140	3,060	0	11,200	2	720	0	4	3,333	341	4	0	13	3	0	0	15,800	0	15,800	18	14,691	3	19	13,657	7,687	67	4	39	18	0	8,140	39,020	2,200	49,360
Chattanooga, TN	Site	1138	2.0	35.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	480	0	0	0	190	2	0	3	1	0	0	2,000	130	2,130	19	15,171	3	19	13,657	7,877	69	4	42	19	0	8,140	41,020	2,330	51,490
Evansville, IN	Site	1172	2.0	36.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	720	0	0	0	690	3	0	0	1	0	0	900	0	900	21	15,891	3	19	13,657	8,567	72	4	42	20	0	8,140	41,920	2,330	52,390
Decatur, AL	Site	1264	2.0	38.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	342	0	0	0	0	0	0	2	0	0	0	1,900	0	1,900	22	16,233	3	19	13,657	8,567	72	4	44	20	0	8,140	43,820	2,330	54,290
Roxana, IL	Site	1266	2.0	39.1	1	1,371	1	0	400	0	0	0	0	1	0	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	17,604	4	19	14,057	8,567	72	4	44	21	0	8,140	43,880	2,330	54,350
St. Louis, MO	Site	1272	2.0	39.4	2	685	0	0	0	0	0	0	8	3	0	7,000	0	7,000	2	685	0	0	0	0	0	0	8	3	0	0	7,000	0	7,000	27	18,974	4	19	14,057	8,567	72	4	60	27	0	8,140	57,880	2,330	68,350
Mitchell, IL	Site	1274	2.0	39.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	240	0	0	0	1,619	17	0	1	0	0	0	0	0	0	28	19,214	4	19	14,057	10,186	89	4	61	27	0	8,140	57,880	2,330	68,350
Paducah, KY	Site	1274	2.0	39.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	240	0	0	0	423	4	0	1	1	0	0	2,750	900	3,650	29	19,454	4	19	14,057	10,609	93	4	62	28	0	8,140	60,630	3,230	72,000
Port Canaveral, FL	Site	1419	2.0	43.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	795	6	0	4	2	0	0	4,600	0	4,600	29	19,454	4	19	14,057	11,404	99	4	66	30	0	8,140	65,230	3,230	76,600
Memphis, TN	Site	1419	2.0	43.5	1	905	1	0	400	0	0	0	0	1	0	60	0	60	6	1,440	0	2	119	820	2	1	8	3	0	0	4,000	1,300	5,300	36	21,799	5	21	14,576	12,224	101	5	74	34	0	8,140	69,290	4,530	81,960
Pensacola, FL	Site	1516	2.0	46.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	171	0	0	0	174	1	0	2	1	0	0	5,800	0	5,800	37	21,970	5	21	14,576	12,398	102	5	76	35	0	8,140	75,090	4,530	87,760
Mobile, AL	Site	1523	2.0	46.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	308	0	0	10,000	5,374	8	0	9	6	0	1,000	9,500	0	10,500	38	22,278	5	21	24,576	17,772	110	5	85	41	0	9,140	84,590	4,530	98,260
Panama City, FL	Site	1540	2.0	46.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1,645	0	0	0	293	4	0	2	2	0	0	7,200	0	7,200	40	23,923	5	21	24,576	18,065	114	5	87	43	0	9,140	91,790	4,530	105,460
Olathe, KS	Site	1531	2.0	46.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1,109	3	0	2	1	0	0	1,000	300	1,300	42	23,923	5	21	24,576	19,174	117	5	89	44	0	9,140	92,790	4,830	106,760
Little Rock, AR	Site	1555	2.0	47.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	500	0	0	0	70	1	0	1	0	0	0	1,000	500	1,500	43	24,423	5	21	24,576	19,244	118	5	90	44	0	9,140	93,790	5,330	108,260
Fort Myers, FL	Site	1600	2.0	48.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	1	0	1	0	0	0	900	0	900	43	24,423	5	21	24,576	19,299	119	5	91	44	0	9,140	94,690	5,330	109,160
Witchita, KS	Site	1705	2.0	51.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	0	0	2	0	0	0	200	250	450	43	24,423	5	21	24,576	19,429	119	5	93	44	0	9,140	94,890	5,580	109,610
Great Bend, KS	Site	1790	2.0	54.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	0	0	0	0	0	0	500	0	500	43	24,423	5	21	24,576	19,548	119	5	93	44	0	9,140	95,390	5,580	110,110
North Platte, NE	Site	1817	2.0	54.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	166	2	0	1	0	0	0	800	0	800	43	24,423	5	21	24,576	19,714	121	5	94	44	0	9,140	96,190	5,580	110,910
Portland, ME, Maine Responder	OSRV	0	2.0	2.0	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	34,990	5	21	38,576	19,714	121	5	94	45	0	10,460	96,190	5,580	112,230
Edison, NJ, New Jersey Responder	OSRV	320	2.0	28.7	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	45,557	5	21	52,576	19,714	121	5	94	46	0	11,780	96,190	5,580	113,550
Chesapeake City, MD Delaware Responde	OSRV	475	2.0	41.6	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	56,124	5	21	66,576	19,714	121	5	94	47	0	13,100	96,190	5,580	114,870
Virginia, Beach, Virginia Responder	OSRV	528	2.0	46.0	1	10,567	0	0	14,000	0	0	0	0	1	1,320	0	0	1,320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	66,691	5	21	80,576	19,714	121	5	94	48	0	14,420	96,190	5,580	116,190
Virginia Beach, VA - OSRB	OSRB	528	2.5	68.5	1	15,840	0	0	68,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	82,531	5	21	148,576	19,714	121	5	94	48	0	14,420	96,190	5,580	116,190
Savannah, GA - OSRB	OSRB	987	2.5	125.9	2	26,407	0	0	35,000	0	0	0	0	1	1,320	0	0	1,320	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	108,938	5	21	183,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Portland, ME - OSRB	OSRB	0	2.5	2.5	1	15,480	0	0	62,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	124,418	5	21	245,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Edison, NJ - OSRB	OSRB	320	2.5	42.5	1	15,840	0	0	52,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	140,258	5	21	297,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Chesapeake City, MD - OSRB	OSRB	475	2.5	61.9	1	15,840	0	0	40,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	156,098	5	21	337,576	19,714	121	5	94	48	0	15,740	96,190	5,580	117,510
Portland, ME Bige ow Bight	OSRV	0	2.0	2.0	2	2,714	0	0	0	0	0	0	0	0	1,050	0	1,050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	158,812	5	21	337,576	19,714	121	5	94	48	0	15,740	97,240	5,580	118,560

Notes
(1) FOR INTERNAL MSRC PLANNING PURPOSES ONLY. INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
(2) Mobilization times and speed of advance assumptions are estimates only and may vary from Coast Guard planning assumptions. Actual mobilization times/speeds wi l vary from site to site and from resource to resource, e.g., depending on local conditions inc uding availability of contractors, and also traffic, weather, safe navigation and other conditions permitting.
(3) Specifics provided re resources (EDRC, storage capacity, etc.) are not performance guarantees or warranties. Actual recovery rates, storage capacities, etc. will depend on the specifics of the individual response, the type of oil involved, etc.
(4) The Coast Guard recognizes the MSRC 'Responder' Class OSRVs with a 14,000 barrel of temporary storage planning factor credit due to the vesse s' oi y water waste minimization systems.

PHMSA 000055896

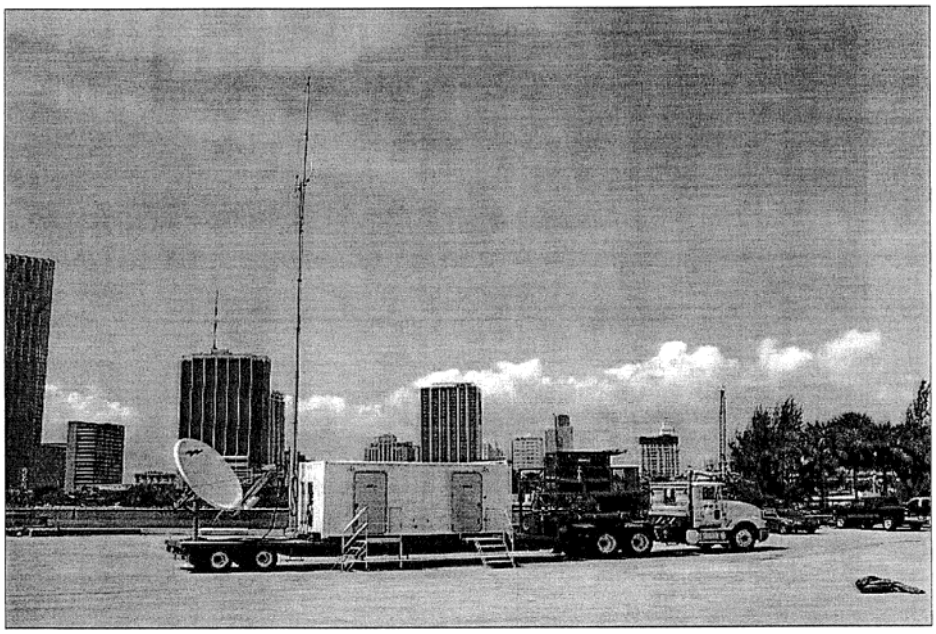
MOBILE COMMUNICATIONS SUITE

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

Components

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

Number of Operators Required: 5-10 depending on operations



MSRC COMMUNICATIONS

WAREHOUSE

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

ME Responder

On Bridge

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

RHIBS

2	Marine VHF Radios	all	one on each RHIB

COMM"S ROOM

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

Munson Support Boat 1-1

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

MSRC-620

MSRC-1-16

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

CCB Heritage Vessels

Saddleback

		All	
1	Motorola M1225	MSRC 1-4	

Katahdin

		All	
1	Motorola M1225	MSRC 1-4	

Crocker

		All	
1	Motorola M1225	MSRC 1-4	

Cadillac

		All	
1	Motorola M1225	MSRC 1-4	

Agamenticus

		All	
1	Motorola M1225	MSRC 1-4	

MSRC Frequency Assignments

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

MSRC REGION 1 RESPONSE EQUIPMENT FACTSHEETS

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

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

PUMPS
DESMI DOP-250
EUREKA CCN-150

VESSELS
OSRV
32' SUPPORT BOAT

SPECIAL BOOMS
VIKOMA 3 WEIR BOOM
FIOCS 800 NORWEGIAN OIL TRAWL

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

HYDRAULIC POWER UNITS
TYPE I, TYPE II, TYPE III

STORAGE FACILITIES
SHUTTLE BARGE SYSTEM
TOWABLE STORAGE BLADDERS

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

LOGISTICAL CONCERNS

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

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OPERATIONAL CONCERNS

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

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

ACRONYMS:

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

DESMI OCEAN SKIMMER

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

Quantity - 2 Systems

Location - Regional Response Center

Specifications -

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

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

Packaging - Per system

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

Total System Weight - 9530 lbs **Total System Required Deck Area - 132.3 sq. ft.**

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

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

WP-1 SKIMMER

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

Quantity - 1 System

Location - Portland, Maine

Specifications-

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

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

Packaging - Per system

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

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

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

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

GT-185 STATIONARY WEIR SKIMMER

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

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

Quantity - 8 Systems

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

Specifications -

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

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

Packaging-Per system

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

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

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

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

WALOSEP W-4 SKIMMER

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

Quantity - 2 Systems

Location - Regional Response Center and Delaware Bay

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

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

Packaging - Per system

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

Total System Weight - 12,182 lbs **Total System Required Deck Area - 145.16 sq. ft.**

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

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

AARDVAC 800 VACUUM SKIMMER

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

Quantity - 2 Systems

Location - Regional Response Center and Norfolk, Virginia

Specifications-

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

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

Packaging-Per system

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

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

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

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

SEAWOOLF SKIMMER

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

Quantity - 1 System

Location - Regional Response Center

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

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

Packaging -Per system

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

Total System Weight - 11,746 lbs **Total System Required Deck Area - 181.2 sq ft.**

==========

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

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

TRANSREC 350 OIL RECOVERY SYSTEM

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

Quantity - 4 Systems

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

Specifications-

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

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

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

==========

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

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

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

23-44 SEA SENTRY II OIL CONTAINMENT BOOM

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

Quantity - 30,360 Feet

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

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

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

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

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

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

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

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

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

==========

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

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

SLICKBAR MARK 7 - 24" HEAVY DUTY BOOM

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

Quantity - 12,000 Feet

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

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

Packaging - 1000 Feet of Slickbar MK-7 per system

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

Total System Weight - 11,810 lbs

Total System Required Deck Area - 175.58 sq ft.

==========

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

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

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

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

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

Quantity - 8,000 Feet

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

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

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

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

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

==========

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

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

VIKOMA 3-WEIR BOOM

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

Quantity - 2 Systems

Location - Regional Response Center

Specifications -

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

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

Packaging - Per system (Port or Starboard)

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

Total System Weight - 31,640 lbs

Total System Required Deck Area - 233.47 sq. ft.

==========

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

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

(FIOCS) 800 NORWEGIAN OIL TRAWL

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

Quantity - 4 Systems

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

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

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

Packaging - Per system

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

Total System Weight - 20,600 lbs

Total System Required Deck Area - 133 sq. ft

==========

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

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

EUREKA CCN-150 OFF LOADING PUMP

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

Quantity - 5 Pumps

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

Specifications -

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

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

Packaging - Per system

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

Total System Weight - 6,575 lbs

Total System Required Deck Area - 48.95 sq ft.

==========

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

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

DESMI DOP 250 PUMP

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

Quantity - 18 Pumps

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

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

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

Packaging - Per system

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

Total System Weight- 6,197 lbs

Total System Required Deck Area - 46.7 sq ft.

==========

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

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

PORTABLE HYDRAULIC POWER UNITS
TYPES I, II, III

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

Quantity -

Type I	15
Type II	16
Type III	11

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

Specifications -

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

==========

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

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

MSRC TOWABLE STORAGE BLADDERS

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

Quantity - 4 Towable Storage Bladders

Location - Regional Response Center

Specifications - Dimensions:

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

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

Packaging

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

==========

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

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

SHUTTLE BARGE SYSTEM

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

Quantity - 2 Shuttle Barge Systems

Location - Regional Response Center and Norfolk, Virginia.

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

Auxiliary Equipment

Thrustmaster	Power Plant	3208 Caterpillar
	Weight	11,000 pounds

Crane — **Maximum Lift**

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

Packaging - Per System

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

==========

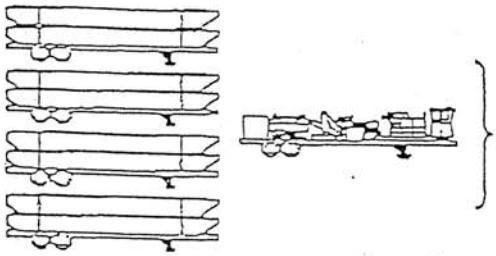
Handling - The shallow barges are to only be used within one mile of shore. Each shuttle barge is composed of two identical pontoon sections which are joined together by means of a locking mechanism. Pontoons may not operate independently

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

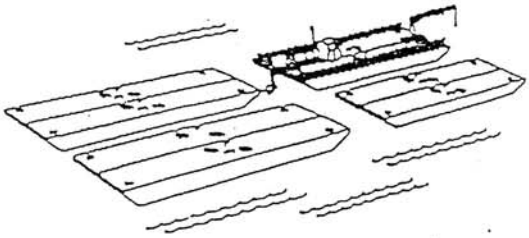
MSRC Shuttle Barge System *(SBS)* For Shallow Water Response

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

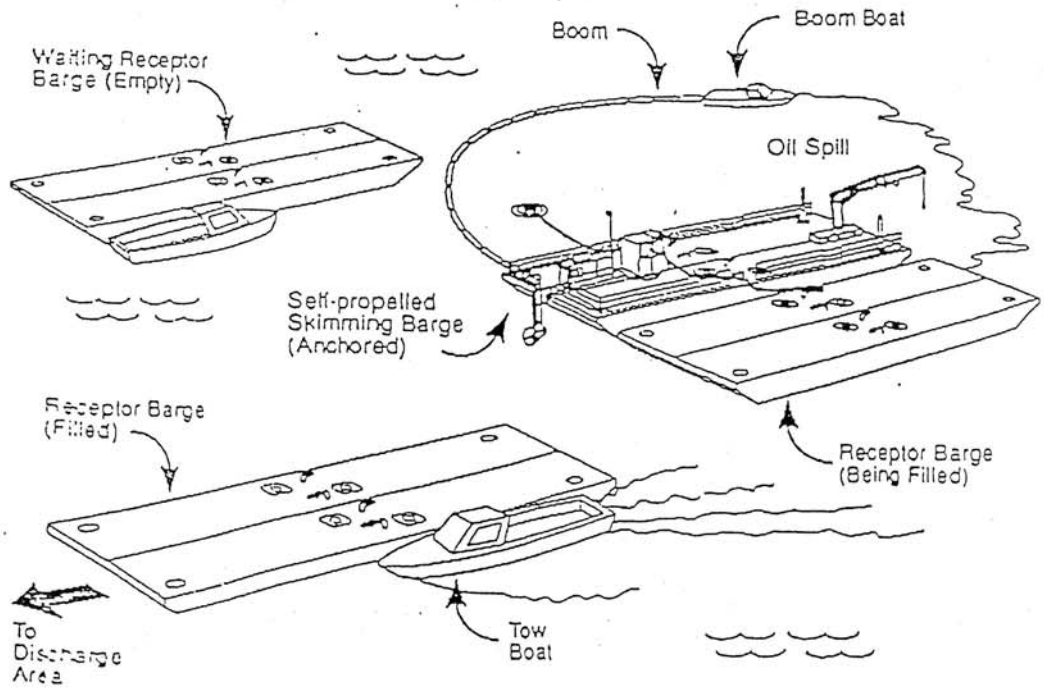
MSRC will preposition 17 Shuttle Barge Systems along the coastal United States, as well as Hawaii and the Virgin Islands. Each site will have a complete *SBS* with barges, boats, booms and ancillary equipment.



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



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



MSRC

MARINE SPILL RESPONSE CORPORATION

OFF SHORE RESPONSE VESSEL (OSRV)

CHARACTERISTICS

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

AUXILIARY EQUIPMENT:

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

2 - 32' SUPPORT BOATS-STERN LAUNCHED

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

1 - HELICOPTER LANDING PAD

1 - TRANSREC 350 SKIMMER-STERN MOUNTED

* RHIB- RIGID HULL INFLATABLE BOAT

OSRV 32' SUPPORT BOAT

CHARACTERISTICS

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

12 POWER PACK

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

Description

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

30K POWER PACK

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

Description

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

AGAMENTICUS/CADILLAC

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

Description

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

Deck Equipment & accessories

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

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

ALUMINUM STORAGE BARGES

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

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

ALUMINUM STORAGE BARGES, cont.

DESMI 250 SKIMMER

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

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

Description

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

Handling / Operation

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

DESMI 250 SKIMMER, cont.

DIESEL AMERICA POWER PAK

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

Description

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

ELASTIC TDS 136 DRUM SKIMMER

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

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

Operators Required	1

Description

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

Handling / Operation

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

ELASTIC TDS 136 DRUM SKIMMER, cont.

HERITAGE BOOM

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

KATAHDIN/CROCKER

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

Description

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

Deck Equipment & accessories

◆1000# lifting davit; ◆ 6' bow door; ◆ 3'9" port side door; ◆ 6" towing bitt
Standard complement of marine electronics; including GPS, RADAR, depth sounder & marine radios

LSC LORI SIDE COLLECTOR

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

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

Operators Required	4

Description

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

Handling / Operation

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

LSC LORI SIDE COLLECTOR, cont.

RO-CLEAN OIL MOP 260

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

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

Operators Required	1

Description

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

Handling / Operation

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

RO-CLEAN OIL MOP 260, cont.

SADDLEBACK

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

Description

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

Deck Equipment & accessories

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

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

SKIM-PAK 1800 WEIR SKIMMER

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

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

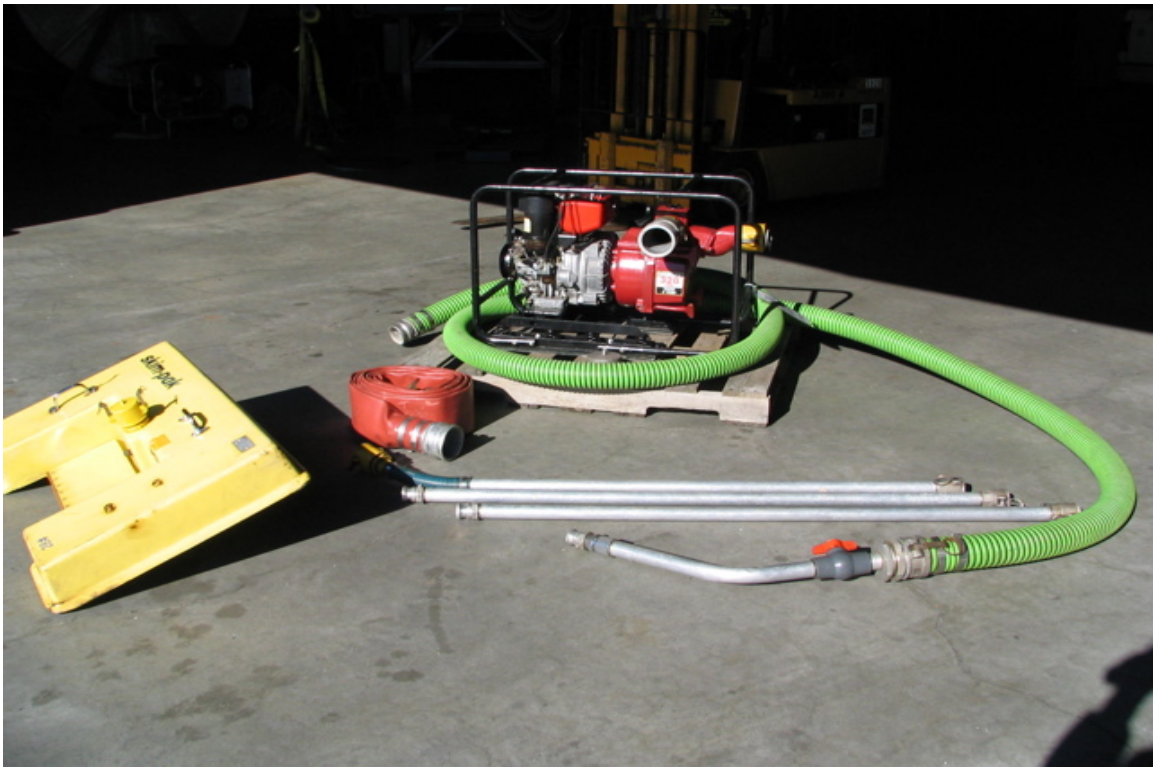
Operators Required	1

Description

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

Handling / Operation

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



UNIVERSAL POWER PAK

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

Description

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

VIKOMA KOMARA SKIMMERS

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

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

Operators Required	2

Description

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

Handling/Operation

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

VIKOMA KOMARA 12K & 30K SKIMMERS/ POWER PACKS

VIKOMA SEA DEVIL

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

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

Operators Required	2

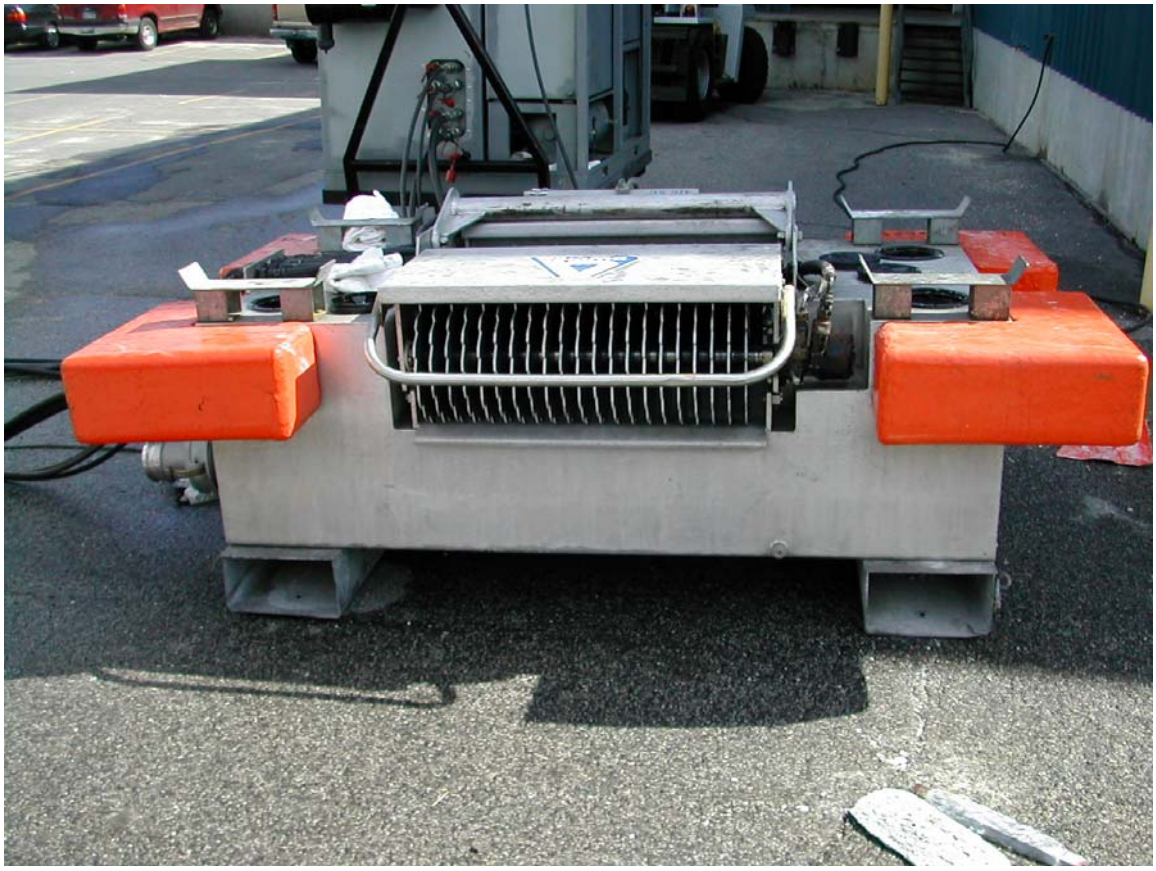
Description

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

Handling/Operation

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

VIKOMA SEA DEVIL, cont.



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

CleanHarbors®
ENVIRONMENTAL SERVICES, INC.

17 Main Street
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,

Matthew A. Quinn
General Manager

"People and Technology Creating a Better Environment"

SOUTH PORTLAND, ME SERVICE CENTER **17 Main Street** **South Portland, ME 04106**	**43.64 N 70.29 W**	**24-Hr. #** **24-Hr. #** **Fax #**	**207.799.8111** **800.645.8265** **207.799.0349**

Matt Quinn, General Manager

EPA / Federal ID #: N/A

Personnel Authorized to release equipment / materials / manpower, etc:

Matt Quinn
Jack Vallely
Ken Burbank

40-Hour OSHA Trained Personnel:

Supervisor	6
Foreman	6
Field Technician	12
Equipment Operator	11
Site Safety Officer	1

Equipment List

Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
(1) Vessels & Marine Support Equipment							
Power Workboat, Workskiff	South Portland	21', 115HP, V329	1	Y	Y	N	N
Power Workboat, Pointer	South Portland	21', 120 HP, ME 207SY, V120	1	Y	Y	N	N
Jon Boat w/ Motor, Alumaline	South Portland	12', 9.9 HP, ME 107CH, V201	1	Y	Y	N	N
Jon Boat w/ Motor	South Portland	12', 5 HP, SEAP7313M84G	1	Y	Y	N	N
Power Workboat, Trailboss	South Portland	20', 30 HP, ME10ZMM, V148	1	Y	Y	N	N
Power Workboat, Monarch	South Portland	22', 150 HP, ME 10ZML, 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.	2	Y	Y	N	N
Vacuum Split Trailers	South Portland	6,000 gal	1	Y	Y	N	N
Vacuum Trailer	South Portland	6,000 gal	3	Y	Y	N	N
High Powered Vacuum Loader, Cusco	South Portland	3,000 gal / 10 cu. yd.	1	Y	Y	N	N
Vacuum Skid	South Portland	3,000 gal	1	Y	Y	N	N
Vacuum Skid	South Portland	300 gal	1	Y	Y	N	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	Y	Y	N	N
Spill Trailer	South Portland		1	Y	Y	N	N
10 Wheel Dump Truck	South Portland	10 yards	1	Y	Y	N	N
Roll Off Truck	South Portland	15 Yards	1	Y	Y	N	N
6 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	P	D
(3) Pumps and Pressure Equipment							
Wilden Diaphragm Pump	South Portland	2"	2	Y	Y	N	N
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	Y	Y	N	N
Bowie 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							
Oil Containment Boom	South Portland	Global 14", In Water	2000	Y	Y	N	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	N
Oil Containment Boom	South Portland	American Marine 18", In Van	19500	Y	Y	N	Y
Oil Containment Boom	South Portland	Global 24", In Water	1100	Y	Y	N	N
(5) Environmental Monitoring Equipment							
HNU Meter	South Portland	P101	1	Y	Y	N	N
MSA Gas Indicator	South Portland	Miniguard II	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	1	Y	Y	N	Y
Drum Skimmer, Crucial	South Portland	TDS118, 3", 35 GPM, TDS11899336, S214	1	Y	Y	N	Y
(7) Beach or Earth Cleaning and Excavating Equipment							
Excavator, CAT	South Portland	235 Track	1	Y	Y	N	N
Backhoe, CAT	South Portland	436	1	Y	Y	N	N
Bobcat	South Portland	843, Skidsteer	1	Y	Y	N	N
(8) Generators / Compressors / Light Towers							
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	N	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		20	Y	Y	N	N

Equipment List Cont. Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	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	Y	Y	N	N
Company Base Radio	South Portland	Nextel	1	Y	Y	N	N
(11) Miscellaneous							
Emergency Response Subcontractors							

Portland Tugboat & Ship Docking Co., Inc.
P.O. Box 15049
Portland, Maine 04112
(207) 774-2902
(207) 773-5659

Contact:
Arthur Fournier
Brian Fournier

Services Provided:
Tug Boat Services

Winslow Tugs
26 Andrews Avenue
Falmouth, Maine 04105
(207) 780-8847

Contact:
Dave Winslow

Services Provided:
Tug Boat Services

General Marine Constructers
Deaks Wharf
Portland, ME 04101
(207) 772-5354

Contact:
Roger Hale

Services Provided:
Barge and tug boat

Industrial Welding & Machine, Inc.
430 Commercial Street - P.O. Box 1004
Portland, Maine 04104
(207) 773-8482
(207) 767-3561 Nights and Holidays

Contact:

Services Provided:
Welding service

National Response Corp
P.O. Box 7210
Portland, Maine 04112
(207) 767-7112

Contact:
Joe McCarthy

Services Provided:
Barge skimmer Service

Marine Spill Response Corp.
14 Union Wharf
Portland, Maine 04101
(207) 780-8801

Contact:
Tom Gallant

Services Provided:
Large boat , skimmer service

BANGOR, ME SERVICE CENTER	**44.78 N 68.81 W**	**24-Hr #**	**207.262.9504**
40B Carey Circle		**24-Hr #**	**800.645.8265**
Hampden, ME 04444		**Fax #**	**207.262.9560**

Jeff Small, General Manager
Jason Babbidge, Field Specialist

EPA / Federal ID #: N/A

Personnel Authorized to release equipment / materials / manpower, etc:

Jeff Small
Jason Babbidge

40-Hour OSHA Trained Personnel:

Supervisor	2
Foreman	5
Equipment Operator	5
Field Technician	7

Equipment List **Item Description / Manufacturer**	**Location**	**Capacity / Size / Key Features**	**# of Units**	**A**	**T**	**P**	**D**
(1) Vessels & Marine Support Equipment							
Utility Workboat, Pointer	Bangor	115 HP, 21', 8' Beam, 2' Draft, ME1408V, V124 (PVT20784D787)	1	Y	Y	N	N
utility Workboat, Pointer	Searsport	175 HP V350	1	Y	Y	N	N
Jon Boats	Bangor	16 ft (3)14 ft (1) V390,V372, V379, V391	4	Y	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 8921, 8652, 8779	3	Y	Y	N	N
Dump truck 1 ton	Bangor	4x4 3yrd dump ch5412 5412	1	Y	Y	N	N
Crew Cab Pickup	Bangor	3/4 Ton 8771, 8644, 8903	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 Gal Capacity 333	1	Y	Y	N	N
Tractor power unit	Bangor	Tandem 1497	1	Y	Y	N	N
Tractor power unit	Bangor	Tandem	1	Y	Y	N	N
Vacuum Truck	Bangor	3,000 Gal Capacity 4109	1	Y	Y	N	N
(3) Pumps and Pressure Equipment							
Hotsy Pressure Washer	Bangor	3,000 PSI - trailer mounted	1	Y	Y	N	N
Wilden Diaphragm Pump	Bangor	2" Oil	5	Y	Y	N	N
Wilden Diaphragm Pump	Bangor	3" Oil	1	Y	Y	N	N
Air Driven Drum Pump	Bangor	2" Air Driven	2	Y	Y	N	N
Hotsy Pressure Washer	Bangor	3000 psi	2	Y	Y	N	N
(4) Oil Spill Containment Booms							
Oil Containment Boom	Bangor	Langerman 18" (10ft trailer)	1000	Y	Y	N	Y
Oil Containment Boom	Bangor	14"	500	Y	Y	N	Y
(5) Environmental Monitoring Equipment							
Drager Pump	Bangor	with Miscelaneous Tubes	1	Y	Y	N	N
Passport 5 gas meter	Bangor		3	Y	Y	N	N
(6) Recovery Equipment							
Portable Tanks	Bangor	300 Gallons Stainless Steel	2	Y	Y	N	N
Portable Tanks	Bangor	275 Gallon Poly tote	2	Y	Y	N	N
Skid Mount Vacuum Unit	Bangor	1000 gallon CH213	1	Y	Y	N	N

Equipment List Cont. Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
(7) Beach or Earth Cleaning and Excavating Equipment							
(8) Generators / Compressors / Light Towers							
Sullair Compressor	Bangor	Diesel 185 cfm	1	Y	Y	N	N
Generator	Bangor	Honda 2500 watt	1	Y	Y	N	N
Light Towers	Bangor	Electric 4' high	1	Y	Y	N	N
(9) Health and Safety Equipment							
Portable Eye Wash Unit	Bangor		1	Y	Y	N	N
Scott Supplied Air System	Bangor		3	Y	Y	N	N
Scott Pak	Bangor		2	Y	Y	N	N
Rogliss & Tripod	Bangor		2	Y	Y	N	N
Safety Harness	Bangor		12	Y	Y	N	N
DBI & Tripod	Bangor		2	Y	Y	N	N
(10) Communications							
Cellular Phones	Bangor		11	Y	Y	N	N
Marine Base Station	Searsport		1	Y	Y	N	N
(11) Miscellaneous							
Emergency Response Subcontractors							

Subcontractor Name **Contact:** **Services Provided:**
Address 1
Address 2
Phone #

Subcontractor Name **Contact:** **Services Provided:**
Address 1
Address 2
Phone #

Subcontractor Name **Contact:** **Services Provided:**
Address 1
Address 2
Phone #

Subcontractor Name **Contact:** **Services Provided:**
Address 1
Address 2
Phone #

BOSTON, MA AREA SERVICE CENTER	**42.19 N 70.93 W**	**24-Hr. #**	**781.803.4100**
609 Pleasant Street		**24-Hr. #**	**800.645.8265**
Weymouth, MA 02189		**Fax #**	**781.803.4168**

Tom Kelley, General manager

EPA / Federal ID #: N/A

Personnel Authorized to release equipment / materials / manpower, etc:

Steve Ritucci
Tom Kelley
Harry Davidson
Mark Purcell
John Barry

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**	**T**	**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	Y	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							
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/Guzzler	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	N
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	Y	N	N

Equipment List Cont. Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	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	1"	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	Y	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	Y	N	N
Cat Excavator	Weymouth	Cat 315 Track	1	Y	Y	N	N
Bobcat Mini Excavator	Weymouth	337 Mini	1	Y	Y	N	N

Equipment List Cont. Item Description / Manufacturer	Location	Capacity / Size / Key Features	# of Units	A	T	P	D
(8) Generators / Compressors / Light Towers							
Sullair Portable Compressor	Weymouth	185 Diesel	5	Y	Y	N	N
Winco Generator	Weymouth	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	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	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	Weymouth	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

Boston Line & Service Co. Black Falcon Cruise Terminal 1 Black Falcon Ave. Boston, MA 02210 (617) 951-9957	**Contact:** Barry M. Cox John J. Rinkus Tim Shea Paul Fratic	**Services Provided:** Tug, Boom & Barge services
Boston Towing and Transportation 36 New Street East Boston, MA 02128 (617) 567-9100 (617) 567-5896 FAX	**Contact:** Phillip K. Chase, GM	**Services Provided:** Tug Boat Services
City Lights Electrical Co., Inc. 556 East Broadway South Boston, MA 02127 Tel # (617) 269-5777 Fax # (617) 269-7616	**Contact:** MaryAnne Cataldo	**Services Provided:**
Tino's Tow Service 61 Copeland Street Quincy, MA 02169 (617) 472-0655	**Contact:**	**Services Provided:** Transportation
Northeast Diving Services, Inc. 28 West Narragansett Avenue Newport, RI 02840 (401) 841-0446	**Contact:**	**Services Provided:** Divers

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)

Transport Canada | Transports Canada

This attests that

Ceci atteste que

Eastern Canada Response Corporation Ltd
Société d'intervention maritime, Est du Canada Ltée

is a Certified Response Organization
pursuant to section 169.(1) of the
Canada Shipping Act, 2001

est un Organisme d'intervention agréé
en vertu de la section 169.(1) de la
Loi de 2001 sur la marine marchande du Canada

Maximum capacity of **10,000** Tonnes

Capacité maximale de

Geographical Area of Response

Canadian waters south of 60°N latitude in the provinces of Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Québec, Ontario, Manitoba, Saskatchewan and Alberta, excluding the waters in the primary areas of response associated with the designated ports of Saint John, N.B. and Point Tupper, N.S.

Secteur géographique d'intervention

Les eaux canadiennes au sud du 60° parallèle de latitude nord dans les provinces de Terre-Neuve, de l'île du Prince Edouard, de la Nouvelle Ecosse, du Nouveau Brunswick, du Québec, de l'Ontario, du Manitoba, de la Saskatchewan et de l'Alberta, excluant les eaux du secteur primaire d'intervention pour les ports désignés de St. John, N.B. et Point Tupper, N.S.

