Northern Michigan Sub-area Contingency Plan

February 2001

Alcona • Alger • Alpena • Antrim • Benzie • Charlevoix • Cheboygan • Chippewa • Crawford • Delta Emmet • Grand Traverse • Kalkaska • Leelanau • Luce • Mackinac • Manistee • Marquette Missaukee • Montmorency • Oscoda • Otsego • Presque Isle • Roscommon • Schoolcraft and Wexford Counties, Michigan

http://www.great-lakes.net/partners/epa/northmi/

EMERGENCY NOTIFICATION[1] IN THE NORTHERN MICHIGAN SUB-AREA

To Report Spills Call:

National Response Center
1-800-424-8802
and
Michigan Pollution Emergency Alert System (PEAS)
1-800-292-4706 (within Michigan)
1-517-373-7660 (outside Michigan)

Federal Agencies:

Time/Date	Agency	Number
_____	National Response Center	1-800-424-8802 (24-hour)
_____	U.S. EPA Region 5	1-312-353-2318 (24-hour)
_____	USCG MSO Sault Ste. Marie	1-906-635-3233 (24-hour)
_____	USCG Ninth District (Cleveland, Ohio)	1-216-522-3984 (24-hour)
_____	Canadian Coast Guard (VTS Sarnia, Ontario)	1-519-337-6360 (24-hour)
_____	U.S. Fish and Wildlife Service	1-612-735-3593
_____	National Oceanic and Atmospheric Administration	1-206-526-6317 (24-hour)
_____	National Park Service:	
	Pictured Rocks National Lakeshore	1-906-387-2607
	Sleeping Bear Dunes National Lakeshore	1-231-326-5134
_____	U.S. Department of the Interior	1-215-597-5378
	Pager:	1-800-759-8352 (pin #1168849)

I Notification as outlined here should be made by anyone who first discovers an oil or chemical spill, not merely by the responsible party. However, a number of federal, state, and local laws require spillers to notify authorities when they have a spill. Potential spillers should understand these requirements before they spill to determine if "reportable quantities" or chemical lists apply to spills they might have.

State and Tribal Agencies:

Time/Date	Agency	Number
_____	Michigan Pollution Emergency Alert System (PEAS) **24-hour**	1-800-292-4706 (in-state) 1-517-373-7660
_____	Michigan State Police, District 7	1-231-946-0550
_____	Michigan State Police, District 8	1-906-475-1120
	Michigan Dept. of Environmental Quality:	
_____	Cadillac District Office Divisions[1]: AQD, CIS, DWRP, ERD, GSD, WMD, WQD, USTD, WMD	1-231