Donald Roussel

Director General - Marine Safety and Security - Directeur général - Sécurité et sûreté maritimes

Ottawa, Ontario

Issued at - Délivré à

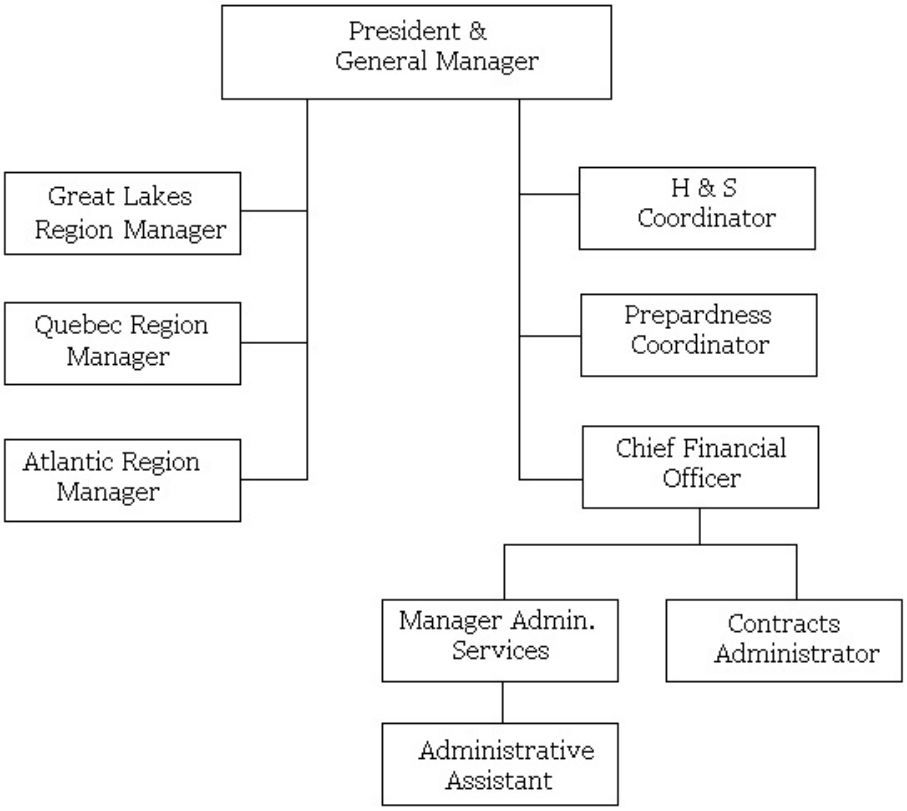
01-11-2016

Expiry date – Date d'expiration
(dd-mm-yyyy/jj-mm-aaaa)

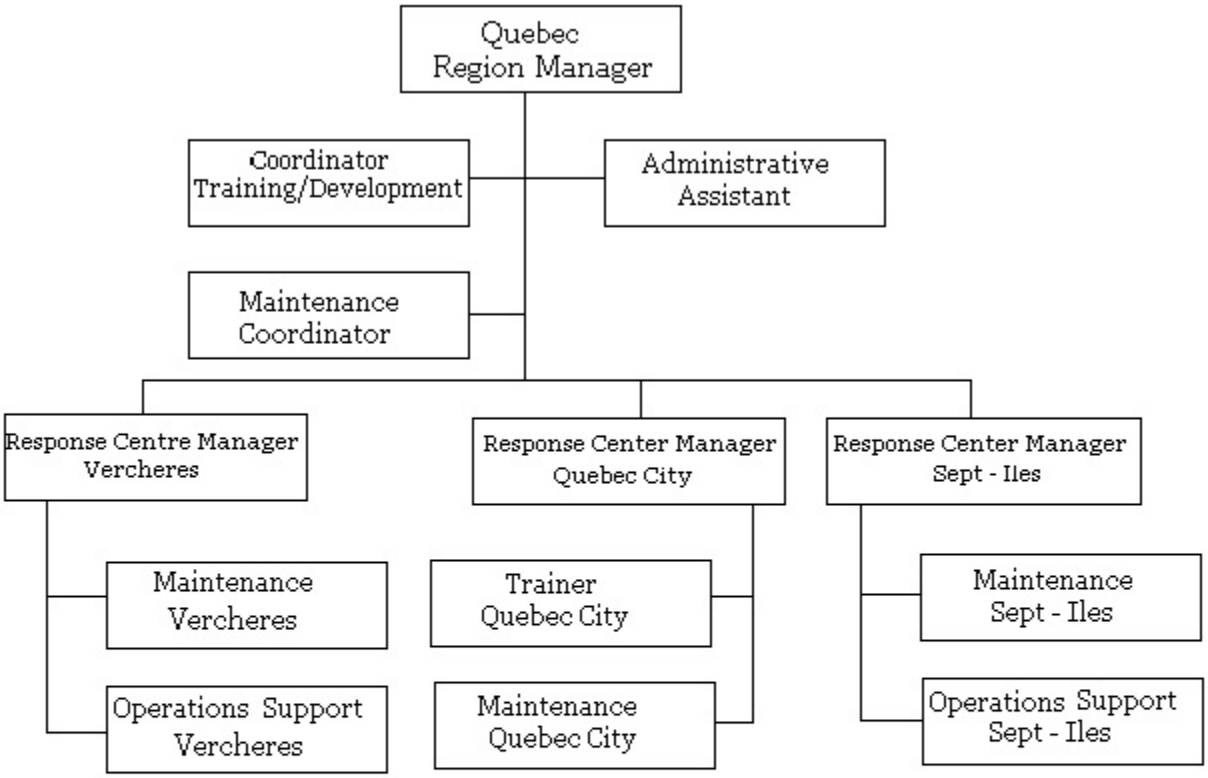
Canada

81-0024 (1309-04)

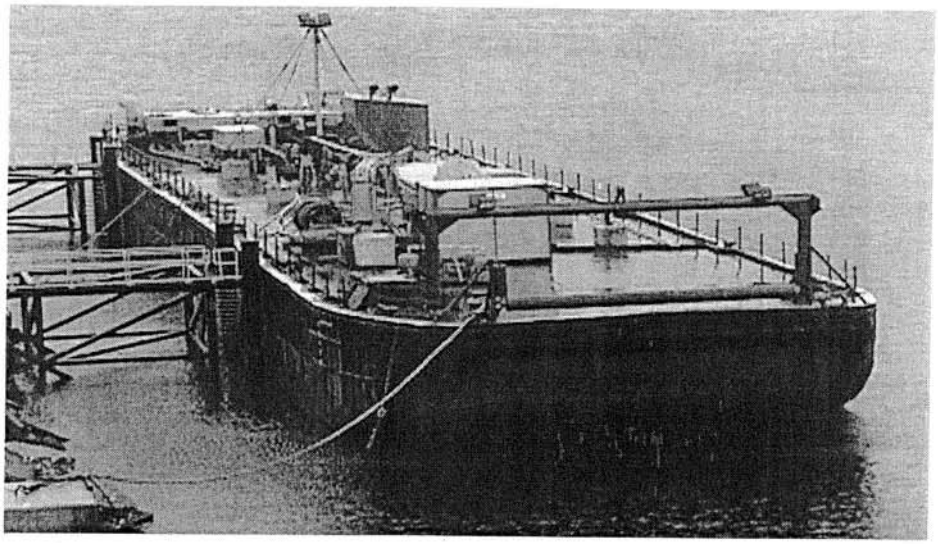
Eastern Canada Response Corporation
Organization Chart



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

Storage Capacity:	2,600 m^3 (16,300 bbls)
Towing speed:	up to 12 knots

Ancillaries

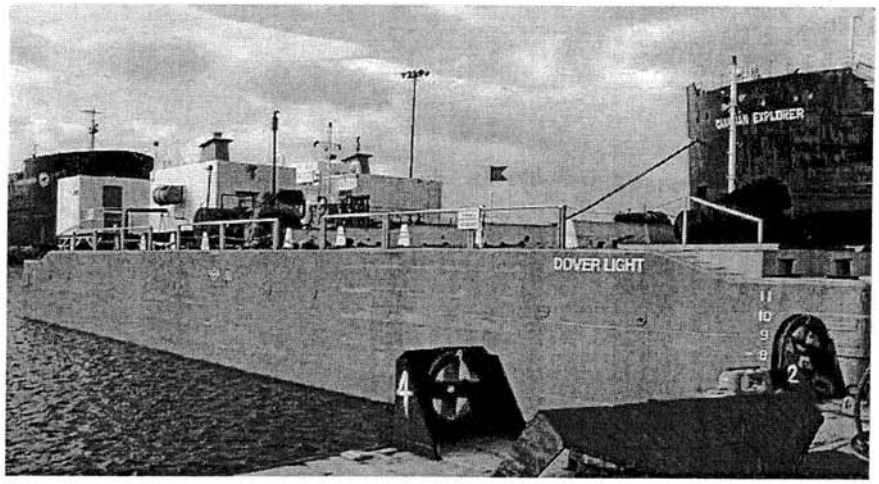
NOFI 600 Vee Sweep system
GT-185 skimmer

Technical data

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

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

BARGE DOVER LIGHT



Inventory

	Great Lakes	Quebec	Atlantic	Total
Total	-	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 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^3. Two compartments are equipped with heating coils. 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

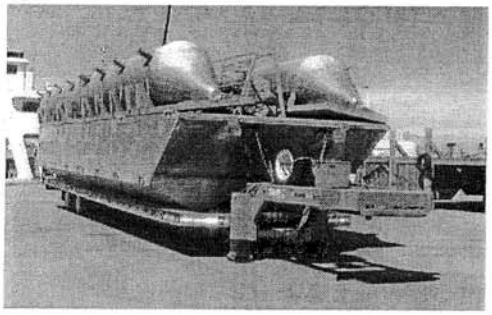
Storage capacity:	1,600 m^3 (10,000 bbls)
Towing speed:	up to 12 knots

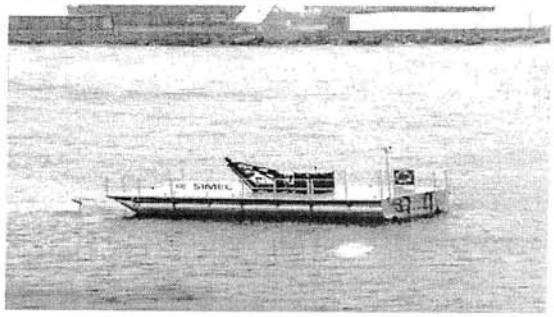
Technical data

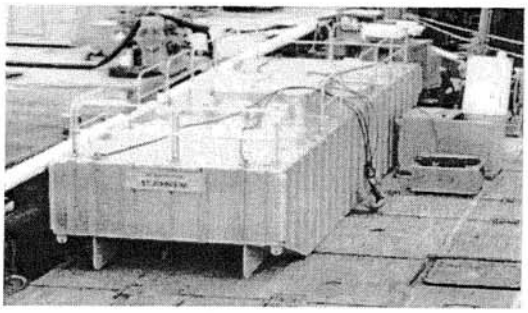
Length:	38.8 m (128 ft)
Beam:	15.1 m (50 ft)
Draught:	3.6 m (12 ft)

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

50 TON STORAGE BARGE







Inventory

	Great Lakes	Quebec	Atlantic	Total
50 tons (pontoons)	-	12	-	12
50 tons	-	-	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^3. 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:	up to 8 knots
Liquid storage capacity:	50 m^3 (310 bbls)
Road transportable	

Ancillaries

For some units:
- Power pack
- Skimmer

Technical data

	With pontoons	No pontoons
Length:	12.2 m (40 ft)	10.9 m (35 ft 9 in)
Width:	6.1 m (20 ft)	3.5 m (11 ft 6 in)
Draught:	0.9 m (3 ft 10 in)	2 m (6 ft 7 in)

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

BARGE ORLEANS

Inventory

	Great Lakes	Quebec	Atlantic	Total
Total	-	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^3. 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

Storage Capacity:	2,100 m^3 (13,200 bbls)
Towing speed:	up to 12 knots

Ancillaries

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)

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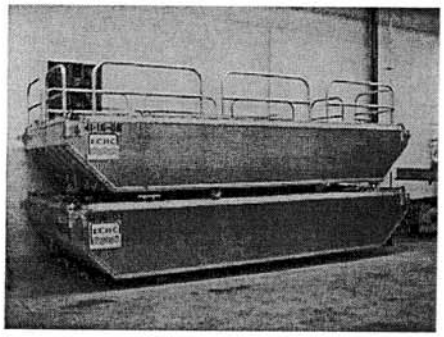
Suite 1201, 275 Slater Street, Ottawa K1P 5H9
Phone (613)-230-7369 Fax (613)-230-7344

SHORELINE DECK BARGE



Inventory

	Greats Lakes	Quebec	Atlantic	Total
20 x 60	-	1	-	1
10 x 25	-	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 (3 ft)	1m (3 ft)	1m (3 ft)

Société d'Intervention Maritime, Est du Canada Ltée
Bureau 1201, 275 rue Slater, Ottawa K1P 5H9
Tél.:(613)-230-7369 Fax :(613)-230-7344

PATROL BOAT 49FT

Inventory

	Great Lakes	Quebec	Atlantic	Total
49 ft patrol	-	2	-	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:	up to 17.5 knots
Run Time:	12 hrs at 2,800 rpm

Technical data

Class:	Home-Trade voyage, class III
Length:	15 m (49 ft)
Draft:	0.9 m (3 ft)
Beam:	5.5 m (17 ft)
Gross tonnage:	17 tons
Engines:	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

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

PATROL BOATS 21 – 24FT

Inventory

	Great Lakes	Quebec	Atlantic	Total
24 ft cabin	-	2	-	2
24 ft open	-	2	-	2
21 ft open	-	2	-	2
Total	-	6	-	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

Speed:	up to 30 knots
Run Time:	6 hrs

Ancillaries

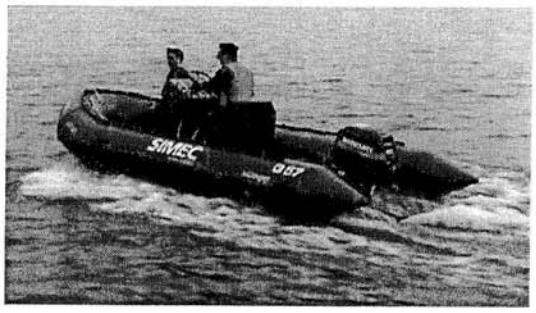
GPS
Depth sounder
Radios

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

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

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

Speed: up to 30 knots

Ancillaries

VHF radio
Some equipped with radar

Technical data

	Hurricane	Zodiak Mark IV	Sillinger 425UM	Sillinger 525UM	Sillinger 570UM
Length:	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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Suite 1201, 275 Slater Street, Ottawa K1P 5H9
Phone (613)-230-7369 Fax (613)-230-7344

SEATRUCKS 30 – 36FT

Inventory

	Great Lakes	Quebec	Atlantic	Total
36 feet	-	-	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 Time: 6 hrs
Road transportable

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

SMALL BOATS 12 –18FT

Inventory

	Great Lakes	Quebec	Atlantic	Total
Small boat 12' alum	-	9	-	9
Small boat 14' alum	-	4	4	8
Small boat 16' punt	1	-	-	1
Small boat 16' alum	1	-	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: up to 10 knots
Outboard motor: 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)

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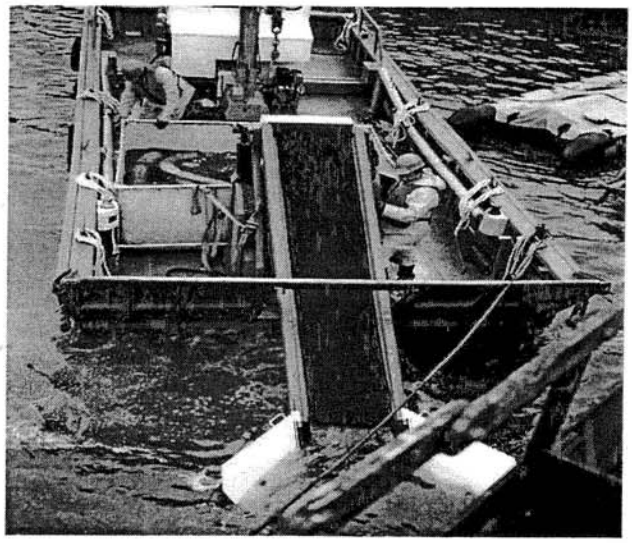
LIBRA BELT SKIMMER



Inventory

	Great Lakes	Quebec	Atlantic	Total
LIBRA	-	5	1	6

Application

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)

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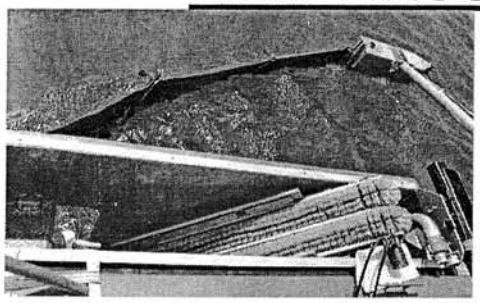
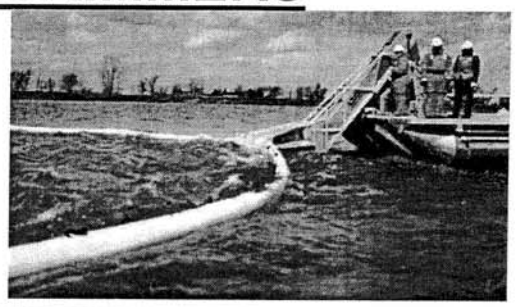
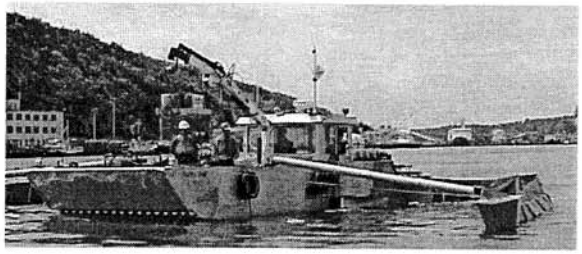
LORI BRUSH SKIMMERS







Inventory

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

Application

Suitable 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

Nominal recovery rate:	from 75 to 200 tons/hr
De-rated recovery rate:	from 15 to 40 tons/hr

Ancillaries

Power pack
Pump
Hoses

Technical data

	LFS	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)

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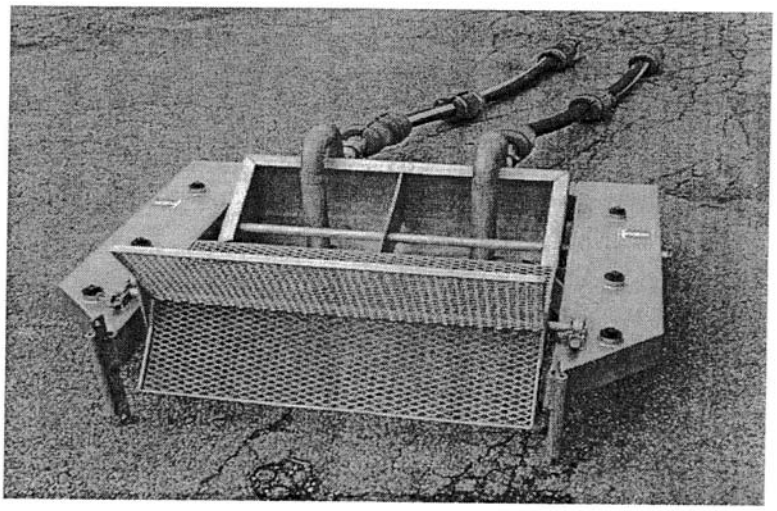
PEDCO SKIMMER



Inventory

	Great Lakes	Quebec	Atlantic	Total
PEDCO	1	8	5	14

Application

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 dependant of the pumping capacity of the pump connected to it.

Operating data

Nominal recovery rate: 75 tons/hr
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 in)
Weight:	55 kg (122 lbs)

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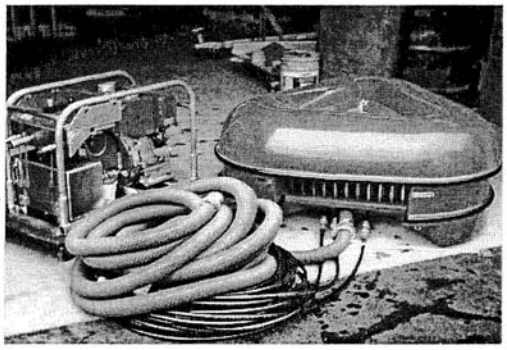
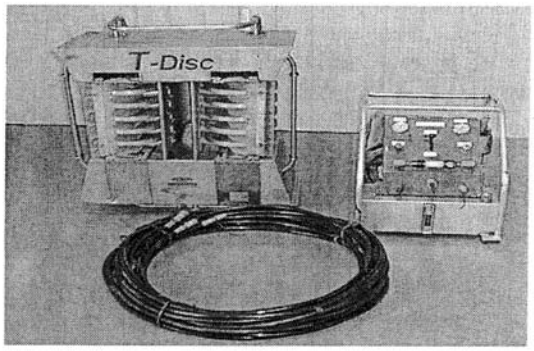
DISC SKIMMERS





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

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

Ancillaries

Hydraulic power pack – diesel
Hydraulic hoses
Discharge hoses

Technical data

	T-12	T-18	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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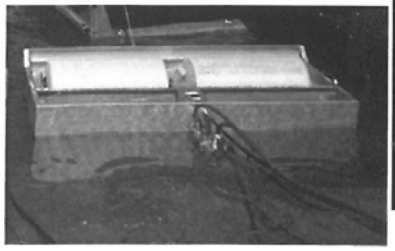
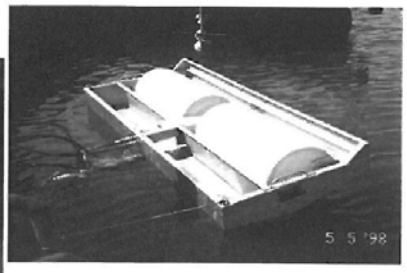
ELASTEC SKIMMER





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 oleophilic 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

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

Ancillaries

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)

ECRC~SIMEC
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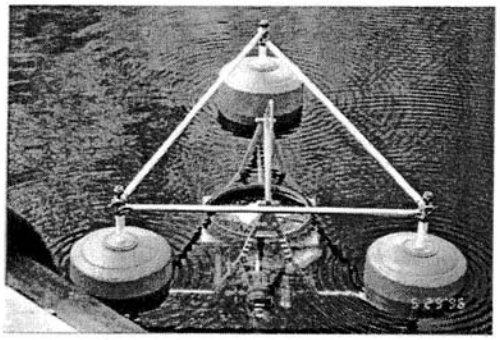
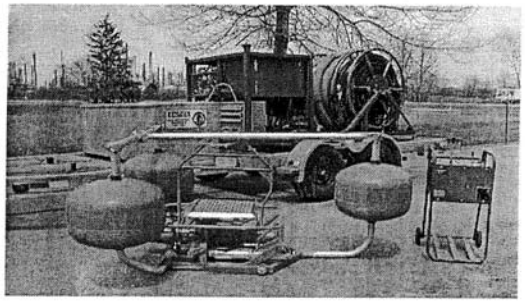
Phone (613)-230-7369 Fax (613)-230-7344
Website: www.ecrc.ca

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

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

Ancillaries

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 in)	2.2 m (7 ft 3 in)	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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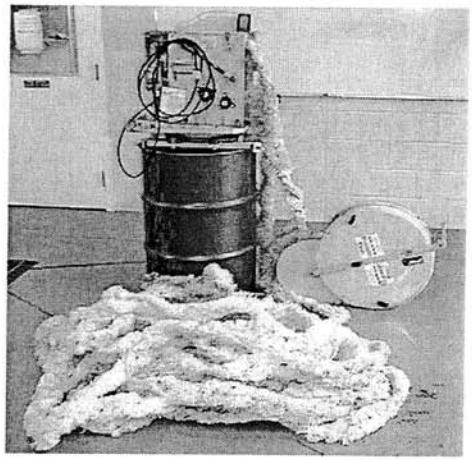
OIL MOP SKIMMERS



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)

Rope mop:

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

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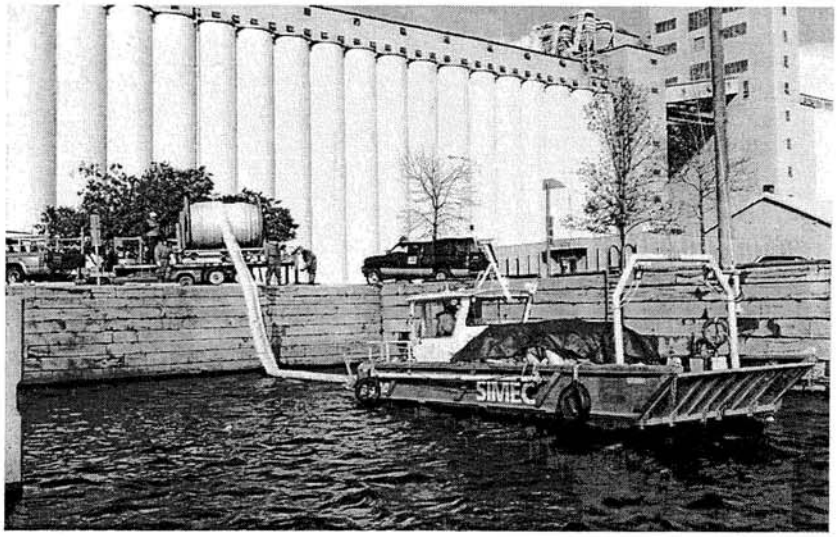
KEPNER BOOM



Inventory

	Great Lakes	Quebec	Atlantic	Total
Open Harbour	1 (450 m)	2 (900 m)	1 (450 m)	4 (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 reel, the boom self-inflates as it comes off the reel, 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.

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)

Ancillaries

Boom reel
Power pack (diesel)
Trailer

Eastern Canada Response Corporation Ltd.
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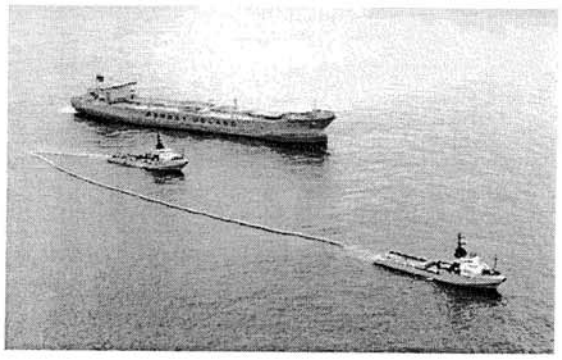
Phone (613)-230-7369 Fax (613)-230-7344

NOFI SWEEP SYSTEMS



Inventory

	Great Lakes	Quebec	Atlantic	Total
NOFI-1000	-	-	1	1
NOFI-600	-	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.

Operating data

	NOFI-600	NOFI-1000
Advancing rate:	1.5 knots max.	1.5 knots max.
Swath width	100 m	200 m

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)

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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 data

Maximum current: 1.5 knots

Ancillaries

Ropes
Anchors
Buoys

Technical data

	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)
Boom draught:	36 cm (14 in)	41 cm (16 in)	61 cm (24 in)

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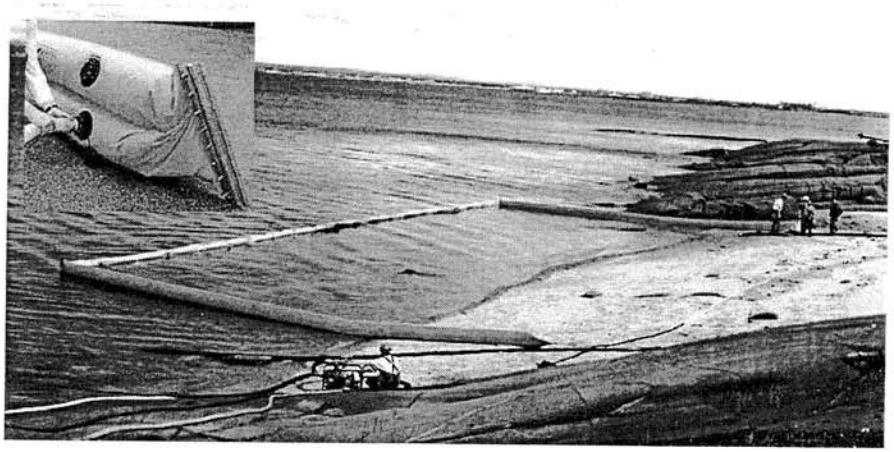
SHORE SEAL BOOM



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 inflated for buoyancy. It is made of a rugged urethane coated fabric for maximum abrasion and puncture resistance.

Technical data

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

Ancillaries

Ropes
Anchors
Buoys

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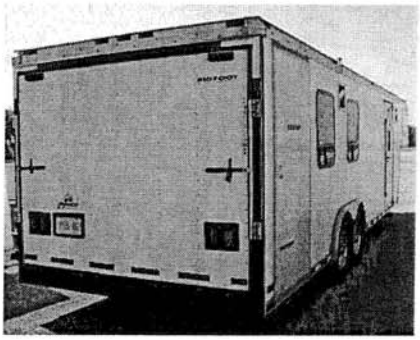
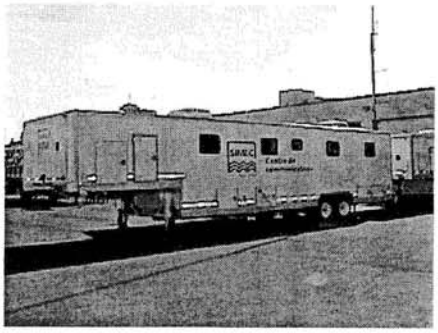
FIELD OPERATIONS CENTRE





Inventory

	Great Lakes	Quebec	Atlantic	Total
Trailer	1	2	2	5
Motorised unit	-	1	-	1
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 Spill 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: varying from 9 m to 12 m (30 to 40 ft)
Width: 2.4 m (8 ft)

Ancillaries

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

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MOBILE UNIT / BASE STATION

Inventory

	Great Lakes	Quebec	Atlantic	Total
Total	2	5	4	11

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.

Ancillaries

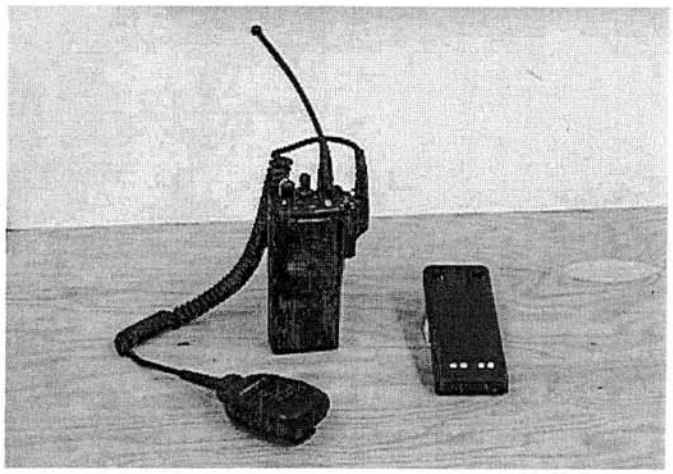
Remote speaker
Microphone
Antenna (3dB or 9 dB gain)

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

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

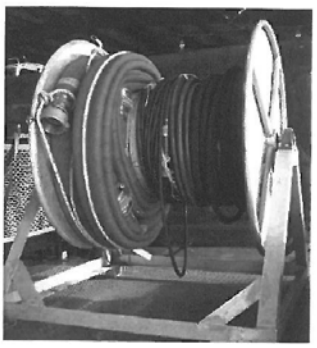
Frequency Range: 806-825 MHz
851-870 MHz
Frequency dedicated to ECRC for spill response operation
Intrinsically safe

Ancillaries

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

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

DESMI DOP - 160



Inventory

	Great Lakes	Quebec	Atlantic	Total
Total	2	3	2	7

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.

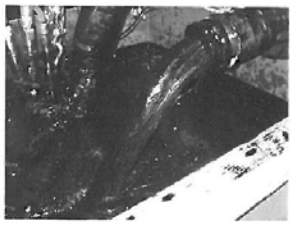
Description

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^3/hr (132 gpm)



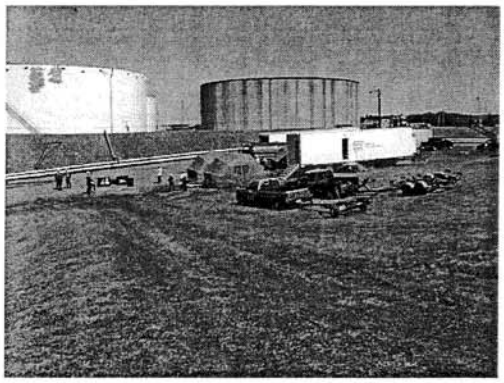
Ancillaries

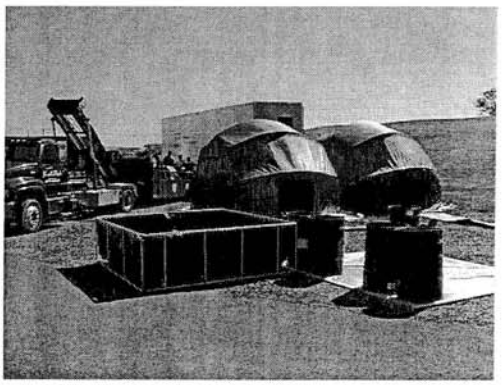
Hydraulic power unit, powered by a 35 kW diesel motor.
Hose reel is complete with hoses for hydraulic fluid and water injection.

Technical Data

	Power pack	Reel	Pump
Length:	1.3 m (4' 6")	1.4 m (4' 6")	.39 m (15")
Width:	1 m (3' 4")	1.4 m (4' 6")	.24 m (9")
Height:	1.1 m (3' 8")	1.5 m (5')	.52 m (20")
Weight:	Full 830 Kg (1826 lbs)		31 Kg (68lbs)

DECONTAMINATION UNIT





Inventory

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

Application

The decontamination unit is utilized for the cleaning of personnel and equipment during spill 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)

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

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

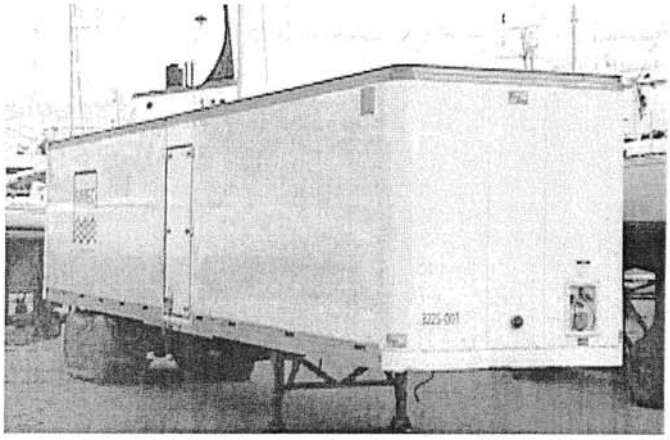
Maximum pressure: 165 bar (2,300 psi)

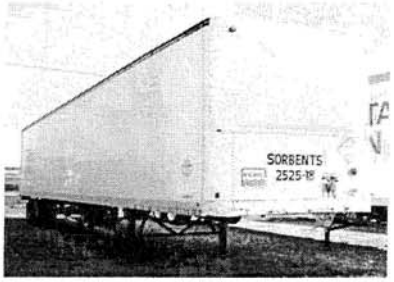
Technical data

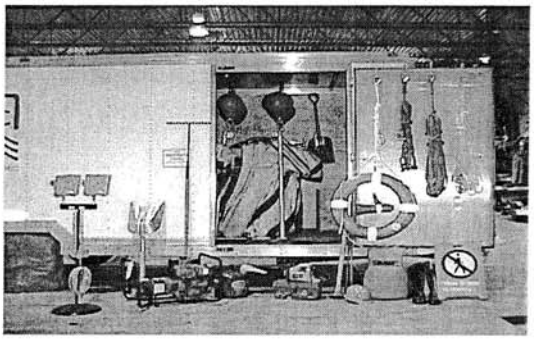
Length: 5 m (16 ft 8 in)
Width: 2.4 m (7 ft 9 in)
Height: 1.7 m (5 ft 7 in)

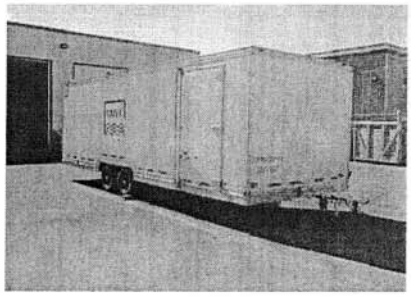
Eastern Canada Response Corporation Ltd.
Suite 1201, 275 Slater Street, Ottawa K1P 5H9
Phone (613)-230-7369 Fax (613)-230-7344

RESPONSE TRAILERS









Inventory

	Great Lakes	Quebec	Atlantic	Total
48 ft trailer	-	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

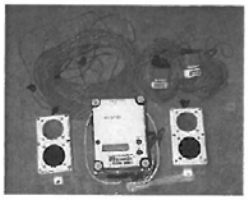
Varying in length from 10 ft (3m) to 48 ft (14.6m)

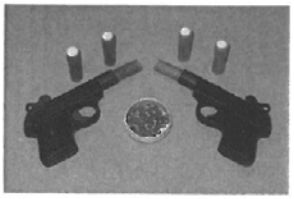
Eastern Canada Response Corporation Ltd.
Suite 1201, 275 Slater Street, Ottawa K1P 5H9
Phone (613)-230-7369 Fax (613)-230-7344

BIRD HAZING DEVICES

Breco Buoy

Propane Cannon


Phoenix Wailer


Starter Pistols

Inventory

	Great Lakes	Quebec	Atlantic	Total
Breco Buoy	1	5	2	8
Propane Cannons	-	-	5	5
Phoenix Wailer	-	-	1	1
Starter Pistol	2	-	14	16
Total	**3**	**5**	**22**	**30**

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

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

CLEAN HARBORS ENVIRONMENTAL SERVICES
Sainte-Catherine PQ Equipment List

Clean Harbors Sainte-Catherine PQ Equipment List

# Unité	Année	Modèle	Identification véhicule	# plaque	Description	Capacité
31062	1991	Kenworth T800	2XKDD29X0MM926591	LB59898	TRACTEUR POMPE VAC 1200CFM / HYD	
31067	1997	Kenworth T800	1XKDD99XXVJ948499	LC82401	TRACTEUR POMPE VAC 500 CFM	
31068	1997	Kenworth T800	1XKDD99X2VJ94500	LC82402	TRACTEUR POMPE VAC 500 CFM / HYD	
31069	2001	Petebilt 378	1XPFD69X81N565956	L214041	TRACTEUR ROLL-OFF HYD.	
31070	2002	Mack CX 613	1M1AE06Y22W012072	L241890	TRACTEUR POMPE VAC. 500 CFM / HYD.	
415371	2005	FREIGHT LINER	1FUJA6CKX5LU35611	L232139	TRACTEUR	
415372	2005	FREIGHT LINER	1FUJA6CK15LU35612	L270349	TRACTEUR	
415373	2005	FREIGHT LINER	1FUJA6CK35LU35613	L270350	TRACTEUR	
415374	2005	FREIGHT LINER	1FUJA6CK55LU35614	L270351	TRACTEUR	
415375	2005	FREIGHT LINER	1FUJA6CK75LU35615	L270377	TRACTEUR	
415376	2005	FREIGHT LINER	1FUJA6CK95LU35616	L270378	TRACTEUR	
415377	2005	FREIGHT LINER	1FUJA6CK05LU35617	L270379	TRACTEUR	
1316	2006	Kenworth	1XKDDBOX46J138257	L371761	TRACTEUR	
1317	2006	Kenworth	1XKDDBOX66J138258	L371762	TRACTEUR	
1336	2006	FREIGHT LINER	1FUJA6AV86LX00329	L346752	TRACTEUR	
1337	2006	FREIGHT LINER	1FUJA6AV46LX00330	L345753	TRACTEUR	
1292	2005	KENWORTH	1XKDDU0X95J104678	L201667	TRACTEUR	
32015	1991	Kenworth C550	2NJKX2TX8MM926611	LB33358	CAMION CITERNE 1200 CFM	12500L
4146	2004	Kenworth T800	1NKDLBOX94J063338	L308055	10 ROUE ROLL-OFF	25250KG
47001	1995	Deloupe pup 3 essieu	2D9TP29C2S1005433	RM14852	REMORQUE ROLL-OFF	26000KG
47002	1995	Deloupe 4 essieux	2D9TP46D6S1005430	RZ21362	REMORQUE ROLL-OFF	55500KG
7191	2005	Chagnon	2C9S81ACX5V057496	RZ39635	B TRAIN ROLL-OFF	47500KG
7191-2	2005	Chagnon	2C9S418B05V057497	RZ39636	B TRAIN ROLL-OFF	41500KG
7192	2005	Chagnon	2C9S418B45V057498	RZ74828	B TRAIN ROLL-OFF	47500KG
7192-2	2005	Chagnon	2C9S418B45V057499	RZ74829	B TRAIN ROLL-OFF	41500KG
40090	1978	Westank Willock	PV7802	RB25228	CITERNE PORTEUR	36000L
40091	1979	Westank Willock	PV7902T	RW19843	CITERNE PORTEUR	31000L
40092	1980	Westank Willock	PV8002T	RB99201	CITERNE VACUUM	22000L
40093	1980	Westank Willock	PV8004T	RB99202	CITERNE VACUUM 800 CFM	22000L
40097	1985	CUSCO	2C9T0462XFC005537	R858287	CITERNE	22000L
40098	1986	PRESVAC	2P9S25283G1005023	RA86448	CITERNE VACUUM 800 CFM	22000L
40099	1986	PRESVAC	2P9S25283G1005024	RB252277	CITERNE VACUUM	22000L
40101	1989	PRESVAC	2P9S25385K1005015	RB98827	CITERNE VACUUM 1200 CFM	29000L
40103	1988	PRESVAC	2D9KB28B5T1004183	RK97686	CITERNE VACUUM 800 CFM	13500L
40108	1995	DELOUPE CUSCO	2D9LP39B8S1005465	RJ79238	CITERNE VACUUM 1200 CFM	15000L
16042	1986	PETRO STEEL	1P9TBB204G1021055	RM147351	CITERNE VACUUM	27400L
2133	2006	Tremcar	2TLSL49406B001772	RZ39995	CITERNE POMPE A GEAR	34000L
2134	2006	Tremcar	2TLSL49406B001773	RZ29996	CITERNE POMPE A GEAR	34000L
6250	1999	MANAC	1M5921460470C4735		REMORQUE	
6251	2000	MANAC	2M5921469Y7064734	RE95697	REMORQUE	
6252	2000	MANAC	2M5921460Y7064735	RE95696	REMORQUE	
6253	2000	MANAC	2M5921464Y7064737	RE95720	REMORQUE	
6254	1999	MANAC	2M5921466Y7064740	RE95719	REMORQUE	
42205	1996	MANAC	2M5921377V1043339	RW61545	REMORQUE	
42206	1997	MANAC	2M5921375V1043338	RR83698	REMORQUE	
36100	1994	KENWORTH	2NKNLA9XXRM932580	LC32644	BOX VAN	
33201	1994	KENWORTH	1FVX3MDB1YLB64920	L411625	BOX VAN	
38007	2000	FORD F150	2FTRX17W6YCA90083	FX86559	CAMION DE SERVICE	

CLEAN HARBORS ENVIRONMENTAL SERVICES
Sainte-Catherine PQ Contact List

CleanHarbors® ENVIRONMENTAL SERVICES, INC.

Sainte-Catherine PQ

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

No.Emp.	NOM	POSTE	CELL	No.Emp.	NOM	CELL
	SUPERVISEURS				**CHAUFFEURS**	
012717	LEPAGE, EMILIEN	236	514-829-2837	012847	BASTIEN, MARIO	514-863-2202
027240	TREMBLAY, PAUL	230	514-250-4117	013568	BEAL, PASCAL	514-863-1285
026181	PERRAS, GUY	244	514-863-2217	013612	BEAUDIN, CHRISTIAN	514-216-6811
	TECHNICIENS-CHIMISTES			013313	DESAUTELS, PIERRE	514-863-2201
025785	DEGUIRE, SOPHIE	240	514-821-4639	020607	DUMONT, JULIEN	514-863-2204
013677	DOYON, MÉLANIE	240	514-821-5477	012007	GINGRAS, DANIEL	514-863-2205
011346	PILON, MYLENE		819-661-9240	021083	LACROIX, NICOLAS	514-863-2207
	MQ - MECANICIENS			027021	LAPIERRE, STEEVE	514-232-4122
026331	BRIEN, JACQUES	226		013271	LAPOINTE, GILLES	819-213-2528
023042	HUET, GAETAN	226	514-214-7107	025153	LEGER JEAN-JACQUES	514-863-2200
	SQ - MERCIER			026294	FALARDEAU, DENIS	514-863-2213
013016	BEAUDOIN, DANIEL	235	514-226-3643	027420	MARCHAND DANIEL	514-207-7302
012892	PLANTE, NICOLE	232	514-220-1970	013410	POIRIER, RONALD	514-863-2208
023652	TREMBLAY, CLAUDE	235	514-207-4613	012179	POITRAS, DANIEL	514-863-2214
	MC - MERCIER			012080	POTVIN, RICHARD	514-863-2215
022205	DULUDE, SIMON		450-691-9610	012128	SOREL, RICHARD	514-863-2218
	ADMINISTRATION			011710	TRUDEAU, JOCELYN	514-863-2219
011000	BOUDREAU, DIANE	243	514-821-5601	013547	TRUDEAU, MICHEL	514-863-2480
	CORRIVEAU, PIERRE	262	514-887-9405	**AIDES**		
011627	DESCHAMPS, SYLVAIN	242	514-947-5451	026806	AUCLAIR, MIKE	514-977-5501
013333	FONTAINE, PAULE	254	514-944-1291	025252	FILIATRAULT, JORDAN	514-943-8039
012820	FOUCAULT, ROLLANDE	241		012268	FORGET, CLAUDE	514-863-2203
011615	LEMAY, JEAN-LOUIS	259	514-781-5199	027010	Gauthier-Demers, Francis	514-617-7159
011616	MAILLOUX, YVES	253	514-945-5907	011712	MENARD, DAN	514-594-5854
012635	MCSWEEN, LUC	222	514-829-6536	012432	MORIER, REJEAN	450-656-7354
013725	MONTREUIL, JEAN-PIERRE	263	514-592-0269	026309	THIBEAULT, J-CHRISTIAN	514-928-1650
026099	PICARD, AURORE	247		027346	TRUDEAU, ALEXANDRE	
021301	POULIN, GILLES	234				
	PRINCE, NATHALIE		450-462-2539	**DIVERS**		
022676	RENZETTI, MANON	227			CONFÉRENCE	233
023240	RIVARD, MAURICE	223	514-863-2209		CANTINE	245
025506	ROBICHAUD, EVE	224	514-219-8358		THURSO (m-j #2685)	1-819-985-0110
025745	ROBICHAUD, JACYNTHE	256			CINTAS (PAGET SEB.)	514-304-2891
	ROUILLARD, ÉRIC		418-564-4468		CINTAS (BUREAU SEB.)	450-449-4747
023337	VALLEE, GHYSLAIN		418-564-7809		COLLINS (SERGE)	514-576-9065
011497	VERMETTE, LOUISE	228			CH français	1-800-282-0058
	BURLINGTON		905-332-1111		PRAXAIR	450-641-1072
	LAMBTON, SARNIA		519-864-1021		BARB (KATHY #3940)	519-864-3966
	LAMBTON, SARNIA (FAX)		514-864-1437			
	MISSISSAUGA		905-822-3781		EXTINCTEUR	514-637-2534
					LABORATOIRE MERCIER	234

CANADA – OIL SPILL RESPONSE CONTRACTORS

Contractor Response Resources
Highwater Station

CONTRACTORS AND EQUIPMENT

	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								X
Back Hoe	D			D			D		
Dozer			D	D			D		
Crane	D			D					
Front End Loader			D				D		
Overhead Loader	D						D		
Shovel	X		D						
Tank Trailer									
Tractor Crawler									
Trucks			X				D		
Spark Arrestors			NON				NON		
Grader									
Vacuum Truck									
Float	D						D		
Welders & Pipe Fitters	X								

D – Denotes Diesel Power

X – Denotes Other type of Power

(b) (7)(F)

[redacted]

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			X
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 Power

X – Denotes Other type of Power

(b) (7)(F)

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Contractor Response Resources

Montreal-East Terminal

CONTRACTORS AND EQUIPMENT

	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				X	X	X	
Welders &Pipe Fitters							X

D – Denotes Diesel Power

X – Denotes Other Power

N/A – Not available

(b) (7)(F)

[redacted]

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		X						
Driving Service			X	X				
Tugs				D				D
Service Boats				X	X	X	X	X
Outboards				X		X		X
Spark Arrestors	N/A	N/A	N/A	N/A	N/A	N/A		N/A
Pollution				X		X		X

D – Denotes Diesel Power

X – Denotes Other Power

N/A – Not Available

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	X	X			X
Elect. Generator	D X	X	D			D X
Portable Lights	X	X	X			X
Blower Fan	X	X	X			X
Chain Saw		X	X			X
Absorbent Material				X		X
Oil Dispersants	N/A	N/A	N/A	N/A		N/A
Spark Arrestors						

D – Denotes Diesel Power

X – Denotes Other Power

N/A – Not available

MPL LIST OF AGREEMENTS

- Simdev Construction
- Sécurité et Protection Sec-Pro Inc.
- Santinel Inc.
- National
- Fasken Martineau
- S.I.M.E.C.
- UDA Inc
- R.S.R. Environment
- Cargair Limitée
- Tetratech Inc.
- Amnor Inc
- St-Pierre Excavation Inc

APPENDIX D

EVACUATION PROCEDURES

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GENERAL EVACUATION PROCEDURES

All Locations

Decision to Evacuate

Decisions about whether or not to evacuate as well as evacuation distances are incident-specific 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_2S 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.

LOCATION SPECIFIC EVACUATION PROCEDURES

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,

(b) (7)(F) [redacted]

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;

(b) (7)(F) [redacted]

- 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 (b) (7)(F) [redacted]

(b) (7)(F) [redacted]

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;

(b) (7)(F) [redacted]

- 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

(b) (7)(F) [redacted]

(b) (7)(F) [redacted] (b) (7)(F) [redacted] I. In this case, it would be necessary to cross commercial properties and, 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:	Drawing D-3835
St-Cesaire Pump Station	Drawing D-3834
Montreal East Terminal	Drawing D-3833
North Tank Field	Drawing D-4248

(b) (7)(F)

(b) (7)(F)

APPENDIX E

FOLLOW-UP INVESTIGATION

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 Director of Operations), 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 Health, Safety and Environmental Coordinator to oversee the review of the Plan and to make sure that all copies of the Plan are amended.

APPENDIX F

DISPOSAL PLAN

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WASTE MANAGEMENT

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 MDDEP, 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
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	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	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS: 5 = Best; 1 = Worst

KEY TO COMMENTS:

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	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	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		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

Figure F-3

OILY WASTE SEPARATION AND DISPOSAL METHODS

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	Emulsion broken to release water by: ● heat treatment ● emulsion breaking chemicals ● mixing with sand ● centrifuge ● filter/belt press	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 Removal of solid oils by sieving Recycling	Incineration Use of recovered oil as refinery/production facility feedstock* Direct disposal 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 pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent Recycling	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock* Incorporation of treated oiled sand in road base material
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal 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 (MDDEP) environmental personnel will respond when notified of an oil spill. MDDEP 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 MDDEP (Ministère du Développement durable, de l'Environnement et des Parcs), 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 MDDEP regarding the management, the investigation and the disposal of these residual materials.

APPENDIX G

WORST CASE DISCHARGE ANALYSIS AND SCENARIOS

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INTRODUCTION

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 non-higher volume port area.

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

US DISCHARGE VOLUME CALCULATIONS (Cont'd)

DOT-PHMSA Discharge Volume Calculation

- **Worst Case Discharge**
  The largest volume (Bbls) of the following:
  - *Pipeline's maximum release time (hrs), plus the maximum shutdown response time (hrs), multiplied by the maximum flow rate (Bbls/hr.), plus the largest line drainage volume after shutdown of the line section.*

    -- OR --

  - *Largest foreseeable discharge for the line section is based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective action or preventive action taken.*

    -- OR --

  - *Capacity of the single largest breakout tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system.*

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.

US DISCHARGE VOLUME CALCULATIONS (Cont'd)

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) Rivers & Canals			(2) Nearshore/Inland/Great Lakes		
	3 Days			4 Days		
Sustainability of on-water oil recovery		D	E		D	E
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 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 (hours)

AREA	TIER 1	TIER 2	TIER 3
Higher volume port area	6	30	54
All Other	12	36	60

US RESPONSE CAPABILITY SCENARIOS

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 = 857 Bbls (EPA) / 1,200 Bbls (USCG)

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.
- An 857 Bbl discharge from Facility piping typically will not escape the Facility.
- 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 = 857 Bbls (EPA) / 1,200 Bbls (USCG)

- Oil recovery devices with an effective daily recovery capacity of 428 Bbls (50% of the Medium/Maximum Most Probable Discharge volume) secured from the OSRO(s) will be on scene within 12 hours.
- 857 Bbls 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.
- 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.
- 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.

US RESPONSE CAPABILITY SCENARIOS (Cont'd)

(b) (7)(F) [redacted])

A worst case discharge at this Facility is considered to be discharge that does not exceed (b) (7)(F) barrels.

Description

This size discharge would most likely occur due to a natural disaster or catastrophic event. Examples may include, but not be limited to:

- Tank and associated pipeline fire
- Catastrophic tank shell failure
- Tornado-induced spills
- Pipeline manifold rupture

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.

Potential Causes

- A sudden rupture of one of the bulk storage tanks at the Portland Tank Farm. Diking and containment areas are located throughout both facilities. For a discharge of this size to reach a navigable waterway, or leave the Facility property, diking would have to be damaged or destroyed (breached) and the reservoir would have to be compromised or exceeded.

- A pipeline rupture at a location upstream of where the pipeline crosses a large body of water such as the Connecticut River.

- A rupture in one of the pipelines from the [redacted] (b) [redacted].

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)

(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)

(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)

(b) (7)(F)

Facility Response Resources/Capability (Cont'd)

- Resources capable of responding to a shoreline clean-up operation involving the calculated volume of oil and emulsified oil that might impact the shoreline will be secured from the OSRO(s) and other Company resources.
- Disposal of recoverable oil would be done per the disposal plan.
- Overall response operations will be conducted under the Incident Command System with adequate Facility and Contract Response personnel to continue operations for a minimum of seven (7) days.

Notes:

- Equipment and manpower resources are detailed in Sections 4.0, 5.0, Section 5.1, Figure 4.3, and Appendix C.
- Telephone references are provided in Figures 2.3 – 2.14.

U.S. Coast Guard
Discharge Volume Calculations

Worst Case Discharge Volume Calculations from Marine Op

- Potential simultaneous pumping operations (SO)
- Maximum pumping flow rate (MFR):
- Maximum discharge discovery time (MDT):
- Maximum discharge shut down time (MSDT):
- Maximum line fill volume (LFV):

  (*see Hazard Evaluation, Appendix H for Pipeline detail*)
- WCD = [(MDT + MSDT) * MFR * SO] + LFV
- (b) (7)(F) [redacted]

(b) (7)(F) [redacted]

Maximum Most Probable Discharge Calculations (MMPD)

- 1,200 Bbls **<or>** 10 % of the WCD (whichever is less)
- **MMPD** = 1,200 Bbls

Average Most Probable Discharge Calculations (AMPD)

- 50 Bbls **<or>** 1 % of the WCD (whichever is less)
- **AMPD** = 50 Bbls

U.S. EPA
Discharge Volume Calculations

Worst Case Discharge Calculations (WCD)

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

  (*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)
- **MD** = 857 Bbls

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 [1]
Maximum shutdown time [2]
Maximum flow rate [3]
Largest line drainage volume [4]
Worst case discharge

(b) (7)(F)

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 (b) (7)(F)). The calculation identifies (b) (7)(F) inside diameter piping for the drainage. The calculation is as follows: 23.5" pipe equals (b) (7)(F) ls. The 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.

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

Location Data

Location Type	Nearshore/Inland
Port Type	Higher Volume Port
WCD Product Type	(b) (7)(F) [redacted]
Product Group	
Maximum Vessel Discharge Pumping Rate (bbls/hr/line)	
Maximum Number of Simultaneous Vessel Discharge Pumping Operations (per line)	
Worst Case Discharge Scenario Pumping Time (detect + shut down, hrs)	
Total Line Fill Volume From Dock to First Valve w/in Containment (bbls)	
Capacity of the Largest Single Tank (bbls)	

Discharge Volumes/Calculations

Average Most Probable or Small Discharge (bbls)	(b) (7)(F) [redacted]
Maximum Most Probable or Medium Discharge (bbls)	
Worst Case Discharge - Based on USCG criteria (bbls)	
Worst Case Discharge - Based on DOT/PHMSA criteria (bbls)	
Worst Case Discharge - Based on EPA criteria (bbls)	

USCG WCD Calculation: (Pump Rate * Pump Time * Number of Pump Operations) + Line Fill
DOT/PHMSA WCD Calculation: (Detection + Shutdown Times) * Max Flow Rate + Line Fill
EPA WCD Calculation: 100% * Capacity of Largest Single Tank

Selected Calculation Factors

Removal Capacity Planning Volume - Percent Natural Dissipation	50%
Removal Capacity Planning Volume - Percent Recovered Floating Oil	50%
Removal Capacity Planning Volume - Percent Oil Onshore	30%
Emulsification Factor	1.8
Tier 1 - On Water Oil Recovery Resource Mobilization Factor	15%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor	25%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor	40%

Response Planning Volume Calculation

On-Water Recovery Volume (bbls)	(b) (7)(F) [redacted]
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) [redacted]		
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[1] Maximum shutdown time[2] Maximum flow rate[3] Largest line drainage volume[4] Worst case discharge	(b) (7)(F) [redacted]

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 CAN. system is based on a 24" (610mm) mainline break at milepost 178 (KP 190) (approx. 12 miles (19 km) downstream of Highwater pump station). The calculation identifies 1.5 miles (2.41 km) of 23.5" (597mm) inside diameter piping for the drainage. (b) (7)(F) [redacted] . The 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.

CANADA DISCHARGE VOLUME CALCULATIONS / SCENARIOS (cont'd)

MONTREAL PIPE LINE LIMITED RESPONSE PLANNING SCENARIOS NORTH TANK FIELD
The two worst-case scenarios analysed for the North Tank Field are presented in the following sections. The detailed minute-by-minute version of these scenarios is available at the end of this section.
A) Tank fire with risk of a boil-over
A subcontractor welding a guard ramp causes a fire in tank TK-663. The fire breaks out around 9 a.m. and the alarm process is sounded by the Chief, Delivery Operations on site to supervise the work.
Within minutes, steps are taken to evacuate the contents of that tank into MPL's neighboring tanks and into the Enbridge pipeline. Consideration is given to a possible boil-over occurring within some 20 hours and, should it prove impossible to empty the water lying in the bottom of the tank, the evacuation plan of the general public would then be implemented. In very broad terms, the following actions would then be initiated:
¨ Empty the tank that is on fire (precautions must be taken to avoid a boil-over to occur);
¨ Cool down the neighboring tanks while using a minimum quantity of water;
¨ Monitor the environment under the smoke plume (SO2 and particles);
¨ Project foam into the tank to extinguish the fire.
Evacuations and rerouting of traffic on neighboring roads will be necessary. Around 4 p.m. of that same day, the risks of a boil-over are deemed nil and the fire itself is extinguished around 9 p.m.
B) Sequential rupture of two tanks and fire
A breakdown in tank's TK-663 structure provokes its complete rupture and crude oil spills into the retaining dikes. The crude oil then inflames probably due to contact with a near-by ignition source.
This incident occurs at night around 1 a.m. and it is the South Portland controller who is first alerted thanks to the alarm raised by the sudden variation in level detector. The emergency plan is immediately initiated.
In very broad terms, the following actions would be implemented:
¨ Evacuate the contents of tank TK-665 in the center of the inferno into the neighboring MPL tanks and the Enbridge pipeline;
¨ Cool down the neighboring tanks while using a minimum quantity of water;
¨ Monitor the environment under the smoke plume (SO2 and particles);
¨ Keep the foam trucks close-by to contain any eventual spillage outside of the bunds;
¨ As a precautionary measure, build a temporary retaining dike in the ditch that runs parallel to the railway.
Two hours later, a second tank (TK-665) ruptures due to the fire. The scope of the fire is estimated to be 56,700 m2 (the surface area enclosed by the railway and the two tanks' retaining dike). The crude oil is contained within the MPL property but all security measures are taken to avoid a spillage into the sewers.
The fire is under control within 17.5 hours.

MONTREAL PIPE LINE LMITED
DETAILED INTERVENTION SCENARIOS
NORTH TANK FIELD

See DDH ENVIRONMENT LTEE Report Following

Please note that the following Detailed Intervention Scenarios report was prepared by DDH Environment LTÉE on October 20, 2000, and was revised and clarified in September, 2009.

MONTREAL PIPE LINE LTD.

MONTREAL EAST, QUEBEC

DETAILED INTERVENTION SCENARIOS

CONSTRUCTION OF ADDITIONAL CRUDE OIL STORAGE TANKS

IN THE MONTREAL EAST

NORTH TANK FARM

October 20, 2000

Reviewed and Clarified September, 2009

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MONTREAL PIPE LINE LTD.

DETAILED INTERVENTION SCENARIOS

The two detailed intervention scenarios presented hereafter are a revised version of the two intervention scenarios requested and already provided to the Ministère du Développment Durable, de l'Environnement it des Parcs (MDDEP). This proposed revision was developed in collaboration with the Montreal East Fire Department.

The first scenario concerns an accident involving a fire with boil-over within one of the projected crude oil storage tanks, whereas the second scenario concerns an accident involving the sequential rupture of two tanks with a fire breaking out after the first tank rupture. These two scenarios are deemed to be the two worst-case scenarios described in the project's technological risk assessment and will eventually be attached to the emergency response plan.

It must be emphasized that these are hypothetical scenarios aiming to satisfy the *MDDEP's* concerns regarding the possible occurrence of worst-case accidents in operating the two projected tanks, The scenarios are also helpful in assessing the vulnerability of the actual emergency response plan. They do not consider in any fashion the probability of occurrence of such events. Said probability is very low judging by the history of incidents having involved similar tanks operating under similar conditions throughout the world.

Also, it must be said that the two scenarios detailed herein were developed by Montreal Pipe Line Ltd. (MPL) to the best of its knowledge and that of it collaborators in order to establish strategies deemed to be the most appropriate to deal with such incidents. Also, it goes without saying that adjustments could be brought to these scenarios when dealing with true life situations. Indeed, in case of an emergency, the company's emergency plan provides for the immediate establishment of a command centre to assess the situation and define and implement a strategy that considers existing preoccupations and constraints, and the input of all stakeholders. Finally, it is worthwhile mentioning that MPL conducts periodic simulations with its emergency team in order to enhance its intervention abilities, to allow for team members to get to know one and another better, and to identify any new technology and resource.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m.
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
	9:06 a.m.		While welding a guard rail on the tank, a subcontractor sets the tank on fire.	Fire in crude oil storage tank #663.
2 min.	9:08 a.m.	9:10 a.m.	MPL's Terminal Maintenance was on location to supervise the work.	Dials 9-1-1. Initiates the alarm process by calling the Senior Chief, Terminal by radio and by informing him about the situation.
15 min.	9:11 a.m.	9:26 a.m.	Senior Chief, Terminal	Calls Montreal East fire department. Calls Portland controller. Calls MPL Director of Operations. Calls neighbors (Petromont, Shell, Coastal, Ultramar and Petro-Canada).
30 min.	9:15 a.m.	9:45 a.m.	Montreal East firemen. (5 firemen, 2 trucks (1 pump + 1 ladder))	Arrive on location and raise a general alarm and then request assistance from the *Entraide mutuelle municipale de l'Est de Montreal*. They then start to deploy the tactical equipment from the two vehicles. They also inform the City of Montreal and surrounding municipalities as well as those public organizations that may be involved in their emergency measures. Inform the CN about the situation and stop any railway traffic in the sector until further notice.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
5 min.	9:15 a.m.	9:20 a.m.	PMPL Controller	Begins operations to empty the tank. Contacts Enbridge.
20 min.	9:20 a.m.	9:40 a.m.	MPL Director of Operations	Informs the MPL President in Portland. Calls the MPL external team members. Informs Urgence-Environnement Quebec. Informs the Transportation Safety Board of Canada.
10 min.	9:22 a.m.	9:32 a.m.	MPL's Terminal Maintenance, with the assistance of other employees on site.	Complete the evacuation of subcontractor's workers on site and an employee remains at the North Broadway Street entrance to control access to the site.
1 min.	9:25 a.m.	9:26 a.m.	Enbridge	Informs PMPL's Controller that he is authorized to immediately start pumping oil from the tank to the pipeline (pumping capacity of about 10,000 barrels/h (1,600 m3/h)).
4 min.	9:27 a.m.	9:31 a.m.	MPL's Senior Chief, Terminal	Instructs that person responsible for the logistics of setting up a command centre in MPL's offices (Sherbrooke Street) and for the rental of cellular phones on stand-by for interveners accountable to MPL.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
	9:30 a.m.	End of intervention	Montreal East Director General	Opens the Municipal Coordination Centre and asks MPL to dispatch a representative. An employee from BDDS, specialized in crisis communications, represents MPL. Joint press releases, i.e. City of Montreal East, Communication Quebec and MPL, are issued on a regular basis to inform the general public. A media centre is set up at Montreal East City Hall.
30 min.	9:31 a.m.	10:01 a.m.	MPL's Senior Chief, Terminal	Makes his way to the command centre in the basement of MPL's administrative offices in order to act as MPL's local assistant commander. Continues with steps undertaken to empty the flaming tank.
10 min.	9:35 a.m.	9:45 a.m.	MUC policeman	At the request of the commanding officer on duty with the Montreal East Fire Department (on site manager), policemen block traffic on North Broadway Street between Boulevard Metropolitain and Boulevard Henri-Bourassa, as well as on Boulevard Henri-Bourassa between Marien Street and Boulevard Rodolphe-Forget and limit access to this sector to authorized personnel only. Alternate roadways are identified by Transport Quebec and the City of Montreal, and then used to reroute traffic.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
30 min.	9:40 a.m.	11:10 a.m.	Emergency MPL team and other interveners called in	MPL personnel and external members of the MPL team as well as representatives of other organizations involved (City of Montreal East, MDDEP, *Direction de la Sante Publique, Securite civile….*) gradually arrive on site following the alert raised by MPL. All persons admitted on site have had to identify themselves to the policemen manning the security perimeter and have been duly authorized by the site manager.
20 min.	9:40 a.m.	10:00 a.m.	Montreal East Fire Department Commanding Officer on duty MUC policemen and City of Montreal firemen	Assures himself that the cities of Montreal East and Montreal evacuate those areas identified on their territory as being a security risk.
7 h	9:45 a.m.	4:45 p.m.	Entraide mutuelle firemen (25 Montreal East firemen, 10 from the Entraide mutuelle industrielle and 12 from the Entraide municipalities) (2 pumps from Montreal East + 1 ladder, + 3 pumps from Entraide municipalities) (10,000 gallons of foam are brought on location from the Shell and Petro-Canada refineries. A reserve of about 10,000 gallons is available, if required, from industries located in the eastern sector of Montreal).	Arrive on location and begin deploying their equipment (hose, pumps) according to pre-established plans to cool down neighboring tanks and assess the opportunity of extinguishing the fire by resorting to foam. Note: They use a minimum amount of water to avoid water accumulation in the bunds. A relief program for firemen is proposed in case the fire burns more than 8 hours. **(The complete deployment lasts about 7 hours)**

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
30 min.	9:45 a.m.	10:15 a.m.	MDDEP representatives and other interveners	Arrive on location and inform themselves about the situation.
20 min.	9:45 a.m.	10:05 a.m.	*Securite civile* representative	Informs his regional director and the fire departments under the smoke plume (Montreal East, Montreal, Varennes). He advises the municipalities concerned that he is acting as liaison officer with the Intervention Command Centre.
	10:00 a.m.	End of Work	Specialists working for MPL	Santinel and Sec-Pro arrive on location and in collaboration with the Montreal East Fire Department make sure that all health and safety concerns are dealt with at the site.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
45 min.	10:15 a.m.	11:00 a.m.	On site manager	Has discussions with other interveners - MPL and MDDEP representatives, key MPL consultants and other interveners on site to assess the situation and establish strategies. <u>Action plan adopted:</u> Press release to be issued at 12 p.m. to inform the general public. No other tank is available to transfer the crude oil. Monitor the smoke plume and take readings of particles and S02 under the smoke plume. Cool down the neighboring tanks while using a minimum amount of water. As there are about 15 cm of water at the bottom of the tank, a risk of boil-over will materialize in about 20 hours if the bottom of the tank cannot be emptied before then. In such a case, Montreal's Fire Department will evacuate the area at risk according to their estimate of the risks of a boil-over. A MPL employee is designated to permanently inform the neighboring petroleum companies on how the situation is evolving. The Montreal East Coordination Centre is operational.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
				The water network available to fight the fire is connected to the 91 cm network under Henri-Bourassa Blvd. as well as to the network under Broadway Street. A volume exceeding 10,000 gals/min is available on site. This volume should theoretically enable the projection of foam upon the flaming tank. Three DDH employees, each equipped with an automatic combustible particle and S02 detector, patrol under the smoke plume and near the point of contact in collaboration with the fire departments involved and take readings that they then immediately transmit to the Command Centre. The MDDEP calls upon the TAGA (Trace Atmospheric Gas Analyzer), if available.
1 h	11:00 a.m.	12:00 p.m.	A representative from BDDS and the head of communications for Montreal East	Prepare a joint press release for various media to inform them about the situation (factual data).
15 min.	11:00 a.m.	11:15 p.m.	MPL Director of Operations	Plans for the opening of a Claims Center around 5 p.m. with Portland personnel and a local adjustor.
	12:05 p.m.		On site manager in collaboration with the *Direction de santé publique.*	Checks to see whether any hospitals, seniors' homes or other care centers re under the smoke plume and whether any evacuations are required.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
1 h	4:00 p.m.	5:00 p.m.	Command Centre	Revised Action Plan: Continue to cool down neighboring tanks. Continue emptying the tank into the Enbridge pipeline. The risks of a boil-over are now deemed to be almost nil given that the bottom of the tank that contained water has now been pumped out (based on an analysis of water concentration levels in the oil from the flaming tank pumped into the Enbridge network). Throw foam onto the tank through a 5 m wide opening that has appeared on the top of the tank, south side. According to calculations by the Montreal East Fire Department, extinguishing the fire in the tank will require 9,500 gals of foam with a water volume of 8,000 gals/min for 65 min. Continue air monitoring under the smoke plume and near the point of contact and keep all concerned municipalities informed about how the situation is evolving.
1 h	5:00 p.m.	6:00 p.m.	Firemen on location	Finalize the deployment of foam application equipment.
	6:00 p.m.		Firemen on location	Start to throw foam into the tank using foam cannons.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
	6:20 p.m.			An explosion in the tank enlarges the opening in the rim of the roof and sends flaming petroleum projectiles up to 1.7 km away in the South and South-East directions.
	6:25 p.m.		Intervention team on site	After a careful assessment of the situation, the specialists conclude that the explosion was due to a water cell in the oil having reached boiling point due to a poor application of foam given a too small opening in the tank. The new opening will enable a better application of the foam cover.
1 h 5 min.	6:25 p.m.	7:30 p.m.	On site manager, Mtl firemen, MUC and *Surete du Quebec* policemen	At the request of the on site manager, close down the Metropolitain Boulevard between St-Jean-Baptiste and Ray-Lawson. Evacuate the homes, businesses and industries between Henri-Bourassa and Maurice-Duplessis boulevards. Patrol the sector to identify the impacts caused by the explosion.
	7:30 p.m.		Firemen on site.	The fire is brought under control.
	9:00 p.m.		Command centre	The fire is officially declared to be under control. Proceeds to reopen roadways and allow back those individuals that have been evacuated. Establishes a plan to get back to normal.

Scenario 1: Fire in Tank #663 occurring at 9:06 a.m. (cont'd)
Weather conditions: Clear Sky, Winds N-W, average velocity: 10 km/h

Cause: sparks from welding work on tank roof.
The welder has succeeded in getting down safe and sound.

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
		End of intervention	Organization of response to emergency	After the fire, MPL and DDH proceed with the characterization and rehabilitation of the site under the supervision of the MDDEP. The Transportation Safety Board of Canada in collaboration with MPL starts an enquiry to determine the causes of the incident and establish measures to reduce any risks.

Scenario 2: A sequential rupture of Tanks #663 and 665
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
	1:00 a.m.			A breakdown in the structure of tank #663 causes it to completely rupture.
5 min.	1:03 a.m.	1:08 a.m.	Portland Controller	The sudden variation in level detector on tank # 663 trips an alarm at the Portland Control Center. The controller immediately informs the MPL employee on call.
2 min.	1:08 a.m.	1:10 a.m.	MPL employee on call	Calls the security guard on duty at Shell and asks him to inspect the North Tank Farm and report back to him.
7 min.	1:10 a.m.	1:17 a.m.	MPL employee on call	Calls the Director of Operations and the Senior Chief of Terminal and informs them that there may be a problem in the North Tank Farm.
3 min.	1:20 a.m.	1:23 a.m.	Shell security guard	Dials 9-1-1. Calls the MPL employee on call and informs him that a tank has collapsed thus resulting in a major spill on the site and that the oil is flaming, probably due to contact with a close by ignition source.
3 min.	1:23 a.m.	1:26 a.m.	Montreal East firemen	The dispatcher for the Montreal East Fire Department immediately sets into motion the Organization of the emergency response at the request of the officer on duty.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
5 min.	1:23 a.m.	1:28 a.m.	MPL employee on call	Calls back the Director of Operations and the Senior Chief of Terminal so that they initiate the emergency response plan by dialing 9-1-1, calling the members of the MPL emergency response team (internal and external) and informing the neighboring industries. * even though 9-1-1 has already been called by the Shell caretaker.
7 min.	1:25 a.m.	1:32 a.m.	MPL Director of Operations	Calls the MPL President in Portland to inform them about the situation. Calls *Urgence-environnement Quebec.* Calls the Transportation Safety Board of Canada.
10 min.	1:28 a.m.	1:38 a.m.	Senior Chief of Terminal	Dials 9-1-1 and calls the members of the MPL emergency response team. Informs the neighboring industries.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
10 min.	1:35 a.m.	1:45 a.m.	Montreal East fireman (5 firemen, 2 trucks, 1 pump, 1 ladder)	Arrive on location and raise a general alarm and then request assistance from the *Entraide mutuelle municipale de l'Est de Montreal* and the *Aide mutuelle industrielle*. They then start to deploy the tactical equipment from the 2 vehicles. They also inform the City of Montreal and surrounding municipalities as well as those public organizations that may be involved in their emergency measures. Inform the CN about the situation and stop any railway traffic in the sector until further notice.
15 min.	1:40 a.m.	1:55 a.m.	MUC policemen	At the request of the commanding officer of the Montreal East Fire Department (on site manager), establish a security perimeter by closing North Broadway Street, Henri-Bourassb Blvd. and the Boulevard Metropolitain between the junction of Henri-Bourassa and the Anjou interchange.
17 min.	1:43 a.m.	2:00 a.m.	MPL employee on call	Arrives on site and quickly assesses the situation.
1 h 30 min.	2:00 a.m.	3:30 a.m.	MPL team and other interveners are alerted	MPL personnel and external members of the MPL team as well as representatives of other organizations involved (City of Montreal East, MDDEP, *Direction de la Sante Publique, Securite* civile…), gradually arrive on site following the alert raised by MPL. All persons admitted on site have had to identify themselves to the policemen manning the security perimeter and have been duly authorized by the site manager.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
2 H	2:00 a.m.	4:00 a.m.	Media representatives	Media representatives Media representatives (TV, radio, newspapers) gradually arrive on site and are held back by the security perimeter established by the policemen.
10 min.	2:00 a.m.	2:10 a.m.	MPL employee on call	Calls the Enbridge operator to ask for an authorization to pump the contents of tank # 665 into the Enbridge network given the risks associated with the fire in the containment basin and then asks him to call the Portland controller to make the necessary arrangements. Calls Excavation Laganiere and asks for the necessary excavation equipment along with their operators (the company has a 24/7 response service).
	2:10 a.m.		MPL Director of Operations	Arrives on site and initiates the opening of the Command Centre in the MPL offices located on Sherbrooke Street.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
7 h	2:20 a.m.	9:20 a.m.	*Entraide mutuelle* firemen (25 Montreal East firemen, 10 from the *Aide mutuelle* industrielle and 12 from the *Entraide* municipalities) (2 pumps from Montreal East + 1 ladder, + 3 pumps from Entraide municipalities) (10,000 gallons of foam are brought on location from the Shell and Suncor Energy, Inc. refineries. A reserve of about 10,000 gallons is available, if required, from East Montreal industries).	Arrive on location and begin deploying their equipment (hose, pumps) according to pre-established plans to cool down neighboring tanks and assess the opportunity of extinguishing the fire by resorting to foam. Note: They use a minimum amount of water to avoid water accumulation in the diked area. A relief program for firemen is proposed in case the fire burns more than 8 hours. **(The complete deployment lasts about 7 hours)**
	2:30 a.m.	End of Work	Specialists working for MPL	Santinel and Sec-Pro arrive on location and in collaboration with the Montreal East Fire Department make sure that all health and safety concerns are dealt with at the site.
1 h	2:30 a.m.	3:30 a.m.	Montreal East Office staff	At the request of the Director of Operations, the first employee to arrive opens the Municipal Coordination Centre and greets the other members of the team.
15 min.	2:30 a.m.	2:45 a.m.	MPL employees	Opens the spillway gate of the pond on the N-E side of the Tank Farm to let the water run off into the sewers; an employee stays there to close the valve should it be required.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
1 h 15 min.	2:30 a.m.	3:45 a.m.	Command Centre (led by the Montreal East fire chief and regrouping other interveners on site: MPL, firemen from the *Entraide de l'Est de Montreal*, Montreal City firemen, MDDEP,...)	The intervention leader (Commanding Montreal East fireman) explains that, according to his estimates, 70,000gallons of foam and 40,000gallons/min of water and much more resources will be required to contain the fire within the bund. For now, only 20,000 gallons of foam are available but the main constraint is a water debit of 10,000 gallons/min in the best of conditions. He then explains that, under such conditions, the neighboring tanks must be cooled down with a minimum quantity of water and that the foam trucks should be kept close by in case the dikes overflow. Also, the risks for the neighboring populations must be assessed in light of the heavy smoke plume moving in a south eastern direction. As it is still night, a strategy has to be elaborated to inform the general public and to evacuate or confine those populations at risk. The MPL Director of Operations explains that his staff along with Enbridge staff are emptying tank # 665, at a rate of 3,500 m3/h, because the tank is on fire. Also, MPL staff with excavation equipment are building an earthen retaining dike in the ditch that runs parallel to the railway at a distance of about 100 m in a North-East direction of the dike in order to prevent the dike from eventually overflowing.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
45 min.	2:30 a.m.	3:15 a.m.	Command Centre (cont'd)	The MDDEP representatives advises that he has requested the TAGA laboratory, if available, to take readings under the smoke plume. Also, specialists from the DSP, the Securite civile and Transport Quebec are on their way to assist the Command Centre.
	2:45 a.m.		MPL external intervention team	Santinel and Sec-Pro, in collaboration with the Montreal East Fire Department, make sure that all health and safety concerns are dealt with at the site. Three (3) DDH employees take readings of particles and S02 under the smoke plume in collaboration with the concerned fire departments. The results are forwarded by cell phone to the Command Centre for a decision with the municipalities concerned, health, environment and *securite civile* interveners, as to any measures to be taken to protect the population at large.
20 min.	3:10 a.m.	3:30 a.m.		The process of transferring the contents of tank # 665 into the Enbridge network is rapidly interrupted by the Portland and Enbridge operators.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
	3:20 a.m.		MPL Director of Operations	Evaluates the scope of the fire at 56,700 m^2.
	3:20 a.m.		Montreal East Director General	Arrives at the Municipal Coordination Centre and requests of MPL that they send a representative. A BDDS employee, specialized in crisis communications, represents MPL.
1 h 20 min.	3:30 a.m.	3:50 a.m.	*Securite civile* representative	Informs his regional director and the fire departments under the smoke plume (Montreal East, Montreal, Varennes). He advises the municipalities concerned that he is acting as liaison officer with the Intervention Command Centre.
2 h	3:45 a.m.	5:45 a.m.		Conditions permitting, start building a temporary retaining dike crosswise to to the ditch that parallels the railroad downstream from the dike surrounding tanks # 663 and 665. The dike is constructed using the earth by the ditch. The work is conducted under the surveillance of firemen to assure the workers' safety.

Scenario 2: A sequential rupture of Tanks #663 and 665 (cont'd)
Weather conditions: Clear Sky
Winds N-W, average velocity: 10 km/h

DURATION	ACTUAL TIME		EXECUTED BY	MISSION
	Beginning	End		
		6:30 p.m.	Organization of emergency response	The fire is only brought under control at 6:30 p.m. for a total duration of 17.5 hours. Alternate roadways are identified by Transport Quebec and the City of Montreal, and then used to reroute traffic. Joint press releases, i.e. City of Montreal East, Communication Quebec and MPL, are issued on a regular basis to inform the general public. A media centre is set up at Montreal East City Hall. After the fire, MPL and DDH proceed with the characterization and rehabilitation of the site under the supervision of the MDDEP. The Transportation Safety Board of Canada in collaboration with MPL starts an enquiry to determine the causes of the incident and establish measures to reduce any risks.

APPENDIX H

HAZARD EVALUATION

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US - Hazard Identification

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)
Unloading Rate:	60,000 Bbls/Hr (*typical*); 90,000 bbls/hr (*maximum*)
Simultaneous Operations:	Two (2) operations
Transfers per day:	Four (4) (*maximum*)
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.

US - Hazard Identification (Cont'd)

The Normal Daily Throughput for the South Portland Facility:

Normal Daily Throughput	(b) (7)(F) [redacted]
Approximately 400,000 Bbls/Day	

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.

(b) (7)(F) [redacted]

US - Vulnerability Analysis

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.

(b) (7)(F)

[redacted]

US - Vulnerability Analysis (Cont'd)

(b) (7)(F)

[redacted]

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

US - Vulnerability Analysis (Cont'd)

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)

<u>South Portland Tank Farm</u>
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)

(b) (7)(F)

[redacted]

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.

US - Analysis of the Potential for a Spill

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.

US - Reportable Oil Spill History

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)

(b) (7)(F) [redacted]

(b) (7)(F) [redacted]

Tank Number	Substance Stored *(Oil & Haz. Substance)*	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	Note "B"
28	Crude	Floating	1969	Rupture	Low	-----	N/A	
3	Crude	Floating	1950	Rupture	Low	-----	N/A	Note "C"
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)	
11	Crude	Floating	1941	Rupture	Low	-----	N/A	

Figure H-2 (Cont'd)

US - HAZARD IDENTIFICATION TANKS
ABOVE GROUND STORAGE TANKS (cont'd)

(Tank = any container that stores oil)

(b) (7)(F) [redacted]

Tank Number	Substance Stored *(Oil & Haz. Substance)*	[redacted]	ank 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	[redacted]
12	Crude		Floating	1941	Rupture	Low	-----	N/A	Note "C"	
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		
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		orizontal	1983	Leak	-----	-----	N/A		
Waste Oil/Rags Drums Storage	Waste Oil & Rags		55 Gal Drums	-----	Leak	-----	-----	N/A		
Pier 2 Diesel Generator Tank	Diesel Fuel		-----	2002	Leak	-----	-----	N/A		
Construction Mobile Fuel Tank	Diesel Fuel		Rectangular	------	Leak	------	N/A		In tank dike 23/24	
TOTALS:										

Note[A]: Primary drainage is to the containment area. Drainage outside of, or escaping containment would flow northwest to Portland Harbor.

Note[B]: Primary drainage is to the containment area. Drainage outside of, or escaping containment would flow north across Pickett Street towards Portland Harbor.

Note[C]: 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[F]: 55 gallon drum is stored on factory produced drum containment pallet sufficient to hold the entire contents.

Figure H-3

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)*
		There are no Surface Impoundments at this Facility				

US - HAZARD IDENTIFICATION TANKS UNDERGROUND STORAGE TANKS

(Tank = any container that stores oil)

Tank Number	Substance Stored *(Oil & Haz. Substance)*	Average Quantity Stored *(Gallons)*	Maximum Capacity *(Gallons)*	Tank Type *(ie. floating roof, fixed roof, etc.)*	Year Built	Potential Failure	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	Secondary Containment Capacity *(Gallons)*
			There are no Underground Storage Tanks at this Facility							

Figure H-4
United States

This page reserved for Hydrant and Drainage Diagrams

D4923 – Hydrants -	**South Portland Tank Farm**
D4924 – Hydrants -	**South Portland Terminal**
B1154 – Drainage Diagram –	**South Portland Tank Farm**
B1153 – Drainage Diagram –	**South Portland Terminal**

CANADA

ANALYSIS OF TECHNOLOGICAL RISKS AND WORST-CASE SCENARIOS INVOLVING STORAGE TANK FIRES

The following provides a summary of the risks analysed in a technological risk assessment conducted by Tecsult in 1999.

Technological risk assessment

Fires (storage tank and oil slick)

The ignition and subsequent combustion of crude oil may result in risks related to thermal radiation, fireballs from a boil-over or a smoke plume from incomplete combustion.

Thermal radiation

Three (3) key factors determine the severity of the outcomes related to the thermal radiation of a fire:

- The dimensions of the flames;
- The intensity of the radiation;
- The length of exposure.

The outcomes of a storage tank fire and those of an oil slick have been modeled using the PHAST-Professional v.5.11 (Process Hazard Analysis Software Tools) software.
The worst situation for a storage tank fire with a radiation level of 5kW/m^2 (critical level set by the *Comité Mixte Municipalité/Industrie de l'Est de Montréal*) occurs in high-wind conditions (10 m/s) which result in the flames being pushed downwards. The zone at risk for thermal radiation would then be confined within the retaining dike (83 metres from the center of the storage tank).
In the case of an oil slick fire covering the area of a tank's retaining dike, the zone at risk for a radiation level of 5 Kw/m^2 could well reach 162 metres from the center of the dike. In such an event, there could very well be an impact on railway traffic and on Henri-Bourassa Blvd.
In one of the worst-case scenarios studied, an oil slick fire following the sequential rupture of two tanks covered an area of 56,700 m^2. The zone at risk for a radiation level of 5 Kw/m^2 could reach 270 metres from the center of that area. The impacts could well be felt on the railway, Henri-Bourassa Blvd. and neighboring industries.

Figure H-5

Summary table of the results of modeled thermal radiation (5 kW/m^2)

Initial parameters	Situation	Zone at risk	Outcomes
Tank: dia.: 67.06 m *Height of liquid :* 13.17 m *Hydrocarbon type:* Brent *Combustion heat:* 43,915 kj/kg *Density:* 835.1 kg/m^3	**Tank fire**	83 m from center of tank	Limited within the retaining dike
	Oil slick fire contained in a retaining dike (17,710 m^2)	162 m from center of retaining dike	Could affect the railway and traffic on Henri-Bourassa Blvd.
	Oil slick fire 56,700 m^2	270 m from center of area	Could affect the railway, traffic on Henri-Bourassa Blvd. and neighbouring industries

Boil-over
If a tank fire burned a few hours in the presence of water at the bottom of the tank, a boil-over could occur and result in a huge fireball. The time required for a boil-over to happen is a function of the crude's physicochemical characteristics and the level of crude above water in the tank. The following four (4) conditions would have to be present for a boil-over to occur:

- the presence of water at the bottom that may transform itself into vapor;
- the creation of a heat wave whose speed is superior to that of combustion;
- a sufficiently viscous hydrocarbon for the vapor, created through contact with the heat wave and the water at the bottom of the tank, to be unable to easily cross the layer of hydrocarbon from the bottom of the tank;
- a hydrocarbon whose average boiling point is sufficiently elevated.

The outcomes of a boil-over have been modeled using a mathematical model designed by Tecsult on the basis of research conducted by INERIS in France.
In the worst case (tank filled at 90% of capacity and fast combustion speed) boil-over could occur within 17 hours and result in a fireball of a diameter exceeding 800 metres. The zone at risk could spread to 1,674 metres from the center of the tank. With the tank filled at 50% of capacity, boil-over could occur within 8.7 hours and result in impacts 1,223 metres away.

Smoke plume
During a crude oil fire, various combustion byproducts are emitted. The dispersion of toxic fumes during a fire was modeled using ALOFT-FT v.3.05 (A Large Outdoor Fire Plume Trajectory model – Flat Terrain) software from the US National Institute of Standards and Technology. In the case of a tank fire, modelization has demonstrated that the MUC's air quality standards at ground level were always complied with, except in high-wind conditions (10 m/s). The standards could then be exceeded with respect to airborne particles (MUC standard: 190 µg/m^3 – 8 hrs) and the concentration in HAP (MUC standard: 0.1 µg/m^3 – 8 hrs). Despite this, these concentrations would not represent a major risk for the neighboring populations. However, certain more sensitive people, for instance those suffering from respiratory ailments, could be affected, in which case confining them indoors with the windows shut would eliminate the risk.

Figure H-6

Summary table of the results of a modeled tank fire

(maximum concentrations recorded at about 9.5 km from the tank)

Initial parameters	Maximum concentration conditions	Parameters	Maximum concentration at ground level (µg/m3)
Hydrocarbon type: Brent (average crude, dry) *Tank diameter*: 67.06 m^2 *Combustion heat*: 43,915 kj/kg	Wind stability: 10 m/s	Particles	395
		CO	91
		SO_2	40
		NOx	3
		COV	18
		HAP	0.3

The modeling of a situation involving the sequential rupture of two tanks and an oil slick fire of about 56,700 m^2 is much more complex. Indeed, no model has yet been designed that takes into account such a complex situation. The ALOFT-FT software enables the modeling of the dispersion of an oil slick of less than 6,000 m^2.

The area covered being approximately sixteen (16) times larger than that of a tank, the presumption is that sixteen (16) times the amount of combustion byproducts will be emitted. If this hypothesis of sixteen (16) times more combustion byproducts generating sixteen (16) times more concentrations in the ambient air is examined, then concentration estimates in the ambient air would be those indicated in the schedule below. The estimates are compared to the MUC's ground level concentration standards (8 hrs) and to the values that are allowed over a period of 8 hours (from the regulation on quality in the work environment S-2.1, r.15).

Figure H-7

Summary table of the estimates of a modeled oil slick fire of 56,700 m^2

Maximum concentration conditions	Parameters	Maximum concentration at ground level (µg/m^3)	MUC standard for 8 hrs (µg/m^3)	Standard in the work environment (µg/m^3)
Wind stability: 10 m/s	Particles	6,300	190	10,000
	CO	1,500	15,000	40,000
	SO_2	640	490	52,000
	NO_2	50	253	56,000
	COV	290	150	30,000
	HAP	5	0.1	200

Montréal-Centre's Public Health Division has established criteria for particles and SO_2 to be

applied to such a scenario. The synergetic effects provoked by these two substances during a simultaneous exposure are taken into consideration.
The CSST (Occupational Safety & Health Administration) standard defined in the regulation on the quality of the work environment for soot-like particles (carbon black) is 3,500 µg/m^3 for an exposure period of 8 hours. A safety factor of 10 allows us to take into consideration segments of the population that are more sensitive. A concentration of 350 µg/m^3 for an 8-hour period is thus obtained. Should the fire last more than 8 hours, it is then recommended that the MUC standard for 24 hours be used (150 µg/m^3).

As regards sulfur dioxide, a safety factor of 10 was applied to the ERPG-2 (Emergency Response Planning Guideline) value of 3 ppm for a one-hour period in order to consider an 8-hour exposure to fire; the value thus arrived at is 750 µg/m^3. If the exposure period is greater than 8 hours, it is then recommended that the MUC standard (260 µg/m^3) for 24 hours be used.

Figure H-8

Summary table of the reference values suggested by Montréal-Centre's Public Health Division

Parameters	8-hr period (µg/m^3)	Période exceeding 8 hrs (µg/m^3)
Particles	350	150
SO_2	750	260

Confined explosions
A confined explosion may occur in a tank or, if the leak is not detected and contained, in a sewer network.

In the first case, an explosion within the tank would have limited consequences. For tanks complying with the API 650 standard, the roof would be projected skyward in the retaining dike without an important projection of hydrocarbon and the integrity of the casings would be preserved. The force of the blast is also skyward and the waves of lateral suppressions are weak and of no consequence. Manhole covers that are not properly fixed to the roof may be projected at greater distances, but the tank fire normally following a confined explosion would represent the greatest risk (see the preceding section).

The risk of a confined explosion within the sewer network could occur if large quantities of crude oil leaked into the subterranean network. Such an contingency is highly unlikely given the safety measures in place that enable the speedy detection of a spill and the avoidance of any leakage in the sewers.

Devastating outcomes have been recorded with the explosion of hydrocarbons vapors in sewers (craters of many metres in height, demolition of roadways and homes, loss of life, serious injuries, etc.). This contingency must be considered in an emergency response plan though it is very unlikely to occur.

Leakage
Leakages of various importance are likely to occur in a tank farm. The damage is normally contained in the retention dike and are limited to environmental impacts. Leakage may also occur in the lines outside the retention dike. Many safety systems are in place to alert the staff in the event of a major leak.

Domino effects
The storage tank farm is located in an industrial environment comprising certain risks. In the event of a major leak of toxic substances, the facilities may be operated from a distance. Should a railway accident occur in the vicinity of the facilities and result in a BLEVE (Boiling Liquid Expanding Vapor Explosion), the incident by itself would have greater consequences than the damage generated by an overpressure wave on the tanks. Finally, the distances between the tank farm and neighboring petrochemical facilities is sufficient to avoid any damage on either side.

The possibility of a domino effect cannot be ignored given the outcomes of such a scenario. However, the facilities' design according to industry best practices makes such a scenario highly unlikely.
Accordingly, the following recommendations have been implemented::

- tanks with internal floating roofs have been installed;
- retention dikes are earthen;
- outlet stop valves (or an equivalent system) have been installed on the outtakes of tanks.

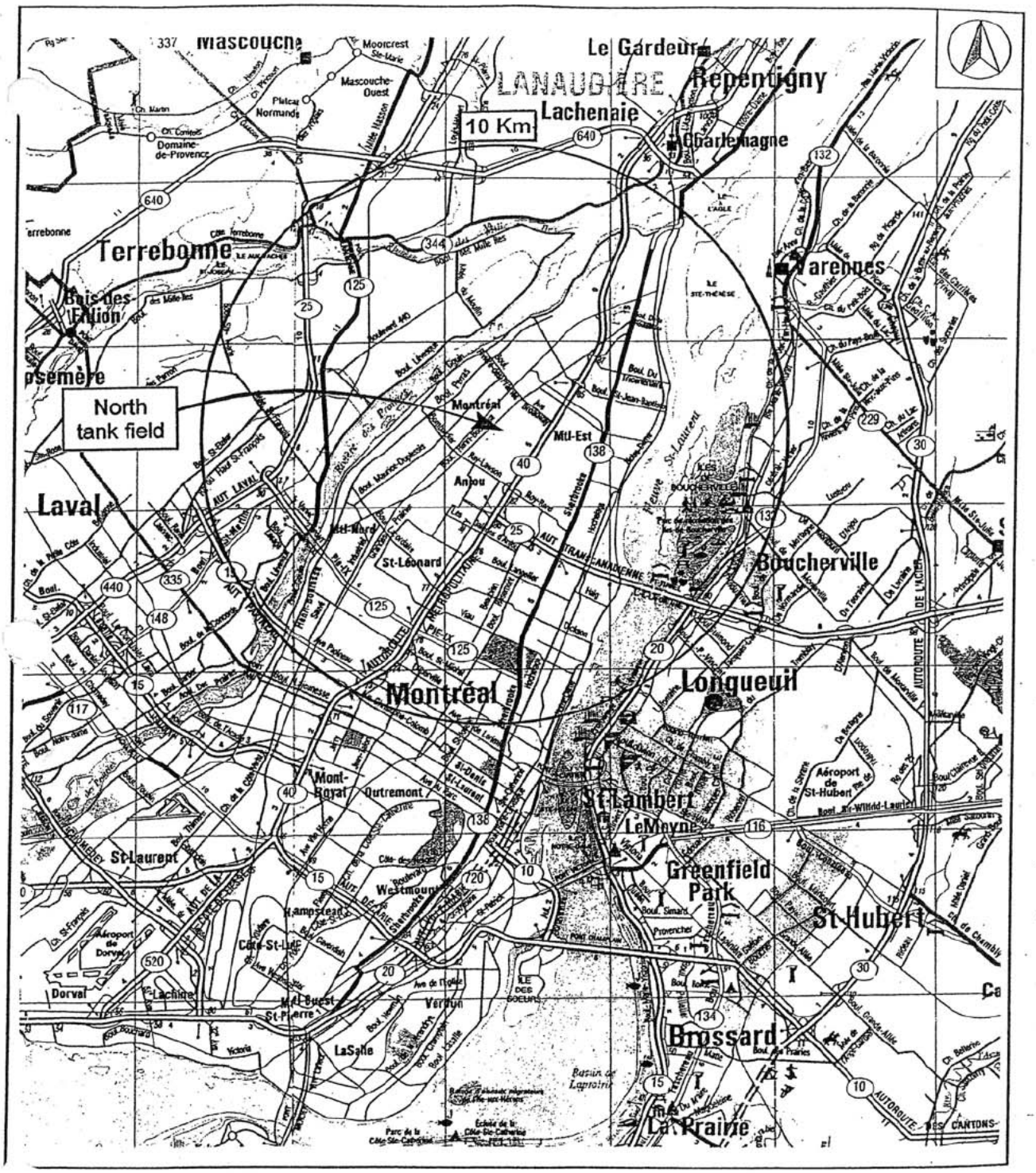
Hazardous Materials Inventory

For the hazardous materials inventory, refer to the MSDS listings for MPL.

Sensitive Areas Within a Radius of the NTF

For Sensitive Areas within a radius of the NTF, see figures:

Figure H-9 Localisation Map – 10 km Radius
Figure H-10 Modeled Tank Fire Summary Table
Figure H-11 Modeled Oil Slick Fire Summary Table



e : Le grand atlas routier du Québec, La Cartothèque, 1995.

Figure H-9
Localisation Map – 10 km Radius

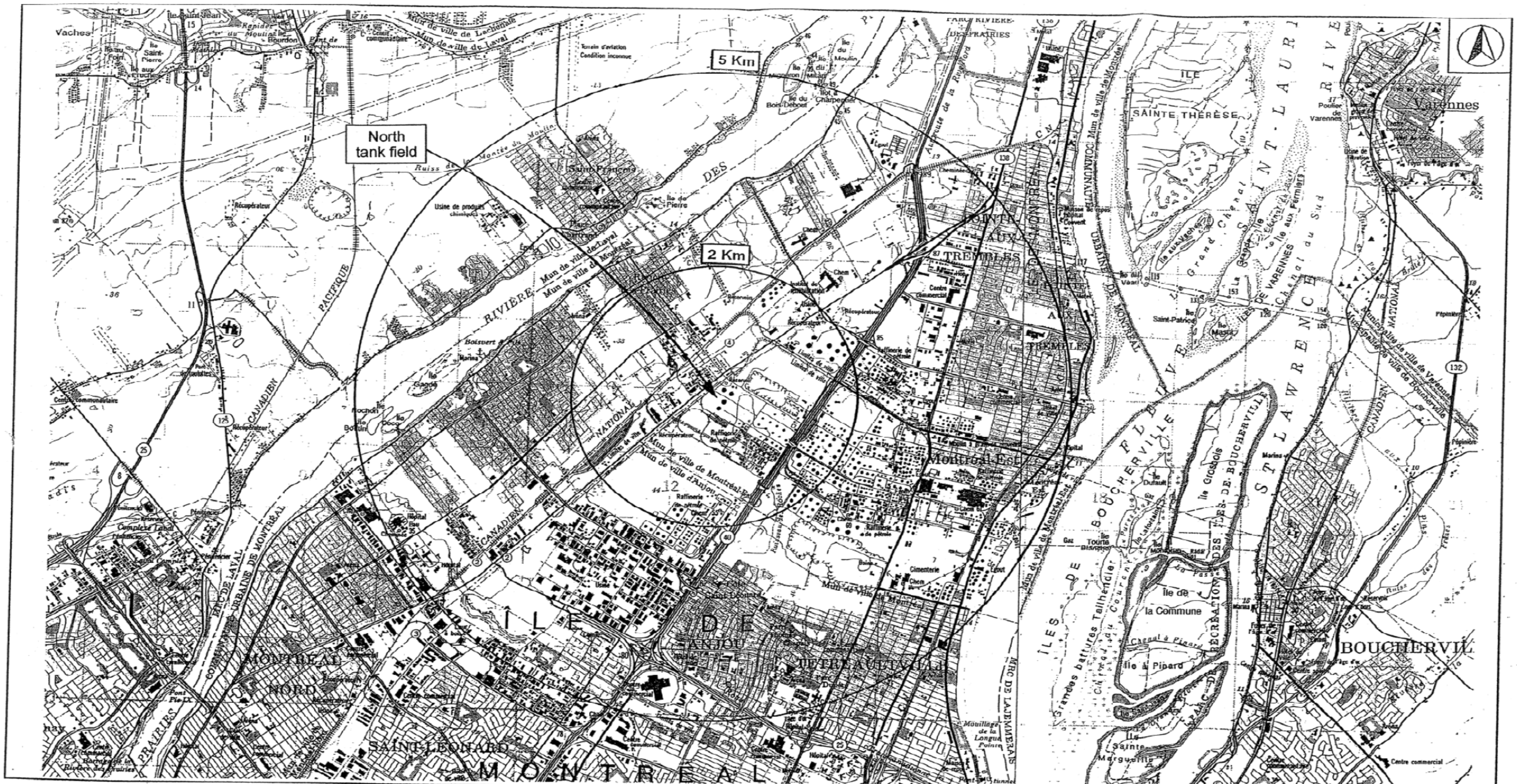
0 2.5 5 Km
Approx. scale (1: 175 000)

DDH Environnement ltée
555, boul. René-Lévesque Ouest
19e étage, Montréal (Québec)

Figure H-9 (continued)

LIST OF TOWNS AND DISTRICTS LOCATED IN A 10 km RADIUS

Town or District	Town or District local emergency phone number	Emergency phone number (from Montreal-Est)
- Montreal	911	911
-Montreal-Est District	514-645-7431	911
-Montreal-Nord District	514-328-4027	911
-Saint-Leonard District	514-328-8400	911
-Anjou District	514-280-1745	911
Longueuil -Boucherville District	450-463-7000 450-449-8100	911
- Lachenaie	450-471-2424	911
- Laval	450-978-8000	911



Source : Centre canadien de cartographie, ressources naturelles Canada, 31 H/11 et 31 H/12.

Figure H-10
Localisation Map – 2 km and 5 km Radius

0 1 2 Km
Approx. Scale (1: 50 000)

DDH Environnement ltée
555, boul. René-Lévesque Ouest
19e étage, Montréal (Québec)

Établissements situés dans un périmètre de 10 km autour de l'usine Les Pipelines de Montréal

No	Km	Nom_installation
2 293	3	Centres jeun. de Mtl - Campus Cité des Prairies
1 317	3	CLSC Rivière-des-Prairies
2 282	3	École La cité
2 289	3	École La passerelle
2 336	3	Foyer de groupe enfance famille - T1
1 249	3	Institut Philippe Pinel Mtl
1 251	3	Pavillon Claude et Claire
2 418	3	Rivière-des-Prairies
2 412	5	Anjou
1 444	5	Atelier de travail Edison
913	5	Au bord du fleuve
1 284	5	Centre d'accueil Judith Jasmin
2 420	5	Centre de jour/soir de l'Est
986	5	Centre Le Royer
1 134	5	Centre Triest
1 509	5	CHSLD Bourget
2 408	5	Clinique Anjou et clinique St-Léonard
2 413	5	Clinique de gérontologie psychiatrique
2 404	5	Clinique Pointe-aux-Trembles / Montréal-Est
1 480	5	CLSC Mercier-Est/Anjou
2 045	5	CLSC Mercier-Est/Anjou
2 466	5	CLSC Mercier-Est/Anjou
2 343	5	Foyer de groupe 16e avenue
2 312	5	Foyer de groupe adolescence 1 - T1
2 355	5	Foyer de groupe adolescence 2 - T1
1 378	5	Foyer Lachapelle
1 234	5	Le pavillon M. et D. Des Chenes inc.
2 417	5	Montréal-Est/Pointe-aux-Trembles
889	5	Pavillon Lagauchetière
893	5	Pavillon Laurendeau enr.
910	5	Pavillon Louis-Riel
915	5	Pavillon Robert enr.
1 279	5	Pavillon St-Marc
908	5	Pavillon Suzanne Blanchard
904	5	Pavillon Théberge
1 404	5	Résidence Sainte-Claire

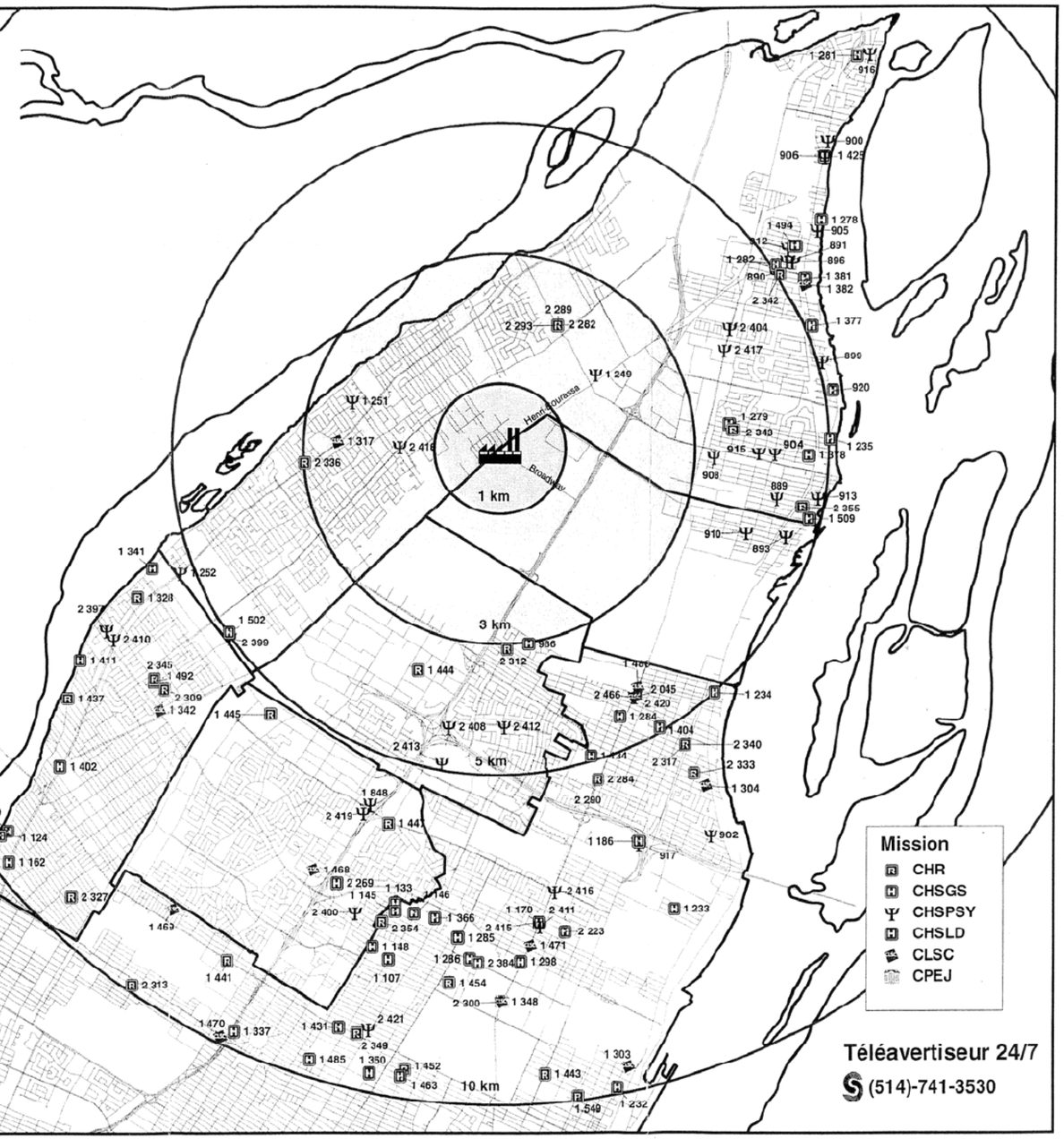


Figure H-11

RRSSSMC - 2001 / Coordination des mesures d'urgence pour le réseau

APPENDIX I

PMPL MAIN LINE INFORMATION

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Figure I-1

PMPL Main Line Profile Drawing - J 162

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APPENDIX J

US NATIONAL RESPONSE SYSTEM

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NATIONAL RESPONSE SYSTEM

National Contingency Plan

The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases. The National Contingency Plan is the result of our country's efforts to develop a national response capability and promote overall coordination among the hierarchy of responders and contingency plans.

The first National Contingency Plan was developed and published in 1968. Congress has broadened the scope of the National Contingency Plan over the years. In June 1970, this plan was incorporated as part of the Code of Federal Regulations and applied to all navigable waters and adjoining shorelines of the United States. As required by the Clean Water Act of 1972, the NCP was revised the following year to include a framework for responding to hazardous substance spills as well as oil discharges. Following the passage of Superfund legislation in 1980, the NCP was broadened to cover releases at hazardous waste sites requiring emergency removal actions. Over the years, additional revisions have been made to the NCP to keep pace with the enactment of legislation.

To ensure adequate preplanning and provisions for responding to oil spills, the National Contingency Plan established the National Response Center, the National Response Team, the Regional Response Center, Regional Response Teams and the On-Scene Coordinator (Figure J1.1).

National Response Team (NRT)

National planning and coordination for oil spill response is the responsibility of the National Response Team (NRT). The NRT is responsible for evaluating methods for responding to oil spills and hazardous substances spills, and recommending changes to the National Contingency Plan. The NRT also develops procedures to coordinate activities for federal, state and local governments, and private response organizations.

The NRT consists of representatives from each of the agencies shown in Figure J1.2. Normally, the NRT is chaired by the EPA representative while the USCG representative serves as the vice-chairman. If it is activated for spills within the coastal zone of the United States, the USCG representative will hold the chair.

The NRT can be activated when an oil spill exceeds the capability of the Regional Response Team in which it occurs, crosses national boundaries, or presents a significant threat to a population, national policy, property, or national resources; or when requested by any NRT member.

Once activated, the NRT may:

1. Monitor the spill, evaluate reports from the On-Scene Coordinator (OSC), and recommend appropriate actions for abating the spill.

2. Request oil spill response resources from federal, state, and local governments or private agencies.

3. Coordinate the supply of equipment, personnel, or technical advice to the affected region from other regions or districts.

FIGURE J-1.1

NATIONAL RESPONSE SYSTEM ORGANIZATION

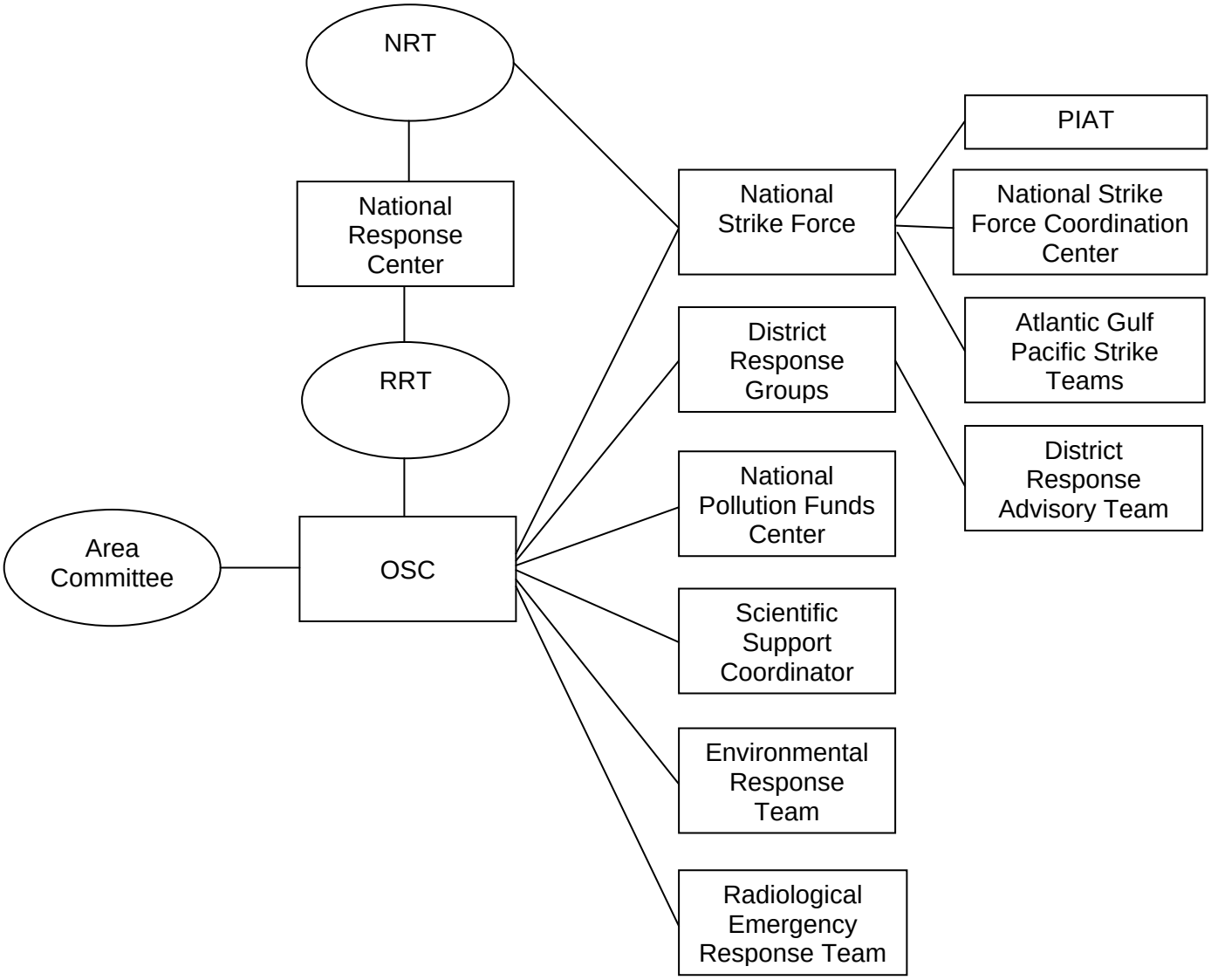
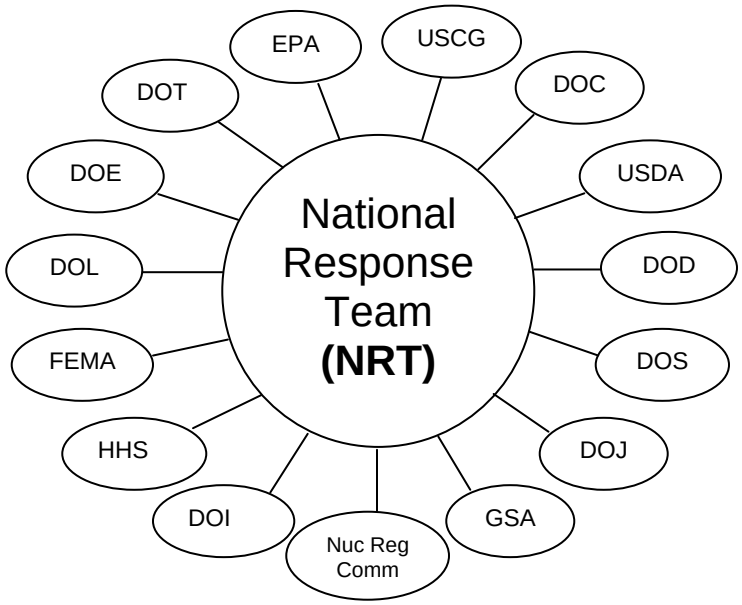


FIGURE J-1.2

FEDERAL REPRESENTATION ON NATIONAL RESPONSE TEAM



DOC	**Department of Commerce** **Scientific expertise from NOAA for marine mammals & oil spill response**	**DOT**	**Department of Transportation** **Expertise on all modes of transporting oil & hazardous substances**
DOD	**Department of Defense** **Oil spill response equipment, ship salvage, and boarding & diving**	**EPA**	**Environmental Protection Agency** **Information on environmental impact of spills & provide scientific support coordination**
DOE	**Department of Energy** **Removal & disposal of radioactive contamination**	**FEMA**	**Federal Emergency Management Agency** **Coordinate civil emergency planning & mitigation efforts**
DOH	**Department of Health** **Assess health hazards associated with response operation & recommend steps for worker & public safety**	**GSA**	**General Services Administration** **Provides logistical and telecommunications support to federal agencies**
DOI	**Department of Interior** **Expertise on fish & wildlife**	**HHS**	**Department of Health and Human Services** **Assists with the assessment, preservation, and protection of human health and helps ensure the availability of essential human services**
DOJ	**Department of Justice** **Answer legal questions on spills & response actions**	**USCG**	**United States Coast Guard** **Establishes spill contingency planning requirements for vessels and facilities, and OSC responsibilities for wasteful zone**
DOL	**Department of Labor** **Expertise needed to minimize exposure to hazardous material during response operation**	**USDA**	**United States Department of Agriculture** **Input on the effect of soil contamination by hazardous and oil spills**

National Response Center (NRC)

The National Response Center (NRC) receives and distributes reports regarding oil and hazardous substances spills. It is located at the USCG Headquarters in Washington, D.C., and can be contacted by dialing the phone number listed in Figure 2.5.

Oil spills must be reported to the National Response Center (See External Notifications for reporting criteria). If a direct report to the National Response Center is not practical, reports may be made to the USCG or EPA predesignated OSC for the geographic area where the spill occurs. If it is not possible to immediately notify the National Response Center or the predesignated OSC, reports may be made immediately to the nearest USCG unit provided that the spiller notifies the NRC as soon as possible. Once the NRC receives notification of a spill, it will promptly notify the appropriate OSC and authorize him to proceed with the appropriate response actions as outlined in the National Contingency Plan.

Regional Response Team (RRT)

The Regional Response Team (RRT) develops oil spill response contingency plans for specific regions of the United States. This team is staffed by representatives from the agencies shown in Figure J1.2 and may include representatives of local governments as agreed upon by the specific State in which the RRT is operative.

The RRT is jointly chaired by the EPA and USCG representatives. See Figures J1.3 and J1.4 for the EPA Regions and the USCG Districts respectively. When activated for inland spills, the EPA representative will be the chairperson. If activated for offshore spills, the USCG representative shall be the chairperson.

The RRT includes two (2) components: a standing team and an incident-specific team. The standing team:

1. reviews regional and local responses to various spills, recommends revisions to the National Contingency Plan, encourages state and local communities to improve their preparedness for oil spill response activities, and reviews actions performed by the On-Scene Coordinator.

2. performs advanced planning for dispersants, surface collection agents, burning agents, biological additives, or other chemical agents that are authorized by the National Contingency Plan.

The incident-specific response team can be activated if an oil spill exceeds the response capability available to the On-Scene Coordinator, if the spill crosses regional boundaries, or if a spill presents a substantial threat to human health and welfare, the environment, or significant amounts of property. It can be activated during a pollution emergency when requested by the Federal On-Scene Coordinator.

The incident-specific response team may:

1. monitor and evaluate reports from the On-Scene Coordinator and recommend specific actions for improving the response operation.

Regional Response Team (Cont'd)

2. request federal, state or local governments, or private organizations to provide resources for responding to the spill.

3. help the On-Scene Coordinator prepare information releases for the public.

4. recommend that a different OSC be designated for the response operation.

5. provide information that will assist the OSC to make timely and appropriate decisions for the response operations.

Federal On-Scene Coordinators

Federal On-Scene Coordinators (FOSC) are predesignated by the U.S. Coast Guard or Environmental Protection Agency. The FOSC collects pertinent facts about the spill, its source and cause, and the parties responsible for the spill. The FOSC also determines the potential impact the spill could have on human health and welfare, and whether it presents a significant threat to the environment. In addition, the FOSC establishes priorities for minimizing the impact of oil spills.

If the spiller assumes responsibility for the spill, the FOSC will monitor the clean-up activity. Otherwise, the FOSC will initiate the response operation and hire commercial contractors as required to clean up the spill as quickly as possible. If commercial resources are not available, the FOSC will deploy federal resources. Reimbursement of any federal funds will be sought from the spiller expenditures after the response. Federal personnel and equipment can be obtained from the National Strike Force and the U.S. Navy.

When a spill report is received, the FOSC will:

1. notify the Regional Response Team (RRT) and National Response Center (NRC).

2. investigate the report to determine pertinent information such as the threat posed to public health and welfare, or the environment.

3 officially classify the size of the discharge and determine the course of action to be followed.

4. determine whether the spiller is properly carrying out the clean-up operation.

5. determine whether the State or local government has the capability to carry out response actions and if a contract or cooperative agreement has been established with the appropriate Fund Administrator for this purpose.

6. notify the Regional Response Team and the trustees of the affected natural resources in accordance with the applicable regional plan.

Within 60 days after a major oil spill, the FOSC shall submit to the RRT a complete report on the response operation and the actions taken. A copy of this report will be submitted to the National Response Team. The format for this report is provided in the National Contingency Plan.

On-Scene Coordinators (Cont'd)

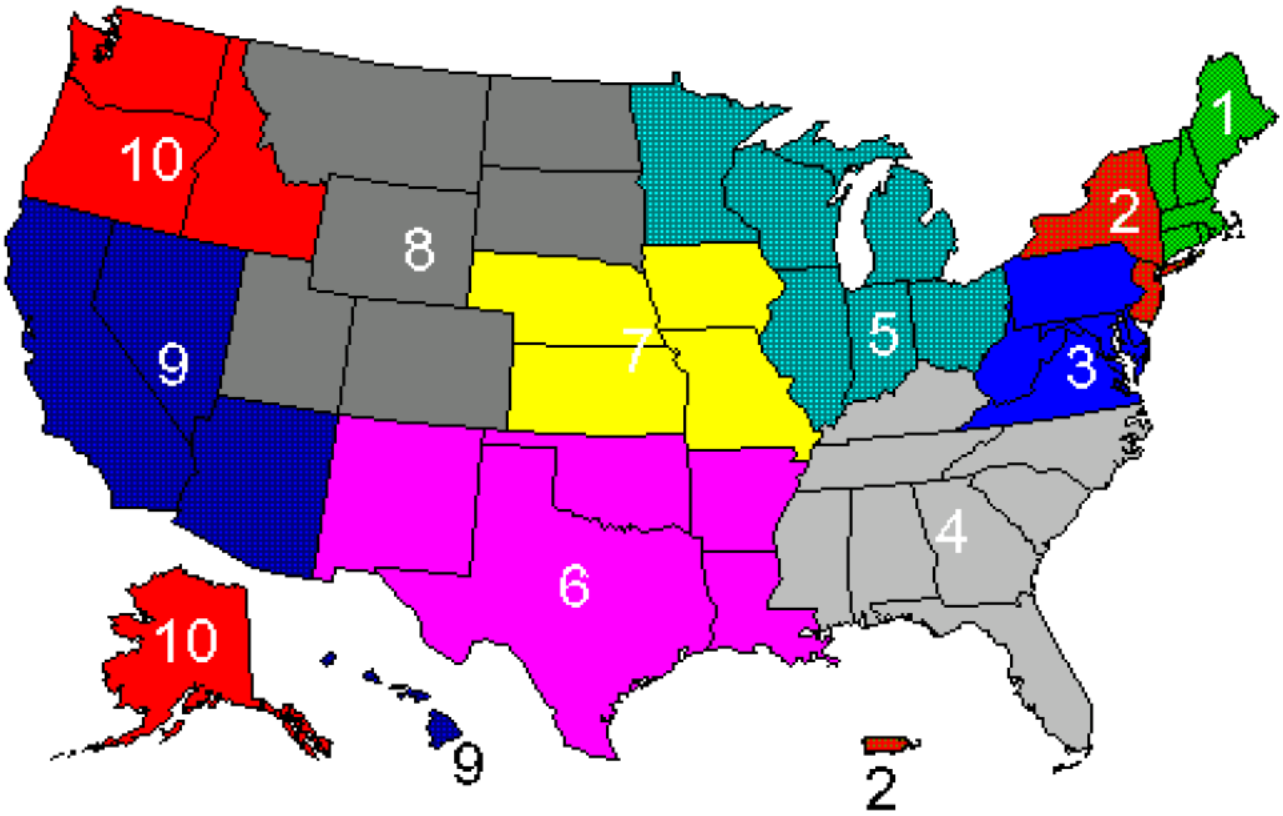
Each FOSC is responsible for developing and updating Area Contingency Plans. Each plan should be a multi-agency effort involving all agencies that would have a role in the local response effort.

National Strike Force (NSF)

The National Strike Force (NSF) was formed in 1973 after the U.S. Coast Guard was charged with oversight and responsibilities for offshore oil spills under the Federal Water Pollution Control Act. The NSF consists of the Pacific, Gulf and the Atlantic Area Strike Teams. These teams provide experienced personnel and equipment necessary for assisting the FOSC in responding to spills in U.S. waters.

The NSF is always on call and maintains a stock of specialized equipment for deployment anywhere in the nation and, in some cases, overseas. This equipment includes open water oil containment and recovery systems, high capacity pumps for transferring oil and chemicals, and protective clothing for working with hazardous materials. Most of this equipment is designed to fit into Coast Guard C-130 cargo planes or load onto flatbed trucks for fast response.

FIGURE J-1.3

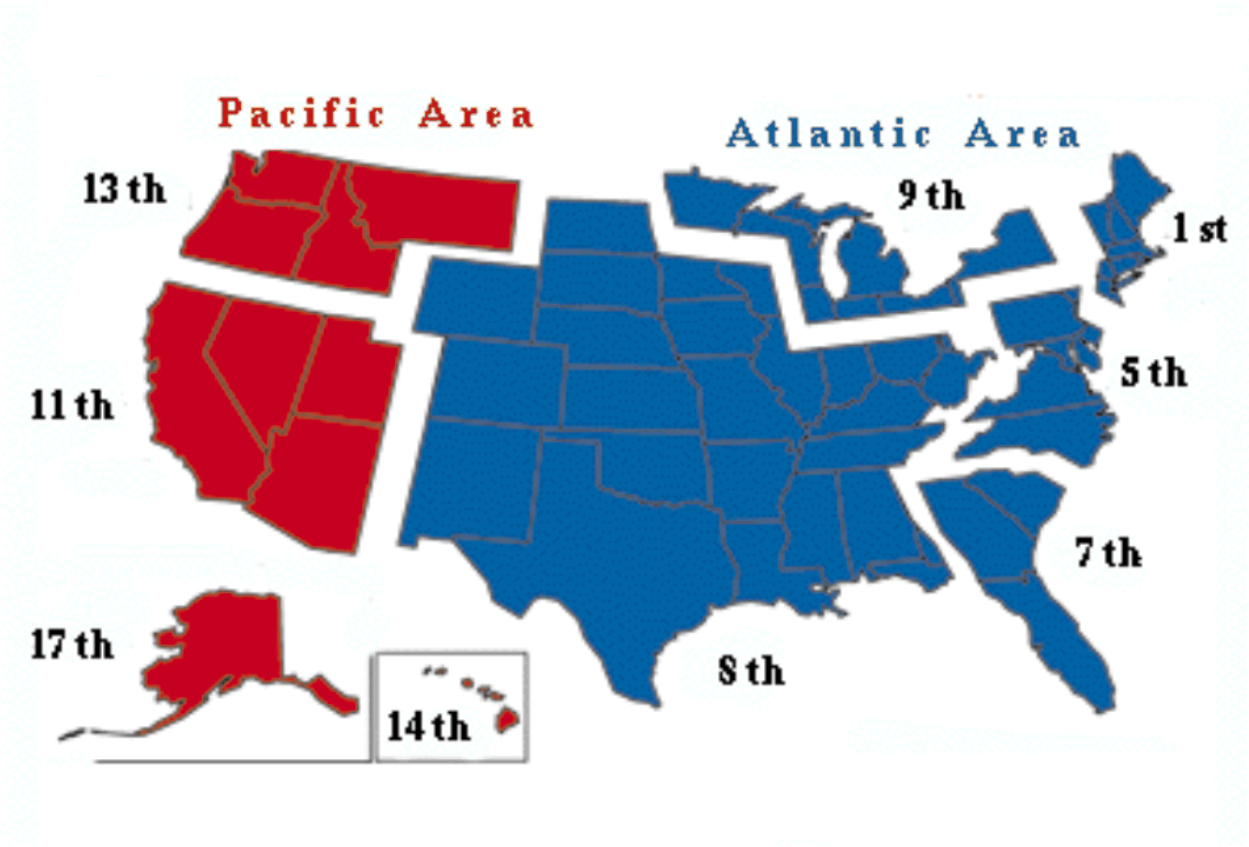


U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGIONAL OFFICES

EPA Region 1, Office John F. Kennedy Federal Bldg. Boston, MA 02203	EPA Region 2 Office 26 Federal Plaza New York, NY 10278	EPA Region 3 Office 1650 Arch Street Philadelphia, PA 19103-2029
EPA Region 4 Office 61 Forsythe, 11th Floor Atlanta, GA 30303	EPA Region 5 Office 77 West Jackson Blvd. Chicago, IL 60604	EPA Region 6 Office 1445 Ross Avenue Dallas, TX 75202
EPA Region 7 Office 726 Minnesota Avenue Kansas City, KS 66101	EPA Region 8 Office 999 18th Street Denver, CO 80202	EPA Region 9 Office Public Information Center 215 Fremont Street San Francisco, CA 94105
EPA Region 10 Office 1200 6th Avenue Seattle, WA 98101	U.S. EPA Office of Solid Waste 401 M Street SW Washington, DC 20460-5101	RCRA / Superfund Hotline (800) 424-9346 (in Washington, DC, (202) 879-2693)

FIGURE J-1.4

U.S. COAST GUARD (USCG) DISTRICTS



1st Coast Guard District Battery Park Bldg., Rm. 212 1 S. Street New York, NY 10004-5099 (212) 668-7114	11th Coast Guard District Coast Guard Island Building 51-1 Alameda, CA 94501-5100 (510) 437-3700
5th Coast Guard District Federal Building 431 Crawford Street Portsmouth, VA 23704-5004 (757) 398-6272	13th Coast Guard District 915 2nd Avenue, Suite #3352 Seattle, WA 98174-1067 (206) 220-7237
7th Coast Guard District Federal Building 909 S.E. 1st Ave., Room #954 Miami, FL 33131-3050 (305) 415-6683	14th Coast Guard District PJKK Federal Building 300 Ala Moana Blvd. Honolulu, HI 96850-4982 (808) 541-2121
8th Coast Guard District Hale Boggs Federal Building 501 Magazine Street New Orleans, LA 70130-3396 (504) 589-6198	17th Coast Guard District P.O. Box 25517 Juneau, AK 99802 (907) 463-2025
9th Coast Guard District 1240 E. 9th Street Cleveland, OH 44199-2060 (216) 902-6020	

* Note: These addresses may differ from those listed on the Distribution List.

APPENDIX K

MISCELLANEOUS FORMS

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Maine DEP Initial Spill Information Report Form K-21

Oil Discharge Report to the State of Maine K-22

SPCC Spill Report K-23

Documentation Forms

Discharge Prevention Meeting Log..... K-24

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MISCELLANEOUS FORMS

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Reporting Forms

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NEB Detailed Incident Report Form K-35

Documentation Forms

Ministry of Natural Resources Spill Report Log K-39

Forms and Exercise Documentation
File Maintenance Procedures

- Forms and exercise documentation records should be maintained in a separate file in the Facility's office filing system.
- These files must be available for presentation upon request by regulatory agency personnel.

Figure 2.1
EMERGENCY / SPILL REPORTING FORM & CHECK LIST

Date: _____ ***Time:*** _____

INCIDENT DESCRIPTION

Reporter's Full Name: _____ *Position:* _____
Day Phone Number: _____ *Evening Phone Number:* _____
Company: _____ *Organization Type:* _____
Facility Address: _____ *Owner's Address:* _____
_____ _____
Facility Latitude: _____ *Facility Longitude:* _____
Spill Location: _____
(if not at Facility) _____
Reporter's Full Name (If other than employee): _____
Day Phone Number: _____
Company: _____
Facility Address: _____
_____
Responsible Party (If Known):
Company: _____ *Organization Type:* _____
Facility Address _____
_____
Telephone Number: _____
Calling for Responsible Party (Y/N): _____
Were materials discharged (Y/N)? _____ *Type of Crude Spilled:* _____
Source and/or cause of discharge: _____
Date: _____ Time: _____ Does it Threaten a Body of Water (Y/N)? _____
Nearest City: _____
County: _____ *State:* _____ *Zip code:* _____
Section: _____ *Township:* _____
Distance from City: _____ *Direction from City:* _____
Container Type: (Above ground /Below ground/ Unknown) *Container Storage Capacity:* _____
Facility Oil Storage Capacity: _____
Mile post or River Mile: _____ Closest Pump Station: _____
Material:

Total Quantity Released	Discharged Material	Water Impact (Yes or No)	Quantity into Water

Does Fire threaten Surrounding installations? _____ *Source of Fire:* _____

RESPONSE ACTION(S)

Action(s) taken to Correct, Control, or Mitigate Incident: _____
_____
_____
Number of Injuries: _____ *Number of Fatalities:* _____
Evacuation(s): _____ *Number Evacuated:* _____
Damage Estimate: _____
More information about impacted medium: _____

CALLER NOTIFICATIONS

National Response Center (NRC): 1-800-424-8802
Additional Notifications (Circle all applicable): *USCG EPA State Province TSB Environment Canada Other*

ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in this report: _____
_____
_____

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NATIONAL INCIDENT MANAGEMENT SYSTEM
INCIDENT COMMAND SYSTEM FORMS
(NIMS ICS FORMS)

IAP Cover Sheet	***Incident Action Plan Cover Sheet***
ICS 201-CG*	Incident Briefing
ICS 202-CG*	Incident Objectives
ICS 203-CG	Organization Assignment List
ICS 204-CG	Assignment List
ICS 204a-CG	Assignment List Attachment
ICS 205-CG	Incident Radio Communications Plan
ICS 205a-CG	Communications List
ICS 206-CG	Medical Plan
ICS 207-CG*	Incident Organization Chart
ICS 208-CG* (use PMPL Site Safety Plan)	Site Safety Plan
ICS 209-CG* (SITREP/Opsum)	Status Summary
ICS 209H-CG*	Hurricane and Severe Weather Response
ICS 211-CG	Check-In List
ICS 213-RR-CG	Resource Request
ICS 213-CG	General Message
ICS 214-CG	Unit Log
ICS 215-CG*	Operational Planning Worksheet
ICS 215a-CG	IAP Safety Analysis
ICS 216-CG	Radio Requirements Worksheet
ICS 220-CG	Air Operations Summary
ICS 221-CG	Demob Check Out
ICS-225-CG*	Incident Personnel Performance Rating
ICS 230-CG*	Daily Meeting Schedule
ICS 232-CG*	Resources at Risk
ICS 232a-CG	ACP Site Index
ICS 233-CG	Open Action Tracker
ICS 234-CG	Work Analysis Matrix
ICS-235-CG	Facility Needs Assessment

* Key PMPL forms for initial response

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

3. Approved by Incident Commander(s):

ORG	NAME

INCIDENT ACTION PLAN

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

- ☐ ICS 202-CG (Response Objectives)
- ☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- ☐ ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- ☐ ICS 205-CG (Communications Plan)
- ☐ ICS 206-CG (Medical Plan)
- ☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____
- ☐ Map/Chart
- ☐ Weather forecast / Tides/Currents

Other Attachments

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by: **Date/Time**

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

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

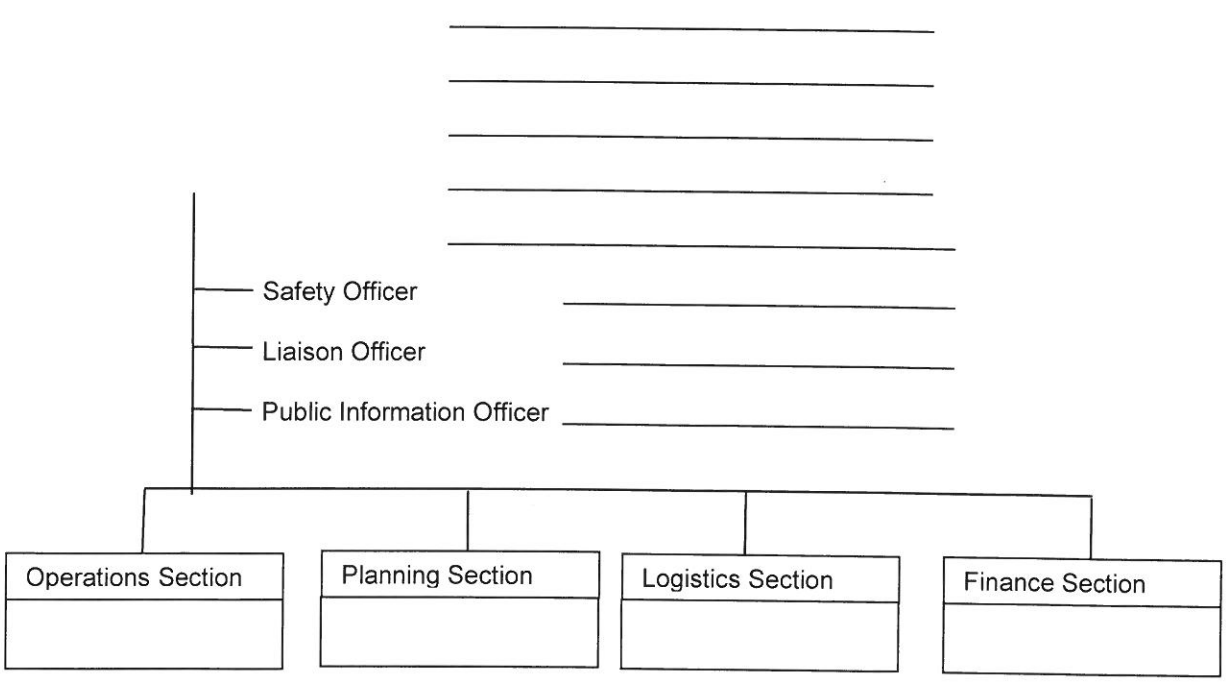
4. Current Situation:

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

5. Initial Response Objectives, Current Actions, Planned Actions

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

6. Current Organization (fill in additional appropriate organization)



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

7. Resources Summary

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

1. Incident Name	2. Operational Period: (Date/Time) From: To:	INCIDENT BRIEFING ICS 202-CG

3. Objective(s)

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directors)

Approved Site Safety Plan Located at:

5. Prepared by: (Planning Section Chief) Date/Time

INCIDENT OBJECTIVES (ICS 202-CG)

Purpose. The Incident Objectives form describes the basic incident strategy, control objectives, command emphasis/priorities, and safety considerations for use during the next operational period.

Preparation. The Incident Objectives form is completed by the Planning Section following each Command and General Staff Meeting conducted in preparing the Incident Action Plan.

Distribution. The Incident Objectives form will be reproduced with the IAP and given to all supervisory personnel at the Section, Branch, Division/Group, and Unit levels. All completed original forms MUST be given to the Documentation Unit.

Item#	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Objective(s)	Enter clear, concise statements of the objectives for managing the response. These objectives are for the incident response for this operational period and for the duration of the incident. Include alternatives.
4.	Operational Period Command Emphasis	Enter clear, concise statements for safety message, priorities, and key command emphasis/decisions/directions. Enter information such as known safety hazards and specific precautions to be observed during this operational period. If available, a safety message should be referenced and attached. At the bottom of this box, enter the location where approved Site Safety Plan is available for review.
	Site Safety Plan	Note location of the approved Site Safety Plan.
	Prepared By	Enter the name of the Planning Section Chief completing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

NOTE: ICS 202-CG, Incident Objectives, serves as part of the Incident Action Plan (IAP)

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

3. Incident Commander(s) and Staff

Agency	IC	Deputy

Safety Officer:	
Information Officer:	
Liaison Officer:	

4. Agency Representatives

Agency	Name

5. PLANNING/INTEL SECTION

Chief	
Deputy	
Resources Unit	
Situation Unit	
Environmental Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION

Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Vessel Support Unit	
Ground Support Unit	
b. Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION

Chief	
Deputy	
Deputy	
Staging Area Manager	
Staging Area Manager	
Staging Area Manager	

a. Branch – Division Groups

Branch Director		
Deputy		
Division Group		
Division Group		
Division Group		
Division/Group		
Division/Group		

b. Branch – Division/Groups

Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		

c. Branch – Division/Groups

Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		

d. Air Operations Branch

Air Operations Br. Dir	
Helicopter Coordinator	

8. FINANCE/ADMINISTRATION SECTION

Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit)	Date/Time

ORGANIZATION ASSIGNMENT LIST (ICS 203-CG) Instructions for filling out the form

Purpose. The Organization Assignment List provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit. It is used to complete the Incident Organization Chart (ICS form 207-CG) which is posted on the Incident Command Post display. An actual organization will be event-specific. **Not all positions need to be filled.** The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary.

Preparation. The Resources Unit prepares and maintains this list under the direction of the Planning Section Chief.

Note: Depending on the incident, the Intelligence and Information function may be organized in several ways: 1) within the Command Staff as the Intelligence Officer; 2) As an Intelligence Unit in Planning Section; 3) As an Intelligence Branch or Group in the Operations Section; 4) as a separate General Staff Intelligence Section; and 5) as an Intelligence Technical Specialist. The incident will drive the need for the Intelligence and Information function and where it is located in the ICS organization structure. The Intelligence and information function is described in significant detail in NIMS and in the Coast Guard Incident Management Handbook (IMH).

Distribution. The Organization Assignment List is duplicated and attached to the Incident Objectives form (ICS 202-CG) and given to all recipients of the Incident Action Plan. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Incident Commander and Staff	Enter the names of the Incident Commander and Staff. Use at least the first initial and last name.
4.	Agency Representative	Enter the agency names and the names of their representatives. Use at least the first initial and last name.
5. thru 8.	Section	Enter the name of personnel staffing each of the listed positions. Use at least the first initial and last name. For Units, indicate Unit Leader and for Divisions/ Groups indicate Division/Group Supervisor. Use an additional page if more than three branches are activated. If there is a shift change during the specified operational period, list both names, separated by a slash.
9.	Prepared By Date/Time	Enter the name and position of the person completing the form Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	Assignment List ICS 204-CG
3. Branch	4. Division/Group/Staging	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	↓
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

ASSIGNMENT LIST (ICS 204-CG)

Purpose. The Assignment List(s) informs Division and Group supervisors of incident assignments. Once the Unified Command and General Staff agree to the assignments, the assignment information is given to the appropriate Divisions and Groups.

Preparation. The Assignment List is normally prepared by the Resources Unit, using guidance from the Incident Objectives (ICS 202-CG), Operational Planning Worksheet (ICS 215-CG), and the Operations Section Chief. The Assignment List must be approved by the Planning Section Chief and Operations Section Chief. When approved, it is included as part of the Incident Action Plan (IAP). Specific instructions for specific resources may be entered on an ICS 204a-CG for dissemination to the field. A separate sheet is used for each Division or Group. The identification letter of the Division is entered in the form title. Also enter the number (roman numeral) assigned to the Branch.

Special Note. The Assignment List, ICS 204-CG submits assignments at the level of Divisions and Groups. The Assignment List Attachment, ICS 204a-CG shows more specific assignment information, if needed. The need for an ICS 204a-CG is determined by the Planning and Operations Section Chiefs during the Operational Planning Worksheet (ICS 215-CG) development.

Distribution. The Assignment List is duplicated and attached to the Incident Objectives and given to all recipients of the Incident Action Plan. In some cases, assignments may be communicated via radio/telephone/fax. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Branch	Enter the Branch designator.
4.	Division/Group/Staging	Enter the Division/Group/Staging designator.
5.	Operations Personnel	Enter the name of the Operations Chief, applicable Branch Director, and Division Supervisor.
6.	Resources Assigned	Each line in this field may have a separate Assignment List Attachment (ICS 204a-CG). Enter the following information about the resources assigned to Division or Group for this period:
	Identifier	List identifier
	Leader	Leader name
	Contact Information	Primary means of contacting this person (e.g., radio, phone, pager, etc.). Be sure to include area code when listing a phone number.
	# Of Persons	Total number of personnel for the strike team, task force, or single resource assigned.
	Reporting Info/Notes/ Remarks	Special notes or directions, specific to this strike team, task force, or single resource. Enter an "X" check if an Assignment List Attachment (ICS 204a-CG) will be prepared and attached. The Planning and Operations Section Chiefs determine the need for an ICS 204a-CG during the Operational Planning Worksheet (ICS 215-CG) development.
7.	Work Assignment	Provide a statement of the tactical objectives to be achieved within the operational period by personnel assigned to this Division or Group.
8.	Special Instructions	Enter a statement noting any safety problems, specific precautions to be exercised, or other important information.
9.	Communications	Enter specific communications information (including emergency numbers) for this division /group. If radios are being used, enter function (command, tactical, support, etc.), frequency, system, and channel from the Incident Radio Communications Plan (ICS 205-CG). Note: Phone numbers should include area code.
10.	Prepared By	Enter the name of the person completing the form, normally the Resources Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
11.	Reviewed by (PSC)	
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
12.	Reviewed by (OSC)	Enter the name of the operations person reviewing the form, normally the Operations Section Chief.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

9. Other Attachments (as needed)

- ☐ Map/Chart
- ☐ Weather Forecast/Tides/Currents
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

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

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared by: (Communications Unit) **Date / Time**

INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG (Rev.07/04)

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205-CG)

Special Note. This form, ICS 205-CG, is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period; whereas, the Communications List, ICS 205a-CG is used to list methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.).

Purpose. The Incident Radio Communications Plan is a summary of information obtained from the Radio Requirements Worksheet (ICS 216) and the Radio Frequency Assignment Worksheet (ICS 217). Information from the Radio Communications Plan on frequency assignments is normally noted on the appropriate Assignment List (ICS 204-CG).

Preparation. The Incident Radio Communications Plan is prepared by the Communications Unit Leader and given to the Planning Section Chief. Detailed instructions on the preparation of this form may be found in ICS Publication 223-5, Communications Unit Position Manual.

Distribution. The Incident Radio Communications Plan is duplicated and given to all recipients of the Incident Objectives form, including the Incident Communications Center. Information from the plan is placed on Assignment Lists. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Radio Channel	Enter the following information about radio channel use:
	System	Radio cache system(s) assigned and used on the incident.
	Channel	Radio channel numbers assigned.
	Function	Function each channel is assigned (e.g., command, support, division tactical, and ground-to-air).
	Frequency	Radio frequency tone number assigned to each specified function (e.g., 153.400)
	Assignment	ICS organization assigned to each of the designated frequencies (e.g., Branch I, Division A).
	Remarks	This section should include narrative information regarding special situations.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	COMMUNICATIONS LIST ICS 205A-CG

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

COMMUNICATIONS LIST (ICS 205a-CG)

Special Note. This optional form is used in conjunction with the Incident Radio Communications Plan, ICS 205-CG. Whereas the ICS 205-CG is used to provide information on all radio frequencies down to the Division/Group level, the Communications List, ICS 205a-CG, lists methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Purpose. The Communications List records methods of contact for personnel on scene.

Preparation. The Communications List can be filled out during check-in and is maintained and distributed by Communications Unit personnel.

Distribution. The Communications List is distributed within the ICS and posted, as necessary. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Basic Local Comms Information	Enter the communications methods assigned and used for each assignment.
	Assignment	Enter the ICS Organizational assignment.
	Name	Enter the name of the contact person for the assignment.
	Method(s) of contact	Enter the radio frequency, telephone number(s), etc. for each assignment.
4.	Prepared By	Enter the name of the Communications Unit Leader preparing the form.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

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

3. Medical Aid Stations

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

4. Transportation

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

5. Hospitals

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

6. Special Medical Emergency Procedures

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

MEDICAL PLAN (ICS 206-CG)

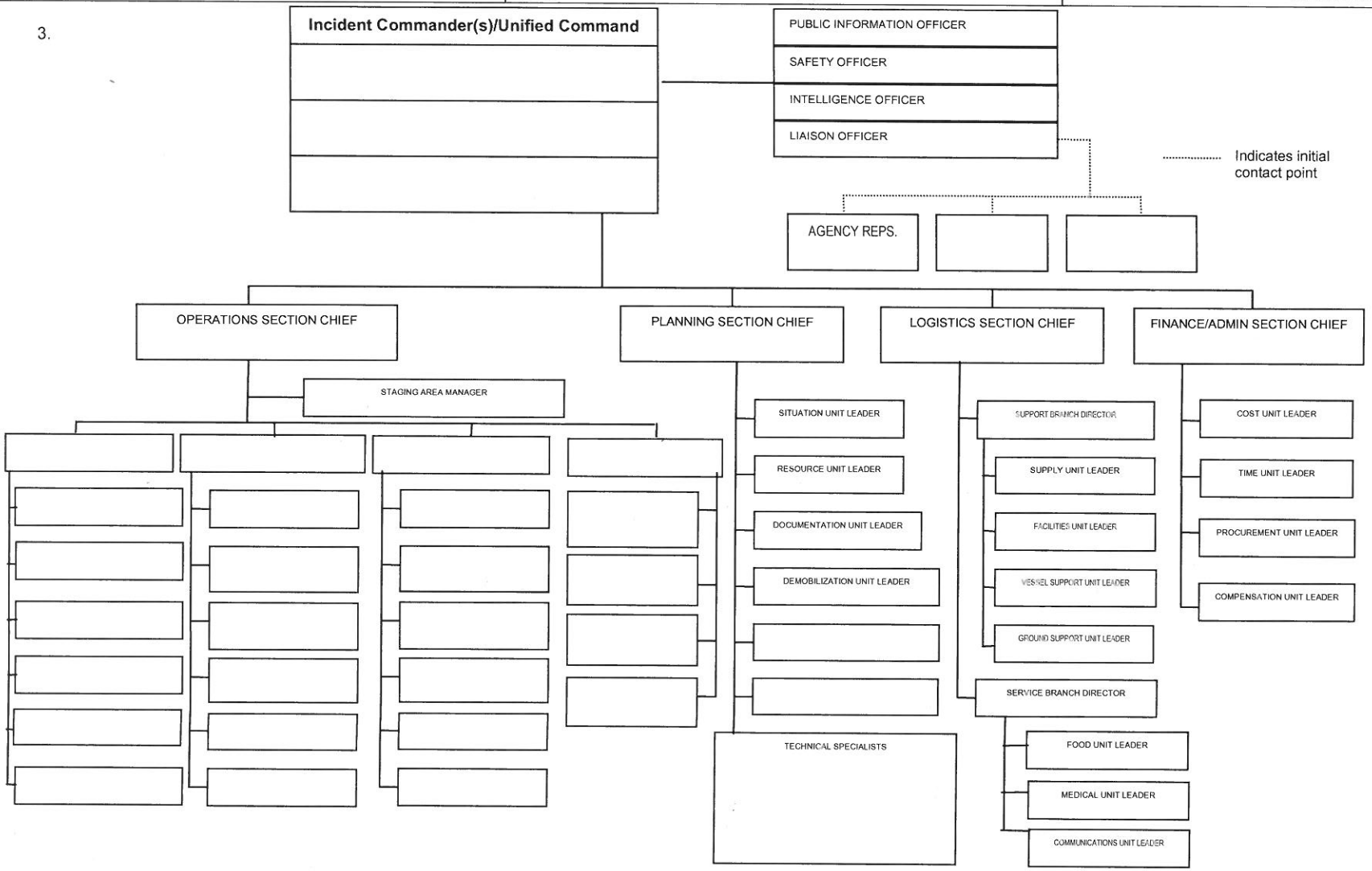
Purpose. The Medical Plan provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

Preparation. The Medical Plan is prepared by the Medical Unit Leader and reviewed by the Safety Officer.
Distribution. The Medical Plan may be attached to the Incident Objectives (ICS 202-CG), or information from the plan pertaining to incident medical aid stations and medical emergency procedures may be taken from the plan and noted on the Assignment List (ICS 204-CG) or on the Assignment List Attachment (ICS 204a-CG). All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Medical Aid Stations	Enter name, location, and telephone number of the medical aid station(s) (e.g., Cajon Staging Area, Cajon Camp Ground) and indicate if paramedics are located at the site.
4.	Transportation	List name and address of ambulance services. Provide phone number and indicate if ambulance company has paramedics.
5.	Hospitals	List hospitals that could serve this incident. Enter hospital name, address, phone number, the travel time by air and ground from the incident to the hospital, and indicate if the hospital has a burn center and/or a helipad.
6.	Medical Emergency Procedures	Note any special emergency instructions for use by incident personnel.
7.	Prepared By Date/Time	Enter the name of the Medical Unit Leader preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).
8.	Reviewed By Date/Time	Enter the name of the Safety Officer who must review the plan. Enter date (month, day, year) and time reviewed (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT ORGANIZATION CHART ICS 207-CG

3.



4. Prepared By: (Resources Unit Leader)	5. Date/Time Prepared:

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INCIDENT ORGANIZATION (ICS 207-CG) Revision 1/07

Purpose. The Incident Organization Chart provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit. An actual organization will be event-specific. **Not all positions need to be filled.** The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary.

Preparation. The Resources Unit prepares and maintains this chart under the direction of the Planning Section Chief. The ICS-203 is used to help complete the Incident Organization Chart.

Note: Depending on the incident, the Intelligence and Information function may be organized in several ways: 1) within the Command Staff as the Intelligence Officer; 2) As an Intelligence Unit in Planning Section; 3) As an Intelligence Branch or Group in the Operations Section; 4) as a separate General Staff Intelligence Section; and 5) as an Intelligence Technical Specialist. The incident will drive the need for the Intelligence and Information function and where it is located in the ICS organization structure. The Intelligence and information function is described in significant detail in NIMS and in the Coast Guard Incident Management Handbook (IMH).

Distribution. The Incident Organization Chart is is posted on the Incident Command Post display and may be posted in other places as needed (e.g. the Joint Information Center). All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident. Record the start and end date and time.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Positions	Enter the name of personnel staffing each of the listed positions. Use at least the first initial and last name. For Units, indicate Unit Leader and for Divisions/ Groups indicate Division/Group Supervisor. If there is a shift change during the specified operational period, list both names, separated by a slash.
4.	Prepared By	Enter the name and position of the person completing the form
5.	Date/Time Prepared	Enter date (month, day, year) and time prepared (24-hour clock).

Site Safety and Health Plan ICS-208-CG (rev 9/06)

Incident Name: _____ **Date/Time Prepared:** _____ **Operational Period:** _____

Purpose. The ICS Compatible Site Safety and Health Plan is designed for safety and health personnel that use the Incident Command System (ICS). It is compatible with ICS and is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response regulation (Title 29, Code of Federal Regulations, Part 1910.120). The plan avoids the duplication found between many other site safety plans and certain ICS forms. It is also in a format familiar to users of ICS. Although primarily designed for oil and chemical spills, the plan can be used for all hazard situations.

Questions on the document should be addressed to the Coast Guard Office of Incident Management and Preparedness (G-RPP).

Table of Forms

FORM NAME	FORM #	USE	REQUIRED	OPTIONAL	ATTACHED
Emergency Safety and Response Plan	A	Emergency response phase (uncontrolled)	X		
Site Safety Plan	B	Post-emergency phase (stabilized, cleanup)	X		
Site Map	C	Post-emergency phase map of site and hazards	X		
Emergency Response Plan	D	Part of Form B, to address emergencies	X		
Exposure Monitoring Plan	E	Exposure monitoring Plan to monitor exposure	X		
Air Monitoring Log	E-1	To log air monitoring data	X*		
Personal Protective Equipment	F	To document PPE equipment and procedures	X*		
Decontamination	G	To document decon equipment and procedures	X*		
Site Safety Enforcement Log	H	To use in enforcing safety on site		X	
Worker Acknowledgement Form	I	To document workers receiving briefings		X	
Form A Compliance Checklist	J	To assist in ensuring HAZWOPER compliance		X	
Form B Compliance Checklist	K	To assist in ensuring HAZWOPER compliance		X	
Drum Compliance Checklist	L	To assist in ensuring HAZWOPER compliance		X	
Other:					

** Required only if function or equipment is used during a response*

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PHMSA 000056149

EMERGENCY SAFETY and RESPONSE PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Attachments: **Attach MSDS for each Chemical:**
5. Organization IC/UC:	Safety: Div/Group Supv:	Entry Team:	Backup Team:	Decon Team:

6.a. Physical Hazards and Protection

6.b. Confined Space ☐ Noise ☐ Heat Stress ☐ Cold Stress ☐ Electrical ☐ Animal/Plant/Insect ☐ Ergonomic ☐ Ionizing Rad ☐
Slips/Trips/Falls ☐ Struck by ☐ Water ☐ Violence ☐ Excavation ☐ Biomedical waste and/or needles ☐ Fatigue ☐ Other (specify)

6.c. Tasks & Controls	6d Entry Permit	6.e. Ventilate	6f. Hearing Protection	6g. Shoes (type)	6.h. Hard Hats	6i. Clothing (cold wx)	6j. Life Jacket	6l. Work/ Rest (hrs)	6.m. Fluids (amt/time)	6.n. Signs & Barricade	6.p. Fall Protect	6.q. Post Guards	6.r. Flash Protect	6.s. Work Gloves	6.t. Other

7.a. Agent	7.b. Hazards		7.c. Target Organs	7.d. Exposure Routes	7.f. PPE	7.g. Type of PPE
	Explosive ☐ Flammable ☐ Reactive ☐ Biomedical ☐ Toxic ☐	Radioactive ☐ Carcinogen ☐ Oxidizer ☐ Corrosive ☐ Specify Other: ☐	Eyes ☐ Nose ☐ Skin ☐ Ears ☐ Central Nervous System ☐ Respiratory ☐ Throat ☐ Lungs ☐ Heart ☐ Liver ☐ Kidney ☐ Blood ☐ Lungs ☐ Circulatory ☐ Gastrointestinal ☐ Bone ☐ Other Specify: ☐	Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	Face Shield ☐ Eyes ☐ Gloves ☐ Inner Suit ☐ Splash Suit ☐ Level A Suit ☐ SCBA ☐ APR ☐ SAR ☐ Cartridges ☐ Fire Resistance ☐	

8. Instruments:	8.a. Action Levels	8.b. Chemical Name(s):	8.c. LEL/UEL %	8.d. Odor Thresh Ppm	8.e. Ceiling/ IDLH	8.f. STEL/TLV	8.g. Flash Pt/ Ignition Pt (F or C)	8.h. Vapor Pressure (mm)	8.i. Vapor Density	8.j. Specific Gravity	8.l. Boiling Pt F or C
O2 ☐											
CGI ☐											
Radiation ☐											
Total HCs ☐											
Colorimetric ☐											
Thermal ☐											
Other ☐											

PHMSA 000056150

EMERGENCY SAFETY and RESPONSE PLAN (Cont)	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Attachments: **Attach MSDS for each Chemical**

9. Decontamination:				
Instrument Drop Off ☐ Outer Boots/Glove Removal ☐ Suit/Gloves/Boot Disposal ☐	Suit Wash ☐ Decon Agent: Water ☐ Other ☐ Specify:	Bottle Exchange ☐ Outer Suit Removal ☐ Inner Suit Removal ☐ SCBA/Mask Removal ☐	SCBA/Mask Rinse ☐ Inner Glove Removal ☐ Work Clothes Removal ☐ Body Shower ☐	Intervening Steps ☐Specify:

10. Site Map. Include: Work Zones, Locations of Hazards, Security Perimeter, Places of Refuge, Decontamination Line, Evacuation Routes, Assembly Point, Direction of North
☐ Attached, ☐ Drawn Below:

11.a. Potential Emergencies:	11.b. Evacuation Alarms:	11.c Emergency Prevention and Evacuation Procedures:
Fire ☐ Explosion ☐ Other ☐	Horn ☐ # Blasts ☐ Bells ☐ #Rings ☐ Radio Code ☐ Other:	Safe Distance:

12. a. Communications:	12.b. Command #:	12.c. Tactical #:	12.d. Entry #:
Radio ☐ Phone ☐ Other ☐			

13.a. Site Security: Personnel Assigned	13.b. Procedures:	13.c. Equipment:
14.a. Emergency Medical: Personnel Assigned	14.b. Procedures:	14.c Equipment:
15. Prepared by:	16. Date/Time Briefed:	**ICS-208-CG SSP-A Page 2. (rev 9/06):** Page _____ of _____

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CG ICS SITE SAFETY PLAN (SSP) HAZARD ID/EVAL/CONTROL	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility Land☐ Water☐ Air ☐ Comments:	8. For Emergencies Contact:	9. Attachments: **Attach MSDS for each Chemical**

10.a. Job Task/Activity	10.b. Hazards*	10.c. Potential Injury & Health Effects	10.d. Exposure Routes	10.e. Controls: Engineering, Administrative, PPE
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	
			Inhalation ☐ Absorption ☐ Ingestion ☐ Injection ☐ Membrane ☐ ☐	

11. Prepared By:	12. Date/Time Briefed:	***HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	**ICS-208-CG SSP-B (rev 9/06):** Page _____ of _____

PHMSA 000056152

CG ICS SSP: SITE MAP	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Site Accessibility Land☐ Water☐ Air ☐ Comments:	8. For Emergencies Contact:	9. Include: - Work Zones - Locations of Hazards - Security Perimeter - Places of Refuge - Decontamination Line - Evacuation Routes

10. Sketch of Site:
☐ Attached. ☐ Drawn Here

11. Prepared By:	12. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	**ICS-208-CG SSP-C (rev 9/06):** Page _____ of _____

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CG ICS SSP: EMERGENCY RESPONSE PLAN	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Attachments: **INCLUDE ICS FORM 206 and EMT Medical Response Procedures**
9. Emergency Alarm (sound and location)	10. Backup Alarm (sound and location)	11. Emergency Hand Signals	12. Emergency Personal Protective Equipment Required:	

13. Emergency Notification Procedures	14. Places of Refuge (also see site map form 208B)	15. Emergency Decon and Evacuation Steps	16. Site Security Measures

17. Prepared By:	18. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving	**ICS-208-CG SSP-D (rev 9/06)** Page _____ of _____

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CG ICS SSP: Exposure Monitoring Plan	1. Incident Name	2. Date/Time Prepared:	3. Operational Period:	4. Safety Officer (Method of Contact):

5. Specific Task/Operation	6. Survey Location	7. Survey Date/Time	8. Monitoring Methodology	9. Direct-Reading Instrument	10. Air Sampling	11. Hazard(s) to Monitor	12. Monitoring Duration	13. Reasons to Monitor	14. Laboratory Support for Analysis
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	
			☐ Personal Breathing Zone ☐ Area Air Monitoring ☐ Dermal Exposure Monitoring ☐ Biological Monitoring: ☐ Blood ☐ Urine ☐ Other ☐ Obtain bulk samples ☐ Other:	Model: Manufacturer: Last Mfr Calibration Date:	Sampling/Analysis Method: Collecting Media: ☐ Charcoal Tube ☐ Silica Gel ☐ 37 mm MCE Filter ☐ 37 mm PVC Filter ☐ Other:_____			☐ Regulatory Compliance ☐ Assess current PPE adequacy ☐ Validate engineering controls ☐ Monitor IDLH Conditions ☐ Other_____	

15. Prepared By:	16. Date/Time Briefed:	**HAZARD LIST**: Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning

18. Safety Officer Review:	Reporting: Monitoring results shall be logged in the ICS-208-CG SSP-E-1 form (Air Monitoring Log) and attached as part of a current Site Safety Plan and Incident Action Plan. Significant Exposures shall be immediately addressed to the IC and General Staff for immediate correction.	**ICS-208-CG SSP-E (rev 9/06)** Page _____ of _____

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CG ICS SSP: AIR MONITORING LOG	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)	
5. Site Location	6. Hazards of Concern	7. Action Levels (include references):		8. Weather: Temperature: Precipitation: Wind: Relative Humidity: Cloud Cover:	
9.a. Instrument, ID Number Calibrated? Indicate below.	9.b. Monitoring Person Name(s)	9.c. Results (units)	9.d. Location	9.f. Time	9.g. Interferences and Comments
10. Safety Officer Review:		Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, & Eye Burning			**ICS-208-CG SSP-E-1 (rev 9/06):** Page _____ of _____

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CG ICS SSP: PERSONAL PROTECTIVE EQUIPMENT	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. Hazards Addressed:		8. For Emergencies Contact:

9. Equipment:				10. References Consulted:

11. Inspection Procedures:	12. Donning Procedures:	13. Doffing Procedures:	14. Limitations and Precautions (include maximum stay time in PPE):

15. Prepared By:	16. Date/Time Briefed:	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, Eye Burning	**ICS-208-CG SSP-F: (Rev 9/06)** Page _____ of _____

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CG ICS SSP: DECONTAMINATION	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Hazard(s) Addressed:

9. Equipment:				10. References Consulted:

11. Contamination Avoidance Practices:	12. Decon Diagram: ☐ Attached, ☐ Drawn below	13. Decon Steps

14. Prepared By:	15. Date/Time Briefed:	Potential Health Effects: Bruise/Lacerations, Organ Damage, Central Nervous System Effects, Cancer, Reproductive Damage, Low Back Pain, Temporary Hearing Loss, Dermatitis, Respiratory Effects, Bone Breaks, Eye Burning	**ICS-208-CG SSP-G (rev 9/06):** Page _____ of _____

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CG ICS SSP: ENFORCEMENT LOG	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)	
5. Supervisor/Leader	6. For Emergencies Contact:			7. Attachments:	
8.a. Job Task/Activity	8.b. Hazards	8.c. Deficiency	8.d. Action Taken	8.e. Safety Plan Amended?	8.f. Signature of Supervisor/Leader
9. Prepared By:	10. Date/Time Briefed:	**HAZARD LIST**: Physical/Safety, Toxic, Explosion/Fire, Oxygen Deficiency, Ionizing Radiation, Biological, Biomedical, Electrical, Heat Stress, Cold Stress, Ergonomic, Noise, Cancer, Dermatitis, Drowning, Fatigue, Vehicle, & Diving			**ICS-208-CG SSP-H (rev 9/06):** Page _____ of _____

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CG ICS SSP WORKER ACKNOWLEDGEMENT FORM

CG ICS SSP WORKER ACKNOWLEDGEMENT FORM	1. Incident Name	2. Site Location:	3. Attachments:
4. Type of Briefing Safety Plan/Emergency Response Plan ☐ Start Shift ☐ Pre-Entry ☐ Exit ☐ End of Shift ☐ Specify Other:	5. Presented By:	6. Date Presented	7. Time Presented

8.a. Worker Name (Print)	8.b. Signature*	8.c. Date	8.d. Time

* *By signing this document, I am stating that I have read and fully understand the plan and/or information provided to me.*

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CG ICS SSP: Emergency Safety & Response Plan 1910.120 Compliance Checklist (Form A)	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Site Supervisor/Leader	5. Location of Site

6.a. Cite: 1910.120	6.b. Requirement(sections that duplicate or explain are omitted)	6.c. ICS Form	6.d. Check	6.e. Comments
(q)(1)	Is the plan in writing?	SSP-A	☐	
(1)	Is the plan available for inspection by employees?	N/A	☐	Performance based
(q)(2)(i)	Does the plan address pre-emergency planning and coordination?	SSP-A	☐	
(ii)	Does it address personnel roles?	SSP-A	☐	
(ii)	Does it address lines of authority?	SSP-A	☐	
(ii)	Does it address communications?	SSP-A	☐	
(iii)	Does it address emergency recognition?	SSP-A	☐	
(iii)	Does it address emergency prevention?	SSP-A	☐	
(iv)	Does it identify safe distances?	SSP-A	☐	
(iv)	Does it address places of refuge?	SSP-A	☐	
(v)	Does it address site security and control?	SSP-A	☐	
(vi)	Does it identify evacuation routes?	SSP-A	☐	
(vi)	Does it identify evacuation procedures?	SSP-A	☐	
(vii)	Does it address decontamination?	SSP-A	☐	
(viii)	Does it address medical treatment and first aid?	SSP-A	☐	
(ix)	Does it address emergency alerting procedures?	SSP-A	☐	
(ix)	Does it address emergency response procedures	SSP-A	☐	
(x)	Was the response critiqued?	N/A	☐	Performance based
(xi)	Does it identify Personal Protection Equipment?	SSP-A	☐	
(xi)	Does it identify emergency equipment?	SSP-A	☐	
(q)(3)(ii)	All the hazardous substances identified to the extent possible?	N/A	☐	Performance based
(ii)	All the hazardous conditions identified to the extent possible?	N/A	☐	Performance based
(ii)	Was site analysis addressed?	N/A	☐	Performance based
(ii)	Were engineering controls addressed?	N/A	☐	Performance based
(ii)	Were exposure limits addressed?	N/A	☐	Performance based
(ii)	Were hazardous substance handling procedures addressed?	N/A	☐	Performance based
(iii)	Is the PPE appropriate for the hazards identified?	N/A	☐	Performance based
(iv)	Is respiratory protection worn when inhalation hazards present?	N/A	☐	Performance based
(v)	Is the buddy system used in the hazard zone?	N/A	☐	Performance based
(vi)	Are backup personnel on standby?	N/A	☐	Performance based
(vi)	Are advanced first aid support personnel standing by?	N/A	☐	Performance based
(vii)	Has the ICS designated safety official been identified?	SSP-A	☐	
(vii)	Has the Safety Official evaluated the hazards?	N/A	☐	Performance based
(viii)	Can the Safety Official communicate with IC immediately?	N/A	☐	Performance based
(ix)	Are appropriate decontamination procedures implemented?	N/A	☐	Performance based

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CG ICS SSP: 1910.120 COMPLIANCE CHECKLIST (Form B)	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Site Supervisor/Leader	5. Location of Site

6.a. Cite: 1910.120	6.b. Requirement(sections that duplicate or explain are omitted)	6.c. ICS Form	6.d. Check	6.e. Comments
1910.120 **(b)**(1)(ii)(A)	Organizational structure?	203	☐	
(B)	Comprehensive workplan?	IAP	☐	Incident Action Plan
(C)	Site Safety Plan?	SSP-B	☐	
(D)	Safety and health training program?	N/A	☐	Responsibility of each employer
(E)	Medical surveillance program?	N/A	☐	Responsibility of each employer
(F)	Employer SOPs?	N/A	☐	Responsibility of each employer
(G)	Written program related to site activities?	N/A	☐	
(b)(1)(iii)	Site excavation meets shored or slope requirements in 1926?	N/A	☐	
(b)(2)(i)(D)	Lines of communication?	201 203 205	☐	
(b)3(iv)	Training addressed?	N/A	☐	Responsibility of each employer
(v)-(vi)	Information and medical monitoring addressed?	N/A	☐	Responsibility of each employer
(b)4(i)	Site Safety Plan kept on site?	N/A	☐	
(ii)(A)	Safety and health hazard analysis conducted?	N/A	☐	
(B)	Properly trained employees assigned to right jobs?	N/A	☐	
(C)	Personnel Protective Equipment issues addressed?	SSP-F	☐	
(E)	Frequency and types of air monitoring addressed?	SSP-E	☐	
(F)	Site control measures in place?	SSP-B	☐	
(G)	Decontamination procedures in place?	SSP-G	☐	
(H)	Emergency Response Plan in place?	SSP-D	☐	
(I)	Confined space entry procedures?	SSP-B	☐	
(J)	Spill containment program	SSP-B	☐	
(iii)	Pre-entry briefings conducted?	SSP-I	☐	
(iv)	Site Safety Plan effectiveness evaluated?	SSP-H	☐	
(c)(1)	Site characterization done?	N/A	☐	
(c)(2)	Preliminary evaluation done by qualified person?	N/A	☐	
(c)(3)	Hazard identification performed?	SSP-B	☐	
(c)(4)(i)	Location and size of site identified?	SSP-B	☐	
(ii)	Response activities, job tasks identified?	SSP-B	☐	
(iii)	Duration of tasks identified?	SSP-B	☐	Operational period
(iv)	Site topography and accessibility addressed?	SSP-C	☐	
(v)	Health and safety hazards addressed?	SSP-B	☐	
(vi)	Dispersion pathways addressed?	SSP-B	☐	
(vii)	Status and capabilities of medical emergency response teams?	206	☐	
(c)(5)(i)(iv)	Chemical protective clothing addressed and properly selected?	SSP-F	☐	
(ii)	Respiratory protection addressed?	SSP-B and F	☐	
(iii)	Level B used for unknowns?	N/A	☐	

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CG ICS SSP: 1910.120 COMPLIANCE CHECKLIST Form B (cont)	1. Incident Name	2. Date/Time Prepared	3. Operational Period		
6.a. Cite: 1910.120	6.b. Requirement(sections that duplicate or explain are omitted)		6.c. ICS Form	6.d. Check	6.e. Comments
1910.120 (c)(6)(i)	Monitoring for ionization conducted?		SSP-E	☐	
(ii)	Monitoring conducted for IDLH conditions?		SSP-E	☐	
(iii)	Personnel looking out for dangers of IDLH environments?		N/A	☐	
(iv)	Ongoing air monitoring program in place?		SSP-E	☐	
(c)(7)	Employees informed of potential hazard occurrence?		SSP-B	☐	
(c)(8)	Properties of each chemical made aware to employees?		SSP-B	☐	
(d)(1)	Appropriate site control procedures in place?		IAP, SSP-B	☐	
(d)(2)	Site control program developed during planning stages?		IAP, SSP-B	☐	
(d)(3)	Site map, work zones, alarms, communications addressed?		IAP, SSP-B	☐	
(g)(1)(i)	Engineering, admin controls considered?		SSP-B	☐	
(iii)	Personnel not rotated to reduce exposures?		N/A	☐	
(g)(5)(i)	PPE selection criteria part of employer's program?		N/A	☐	Responsibility of employer
(ii)	PPE use and limitations identified?		SSP-F	☐	
(iii)	Work mission duration identified?		SSP-F	☐	
(iv)	PPE properly maintained and stored?		N/A	☐	Responsibility of employer
(vi)	Are employees properly trained and fitted with PPE?		N/A	☐	Responsibility of employer
(vii)	Are donning and doffing procedures identified?		SSP-F	☐	
(viii)	Are inspection procedures properly identified?		SSP-F	☐	
(ix)	Is a PPE evaluation program in place?		SSP-F	☐	
(h) (3)	Periodic monitoring conducted?		SSP-E	☐	
(k)(2)(i)	Have decontamination procedures been established?		SSP-G	☐	
(ii)	Are procedures in place for contamination avoidance?		SSP-G	☐	
(iii)	Is personal clothing properly deconned prior to leaving the site?		SSP-G	☐	
(iv)	Are decontamination deficiencies identified and corrected?		SSP-H	☐	
(k)(3)	Are decontamination lines in the proper location?		SSP-C	☐	
(k)(4)	Are solutions/equipment used in decon properly disposed of?		N/A	☐	
(k)(6)	Is protective clothing and equipment properly secured?		N/A	☐	
(k)(7)	If cleaning facilities are used, are they aware of the hazards?		N/A	☐	
(k)(8)	Have showers and change rooms provided, if necessary?		N/A	☐	
(l)(1)(iii)	Are provisions for reporting emergencies identified?		SSP-D	☐	
(iv)	Are safe distances and places of refuge identified?		SSP-B and C	☐	
(v)	Site security and control addressed in emergencies?		SSP-D	☐	
(vi)	Evacuation routes and procedures identified?		SSP-D	☐	
(vii)	Emergency decontamination procedures developed?		SSP-D	☐	
(ix)	Emergency alerting and response procedures identified?		SSP-D	☐	
(x)	Response teams critiqued and followup performed?		SSP-H	☐	
(xi)	Emergency PPE and equipment available?		SSP-D	☐	

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CG ICS SSP: 1910.120 COMPLIANCE CHECKLIST Form B (cont)	1. Incident Name	2. Date/Time Prepared	3. Operational Period		
6.a. Cite:	6.b. Requirement(sections that duplicate or explain are omitted)		6.c. ICS Form	6.d. Check	6.e. Comments
1910.120 (l)(3)(i)	Emergency notification procedures identified?		SSP-D	☐	
(ii)	Emergency response plan separate from Site Safety Plan?		SSP-D	☐	
(iii)	Emergency response plan compatible with other plans?		SSP-D	☐	
(iv)	Emergency response plan rehearsed regularly?		SSP-D	☐	
(v)	Emergency response plan maintained and kept current?		SSP-H	☐	
1910.165 (**b**)(2)	Can alarms be seen/heard above ambient light and noise levels?		N/A	☐	
(**b**)(3)	Are alarms distinct and recognizable?		N/A	☐	
(**b**)(4)	Are employees aware of the alarms and are they accessible?		SSP-D	☐	
(**b**)(5)	Are emergency phone numbers, radio frequencies clearly posted?		206	☐	
(**b**)(6)	Signaling devices in place where there are 10 or more workers?		IAP	☐	
(**c**)(1)	Are alarms like steam whistles, air horns being used?		IAP	☐	
(**d**)(3)	Are backup alarms available?		IAP	☐	
(**m**)	Are areas adequately illuminated?		IAP	☐	
(**n**)(1)(i)	Is an adequate supply of potable water available?		IAP	☐	
(ii)	Are drinking water containers equipped with a tap?		IAP	☐	
(iii)	Are drinking water containers clearly marked?		IAP	☐	
(iv)	Is a drinking cup receptacle available and clearly marked?		IAP	☐	
(**n**)(2)(i)	Are non-potable water containers clearly marked?		IAP	☐	
(**n**)(3)(i)	Are their sufficient toilets available?		IAP	☐	
(**n**)(4)	Have food handling issues been addressed?		IAP	☐	
(**n**)(6)	Have adequate wash facilities been provided outside hazard zone?		IAP	☐	
(**n**)(7)	If response is greater than 6 months, have showers been provided?		IAP	☐	
7. Prepared By:		**ICS-208-CG SSP-K (rev 9/06): Page 3.** Page _____ of _____			

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CG ICS SSP: 1910.120 DRUM COMPLIANCE CHECKSHEET	1. Incident Name	2. Date/Time Prepared	3. Operational Period	4. Safety Officer (include method of contact)
5. Supervisor/Leader	6. Location and Size of Site	7. For Emergencies Contact:		8. Note: tanks and vaults should also be treated in the same manner as described below [1910.120(j)(9)]. Many can also pose confined space hazards.

9.a. Cite: 1910.120 (Cites that duplicate or explain requirements are omitted)	9.b. Requirement	9.c. Check	9.d. Comments
(j)(1)(ii)	Drums meet DOT, OSHA, EPA regs for waste they contain, including shipment?	☐	
(iii)	Drums inspected and integrity ensured prior to movement?	☐	
(iii)	Or drums moved to an accessible location (staging area) prior to movement?	☐	
(iv)	Unlabelled drums treated as unknown until properly identified and labeled?	☐	
(v)	Site activities organized to minimize drum handling?	☐	
(vi)	Employers properly warned about the hazards of moving and handling drums?	☐	
(vii)	Suitable overpack drums are available for addressing leaking and ruptured drums?	☐	
(viii)	Leaking materials from drums properly contained?	☐	
(ix)	Are drums that cannot be moved, emptied of contents with transfer equipment?	☐	
(x)	Are suspect buried drums surveyed with underground detection system?	☐	
(xi)	Are soil and covering material above buried drums removed with caution?	☐	
(xii)	Is the proper extinguishing equipment on scene to control incipient fires?	☐	
(j)(2)(i)	Are airlines on supplied air systems protected from leaking drums?	☐	
(ii)	Are employees at a safe distance, using remote equipment, when handling explosive drums?	☐	
(iii)	Are explosive shields in plane to protect workers opening explosive drums?	☐	
(iv)	Is response equipment positioned behind shields when shields are used?	☐	
(v)	Are non-sparking tools used in flammable or potentially flammable atmospheres?	☐	
(vi)	Are drums under extreme pressure opened slowly & workers protected by shields/distance?	☐	
(vii)	Are workers prohibited from standing and working on drums?	☐	
(j)(3)	Is the drum handling equipment positioned and operated to minimize sources of ignition?	☐	
(j)(5)(i)	For shock sensitive drums, have all non-essential employees been evacuated?	☐	
(ii)	For shock sensitive drums: is handling equipment provided with shields to protect workers?	☐	
(iii)	Are alarms that announce start/finish of explosive drum handling actions in place?	☐	
(iv)	Are continuous communications in place between the drum handling site & command post?	☐	
(v)	Are drums under pressure properly controlled for prior to handling?	☐	
(vi)	Are drums containing packaged laboratory wastes treated as shock sensitive?	☐	
(j)(6)(i)	Are lab packs opened by trained and experienced personnel?	☐	
(ii)	Are lab packs showing crystallization treated as shock sensitive?	☐	
(j)(8)(ii-iii)	Are drum staging areas manageable with marked access and egress?	☐	
(iv)	Is bulking of drums conducted only after drum contents have been properly identified?	☐	

10. Prepared By:	**Form SSP-L (rev 9/06)** Page _____ of _____

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	INCIDENT STATUS SUMMARY ICS 209-CG

3. Type of Incident

☐	Oil Spill	☐	HAZMAT	☐	AMIO
☐	SAR/Major SART	☐	SI/Terrorism	☐	Natural Disaster
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload
☐	Planned Event	☐	Maritime HLS/Prevention	☐	

4. Situation Summary as of Time of Report:

5. Future Outlook/Goals/Needs/Issues:

6. Safety Status/Personnel Casualty Summary

	Since Last Report	Adjustments To Previous Op Period	Total
Responder Injury			
Responder Death			
Public Missing (Active Search)			
Public Missing (Presumed Lost)			
Public Uninjured			
Public Injured			
Public Dead			
Total Public Involved			

7. Property Damage Summary

Vessel	$
Cargo	$
Facility	$
Other	$

8. Attachments with clarifying information

☐	Oil/HAZMAT	☐	SAR/LE	☐	
☐		☐		☐	
☐	Marine Disaster	☐	Civil Disturbance	☐	Military Outload

9. Equipment Resources

Kind	Notes	# Ordered	# Available	# Assigned	# Out of Service
USCG Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – USCG Cutter					
Vessels – Boat					
Vehicles – Car					
Vehicles – Truck					
Pollution Equip – VOSS/SORS					
Pollution Equip – Portable Storage					
Pollution Equip – Boom					
Non-CG/Other Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – SAR/LE Boat					
Vessels – Work/Crew Boat					
Vessels – Tug/Tow Boat					
Vessels – Pilot Boat					
Vessels – Deck Barge					
Vessels –					
Vehicles – Car					
Vehicles – Ambulance					
Vehicles – Truck					
Vehicles – Fire/Rescue/HAZMAT					
Vehicles – Vac/Tank Truck					
Vehicles –					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/ Barge					
Pollution Equip – Portable Storage					
Pollution Equip – OSRV					
Pollution Equip – Boom					
Pollution Equip –					

10. Personnel Resources

Agency	Total # of People
USCG	
DHS (other than USCG)	
NOAA	
FBI	
DOD (USN Supsalv, CST, etc.)	
DOI (US Fish & Wildlife, Nat Parks, BLM, etc.)	
RP	
State	
Local	
Total Personnel Resources Used From all Organizations:	

11. Prepared by: **Date/Time Prepared:**

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	ICS 209-CG OIL/HAZMAT ATTACHMENT

3. HAZMAT/Oil Spill Status (Estimated, in gallons)

Common Name(s):

UN Number:	☐ Secured	☐ Unsecured
CAS Number:	Remaining Potential (bbl):	
	Rate of Spillage (bbl/hr):	

	Adjustments To Previous Operational Period	Since Last Report	Total
Volume Spilled/Released			
Mass Balance - HAZMAT/Oil Budget			
Recovered HAZMAT/Oil			
Evaporation/Airborne			
Natural Dispersion			
Chemical Dispersion			
Burned			
Floating, Contained			
Floating, Uncontained			
Onshore			
Total HAZMAT/Oil accounted for:	N/A	N/A	

Comments:

4. HAZMAT/Oil Waste Management (Estimated, Since Last Report)

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

Comments:

5. HAZMAT/Oil Shoreline Impacts (Estimated in miles)

Degree of Impact	Affected	Cleaned	To Be Cleaned
Light			
Medium			
Heavy			
Total			

Comments:

6. HAZMAT/Oil Wildlife Impacts (Since Last Report)

Type of Wildlife	Captured	Cleaned	Released	DOA	Died in Facility	
					Euthanized	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

Comments:

7. Prepared by:	Date/Time Prepared:

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	ICS 209-CG SAR/LE ATTACHMENT

3. Evacuation Status

	Since Last Report	Adjustments To Previous Operational Period	Total
Total to be Evacuated			
Number Evacuated			

4. Migrant Interdiction Status

	Since Last Report	Adjustments To Previous Op Period	Total
Vessels Interdicted			
Migrants Interdicted at Sea			
Migrants Interdicted Ashore			
Injured			
MEDEVAC'd			
Deaths			
Migrants Repatriated			

5. Sorties/Patrols Summary (List of Sorties Since Last Report)

Air	Since Last Report	Total
Number of Sorties/Patrols		
Area Covered (square miles)		
Total Time On-Scene (In Hours)		
Surface	Since Last Report	Total
Number of Sorties/Patrols		
Area Covered (square miles)		
Total Time On-Scene (In Hours)		

6. Use of Force Summary

Category	Since Last Report	Total
III - Soft Empty Hand Control		
IV - Hard Empty Hand Control		
V - Intermediate Weapons		
VI - Deadly Force		
VSL - Force to Stop Vessel from Cutter/Boat		
A/C - Force to Stop Vessel From Aircraft		
Arrests		
Seizures		
Deaths		

7. Operational Controls Summary

Currently In Force

Type	Initiating Unit	Initiated Date	Activity #

Removed Since Last Report

Type	Initiating Unit	Initiated Date	Date Removed	Activity #

18. Prepared by:	Date/Time Prepared:

INCIDENT STATUS SUMMARY (ICS FORM 209-CG)

Purpose. The Status Summary:
1. Is used by Situation Unit personnel for posting information on Status Boards or attaching as a file to the MISLE Case.
2. Is duplicated and provided to Command Staff members, giving them basic information for planning for the next operational period.
3. Provides information to the Information Officer for preparing news media releases.
4. Summarizes incident information for local and off-site coordination/operations centers.

Preparation. The Situation Unit prepares the Status Summary. Resources information should be obtained from the Resources Unit. It may be scheduled for presentation to the Planning Section Chief and other General Staff members prior to each Planning Meeting and may be required at more frequent intervals by the Unified Command or Planning Section Chief. Suggested sources of information are noted in brackets.
Note: The values on the ICS form 209-CG are the **best available estimates at the Time of Report** (Item # 2 on form). This form is usually in high demand and should be filled out early and often. A suggested source within the ICS organization is noted in brackets [ ] at the top right of each section of the form. **All fields need not be completed in order to distribute the form**.

Distribution. When completed, the form is duplicated and copies are distributed to the Unified Command and staff, and all Section Chiefs, Planning Section Unit Leaders, and the Joint Information Center. It is also posted on a status board located at the ICP. All completed original forms MUST be given to the Documentation Unit.

How to Save and Use the Word Template Form:
The 209 template (.dot file) can be edited to match most incident situations and can be saved into the Word template directory. Open the blank 209 (ICS 209 CG.dot) – do not add any content. Save the blank in the Templates directory. Create a new 209 from File>new picking the 209 template. Type in the file to add any desired content and use "save as" to save the work using a new file name. The file will automatically become a .doc file.

Comments: Please send comments/corrections about this form to the ICS Program Manager, Ms. Kristy Plourde, email: kplourde@tcyorktown.uscg.mil

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Type of Incident	Indicate (check box) and/or fill-in the type of incident(s).
4.	Situation Summary	Summary of current situation at time of report.
5.	Future Outlook	This section is for the IC/UC to discuss/project their future outlook, goals, requirements, needs and issues.
6.	Safety Status/Personnel Casualty	This information pertains to responders and assisted public personnel. Indicate the number of serious injuries, death, and missing. Values entered in the column labeled since Last Report are from the start of the

		Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Property Damage	Enter estimated dollar values for each item, if known.
8.	Attachments	Indicate (check box) and/or fill-in the attachment(s) the help further clarify the incident status.
9.	Equipment Resources	Indicate the number of each type of resource in each status category. There are blank lines below each general type of resource for additional equipment.
	Ordered	Ordered but not yet arrived/available.
	Available	Arrived on scene, stored in staging, not assigned to any task, available for use.
	Assigned	Assigned to a specific task.
	Out of Service	Not working and not assigned to any task (e.g., skimmer being repaired, boom broken, personnel off-duty for rest).
10.	Personnel Resources	Indicate, by agency, the numbers of personnel assigned. There are blank lines for additional personnel, as needed.
11.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

OIL/HAZMAT ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Spill Status	This information is only tracked if there is spilled HAZMAT or Oil. Enter Common Name(s) of the released substance or spilled oil (i.e. Ethyl Alcohol/Ethanol or No. 2 Fuel Oil/Light Fuel Oil). Enter UN number and CAS Registry number, if known. Indicate whether the spill source is secured or unsecured (check box) and estimate the remaining potential and the rate of spillage discharge or release. Enter the estimated amounts in barrels for each category. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
	Mass Balance	This information is only tracked if there is spilled HAZMAT or Oil whether recovered, evaporated, dispersed, burned, floating, or on shore. The total of these estimates should approximate the total volume spilled, discharged, or released. Values for evaporation, dispersion, etc. can be obtained from the Environmental Unit and/or the Scientific Support Coordinator (SSC).
4.	Waste Management	This information is only tracked if there is spilled HAZMAT or Oil. Enter the estimated amounts in barrels or tons for each category. Total HAZMAT/ Oil (bbl) is the sum of the estimate of HAZMAT/oil in oily

		liquids and HAZAMT/oil in oily solids, and is the value to be entered under "Recovered HAZMAT/Oil" in Item 4.
5.	Shoreline Impacts	This information is only tracked if there is spilled HAZMAT or Oil. Enter the total miles in each category for each degree of oiling. Definitions for Light, Medium, and Heavy oiling can be obtained from the EUL/SSC and should be consistent throughout the incident.
6.	Wildlife Impacts	This information is only tracked after an animal is captured. Indicate the actual number of oiled wildlife in each category. Use numbers in parentheses to indicate the subtotal of threatened / endangered species included in the numbers given.
7.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

SAR/LE ATTACHMENT

1.	Incident Name	Enter the name assigned to the incident.
2.	Period Covered by Report	Enter the date and time interval for which the report applies. Use 24-hour clock for all times.
	Time of Report	Enter time for which this information applies. Enter the Time (24-hour clock) the form was prepared.
3.	Evacuation Status	This information is only tracked if the incident involves evacuation of personnel. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
4.	Migrant Interdiction Status	This information is only tracked if the incident involves Migrant Interdiction. Values entered in the column labeled Since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
5.	Sorties/Patrols	This information is only tracked if the incident involves sorties tracked in MISLE Incident Management Activity. List Sorties since last report both Air and Surface. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
6.	Use of Force	This information is only tracked if the incident involves Use of Force activities. Values entered in the column labeled since Last Report are from the start of the Period Covered by Report (Item 2) to the time entered in the Time of Report (Item 2).
7.	Operational Controls	This information is only tracked if the incident involves Operational Control activities initiated, in force and removed.
8.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.

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1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report	INCIDENT STATUS SUMMARY ICS 209H-CG

3. Type of Incident: Hurricane and Severe Weather Response

4. Situation Summary:

5. On Scene Weather:

6. Future Outlook/Goals/Needs/Issues:

7. Post Landfall Personnel Accountability (Active Duty, Reserves, Dependents and Auxiliary):

_____ Percent accounted for in the storm impact area. Exceptions are as follows:

Unit	Total	Unaccounted	% Accounted For

8. Critical Resources Status: CG Members mobilized in response to incident:

Officers (Active Duty)		Enlisted (Active Duty)		Civilian	
Officers (Reserve)		Enlisted (Reserve)		CG Auxiliary	

9. Critical Resources Status: Personnel Casualties: (i.e. reference msg traffic. No names or ID#'s)

10. Attachments with clarifying information

☐	Oil/HAZMAT	☐	Civil Disturbance	☐	SAR/LE
☐	Marine Disaster	☐	Military Outload	☐	Other:

11. Critical Resource Status: D7 Major Shore Command HURRICANE CONDITION	
Unit Name	**HURCON (1,2,3 or 4) Ordered/Obtained**
SECTOR Charleston	
MSU Savannah	
AIRSTA Savannah	
SECTOR Jacksonville	
SECTOR Miami	
AIRSTA Miami	
ISC Miami	
SECTOR Key West	
SECTOR San Juan	
AIRSTA Borinquen	
SECTOR St. Petersburg	
AIRSTA Clearwater	

12. D7 Port Status	
Port Name	**Port Condition (4, X, W, Y, or Z)**
Georgetown	
Charleston	
Port Royal	
Brunswick	
Savannah	
Jacksonville	
Fernandina	
Canaveral	
Palm Beach	
Port Everglades	
Miami	
Key West	
Tampa	
St. Petersburg	
Manatee	

13. Significant Waterway/ATON Status (i.e. closures, restrictions)
SECTOR :
SECTOR :
SECTOR :

14. Operational Summary	
Aircraft sorties for the last reporting period	
Aircraft lives saved forth last reporting period	
Aircraft MEDEVACS for the last reporting period	
Surface sorties for the last reporting period	
Surface lives saved for the last reporting period	
Surface MEDEVACS for the last reporting period	
Cumulative D7 Sorties	
Cumulative lives saved in D7	
Cumulative D7 MEDEVACS	
Total D7 Saves/Evacuations	

15. Critical Resources Status Summary

Kind	Notes	# Assigned (Alpha)	# Available (Bravo)	# Out of Service (Charlie)	# Ordered
USCG Assets					
Aircraft – Helo - HH-60					
Aircraft – Helo - HH-65					
Aircraft – Helo - MH-68 (HITRON)					
Aircraft – Fixed Wing - HU-25					
Aircraft – Fixed Wing - C130					
Vessels – USCG Cutter - WLB					
Vessels – USCG Cutter - WLM					
Vessels – USCG Cutter - WPB					
Vessels – USCG Cutter					
Vessels – USCG Cutter					
Boats – CG MLB 47'					
Boats – CG UTB 41'					
Boats – CG SPC (LE) 33'					
Boats – CG RB-S 25'					
Boats – CG UTL 25' or less					
Boats – CG TANB					
Boats – CG Aux					

16. Critical Resource Status: USCG Facilities (significant damage and/or impact):

SECTOR :

SECTOR :

SECTOR :

17. Critical Resource Status: Communications (significant damage and/or impact):

SECTOR : (xxxx VHF High site down or xxxx site no DF capability)

SECTOR :

18. Critical Infrastructure Status (significant damage and/or impact):

SECTOR :

SECTOR :

19. Environmental Response:

Pollution Cases Opened	
Pollution Cases Closed	

SECTOR :

SECTOR :

20. External and Public Affairs:

District 7:

SECTOR :

21. Logistics:	
22. Additional Comments : (Reference block number)	
23. Command Comments (Strategies, concerns, etc.)	
24. Prepared by:	Date/Time Prepared:

RADIO REQUIREMENTS WORKSHEET

1. Incident Name	2. Date	3. Time

4. Branch	5. Agency	6. Operational Period	7. Tactical Frequency

8. Division/Group	Division/Group	Division/Group	Division/Group
Agency	Agency	Agency	Agency

9. Agency	ID No.	Radio Requirements	Agency	ID No.	Radio Requirements	Agency	ID No.	Radio Requirements	Agency	ID No.	Radio Requirements

Page 1 of	10. Prepared by (Name and Position)

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ICS-211-CG CHECK-IN LIST	1. INCIDENT NAME:	2. CHECK-IN LOCATION: ☐ BASE ☐ CAMP _____ ☐ STAGING AREA _____ ☐ ICP ☐ OTHER _____	3. DATE/TIME:

CHECK-IN INFORMATION

4. LIST PERSONNEL (OVERHEAD) BY AGENCY NAME – OR LIST EQUIPEMENT BY THE FOLLOWING FORMAT:
S=Supplies H=Helicopter O=Overhead VL=Vessels
E=Equipment C=Crew A=Aircraft VH=Vehicle

AGENCY	SINGLE ST/ TF	KIND	TYPE	ID NO. /NAME – RESOURCE ID	5. ORDER/ NUMBER	6. DATE/TIME CHECK-IN	7. LEADER'S NAME	8. TOTAL NO. PERSONNEL	9. INCIDENT CONTACT INFORMATION	10. INCIDENT LODGING INFO/CONTACT INFO	11. HOME UNIT	12. METHOD OF TRAVEL	13. INCIDENT ASSIGNMENT	14. OTHER QUALIFICATION	15. SENT TO RESTAT TIME/INT

16. ICS 211-CG PAGE _____ of _____	17. PREPARED BY (Name and Position) USE BACK FOR REMARKS OR COMMENTS

PHMSA 000056180

CHECK-IN LIST (ICS 211-CG)

Purpose. Personnel and equipment arriving at the incident can check in at various incident locations. Check-in consists of reporting specific information, which is recorded on the form.

Preparation. The Check-In List is initiated at a number of incident locations including staging areas, base camps, helibases, and ICP. Managers at these locations record the information and give it to the Resources Unit as soon as possible.

Distribution. Check-In Lists are provided to both the Resources Unit and the Finance Section. The Resources Unit maintains a master list of all equipment and personnel that have reported to the incident. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the name of the check-in location.
3.	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).
4.	Agency	Enter agency name or agency designator (USCG for U.S. Coast Guard)
	Single/ST/TF	Enter whether resource is Single, part of Task Force (TF) or Strike Team(ST).
	Kind	Enter kind of resource using format listed for followed by sub-kind (e.g. workboat would be VL-WB).
	Type	Enter type of resource (1-4).
	Resource Identifier	Enter individual names for all overhead personnel. When listing equipment, use name or designator, indicate if resource is a single resource, task force or strike team;
5.	Order Number	Order number will be assigned by Agency dispatching the resources or personnel to the incident.
6.	Date/Time Check-In	Enter date (month, day, year) and time (24-hour clock) of check-in.
7.	Leader's Name	Self-explanatory.
8.	Total # Personnel	Enter total number of personnel in strike teams, task forces or manning single resources. Include leaders.
9.	Contact Information	Enter contact information while at the incident (e.g. cell phone, pager, radio, etc.)
10.	Lodging/Contact Info	Enter lodging location and phone number/contact info while at the incident.
11.	Home Unit	Location from which resource / individual departed for this incident.
12.	Method of Travel	Means of travel to incident (bus, truck, engine, personal vehicle, etc.)
13.	Incident Assignment	Enter location at which the resource / individual is normally assigned.
14.	Other Qual	Enter Other Qualifications held.
15.	Sent to Restat	Enter initials and time that the info. Pertaining to that entry was sent to the Resources Unit.
16.	Page	Indicate page no. and no. of pages being used for Check-In at this location.
17.	Prepared By	Enter the name of the person completing the form and position held.

Note: Use back for remarks or comments, including Other Qualifications or any other ICS position the individual has been trained to fill.

Resource Request Message

Purpose: The 213RR CG is used by all incident personnel to request tactical and non-tactical resources.

ICS-213 RR CG (2/07)

Requestor

1. Incident Name:

2. Date/Time:

3. Resource Request Number:

4. ORDER Note: Use additional forms when requesting different resource sources of supply

a. Qty	b. Kind	c. Type	d. Priority U or R	e. Detailed item description (vital characteristics, brand, specs, experience, etc.) and, if applicable, purpose/use, diagrams, and other info.	f. Requested Reporting Location:	f. Requested Reporting Date/Time:	g. Order # (LSC)	h. ETA (LSC)	i. Cost

5. Suggested source(s) of supply - POC phone number if known and suitable subtitutes:

6. Requestor Position and Signature: Date/Time:

7. Section Chief/Command Staff Approval: Date/Time:

Plans

8. RESL - check box (a) if request is for tactical or personnel resources. Then note availability in box 8.b or 8.c.

a. ☐ b. ☐ Resources available as noted in block 12

c. ☐ Resources not available

9. RESL Review/Signature: Date/Time:

Logistics

10. Requisition/Purchase Order #:

11. Supplier Name/Phone/Fax/Email:

12. Notes:

13. Logistics Section Signature: Data/Time:

14. Order placed by (check box): ☐ SPUL ☐ PROC ☐ OTHER _____

Finance

15. Reply/Comments from Finance:

16. Finance Section Signature: Date/Time:

Full instructions on back page. Requestor fills in blocks 1-5, except # 3 & # 4.g-i (shaded area), signs block 6 (do not forget position), gets appropriate Section Chief or Command Staff approval in block 7, and keeps yellow copy (bottom). If applicable, RESL reviews if resource available, signs block 9 and keeps blue copy. Logistics fills in block 4.g and h, and blocks 10-13, and keeps orange copy. Orderer (LSC or FSC) fills in block 4.i. Finance fills in blocks 15 - 16 and keeps green copy. Pink copy is returned to RESL for tactical/personnel or requestor for non-tactical. White copy goes to DOCL.

PHMSA 000056182

GENERAL MESSAGE

TO:	POSITION:	
FROM:	POSITION:	
SUBJECT:	DATE:	TIME:

MESSAGE:

SIGNATURE:	POSITION:

REPLY:

DATE:	TIME:	SIGNATURE/POSITION:

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time**

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: **Date/Time:**

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Check-In Location	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

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OPERATIONAL PLANNING WORKSHEET

1.INCIDENT NAME

2. DATE & TIME PREPARED

3. OPERATIONAL PERIOD (DATE & TIME)

4. DIVISION/ GROUP/ OTHER LOCATION	5. WORK ASSIGNMENTS	6. KINDS OF RESOURCES																					7. OVERHEAD	8. SPECIAL EQUIPMENT & SUPPLIES	9. REPORTING LOCATION	10. REQUESTED ARRIVAL TIME
		REQ																								
		HAVE																								
		NEED																								
		REQ																								
		HAVE																								
		NEED																								
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11. TOTAL RESOURCES REQUIRED	
12. TOTAL RESOURCES ON HAND	
13. TOTAL RESOURCES NEEDED	

14. PREPARED BY (NAME & POSITION)

ICS 215 USCG 12-02

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INCIDENT ACTION PLAN SAFETY ANALYSIS

1. Incident Name

2. Date/Time Prepared

3. DIVISION/ GROUP/ OTHER LOCATION	4. Work Assignments	5. Gain		6. HAZARDS	7. CONTROLS	8. ORM SEVERITY	PROBABILITY	EXPOSURE	GAR
		Human Health		Check	Check				
		Security							
		Environment							
		Economy							
		Human Health		Check	Check				
		Security							
		Environment							
		Economy							
		Human Health		Check	Check				
		Security							
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		Security							
		Environment							
		Economy							
		Human Health		Check	Check				
		Security							
		Environment							
		Economy							

ICS-215A-CG
(rev 6/06)

Operational Risk Management Key

Scale	1	2	3	4	5
Severity	Slight	Minimal	Signif-icant	Major	Catas-trophic
Probability	Remote	Un-likely	50/50	>50	Very Likely
Exposure	Below Avg	Avg	Above Avg	Great	N/A

Gar Scale

#	1-19	20-39	40-59	60-79	80-100
Risk	Slight	Possible	Substantial	High	Very High
Color	Green	Amber	Red	Red	Red
Action	Possibly Acceptable	Attention Needed	Correction Required	Immediate Correction	Discontinue/ Stop

9. Prepared by (Name and Position)

PHMSA 000056190

INCIDENT ACTION PLAN SAFETY ANALYSIS (ICS-215A-CG (rev 6/06))
Instructions for filling out the form

Purpose: The purpose of this worksheet is to aid the Safety Officer in completing an operational risk assessment to prioritize hazards and develop appropriate controls.

Preparation: During the Incident Action Planning cycle where the Operations Section Chief (OSC) is preparing for the tactics meeting, the Safety Officer works alongside the OSC and completes the Incident Action Plan Safety Analysis. This sheet mirrors the ICS 215 form. Work assignments are listed along with associated hazards. A calculation is made that determines what level of risk each work assignment poses. For those assignments having significant risk, controls are developed for safeguarding responders. The net risk is evaluated against the gain. The Incident Commander should be alerted to all safety hazards that receive an amber or red GAR rating after controls have been established.

Distribution: The Operational Hazard Worksheet is attached to the Incident Site Safety Plan and is distributed according to the instruction for Site Safety Plans.

Instructions:

Item #	Item Title	Instructions
1	Incident Name	Print the name assigned to the incident.
2	Date/Time Prepared	Enter date (month, day, year) and time prepared.
3	Division/Group	Enter the Branch, Division or Group title in abbreviated form.
4	Work Assignment	List the work assignment for each Branch, Division or Group.
5	Gain	Check the gain that is achieved when the work assignment is accomplished.
6	Hazards	Using the IAP Safety Analysis Aid (page 2), list the type of hazards likely to be encountered for the work assignment. Place a check mark in the box below the hazard.
7	Controls	Using the IAP Safety Analysis Aid (page 2), list the type of controls likely to be used for addressing the hazards listed. Place a check mark in the box below the control.
8	GAR	Using the "Key", assign a number from 1 to 5 based on the level of severity, probability and exposure. Multiply all numbers together to get a total. Enter this number into the total column. Gar means **G**reen, **A**mber, **R**ed. Using the GAR scale on the bottom of the sheet, assign a color, risk level or action phrase in this block.
9	Prepared by	Enter the name of the person who completed this worksheet.

ICS-215A-CG INCIDENT ACTION PLAN SAFETY ANALYSIS AID

HAZARDS:

Physical	Chemical/Biological	Human
• Slipping	• Explosion	• Violence
• Tripping	• Flammable	• Poor Lifting
• Fall	• Air Reactive	• Repetition
• Overhead	• Water Reactive	• Excessive Force
• Heat Stress	• Chem Reactive	• Poor posture
• Cold Stress	• Alpha Rad	• Awkward motion
• Electrical	• Beta Rad	• Fatigue
• Blunt Objects	• Gamma Rad	• Poor hygiene
• Sharp Objects	• X Rad	• Illness
• Noise	• Bio-weapon	• Alcohol/Drugs
• Vehicle	• Chem-weapon	• Over crowding
• Fire	• Irritant	• Poor comms
• Sun/UV Glare	• Asphyxiant	• Noise interference
• Sun Burn	• Oxidizer	• Smoking
• Moving Pinch Points	• Carcinogen	• Driving
• Unguarded Machinery	• Corrosive	**Animal/Plant**
• Lightning	• Cryogenic	• Bites/Stings
• Drowning	• Toxic	• Poison
• Engulfment	• Biomed/pathogen	• Thorns/burrs
• Limited Egress/Access	• Particulates	• Swarms
	• Fumes (weld etc.)	• Disease
	• O2 Deficiency	• Feces/Coliforms

CONTROLS:

Types of Engineering Controls:

• Barriers	• Shields	• Dams
• Capping	• Covering	• Fencing
• Terminating	• Shutting	• Blocking
• Chocks	• Enclosures	• Diverters
• Flanging	• Guarding	• Substitution
• Anchoring	• Ventilation	• Blowing
• Scaffolding	• Grounding	• Substitution
• Bonding	• Insulation	• Lighting
• Locks, Tags	• Kill-switches	• Shut-off valves
• Taglines	• Circuit Breakers	• Process change
• Plugging, patching	• Sealing	• Absorbers

Types of Administrative Controls:

• Reduced work duration	• Worker rotation	• Safety plans
• Training	• Safety briefs	• Relief personnel
• Maintenance	• Drinking fluids	• Work/rest periods
• Good housekeeping	• Roving security	• Signs
• Warning lights	• Alarms	• Break areas
• Pre-inspections	• Field checks	• Buddy system
• Line of sight comms	• Comms schedule	• Equipt staging
• Load shifting	• Hazard marking	• Placarding
• Labeling	• Hand signals	• Safety observers
• Fendering	• Work plans	• Replenish fluids
• Handcarts/trolleys	• Fire extinguishers	• Drum bulking
• Eye Wash Station	• Hand washers	• Showers

Types of Personal Protective Equipment Controls:

• Hard hats	• Steel-toed shoes	• Safety glasses
• Safety goggles	• Face shields	• Hearing Protection
• Life jacket	• Fall arrests	• SCBA
• APRs	• Chemical suits	• Flash suits
• Fire resistant suits	• Work gloves	• Chemical gloves
• Sun glasses	• Sun-block	• Life rings
• Eye wash stations	• Night vision	• Thermal protection
• Dry/wet suits	• Hand warmers	• Wind breaker coat
• Knee pads	• Over garments	• Coveralls
• Booties	• Cooling vests	• Chap lip protection
• Hats for warming	• Gloves (warmth)	• Clothing (warmth)

PHMSA 000056192

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1. Incident Name	2. Operational Period (Date / Time) From: To:	AIR OPERATIONS SUMMARY ICS 220-CG

3. Distribution

☐ Fixed-Wing Bases _____ ☐ Helibase _____

4. Personnel and Communications

	Air Operations Director	Air / Air Frequency	Air / Ground Frequency
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. Location / Function	7. Assignment	8. Fixed-Wing		9. Helicopter		10. Time		11. Aircraft Assigned	12. Operating Base
		NO.	TYPE	NO.	TYPE	Available	Commence		
	13. TOTALS								

14. Air Operation Support Equipment	15. Prepared by	Date / Time

PHMSA 000056194

AIR OPERATIONS SUMMARY (ICS 220-CG)

Purpose. The Air Operations Summary provides the Air Operations Branch with the number, type, location, and specific assignments of aircraft.

Preparation. The Operations Section Chief or the Air Operations Branch Director completes the summary during each Planning Meeting. General air resource assignment information is obtained from the Operational Planning Worksheet (ICS 215-CG). The Air and Fixed-Wing Support Groups provide specific designators of the air resources assigned to the incident.

Distribution. After the summary is completed by Air Operations personnel (except item 11), the form is given to the Air Support Group Supervisor, who completes the form by indicating the designators of the helicopters and fixed-wing aircraft assigned missions during the specified operational period. This information is provided to Air Operations personnel who, in turn, give the information to the Resources Unit. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Distribution	Check the block and enter the time and date when ICS 220-CG and attachments were sent to all fixed-wing bases and helibases supporting the incident.
4.	Personnel and Communications	List the names of those assigned to each position, and the air-air and air-ground frequencies to be used.
5.	Remarks	Enter the special instructions or information, including safety notes, hazards, and priorities for Air Operations personnel.
6.	Location/Function	Enter the assigned location and function of the aircraft.
7.	Assignment	Enter the scope of work the aircraft is assigned to complete.
8.	Fixed Wing	Indicate the number and type of fixed-wing aircraft available for this Location / Function.
9.	Helicopters	Indicate the number and type of helicopters available for this Location / Function.
10.	Time	Indicate when aircraft will be available for use and when operations commence (use 24 hour clock).
11.	Aircraft Assigned	Enter the designators of the aircraft assigned. Gather information from Resources Unit, helibases, and fixed-wing bases.
12.	Operating Base	Enter the base (helibase, helispot, fixed-wing base) from which each air resource is expected to initiate operations.
13.	Totals	Enter the total number of fixed-wing and helicopter aircraft assigned to the incident in the Number columns. Enter the total number of each type of aircraft assigned in the Type columns.
14.	Air Operations Support Equipment	List the designators and location of other support resources assigned to Air Operations.
15.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date / Time) From: To:	DEMOB. CHECK-OUT ICS 221-CG
3. Unit / Personnel Released	4. Release Date / Time	

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. Unit Leader "X" appropriate box(es))

Logistics Section

- ☐ Supply Unit _____
- ☐ Communications Unit _____
- ☐ Facilities Unit _____
- ☐ Ground Unit _____

Planning Section

- ☐ Documentation Unit _____

Finance / Admin. Section

- ☐ Time Unit _____

Other

- ☐ _____ _____
- ☐ _____ _____
- ☐ _____ _____

6. Remarks

_____
_____
_____
_____

7. Prepared by: **Date / Time**

DEMOB. CHECK-OUT (ICS 221-CG)

Purpose. This form provides the Planning Section information on resource releases from the incident.

Preparation. The Demobilization Unit Leader or the Planning Section initiates this form. The Demobilization Unit Leader completes the top portion of the form after the resource supervisor has given written notification that the resource is no longer needed.

Distribution. The individual resource will have the unit leader initial the appropriate box(es) in item 5 prior to release from the incident. After completion, the form is returned to the Demobilization Unit Leader or the Planning Section. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Strike Team / Unit / Personnel Released	Enter name of Strike Team, Unit or personnel being released.
4.	Release Date/Time	Enter date (month, day, year) and time (24-hour clock) of anticipated release.
5.	Strike Team / Unit / Personnel	Demobilization Unit Leader will enter an "X" in the box to the left of those units requiring check-out. Identified Unit Leaders are to initial to the right to indicate release. NOTE: Blank boxes are provided for any additional unit requirements as needed, (e.g., Safety Officer, Agency Rep., etc.)
6.	Remarks	Enter any additional information pertaining to demobilization or release (e.g., transportation needed, destination, etc.).
7.	Prepared By Date/Time	Enter name and title of the person preparing the form. Enter date (month, day, year) and time prepared (24-hour clock).

Reset Form

INCIDENT PERSONNEL PERFORMANCE RATING ICS 225-CG	*INSTRUCTIONS:* The immediate job supervisor will prepare this form for each subordinate. It will be delivered to the planning section before the rater leaves the incident. Rating will be reviewed with the subordinate who will sign at the bottom. To electronically fill form, double-click on first word of each section, then enter information.

THIS RATING IS TO BE USED ONLY FOR DETERMINING AN INDIVIDUAL'S PERFORMANCE ON AN INCIDENT/EVENT

1. Name:	2. Incident Name:
3. Home Unit and Phone Number:	4. Location of Incident:

5. Position Assigned:	6. Date of Assignment: From: To:	7. Date Incident Started:	8. Incident Type:	9. Incident Kind:

10. Evaluation

Rating Factors	N/A	1 - Unacceptable	2	3 – Met Standards	4	5 – Exceeded Expectations
A. Knowledge of the job/ Professional Competence & Using ICS:	☐	Questionable competence and credibility. Operational or specialty expertise inadequate or lacking in key areas. ☐	☐	Competent and credible authority on specialty or operational issues. ☐	☐	Superior expertise; advice and actions showed great breadth and depth of knowledge. ☐
B. Planning/Preparedness & ability to obtain performance/results:	☐	Got caught by the unexpected; appeared to be controlled by events; routine tasks accomplished with difficulty. ☐	☐	Consistently prepared. Set high but realistic goals. Work was timely and of high quality; required same of subordinates. ☐	☐	Exceptional preparation. Always looked beyond immediate events or problems. Maintained optimal balance among quality, quantity, and timeliness of work. ☐
C. Adaptability/Attitude:	☐	Unable to gauge effectiveness of work, recognize political realities, or make adjustments when needed. Maintained a poor outlook. ☐	☐	Receptive to change, new information, and technology. ☐	☐	Rapidly assessed and confidently adjusted to changing conditions, political realities, new information and technology. ☐
D. Communication Skills:	☐	Unable to effectively articulate ideas and facts; lacked preparation, confidence, or logic. ☐	☐	Effectively expressed ideas and facts in individual and group situations; non-verbal actions consistent with spoken message. ☐	☐	Clearly articulated and promoted ideas. Adept at presenting complex or sensitive issues. ☐
E. Directing Others:	☐	Showed difficulty in directing or influencing others. Unwilling to delegate authority to increase efficiency of task accomplishment. ☐	☐	Set high work standards; clearly articulated job requirements, expectations and measurement criteria; held subordinates accountable. ☐	☐	An inspirational leader who motivated others to achieve results not normally attainable. Modified leadership styles to best meet situations. Won people over rather than imposing will. ☐
F. Ability to work on/ Consideration for team:	☐	Ignorance of individuals' capabilities increased chance of failure. Seldom recognized or rewarded deserving subordinates or others. Used teams ineffectively or at wrong times. ☐	☐	Skillfully used teams to increase unit effectiveness, quality, and service. Cared for people. Recognized and responded to their needs ☐	☐	Insightful use of teams raised unit productivity beyond expectations. Inspired high level of esprit de corps, even in difficult situations. Ensured appropriate and timely recognition of others. ☐
G. Judgment/Decisions under stress:	☐	Decisions often displayed poor analysis. Failed to make necessary decisions, or jumped to conclusions without considering facts. ☐	☐	Skillfully used teams to increase unit effectiveness, quality, and service. ☐	☐	Combined keen analytical thought and insight to make appropriate decisions. Focused on the key issues and the most relevant information. ☐
H. Initiative	☐	Postponed needed action. Implemented or supported improvements only when directed. ☐	☐	Championed improvement through new ideas, methods, and practices; self-starter. ☐	☐	Aggressively sought out additional responsibility. A self-learner. Optimized use of new ideas. ☐
I. Adherence to safety:	☐	Failed to adequately identify and protect personnel from safety hazards. ☐	☐	Ensured that safe operating procedures were followed. ☐	☐	Demonstrated a significant commitment towards safety of personnel. ☐

11. Remarks/Potential: Type remarks here; Describe ability to assume greater leadership roles and responsibilities (e.g., rate performance, recommend incident management positions and/or ICS or other training).

12. Rated Person *(signature)* This rating has been discussed with me.	13 Date:

14. Rated By *(signature/print name):*	15. Supervisor Home Unit *(address/phone):*	16. Supervisor Position:	17. Date:

INCIDENT PERSONNEL PERFORMANCE RATING (ICS 225-CG) – Rev 9/06

Purpose. The Incident Personnel Performance Rating gives supervisors the opportunity to evaluate subordinates on incident assignments. THIS RATING IS TO BE USED ONLY FOR DETERMINING AN INDIVIDUAL'S PERFORMANCE ON AN INCIDENT/EVENT.

Preparation. The Incident Personnel Performance Rating is normally prepared by the supervisor for each subordinate, using the evaluation standard given in the form. It will be delivered to the planning section before the rater leaves the incident. Rating will be reviewed with the subordinate who will sign at the bottom.

Distribution. The Incident Personnel Performance Rating is duplicated a copy is given to the subordinate and supervisor. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Name	Enter the name of the person being evaluated.
2.	Incident Name	Enter the name assigned to the incident.
3.	Home Unit	Enter the address and phone number of the home unit of the person being evaluated.
4.	Location of Incident	Enter the address/location of the incident.
5.	Position Assigned	Enter the position assigned for the purpose of this evaluation.
6.	Date of Assignment	Enter the date of assignment.
7.	Date Incident Started	Enter the date the incident started.
8.	Type of Incident	Enter the Type (size) of the incident: Type 1, 2, 3, 4 or 5.
9.	Kind of Incident	Enter the kind of incident: Oil/Hazmat Spill, SAR, Fire, etc.
10.	Evaluation	Enter X under the appropriate rating for each category listed using the definitions given.
	Not Applicable	not observed.
	1 - Unacceptable	Deficient. Does not meet minimum requirements of the individual element. DEFICIENCIES/IMPROVEMENTS NEEDED MUST BE IDENTIFIED IN REMARKS.
	2 - Needs to improve	Meets some or most of the requirements of the individual element. IDENTIFY IMPROVEMENT NEEDED IN REMARKS.
	3 - Met Standards	Satisfactory. Employee meets all requirements of the individual element.
	4 - Fully successful	Employee meets all requirements and exceeds one or several of the requirements of the individual element.
	5 - Exceeded Expectations	Superior. Employee consistently exceeds the performance requirements.
11.	Remarks	Provide remarks/comments for ratings given. **Comments required for *unsatisfactory* and *needs to improve* ratings.**
12.	Rated Person Signature	Rated Person's signature.
13.	Date	Enter date (month, day, year) rated person signed performance rating.
14.	Rated By	Signature and printed name of supervisor/person giving the performance rating.
15.	Supervisor Home Unit	Enter address/phone of supervisor.
16.	Supervisor Position	Enter the position the supervisor held.
17.	Date	Enter date (month, day, year) supervisor signed the performance rating.

1. Incident Name	2. Operational Period (Date/Time) From: To:	DAILY MEETING SCHEDULE ICS 230-CG

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	
	Command & General Staff Meeting	IC/UC gives direction to Command & General staff including incident objectives and priorities	IC/UC, Command & General Staff	
	Tactics Meeting	Develop/Review primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OSC, LSC, RESL & SITL	
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period.	Determined by the IC/UC	
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command & General Staff, Branch Directors, Div/Gru Sups., Task Force/Strike Team Leaders and Unit Leaders	

4. Prepared by: (Situation Unit Leader) **Date/Time**

DAILY MEETING SCHEDULE (ICS 230-CG)

Purpose. The Daily Meeting Schedule records information about the daily scheduled meeting activities.

Preparation. This form is prepared by the Situation Unit Leader and coordinated through the Unified Command for each operational period or as needed. Commonly-held meetings are already included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of these standard meetings are not scheduled, they should be crossed out on the form.

Distribution. After coordination with the Unified Command, the Situation Unit Leader will duplicate the schedule and post a copy at the Situation Status Board and distribute to the Command Staff, Section Chiefs, and appropriate Unit Leaders. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Meeting Schedule	For each scheduled meeting, enter the date/time, meeting name, purpose, attendees, and location. Note: Commonly-held meetings are included in the form. Additional meetings, as needed, can be entered onto the form in the spaces provided. Time and location for each meeting must be entered. If any of the standard meetings are not scheduled, they should be deleted from the form (normally the Situation Unit Leader).
4.	Prepared By	Enter name and title of the person preparing the form, normally the Situation Unit Leader.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	RESOURCES AT RISK SUMMARY ICS 232-CG

3. Environmentally-Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

5. Prepared by: (Environmental Unit Leader) **Date/Time**

RESOURCES AT RISK SUMMARY (ICS 232-CG)

Purpose. The Resources at Risk Summary provides information about sites in the incident area which are sensitive due to environmental, archaeo-cultural, or socio-economic resources at risk, and identifies incident-specific priorities and issues. The information recorded here may be transferred to ICS 232a-CG, which acts as a key to the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) site numbers shown on the Situation Map.

Preparation. The Environmental Unit Leader, with input from resource trustees, will complete this form for each operational period. It should be updated prior to the Planning Meeting.

Distribution. This form must be forwarded to the Planning Section Chief for possible inclusion in the IAP. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies.
3.	Env- Sensitive Area & Wildlife Issues	
	Site Number	Enter site number. Can come from Area Contingency Plan (ACP) or Geographic Response Plan (GRP) or can be created during an incident.
	Priority	Priority specific to this incident. Can come from an ACP/GRP or can be created during an incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Site Issues	Environmental concerns associated with this site and season.
	Narrative	Use the Narrative section to clarify any issues.
4.	Archaeo-cultural and Socio-economic Issues	
	Site Number	Enter site number. Can come from an ACP/GRP or can be created during an incident.
	Priority	Priority specific to this incident. Can come from an ACP/GRP or can be created during an incident.
	Site Name and/or Physical Location	Name of the site (e.g., Marsh Pt., Glacier Creek, etc.) and/or physical location (e.g., address, lat/long, landmarks, etc.).
	Site Issues	Archaeo-cultural or socio-economic concerns associated with this site and season.
	Narrative	Use the Narrative section to clarify any issues.
5.	Prepared By	Enter name and title of the person preparing the form (normally the Environmental Unit Leader).
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

1. Incident Name	2. Operational Period (Date/Time) From: To:	ACP Site Index ICS 232a-CG

3. Index to ACP/GRP sites shown on Situation Map

Site #	Priority	Site Name and/or Physical Location	Action	Status

Note: This form is designed to be posted next to the situation map. Use additional sheets, as needed.

4. Prepared by: **Date/Time**

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1. Incident Name:					**INCIDENT OPEN ACTION TRACKER ICS-233**		
2. No.	3. Item	4. For/POC	5. Briefed POC (X)	6. Start Date	7. Status	8. Target Date	9. Actual Date
1							
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PHMSA 000056206

Open Actions Tracker (ICS 233-CG - revision 1/07)

Purpose. Open Actions Tracker
1. Is used by the Incident Commander/Unified Command (IC/UC) to assign and track tasks/actions to IMT personnel that do not rise to the level of being an Incident Objective.
2. Is duplicated and provided to Command and General Staff members, giving them the open tasks/actions needing to be completed and a means to track the open tasks/actions they have been assigned.
Note: This form may also be used by Command and General Staff for tracking tasks/actions within a Section/Staff element.

Preparation. The Planning Section Chief (PSC) is responsible for maintaining the Open Actions Tracker for the IC/UC and typically utilizes the Documentation Unit Leader (DOCL) to assist in this forms development and updating. The PSC should ensure all Command and General Staff are prepared to discuss their assigned tasks/actions during the Command and General Staff and Planning Meetings.

Distribution. When completed, the form is duplicated and copies are distributed to the Unified Command and Command and General Staff. It is also posted on a status board located at the ICP. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	No.	Enter number of task in sequential order (1, 2, 3, ...).
3.	Item	Enter short descriptive of the task/action to be completed. Tasks/Actions are important to be completed but are not an Incident Objective which are documented on the ICS-202 form.
4.	For/POC	Enter the Point of Contact (POC), the responsible person/section.
5.	Briefed to POC	Enter "X", when the task/action has been briefed to the POC/responsible person. This is to ensure that tasks/actions identified outside of the POC's presence (during Unified Command Meeting for example) are briefed to and acknowledged by the identified POC.
6.	Start Date	Enter the date the task/action was initially assigned under "Start Date."
7.	Status	Enter status of item. For example; "Awaiting LE Gear", "Update needed", "Awaiting Feedback". When the item is completed, the word "completed" is entered and if working in MS Excel, the task is cut and pasted into the worksheet labeled "COMPLETED."
8.	Target Date	Enter deadline task/action should be completed. In the Excel Worksheet, there is a hidden formula that shows green, yellow and red blocks. When the target date is one day away, the block turns yellow. When it is overdue it turns red. When the block is yellow, it serves as a reminder to the UC/POC that the target date is nearing and the POC needs to complete the task or the target date needs to be updated.
9.	Actual Date	Enter actual date task/action completed.

NOTE: In order to ensure the red and yellow reminders work for new tasks, the user simply copies a task line, inserts it into the worksheet and overtypes the new task information.

		WORK ANALYSIS MATRIX ICS 234-CG
1. Incident Name	2. Operational Period From: To:	

3. Operation's Objectives DESIRED OUTCOME	4. Optional Strategies HOW	5. Tactics/Work Assignments WHO, WHAT, WHERE, WHEN

6. Prepared by: (Operations Section Chief)	7. Date/Time:

WORK ANALYSIS MATRIX FORM INSTRUCTIONS (ICS FORM 234-CG) Rev. 8/05

Purpose. The Work Analysis Matrix is designed to help select the best strategies and tactics to achieve the operational objectives. This optional form assists staff in carrying out incident objectives by outlining the who, what, where, when, and how of the response. The tactics from this form carry forward to the "Work Assignment" on the ICS-215. Another purpose of the ICS-234 is that it presents alternative (or what-if) strategies and tactics to respond to bad weather, sudden changes in operational conditions, etc. This form is simply a formalized version of how most OSCs tend to think in order to turn objectives into tactical field work.

Preparation. The Work Analysis Matrix, if used, is usually completed by the Operations Section Chief and Planning Section Chief prior to the Tactics Meeting.

Distribution. All completed original forms must be submitted to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name of the incident
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Operational Objectives	Enter the relevant Operational Objectives from the ICS 202, with numbers
4.	Operational Strategies	Enter all strategies that could be used to meet the objective ("how")
5.	Tactics/Work Assignments	Enter details, including as much as possible, who, what, where, and when, of work assignments to carry out Operational Strategies
6.	Prepared By	Enter the name and position of the person preparing the form
7.	Date/Time	Enter the date and time (24-hour format) the form was prepared

FACILITY NEEDS ASSESSMENT WORKSHEET ICS-235-CG (Rev 5/06)

1.INCIDENT NAME

2. LOCATION	3. FACILITIES	4. Requirements	# Expected Personnel	Internal/Building Workspace Sq Ft (80 sq ft/pers)	Wall Space Linear Sq Ft	Multi-Purpose Mtg Rm Sq Ft (20 sq ft/pers + display space)	External/Outside Laydown Sq Ft	Parking Space Sq Ft (120 sq ft/vehicle x 1.4 circulation factor)	Climate Control (HVAC) needed -	Toilet Rooms	Work Tables	Conf Table	Chairs	Telephones	Speaker Phone	Fax Machines	Power Outlets	Comp Workstations	Printers	Chart Printer/ChartPro	Video Projectors	Copy Machines	Paper Shredders				
ICP	Unified Command	REQ																									
	Liaison Officer & Agency Reps	REQ																									
	Safety Officer	REQ																									
	Public Information Officer	REQ																									
	Planning Section	REQ																									
	Operations Section	REQ																									
	Logistics Section	REQ																									
	Finance/Admin Section	REQ																									
	Common Areas	REQ																									
Base	Base	REQ																									
		REQ																									
JIC	JIC	REQ																									
		REQ																									
Staging		REQ																									
		REQ																									
		REQ																									
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		REQ																									
		REQ																									

5. Prepared By:

6. Date/Time Prepared:

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PORTLAND MONTREAL PIPE LINE SYSTEM
MEDIA CONTACT LOG
(Proactive Contact)

Publication: _____

Contact/Phone Number: _____

Story Angle: _____

_____

Discussion: _____

_____

_____

Date: _____ Time:_____ a.m./p.m

Contacted By: _____

Next Steps: _____

_____

_____

□ CONTACT COMPLETED/ LOG FILED

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SITE SAFETY PLAN

I. General

☐ Road Spill ☐ Water Spill ☐ Hazmat Spill ☐ Excavation ☐ Other: _____

Associated Permits & Job No. #_____

Facility: _____

Location: _____

Work to be performed: _____

Issuing Date: _____ Time: _____
Temperature: ____° Wind Direction: ____
Humidity: _____

II. Hazards to be Evaluated

Y	N		Y	N	
☐	☐	Oxygen Deficient/Enriched	☐	☐	Chemical/MSDS # _____
☐	☐	Flammable Atmosphere	☐	☐	Physical Hazard _____
☐	☐	Toxic Atmosphere: _____	☐	☐	Traffic _____
☐	☐	Boat Operations	☐	☐	Other* (see comments) _____

III. Control Measures

Isolation & Lockout (Identify items to be locked out): _____

Decon: _____

Ventilation: ☐ Natural ☐ Mechanical: _____ Continuous: ☐ No ☐ Yes

Flagman/Watchman: _____

IV. Testing & Monitoring (Check required items)

Tests are to be performed in the order listed.

Y	N		Continuous		Frequency
☐	☐	Oxygen Level	☐Y	☐N _____	every _____
☐	☐	LEL	☐Y	☐N _____	every _____
☐	☐	Hydrogen Sulfide	☐Y	☐N _____	every _____
☐	☐	Benzene	☐Y	☐N _____	every _____
☐	☐	VOC: _____	☐Y	☐N _____	every _____
☐	☐	Other: _____	☐Y	☐N _____	every _____

ACCEPTABLE ENTRY CONDITIONS

	SPECIAL WORK PRACTICES OR PPE REQUIRED	WORK EFFORTS SHOULD BE DIRECTED AT REDUCING CONCENTRATIONS
19.5 – 22.0% in air*	< 19.5% or 22.0% in air*	<16.0 or ≥ 23.5% in air
< 10% in air	≥ 10.0 but < 20.0% in air†	≥ 20.0% in air
< 10 ppm	≥ 10 but < 100 ppm	≥ 100 ppm
< 1 ppm	≥ 1 but < 3000 ppm	≥ 3000 ppm

As allowed by applicable standard(s) *Acceptable for 5325 feet of elevation and below.
†Hot work is not permitted when LEL is greater than 10% in air.

V. Required Personal Protective Equipment (Check for required use)

General	Eye Prot.	Respiratory Prot.	Hearing Prot.	Gloves	Footwear	Clothing
☐Hard Hat	☐Safety Glasses	☐SCBA/Air Line w/Escape	☐Ear Plugs	☐Leather	☐Steel-toes	☐FR Coveralls
☐Safety Harness	☐Goggles	☐Air Line	☐Ear Muffs	☐Rubber	☐Rubber	☐Tyvek
☐PFD	☐Face-shield	☐Air Purifying (Full Mask)	☐Combination	☐Nitrile	☐Hip-boots	☐Coated Tyvek
	☐Tinted Lens	Cartridge Type: ☐OV ☐Hepa-OVV		☐PVC	☐_____	☐Saranyx
				☐_____		☐_____

Any other special PPE: _____

VI. Emergency Information and Rescue Services

Emergency Contact Person: _____ Contact by: _____
Fire Department: _____ Contact by: _____
Ambulance: _____ Contact by: _____
Hospital: _____ Contact by: _____
Rescue Services: _____ Contact by: _____
(if not provided by above)

VII. Required Safety & Rescue Equipment (on site)

☐Lights ☐Fall Protection ☐First Aid Kit ☐Drinking Water ☐Fire Extinguisher ☐Tripod ☐Other: _____
☐Ladder ☐Retrieval Lines ☐Resuscitator ☐Communication Method _____

VIII. Comments or Special Work Procedures

_____

IX. Report All Injuries Immediately

X. Monitoring Results

	Zone													
Oxygen	Time													
	Level													
	By													
LEL	Time													
	Level													
	By													
Hydrogen Sulfide	Time													
	Level													
	By													
Benzene	Time													
	Level													
	By													
VOC	Time													
	Level													
	By													
	Time													
	Level													
	By													
	Time													
	Level													
	By													
	Time													
	Level													
	By													
	Time													
	Level													
	By													

Equipment: Type: _____ Mfger: _____ Calibration / Expiration: _____
Type: _____ Mfger: _____ Calibration / Expiration: _____

XI. Work Area Diagram

Please include wind direction, exclusion zone, support zone, decon area and significant landmarks.

Qualified Individual (QI) Notification Exercise

Internal Exercise Documentation

1. Date performed: _____
2. Exercise or actual response: _____
3. Person initiating exercise: _____
4. Name of person notified: _____
   Is this person identified in the response plan as the: ☐ QI ☐ AQI
5. Time initiated: _____
   Time QI or AQI responded: _____
6. Method used to contact:
   ☐ Telephone ☐ Pager ☐ Radio
   ☐ Other _____
7. Description of notification procedure:
   _____
   _____
   _____
   _____
   _____
8. Identify which components of your response plan were exercised during this particular exercise:

Organizational Design

- ☐ Notifications
- ☐ Staff mobilization
- ☐ Ability to operate within the response management system described in the plan

Operational Response

- ☐ Discharge control
- ☐ Assessment of discharge
- ☐ Containment of discharge
- ☐ Recovery of spilled material
- ☐ Protection of economically and environmentally sensitive areas
- ☐ Disposal of recovered product

Response Support

- ☐ Communications
- ☐ Transportation
- ☐ Personnel support
- ☐ Equipment maintenance and support
- ☐ Procurement
- ☐ Documentation

Certifying Signature: _____ Name (Printed): _____
Date: _____

Response Team Tabletop Exercise
Internal Exercise Documentation

1. Date(s) performed: _____
2. Exercise or actual response: _____
   Exercise type: ☐ Announced ☐ Unannounced
3. Location of exercise: _____
4. Time started: _____
   Time completed: _____
5. Response plan scenario used (check one):
   ☐ Small ☐ Medium ☐ Worst case discharge
   Size of (simulated) spill _____ Bbls
6. Describe how the following objectives were exercised:

   a) Response Team's knowledge of oil spill response plan:

   _____
   _____
   _____
   _____
   _____
   _____

   b) Proper notifications:

   _____
   _____
   _____
   _____
   _____
   _____

   c) Communications System:

   _____
   _____
   _____
   _____
   _____
   _____

Response Team Tabletop Exercise

Internal Exercise Documentation (Cont'd)

d) Response Team's ability to access contracted OSRO:

_____

_____

_____

e) Response Team's ability to coordinate spill response with OSC, state and applicable agencies:

_____

_____

_____

f) Response Team's ability to access sensitive site and resource information in Area Contingency Plan:

_____

_____

_____

_____

_____

_____

7. Identify which components of your response plan were exercised:

_____

_____

_____

_____

8. Attach description of lesson(s) learned and person(s) responsible for follow up of corrective measures.

Certifying Signature: _____ Name (Printed): _____

Date: _____

Equipment Deployment Exercise
(Semiannual)
Internal Exercise Documentation Form

1. Date(s) performed: _____

2. Exercise or actual response? _____
   If an exercise, announced or unannounced? _____

3. Deployment location(s):
   _____
   _____
   _____
   _____
   _____
   _____

4. Time started: _____
   Time completed: _____

5. Equipment deployed was:
   _____ Facility - owned
   _____ Oil spill removal organization - owned if so, which OSRO? _____
   _____ Both

6. List type and amount of all equipment (e.g., boom and skimmers) deployed and number of support personnel employed:
   _____
   _____
   _____
   _____
   _____
   _____

7. Describe goals of the equipment deployment and list any Area Contingency Plan strategies tested (Attach a sketch of equipment deployments and booming strategies):
   _____
   _____
   _____
   _____
   _____

8. For deployment of facility-owned equipment, was the amount of equipment deployed <u>at least</u> the amount necessary to respond to your facility's average most probable spill?
   _____
   _____

   Was the equipment deployed in its intended operating environment?
   _____
   _____

Equipment Deployment Exercise (cont'd) (Semiannual)
Internal Exercise Documentation Form

9. For deployment of OSRO - owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed?

_____

_____

Was the equipment deployed in its intended operating environment?

_____

_____

10. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? _____

_____

If so, describe the program: _____

_____

_____

_____

_____

_____

Date of last equipment inspection: _____

11. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill? _____

12. Was all deployed equipment operational? If not, why not?

_____

_____

_____

_____

_____

Response Equipment Inspection Log

Inspector	Date	Comments

REVISION RECORD

Note: It is the responsibility of the holder of this plan to ensure that all changes and updates are made. The holder shall:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.
- Record each revision on this form.

Change Date	Affected Page Number(s)	Description of Change(s)	Name
EXAMPLE			
01/01/99	1-1 thru 1-4; 5-2	Head Office Update	B.A. Sample

The 12-2012 revision of the PHMSA Form 7000-1 (Accident Report Form) is available in the PHMSA Portal.

Online submission via PHMSA portal is required unless alternative reporting method is granted by PHMSA

PHMSA Portal: https://portal.phmsa.dot.gov/portal

See Online Submission Registration Requirements at http://opsweb.phmsa.dot.gov/portal_message/PHMSA_Portal_Registration.pdf:

If electronic reporting imposes an undue burden and hardship, an operator may submit a written request for an alternative reporting method to the Information Resources Manager, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, PHP-20, 1200 New Jersey Avenue, SE Washington DC 20590. The request must describe the undue burden and hardship. PHMSA will review the request and may authorize, in writing, an alternative reporting method. An authorization will state the period for which it is valid, which may be indefinite. An operator must contact PHMSA at 202-366-8075, or electronically to informationresourcesmanager@dot.gov or make arrangements for submitting a report that is due after a request for alternative reporting is submitted but before an authorization or denial is received. Operators should request and receive authorization from PHMSA prior to the use of alternative reporting methods.

RESPONDING TO OIL & HAZARDOUS MATERIALS SPILLS
DEP Initial Spill Information Report Form

Please fill in as much of the following as possible, using information provided by the caller/reporting official. Bold fields are of primary importance.

Name of caller Date of Report _____ and Time ___:___ AM ___ PM ___

Date of Spill/Event _____ and Time ___:___ AM ___ PM ___

Telephone number(s) of caller (include area code)

Company Name (if applicable)

Address

Town _____ State _____ Zip Code

Name of other informed party _____ Phone Number

Type of product alleged spilled

Estimated amount of spill

Is more spillage possible? _____ (Yes or No) Amount? _____

Is the situation **URGENT?** _____ (Yes or No) Is **HELP** needed? _____ (Yes or No)

Nature of call or complaint

Actions taken so far:

What resources are at risk? (check all that apply)

____	Public Safety	____	Surface Drainage
____	Public Water or Well	____	Storm Sewer
____	Private Water or Well	____	Sanitary Sewer
____	Atmosphere	____	Vapors in Building
____	Land or Ground	____	None (complaint only)
____	Open Water		

Location of incident (Town name)

Specific directions to site

OIL DISCHARGE REPORT TO STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (SAMPLE)

(a) Date, time, and place of discharge:

(b) Licensee:
Name of Vessel: N/A
Owner of Vessel: N/A

(c) Amount and type of oil discharged and recovered:

(d) Description of circumstances causing discharge:

(e) Control and recovery operations:

(f) Recommendations to the Department of Environmental Protection arising from incident pertaining to PPLC procedures, methods, precautions, or operations:

g) PPLC damages suffered:

(h) Other damages suffered:

Location: _____

Date: _____

SPCC SPILL REPORT
(SAMPLE)

§112.4 Submittal of Information to Regional Administrator for Qualified Discharge(s)

In the event of a reportable discharge or discharges, this page can be utilized to provide official notification to the Regional Administrator. If the Facility has had a discharge or discharges, which meet one of the following two criteria, then this report must be submitted to the Regional Administrator within 60 days. (Check as appropriate)

❑ This Facility has experienced a reportable spill as referenced in 40 CFR Part 112.1(b) of 1,000 gallons or more.

❑ This Facility has experienced two (2) reportable spills (as referenced in 40 CFR Part 112.1(b) of greater than 42 gallons each within a 12-month period.

Facility Name and Location: _____

_____

_____

Facility Contact Person (Name, address/phone number): _____

_____

_____

Facility maximum storage or handling capacity: _____

_____

_____

Facility normal daily throughput: _____

_____

_____

Describe the corrective action and countermeasures taken (include description of equipment repairs and replacements): _____

_____

_____

Describe the Facility (maps, flow diagrams and topographical maps attached as necessary):

_____

Describe the cause of discharge (as referenced in 40 CFR Part 112.1(b)) including failure analysis of the system is:_____

_____

_____

Describe the preventative measures taken, or contemplated to be taken, to minimize the possibility of recurrence: _____

_____

_____

Other pertinent information: _____

- A copy of this report is also to be sent to the appropriate state agency in charge of oil pollution control activities.

DISCHARGE PREVENTION MEETING LOG
(SAMPLE LOG)

Date:	
Attendees:	

Subject/Issue	Required Action	Implementation

BRITTLE FRACTURE EVALUATION
(Sample Log)

Tank / Container ID: _____

- ❑ Field-constructed aboveground container.
- ❑ Repair: _____
  or,
- ❑ Alteration: _____
  or,
- ❑ Reconstruction: _____.
- ❑ Alterations, repairs or reconstruction meets API 653 (Tank Inspection, Repair, Alteration and Reconstruction).
  - ❑ Continue Use: _____
- ❑ Change of service that might affect the risk of a discharge: _____

1. ❑ Tank (container) meets API 650 (Welded Steel Tanks for Oil Storage – 7th Edition or later) and the tank continues to operate in ❑ same service or ❑ equivalent or less severe service.

- ❑ Continue Use: _____

OR

2. ❑ Tank (container) does not meet API 650 or other equivalent standard:

- ❑ Prior hydro demonstrates fitness for continued service.
  - ❑ Continue Use: _____
- ❑ No prior hydrostatic test. **(Go to Step 3.)**
  - ❑ Further evaluation or appropriate action: _____

OR

3. ❑ Alteration, repairs or reconstruction does not meet API 653.

- ❑ Tank thickness ≤ 0.5 inch: _____
  - ❑ Continue Use: _____
  - ❑ Further evaluation or appropriate action: _____

OR IF NOT,

- ❑ Tank operates at metal temperature above 60°F:_____
  - ❑ Continue Use: _____
  - ❑ Further evaluation or appropriate action: _____

OR IF NOT,

- ❑ Membrane stress below 7 ksi:_____
  - ❑ Continue Use: _____
  - ❑ Further evaluation or appropriate action: _____

_____ _____

Inspector/Supervisor Date

PORTLAND PIPE LINE CORPORATION
Safety, Environment, Customer, Community

Informal Monthly Inspection (IMI) Summary

LOCATION	INSPECTION DATE	INSPECTED BY
TERMINAL		
Tank 1		-
Tank 2		-
Tank 27		-
Tank 28		-
T-2 MANIFOLD AREA		
Tank 3		-
Tank 4		-
Tank 5		-
Tank 6		-
Tank 18		-
Tank 19		-
Tank 20		-
Tank 21		-
Tank 22		-
Tank 26		-
T-1MANIFOLD AREA		
Tank 8		-
Tank 9		-
Tank 10		-
Tank 11		-
Tank 12		-
Tank 13		-
Tank 23		-
Tank 24		-
Tank 25		-
OTHER AREAS		
Oil-Water Separator		-
Fuel Oil Tank		-

PORTLAND PIPE LINE CORPORATION
Safety, Environment, Customer, Community

Informal Monthly Inspection (IMI) Checklist (API 653)

Tank: 1
Level:
Crude: #REF!

Inspected By: -
Inspection Date:
Req'd W/O Completion Date: 1/15/1900

DESCRIPTION	ITEM	OK	MONITOR	REPAIRED	WORK ORDER	COMMENTS
Access	Walkway					
	Stairs					
	Platform					
	Footings					
	Grading					
Foam Lines	Valves					
	Caps					
	Piping					
Lights	Switch					
	Fixtures					
	Bulbs					
Piping & Valves	Lateral Piping					
	Shell Valve					
	Transfer Piping & Valves					
	Sump Piping & Valves					
Transfer Pump	Packing					
	Casing					
	Petcock					
	Power					
	Ground Wire					
	Area					
Mixers (Two)	Pivot					
	Casing					
	Hatch					
	Power					
	Ground Wire					
	Area					
Manways	Condition					
Chine	Clearly Visable					
	Undermining					
	Condition					
Leak Detection	Piping					
	Valves					
	No Discharge					
Inspection Well	No Oil Sheen					
Paint	Stairs & Walkways					
	Foam Lines					
	Piping					
	Valves					
	Mixers					
	Transfer Pump					
	Hatches					
	Gauging Shack					
	Wind Girder					
	Shell					
	Roof					
Roof	Debris					
	Wax/Oil					
	Water					
	Ladder					
	Pontoon Covers					
	Vents					
	Shunt Straps					
	Legs					
	Air Pockets					
Hi-Hi Level Alarm	Microswitch					
Dike Area	Animal Burrows					
	Erosion					
	Water Ponding					
	Drainage/Culverts					
	Debris					
Hazards (Provide LPS Entry)	Trip/Falls					
	Other					

PORTLAND PIPE LINE CORPORATION
Safety, Environment, Customer, Community

Informal Monthly Inspection (IMI) Checklist (API 653)

Tank: 1
Level:
Crude: #REF!

Inspected By: -
Inspection Date:
Req'd W/O Completion Date: 1/15/1900

DESCRIPTION	ITEM	OK	MONITOR	REPAIRED	WORK ORDER	COMMENTS
SEAL INSPECTION						
Seal Condition	Clean					
	Wax/Oil/Water					
	Gaps (Provide Measurement)					
	Damage					
	Drains					
Gap Location (Pontoons)	Gap Length (feet)					Gap Measurement at Widest Point (inches)
1 - 2						
2 - 3						
3 - 4						
4 - 5						
5 - 6						
6 - 7						
7 - 8						
8 - 9						
9 - 10						
10 - 1						

PORTLAND PIPE LINE CORPORATION
Safety, Environment, Customer, Community

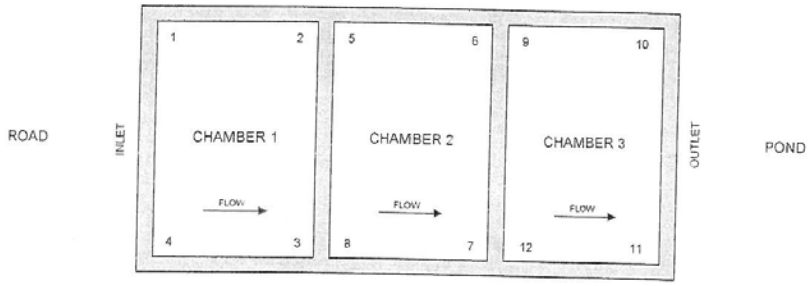
Informal Monthly Inspection (IMI) Checklist (API 653)

Item: OIL-WATER SEPARATOR

Inspected By: -
Inspection Date:
Req'd W/O Completion Date: 1/15/1900

DESCRIPTION	OK	MONITOR	REPAIRED	WORK ORDER	COMMENTS
Surface water clear of oil or sheen					
Concrete free of cracks and spalls					
Chambers free of plant growth and vegetation					
Inlet grating free of debris and in good condition					
Outlet grating free of debris and in good condition					
Inlet gate valve operable and in good condition					
Outlet gate valve operable and in good condition					
Chambers free of excessive sediment (record depth below)					

LOCATION	SEDIMENT DEPTH	OK	MONITOR	REPAIRED	WORK ORDER	COMMENTS
Chamber 1						
Point 1						
Point 2						
Point 3						
Point 4						
Chamber 2						
Point 5						
Point 6						
Point 7						
Point 8						
Chamber 3						
Point 9						
Point 10						
Point 11						
Point 12						



OIL-WATER SEPARATOR
PLAN VIEW

PORTLAND PIPE LINE CORPORATION
Safety, Environment, Customer, Community

Informal Monthly Inspection (IMI) Checklist (API 653)

Item: FUEL OIL TANK
AT HEATING PLANT

Inspected By: -
Inspection Date:
Req'd W/O Completion Date: 1/15/1900

DESCRIPTION	READING (inches)	OK	MONITOR	REPAIRED	WORK ORDER	COMMENTS
Gauge Reading						
Dip Pole						

PREP EXERCISE PROGRAM RECORDS
(SAMPLE)

SAMPLE CHART

20XX PREP EXERCISE PROGRAM RECORDS
OIL SPILL RESPONSE EXERCISES & EVENTS
ACCORDING TO INTEGRATED CONTINGENCY PLAN - SECTION 4.6

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.
QI Notification Drill (quarterly)												
Facility Notification Drill (semi-annual)												
Equipment Deployment Drill (semi-annual)												
Spill Management Team Table Top (annual)												
Internal Unannounced Exercise (annual)												

CANADA SPECIFIC FORMS

Reporting instructions

1. Incident Accident Report Forms (TSB / NEB)

The Quebec Area Manager will complete these reports, as necessary, and copies shall be submitted to:

- Appropriate Governmental Authorities;
- Quebec Area Manager ;

2. Hazardous Occurrence Investigation Report

This report will be sent within 14 days after the occurrence of the accident, occupational disease or other hazardous occurrence to the Ministry of
The report will be forwarded to:

- Quebec Area Manager ;
- President of MPL;
- Police Department, if necessary.

3. Spill Report Log

The Ministry of Natural Resources requires that the owner of petroleum product facilities, keeps a record of all events. The MPL Quebec Area Manager will maintain a register of all the spills. A spill identification number is to be issued for each occurrence. The information in the sample log is to be recorded in the log for each spill.

TSB Notification of an Accident/Incident Form

To be completed by the Quebec Area Manager (or delegate), within 30 days after the accident or incident.
1) Type of certificate issued under section 52 of the NEB Act: _____ Number of certificate issued under section 52: _____
2) Name of Operator _____
3) Date of the accident or incident: _____ Time of the accident or incident: _____
4) Location of the accident or incident: _____
5) Number of persons that were killed or sustained a serious injury: _____
6) A Description of the accident or incident and extent of any damage to the commodity pipeline, the environment and other property _____
7) A description of any dangerous goods contained in or released (volume released) from the commodity pipeline and a description of any action taken by the operator to protect the public: _____
8) In the case of a reportable accident[1], the anticipated arrival time of repair equipment: _____ _____
9) Name of the person making the report:_____ Address: _____ Title: _____

* See definition of accident / incident on Page K-34.

How to make a report:

Pipeline occurrences shall be reported as soon as possible to the TSB Rail/Pipeline Occurrence Hot Line at 819-997-7887

This information shall be faxed to the Rail/Pipeline Branch as soon as possible after the initial call at 819-953-7876

1. A “Reportable Pipeline Accident” is an accident resulting directly from the operation of a pipeline, where:
   A. A Person sustains a serious injury or is killed as a result of being exposed to:
      a. A fire, ignition or explosion, or
      b. A commodity released from the pipeline, or
   B. The Pipeline
      a. Sustains damage affecting the safe operation of the pipeline as a result of being contacted by another object or as a result of a disturbance of its supporting environment,
      b. Causes or sustains an explosion, or a fire or ignition that is not associated with normal operating circumstances, or
      c. Sustains damage resulting in the release of any commodity.

2. A “Reportable Pipeline Incident” means an incident resulting directly from the operation of a pipeline where
   a) an uncontained and uncontrolled release of a commodity occurs,
   b) The pipeline is operated beyond design limits,
   c) The pipeline causes an obstruction to a ship or to a surface vehicle owing to a disturbance of its supporting environment,
   d) Any abnormality reduces the structural integrity of the pipeline below design limits,
   e) Any activity in the immediate vicinity of the pipeline poses a threat to the structural integrity of the pipeline, or
   a) The pipeline, or a portion thereof, sustains a precautionary or emergency shut-down for reasons that relate to or create a hazard to the safe transportation of a commodity

National Energy Board
Calgary, Alberta

Appendix 1
DETAILED INCIDENT REPORT

Type or print in black pen

1

Board Use Only

NEB Incident No. _____ Date Received _____ NEB Investigator _____

Investigator's Comments _____

Secretary
National Energy Board
444 Seventh Avenue S.W.
Calgary, Alberta T2P 0X8 • Fax: (403) 292-5503

PART A - OPERATOR INFORMATION

Name of Company _____

Address of Company _____

Pipeline Name _____

PART B - TIME, WEATHER AND LOCATION OF INCIDENT

Date *(month)* _____ *(day)* _____ *(year)* _____

Hour *(24 hour system & time zone)* _____

Weather *temperature:* _____ *^{0}C precipitation:* _____ *windspeed & direction:* _____

CSA Class Location ☐1 ☐2 ☐3 ☐4

Location (provide specific location using a chainage description (MLV, kmP), land survey description or prominent landmarks)

_____

PART C - ORIGIN OF SPILL/RELEASE

Facility Involved:

☐ Line Pipe ☐ Tank Farm ☐ Pump Station ☐ Compressor Station ☐ Regulator/Meter Station ☐ Gas Plant

☐ Other Related Facility *(specify)* _____

Equipment Involved:

☐ Pipe ☐ Valve ☐ Pressure relief device ☐ Fitting ☐ Compressor ☐ Pump ☐ Pressure vessel ☐ Tank

☐ Instrumentation

☐ Other *(specify)* _____

PART D - SPILLS AND RELEASES ***(Report LVP and HVP spills only if in excess of 1.5 m^3)***

☐ Gas ☐ LVP ☐ HVP ☐ Toxic Substance

Name of product/substance _____

Volume spilled/released _____ m^3 Volume recovered _____ m^3

Was there a fire? ☐Yes ☐No Was there an explosion? ☐Yes ☐No

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PART E - IMMEDIATE CAUSE FOR INCIDENTS ON OPERATING PIPELINES (*Immediate Cause: means unsafe acts or unsafe conditions*)

☐ Failed pipe ☐ Operator personnel error ☐ Other *(specify)* _____

☐ Failed weld ☐ External loading or natural forces Refer to Part H _____

☐ Corrosion Refer to Part G ☐ Equipment malfunction/failure Refer to Part I _____

PART F - LINE PIPE DATA

Type of Failure _____

Nominal Diameter (mm) _____ Wall Thickness (mm) _____ Date of Manufacture _____

Weld Process _____ SMYS (MPa) _____

Pipe Specification ☐ Z 245 ☐ Other *(specify)* _____ Pipe Location: ☐ Below Ground ☐ Above Ground

Maximum Operating Pressure (kPa) _____ Pressure at Time of Incident (kPa) _____

Latest Presure Test Date _____ Maximum Test Pressure (kPa) _____ Test Duration (hrs) _____

PART G - CORROSION FAILURES

Corrosion location: ☐ Internal ☐ External

Type of Corrosion *(specify)* _____

Type of Coating _____

Circumferential Position Looking Downstream (mark an X)

PART H - FAILURES DUE TO EXTERNAL LOAD OR NATURAL FORCES

☐ Damage by operator or its contractor ☐ Damage by other parties ☐ Earth movement ☐ Lightning/Fire

☐ Other (*specify*) _____

Name or Contractor/Other Party _____

Address _____

Telephone ( ) _____ Name of Representative _____

PART I - EQUIPMENT MALFUNCTION/FAILURE

Equipment _____ Manufacturer _____ Model# _____

Year Equipment Installed _____ Year Equipment Manufactured _____

PART J - ESTIMATE OF TOTAL INCIDENT COST *(Including repair, cleanup and restoration)*

$

PART K - REPAIR DESCRIPTION *(Description of all repairs to the pipeline made necessary by the incident and date of return to service of the pipeline)*

_____

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PART L - INJURY AND FATALITY DESCRIPTIONS

☐ Number of Fatalities ☐ Number of Serious Injuries

Serious Injury - includes an injury that results in: fracture of a major bone, amputation of a body part, loss of sight - one or both eyes, internal haemorrhage, third degree burns, unconsciousness, or loss of a body part or function of a body part

NAME	AFFILIATION	FATALITY OR INJURY DESCRIPTION AND CURRENT PATIENT CONDITION
	☐ Company Employee ☐ Contractor ☐ Public	
	☐ Company Employee ☐ Contractor ☐ Public	
	☐ Company Employee ☐ Contractor ☐ Public	
	☐ Company Employee ☐ Contractor ☐ Public	
	☐ Company Employee ☐ Contractor ☐ Public	
	☐ Company Employee ☐ Contractor ☐ Public	
	☐ Company Employee ☐ Contractor ☐ Public	
	☐ Company Employee ☐ Contractor ☐ Public	

PART M - IMMEDIATE INCIDENT CAUSE OF SERIOUS INJURY/FATALITY ***(Immediate Cause - means unsafe acts and conditions)***

☐ Defective/inadequate safety devices, tools or equipment

☐ Improper loading or placement

☐ Congested work area/disorderly workplace

☐ Improper operation of safety devices, tools or equipment

☐ Hazardous environment (gases, dust, smoke, fumes or vapours)

☐ Other *(specify)*

PART N - NARRATIVE OF INCIDENT

Provide a complete description of the incident, including events leading up to, and following the incident. Also include additional information as specified in the guidelines to section 52 of the Onshore Pipeline Regulations. Attach any additional information that may supplement the narrative such as 1) drawing of the incident site 2) photographs 3) schematics 4) maps 5) reports (metallurgical, NDT, inspection, pressure test, etc.)

Attach additional sheets of narrative as required.

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PART O - WITNESS INFORMATION

NAME _____ TELEPHONE NO. ( ) _____
_____ ( ) _____
_____ ( ) _____
_____ ( ) _____
_____ ( ) _____

PART P - BASIC CAUSES OF INCIDENT ***(Identify all basic causes contributing to the incident. Basic Cause - means the real or root causes of why the unsafe acts and unsafe conditions as described in the immediate cause occurred. Several Basic Causes may be assigned for one incident.)***

☐ Inadequate training ☐ Inadequate work standards or procedures ☐ Inadequate materials, tools or equipment
☐ Inadequate design/maintenance ☐ Non-compliance with work standards or procedures
☐ Other *(specify)* _____

Additional comments on selected basic cause: _____

PART Q - CORRECTIVE ACTIONS TAKEN TO PREVENT SIMILAR INCIDENTS ***(If no corrective action taken, state reasons why)***

PART R - NAME OF PERSON CONDUCTING A COMPANY INCIDENT INVESTIGATION

Name _____
Title _____
Telephone ( ) _____ Fax ( ) _____

PART S - NAMES OF OTHER AGENCIES INVESTIGATING INCIDENT

Agency _____ Agency _____
Telephone _____ Telephone _____
Contact Name _____ Contact Name _____
Agency _____ Agency _____
Telephone _____ Telephone _____
Contact Name _____ Contact Name _____

PART T - NAME AND TITLE OF COMPANY REPRESENTATIVE FILING REPORT

Name _____ Signature _____
Title _____
Telephone ( ) _____ Fax ( ) _____ Date *(time)* _____ *(month)* _____ *(day)* _____ *(year)* _____

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Spill Report for Ministry of Natural Resources

Spill Report for Ministry of Natural Resources
ID Number:
Date of the Release:
Name and Title of Person in Charge of the Sector Where the Spill Has Arrived::
Date of the Follow-up Investigation:
Description of the Corrective Actions:
Date when the Corrective Action Was Completed: _____

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APPENDIX L

GLOSSARY OF TERMS/ACRONYMS

PAGE

Glossary of Terms.....L-2

Acronyms.....L-11

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS

This glossary contains definitions of terms that will be used frequently during the course of response operations.

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

Activate: The process of mobilizing personnel and/or equipment within the response organization to engage in response operations.

Activator: An individual in the response organization whose responsibilities include notifying other individuals or groups within the organization to mobilize personnel and/or equipment.

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

Agency Representative: Individual assigned to an incident from an agency who has been delegated full authority to make decisions on all matters affecting that agency's participation in response operations.

Area Committee: As defined by Sections 311(a)(18) and (j)(4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for the area designated by the President. The Area Committee may include ex-officio (i.e., non-voting) members (e.g., industry and local interest groups).

Area Contingency Plan: As defined by Sections 311(a)(19) and (j)(4) of CWA, as amended by OPA, means the plan prepared by an Area Committee, that in conjunction with the NCP, shall address the removal of a discharge including a worst-case discharge and the mitigation or prevention of a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President.

Average Most Probable Discharge: A discharge of the lesser of 50 barrels or 1% of the volume of the worst case discharge.

Barrel (bbl): Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit.

Bioremediation Agents: Means microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation to mitigate the effects of the discharge.

Boom: A piece of equipment or a strategy used to either contain free floating oil to a confined area or protect an uncontaminated area from intrusion by oil.

Booming Strategies: Strategic techniques which identify the location and quantity of boom required to protect certain areas. These techniques are generated by identifying a potential spill source and assuming certain conditions which would affect spill movement on water.

Bulk: Material that is stored or transported in a loose, unpackaged liquid, powder, or granular form capable of being conveyed by a pipe, bucket, chute, or belt system.

Captain of the Port Zone (COTP): A zone specified in 33 CFR Part 3 as the seaward extension of that zone to the outer boundary of the exclusion economic zone (EE2).

Chemical Agents: Means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the oil pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include solvents.

Clean-up Contractor: Persons contracted to undertake a response action to clean up a spill.

Cleanup: For the purposes of this document, cleanup refers to the removal and/or treatment of oil, hazardous substances, and/or the waste or contaminated materials generated by the incident. Cleanup includes restoration of the site and its natural resources.

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

Coastal Waters: For the purpose of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

Coastal Zone: As defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Coast Guard District Response Ground (DRG): As provided for by CWA sections 311(a)(20) and (j)(3), means the entity established by the Secretary of the department in which the USCG is operating within each USCG district and shall consist of: the combined USCG personnel and equipment, including firefighting equipment, of each port within the district; additional prepositioned response equipment; and a district response advisory team.

Command: The act of controlling manpower and equipment resources by virtue of explicit or delegated authority.

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

Communications Equipment: Equipment that will be utilized during response operations to maintain communication between the Company employees, contractors, Federal/State/Local agencies. (Radio/ telephone equipment and links)

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

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

Contract or Other Approved Means: For OPA 90, a written contract with a response contractor; certification by the facility owner or operator that personnel and equipment are owned, operated, or under the direct control of the facility, and available within the stipulated times; active membership in a local or regional oil spill removal organization; and/or the facility's own equipment.

Critical Areas to Monitor: Areas which if impacted by spilled oil may result in threats to public safety or health.

Cultural Resources: Current, historic, prehistoric and archaeological resources which include deposits, structures, ruins, sites, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to the historical or prehistorical culture of people in the state as well as to the natural history of the state.

Damage Assessment: The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.

Decontamination: The removal of hazardous substances from personnel and their equipment necessary to prevent adverse health effects.

Discharge: Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Dispersants: Means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

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

Drinking Water Supply: As defined by Section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

Economically Sensitive Areas: Those areas of explicit economic importance to the public that due to their proximity to potential spill sources may require special protection and include, but are not limited to: potable and industrial water intakes; locks and dams; and public and private marinas.

Emergency Operations Center/ Field Command Post: A site located at a safe distance from the spill site where response decisions are made, equipment and manpower deployed, and communications handled. The Incident Commander and the On-Scene Coordinators may direct the on-scene response from this location or may be located at a remote Incident Command Post. (See also – Incident Command Post)

Emergency Response Plan: A document used by (1) federal, state, provincial, and local agencies to guide their planning and response procedures regarding spills of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.

Emergency Service: Those activities provided by state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.

Environment Socio Economic Sensitivity: An especially delicate or sensitive natural resource, which requires protection in the event of a pollution incident. (See Economically Sensitive areas and Environmentally Sensitive areas.

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

Facility: Either an onshore facility or an offshore facility and includes, but is not limited to structures, equipment, and appurtenances thereto, used or capable of being used to transfer oil to or from a vessel or a public vessel. A facility includes federal, state, municipal, and private facilities.

Facility Operator: The person who owns, operates, or is responsible for the operation of the facility.

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

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

Federal Response Plan (FRP): Means the agreement signed by 25 federal departments and agencies in April 1987 and developed under the authorities of the Earthquake Hazards Reduction Act of 1977 and the Disaster Relief Act of 1974, as amended by the Stafford Disaster Relief Act of 1988.

Field Command Post – See Emergency Operations Center.

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

Handle: To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.

Harmful Quantity Of Oil: The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen upon or discoloration of the surface of the water or a shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

Hazardous Material: Any nonradioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.

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

Hazardous Waste: Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.

HAZMAT: Hazardous materials or hazardous substances, exposure to which may result in adverse effects on health or safety of employees.

HAZWOPER: Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of emergency response.

Heat Stress: Dangerous physical condition caused by over exposure to extremely high temperatures.

Hypothermia: Dangerous physical condition caused by over exposure to freezing temperatures.

Incident: Any event that results in a spill or release of oil or hazardous materials. Action by emergency service personnel may be required to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Action Plan: The incident action play, which is initially prepared at the first meeting, contains general control objectives reflecting the overall incident strategy.

Incident Briefing Meeting: Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world.

Incident Command Post (ICP): That location at which all primary command functions are executed.

Incident Command System (ICS): The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of assigned resources at an incident.

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

Indian Tribe: As defined in OPA section 1001, means any Indian tribe, band, nation, or other organized group or community, but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the Tribe.

Initial Cleanup: Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of cleanup increases significantly without timely remedial action. All sites must be evaluated to determine whether initial cleanup is total cleanup, however, this will not be possible in all cases due to site conditions (i.e., a site where overland transport or flooding may occur).

Initial Notification: The process of notifying necessary Company personnel and Federal/ State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.

Initial Response Actions: The immediate actions that are to be taken by the spill observer after detection of a spill.

Inland Area means the area shoreward of the boundary lines defined in 46 CFR part 7, except that in the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) as defined in §80.740 through 80.850 of this chapter. The inland area does not include the Great Lakes.

Inland Waters: State waters not considered coastal waters; lakes, rivers, ponds, streams, underground water, et. al.

Inland Zone: Means the environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Integrated Contingency Plan – A plan that consolidates emergency preparedness and response procedures into one document for 1) multiple locations within a company or 2) satisfies multiple regulatory agencies to bodies with a singular document.

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

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

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

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

- **U.S. Coast Guard:** Oil and chemically hazardous materials incidents on navigable waters.
- **Environmental Protection Agency:** Oil and chemically hazardous materials incidents on inland waters.

Lead State Agency: The agency which coordinates state support to federal and/or local governments or assumes the lead in the absence of federal response.

Loading: Transfer from Facility to vehicle.

Local Emergency Planning Committee (LEPC): A group of local representatives appointed by the State Emergency Response Commission (SERC) to prepare a comprehensive emergency plan for the local emergency planning district, as required by the Emergency Planning and Community Right-to-know Act (EPCRA).

Local Government: Any metropolitan, municipal, city, town, village, or other political subdivision of the State or Province, and any Indian tribe or authorized tribal organization.

Local Response Team: Designated Facility individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil or hazardous substance spill. They will supervise and control all response and clean-up operations.

Lower Explosive Limit: Air measurement utilized to determine the lowest concentration of vapors that support combustion. This measurement must be made prior to entry into a spill area.

Marinas: Small harbors with docks, services, etc. for pleasure craft.

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

Medium Discharge: Means a discharge greater than 2,100 gallons (50 Bbls) and less than or equal to 36,000 gallons (85+ Bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD.

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

National Pollution Funds Center (NPFC): Means the entity established by the Secretary of Transportation whose function is the administration of the Oil Spill Liability Trust Fund (OSLTF). Among the NPFC's duties are: providing appropriate access to the OSLTF for federal agencies and states for removal actions and for federal trustees to initiate the assessment of natural resource damages; providing appropriate access to the OSLTF for claims; and coordinating cost recovery efforts.

National Response System (NRS): Is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Area Committees, and Special Teams and related support entities.

National Strike Force (NSF): Is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team (PIAT), and the National Strike Force Coordination Center. The NSF is available to assist OSCs in their preparedness and response duties.

National Strike Force Coordination Center (NSFCC): Authorized as the National Response Unit by CWA section 311(a)(23) and (j)(2), means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina, with responsibilities that include administration of the USCG Strike Teams, maintenance of response equipment inventories and logistic networks, and conducting a national exercise program.

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

Natural Resource: Land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality.

Navigable Waters: As defined by 40 CFR 110.1 means the waters of the United States, including the territorial seas. The term includes:

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

Interstate waters, including interstate wetlands;

All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters;

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

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

That are used or could be used for industrial purposes by industries in interstate commerce.

All impoundments of waters otherwise defined as navigable waters under this section;
Tributaries of waters identified in paragraphs (a) through (d) of this definition, including adjacent wetlands; and

Wetlands adjacent to waters identified in paragraphs (a) through (e) of this definition: Provided, that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act jurisdiction remains with EPA.

Nearshore Area: For OPA 90, the area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation defined in §80.740 - 80.850 of title 33 of the CFR.

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

1. At lease 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F);
2. At least 95% of which volume, distill at a temperature of 370 degrees C (700 degrees F).

Ocean: The open ocean, offshore area, and nearshore area as defined in this subpart.

Offshore area: The area up to 38 nautical miles seaward of the outer boundary of the nearshore area.

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

Oil Spill Liability Trust Fund: Means the fund established under section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509).

Oily Waste: Product contaminated waste resulting from a spill or spill response operations.
On-Scene Coordinator (OSC): Means the federal official predesignated by the EPA or the USCG to coordinate and direct response under subpart D.

On-site: Means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action.

Open Ocean: means the area from 38 nautical miles seaward of the outer boundary of the nearshore area, to the seaward boundary of the exclusive economic zone.

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

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

Persistent Oil: A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:
1. Group II specific gravity less than .85
2. Group III specific gravity between .85 and less than .95
3. Group IV specific gravity .95 and including 1.0
4. Group V specific gravity greater than 1.0

Plan Holder: The plan holder is the industry transportation related facility for which a response plan is required by federal regulation to be submitted by a vessel or facility's owner or operator.

Post Emergency Response: The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.

Post Emergency: The phase of response operations conducted after the immediate threat of the release has been stabilized, and cleanup operations have begun.

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

Qualified Individual (QI): That person or entity who has authority to activate a spill cleanup contractors, act as liaison with the "On-Scene Coordinator" and obligate funds required to effectuate response activities.

Recreation Areas: Publicly accessible locations where social/sporting events take place.

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 overall planning and preparedness for oil and hazardous materials releases and for providing advice to the OSC in the event of a major or substantial spill.

Remove or Removal: As defined by section 311(a)(8) of the CWA, refers to containment and removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare (including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes monitoring of action to remove discharge.

Response Activities: The containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to public health or welfare, or the environment.

Response Contractors: Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Response Guidelines: Guidelines for initial response that are based on the type of product involved in the spill, these guidelines are utilized to determine clean-up methods and equipment.

Response Plan: A practical manual used by industry for responding to a spill. Its features include: (1) identifying the notifications sequence, responsibilities, response techniques, etc. in a easy to use format; (2) using decision trees, flowcharts, and checklists to ensure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from data required by regulatory agencies to prevent confusion during a spill incident.

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

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

Response Priorities: Mechanism used to maximize the effective use of manpower and equipment resources based upon their availability during an operational period.

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

Restoration: The actions involved in returning a site to its former condition.

Rivers and Canals: A body of water confined within

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

the inland area that has a project depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

Securing the Source: Steps that must be taken to stop discharge of oil at the source of the spill.

Sinking Agents: Means those additives applied to oil discharges to sink floating pollutants below the water surface.

Site Characterization: An evaluation of a cleanup site to determine the appropriate safety and health procedures needed to protect employees from identified hazards.

Site Conditions: Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.

Site Safety and Health Plan: A site specific plan developed at the time of an incident that addresses:

- Safety and health hazard analysis for each operation.
- Personal protective equipment to be used.
- Training requirements for site workers.
- Medical surveillance requirements.
- Air monitoring requirements.
- Site control measures.
- Decontamination procedures.
- Emergency response procedures.
- Confined space entry procedures.

Site Security and Control: Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.

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

Snare Boom: Oil will adhere to the material of which this boom is made of and thus collect it.

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

Spill: An unauthorized discharge of oil or hazardous substance into the waters of the state.

Spill Management Team (SMT): The personnel assigned within the organizational structure to manage response plan implementation.

Spill Observer: The first Facility individual who discovers a spill. This individual must function as the first responder and person-in-charge until relieved by an authorized supervisor.

Spill of National Significance (SONS): Means a spill which due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and cleanup the discharge.

Spill Management Team (SMT): The personnel assigned within the organizational structure to manage response plan implementation.

Spill Response: All actions taken in responding to spills of oil and hazardous materials, e.g.: receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.

Spill Response Personnel: Federal, state, local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region.

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

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

Surface Collecting Agents: Means those chemical agents that form a surface film to control the layer thickness of oil.

Surface Washing Agent: Is any product that

GLOSSARY OF TERMS & ACRONYMS
GLOSSARY OF TERMS (Cont'd)

removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not involve dispersing or solubilizing the oil into the water column.

Tanker: A self-propelled tank vessel constructed or adapted primarily to carry or hazardous material in bulk in the cargo spaces.

Tidal Current Tables: Tables which contain the predicted times and heights of the high and low waters for each day of the year for designated areas.

Trajectory Analysis: Estimates made concerning spill size, location, and movement through aerial surveillance or computer models.

Transfer: Any movement of oil to, from, or within a vessel by means of pumping, gravitation, or displacement.

Trustee: Means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the OPA, a foreign government official, who may pursue claims for damages under section 1006 of the OPA.

Underwriter: An insurer, a surety company, a guarantor, or any other person, other than an owner or operator of a vessel or facility, that undertakes to pay all or part of the liability of an owner or operator.

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

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

Unified or Coordinated Command Meeting: Held to obtain agreement on strategic objectives and response priorities; review tactical strategies; engage in joint planning, integrate response operations; maximize use of resources; and minimize resolve conflicts.

USCG Sector: is a shore-based operational unit of the United States Coast Guard. Each Sector is responsible for the execution of all Coast Guard missions within its Area of Responsibility (AOR) with operational support from Coast Guard Cutters and Air Stations. Sub-units of a Sector include Stations and Aids to Navigation Teams. Some Sectors also have sub-units such as Sector Field Offices and Marine Safety Units that are responsible for mission execution in part of the Sector's AOR. There are 35 sectors in nine districts and two areas.

Volunteers: An individual who donates their services or time without receiving monetary compensation.

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

Waters of the U.S. - See Navigable Waters.

Wetlands: Those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds (40 CFR 112.2(y)).

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

Worst Case Discharge: The largest foreseeable discharge under adverse weather conditions. For facilities located above the high water line of coastal waters, a worst case discharge includes those weather conditions most likely to cause oil discharged from the facility to enter coastal waters.

GLOSSARY OF TERMS & ACRONYMS

ACRONYMS

AC - Area Committee
ACP - Area Contingency Plan
AOR - Area of Review
AQI - Alternate Qualified Individual
BBLS - Barrels
BIA - Bureau of Indian Affairs
BLM - Bureau of Land Management
BPD - Barrels Per Day
BOD - Biological Oxygen Demand
BOM - Bureau of Mines
CAER - Community Awareness and Emergency Response
CEPA - Canadian Environment Protection Act
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CFR - Code of Federal Regulations
CHEMTREC - Chemical Transportation Emergency Center
COE - U. S. Army Corps of Engineers
COSEWIC - Commission on the Status of Endangered Wildlife in Canada
CPI - Corrugated Plate Interceptor
CRZ - Contamination Reduction Zone
CSST - Commission of Health and Safety at Work (Commission de la Santé et Sécurité au Travail)
CWA - Clean Water Act (Federal - Public Law 100-4)
CWS - Community Water System
CZM - Coastal Zone Management
DECON - Decontamination
DOC - Department of Commerce
DOD - Department of Defense
DOE - Department of Energy
DOI - Department of Interior
DOJ - Department of Justice
DOL - Department of Labor
DOS - Department of State
DOT - Department of Transportation
DRAT - District Response Advisory Team
DRG - District Response Group
DWT - Dead Weight Tonnage
EBS - Emergency Broadcast System
EHS - Extremely Hazardous Substance
EMA - Emergency Management Agency
EMS - Emergency Medical Service
EOC - Emergency Operations Center
EPA - U. S. Environmental Protection agency
EPCRA - The Emergency Planning and Right-to-Know Act of 1986 (Title III of SARA)
EQ - Environmental Quality
ERT - Environmental Response Team
ESA - Endangered Species Act
ESD - Emergency Shutdown Device
ETA - Estimated Time of Arrival
FAA - Federal Aviation Administration
FACT - First Assessment Crisis Team
FAX - Facsimile Machine
FCC - Federal Communications Commission
FEMA - Federal Emergency Management Agency
FOSC - Federal On-Scene Coordinator
FR - Federal Register
FRDA - Freshwater Resource Damage Assessment
FRF - Federal Revolving Fund
GIS - Geographic Information System
GSA - General Services Administration
HAZWOPER - Hazardous Waste Operations and Emergency Response
HHS - Department of Health and Human Services
HOPD - Head Office Products Distribution
IBRRC - International Bird Rescue Research Center
IC - Incident Commander
IOCC - Interstate Oil Compact Commission
LEL - Lower Explosive Limit
LEPC - Local Emergency Planning Committee
LFL - Lower Flammable Limit

LOSC - Local On-Scene Coordinator
LRT - Local Response Team
MAPAQ - Quebec Department of Agriculture, Fisheries and Food
m^3/sec - Cubic Meters per Second
MDDEP - Ministère du Développement durable, de l'Environnement et des Parcs
MENV - **Quebec Ministry of Environment**
MSRC - Marine Spill Response Corporation
MMS - Minerals Management Service
MMT - Marine Management Team
MOU - Memorandum of Understanding
MSDS - Material Safety Data Sheet
MBL - Mobile
MER - Marine Emergency Response
NCP - National Contingency Plan
NCWS - Non-Community Water System
NEB - **National Energy Board**
NEPA - National Environmental Policy Act
NIOSH - National Institute for Occupational Safety and Health
NMFS - National Marine Fisheries Service
NOAA - National Oceanic and Atmospheric Administration (Department of Commerce)
NPDES - National Pollution Discharge Elimination System
NPFC - National Pollution Funds Center
NPS - National Park Service
NRC - National Response Center
NRDA - Natural Resource Damage Assessment
NRS - National Response System
NRT - National Response Team
NSF - National Strike Force
NSFCC - National Strike Force Coordination Center
NTNCWS - Non -Transient Non-Community Water System
OPA - Oil Pollution Act
OPS - Office of Pipeline Safety (DOT)
OSC - On-Scene Coordinator
OSHA - Occupational Safety and Health Administration (USDL)
OSLTF - Oil Spill Liability Trust Fund
OSPRA - Oil Spill Prevention and Response Act
OSRO - Oil Spill Response Organization
PCB - Polychlorinated Biphenyls
PFD - Personal Flotation Device
PGR - Pager
PIAT - Public Information Assist Team
PMPL - Portland Pipe Line Corporation
PNGTS - Portland Natural Gas Transmission System
POLREP - Pollution Report
PPE - Personal Protective Equipment
PPM - Parts Per Million
PSD - Prevention of Significant Deterioration
QI - Qualified Individual
RACT - Reasonably Achievable Control Technology
RCP - Regional Contingency Plan
RCRA - Resource Conservation and Recovery Act
RECON - Reconnaissance
REET - **Regional Environmental Emergency Team**
REP - Radiological Emergency Preparedness
RERT - Radiological Emergency Response Team
RQ - Reportable Quantity
RRT - Regional Response Team
RSPA - Research and Special Programs Administration (DOT - OPS)
SARA - Superfund Amendments and Reauthorization Act
SCBA - Self Contained Breathing Apparatus
SDWA - Safe Drinking Water Act
SERC - State Emergency Response Commission
SIC - State Implementation Plan
SMT - Spill Management Team
SONS - Spill of National Significance
SOP - Standard Operating Procedure
SPCC - Spill Prevention Control and Countermeasures
SSC - Scientific Support Coordinator (NOAA)
STEL - Short Term Exposure Limits

SUPSALV - United States Navy Supervisor of Salvage
SWD - Salt Water Disposal
TSB - Transportation Safety Board
TSCA - Toxic Substances Control Act
TSDF - Treatment, Storage or Disposal Facility
UCS - Unified Command System
USACOE - U.S. Army Corps of Engineers
USCG - U.S. Coast Guard
USDA - U.S. Department of Agriculture
USDL - U.S. Department of Labor
USDOD - U.S. Department of Defense
USDOE - U.S. Department of Energy
USDW - Underground Source of Drinking 'Water
USFWS - U. S. Fish and Wildlife Services
USGS - U. S. Geological Survey
WCD - Worst Case Discharge
WHMIS - Workplace Hazardous Materials Information System

APPENDIX M

RESPONSE PLAN COVER SHEET

US ONLY

Response Plan Cover Sheet

General Information	
Owner/Operator of Facility	Portland Pipe Line Corporation
Facility Name:	South Portland Marine Terminal and Tank Farm
Facility's Physical Address:	30 Hill Street South Portland, ME 04106-2590
Facility Acreage:	Tank Farm: 101.60 Acres Marine Terminal: 26.85 Acres
Facility Phone Number:	(207) 767-3231 or 1-866-253-7351 (207) 767-0411 FAX
(b) (7)(F) [redacted]	
Dun & Bradstreet Number:	006949416
Standard Industrial Classification (SIC) Code:	4612
Number of Aboveground Oil Storage Tanks: (23 crude tanks; 1 fuel oil tank)	24
Number of Oil Containing Drum and Transformer:	(b) (7)(F) [redacted]
Capacity of Largest Aboveground Oil Storage Tank:	(b) (7)(F) [redacted]
Maximum Oil Storage Capacity:	
Worst Case Oil Discharge Amount:	
Facility Distance to Navigable Water:	☒ 0 – ¼ mile ☐ ½ - 1 mile ☐ ¼ - ½ mile ☐ >1 mile
Protected Waterways or Environmentally Sensitive Areas:	Fore River, Portland Harbor, and Casco Bay

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: South Portland Marine Terminal and Tank Farm
FACILITY ADDRESS: 30 Hill Street
South Portland, ME 04106-2590

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

   YES ✓ NO ____

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

   YES ____ NO ✓

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.

   YES ✓ NO ____

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?

   YES ____ NO ✓

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

   YES ____ NO ✓

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

Signature: ____ Title: President

Name (please type or print): L. D. Wilson Date: November 9, 2012

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

APPENDIX N

REGULATORY AGENCY CORRESPONDENCE AND OTHER AGENCY REQUIREMENTS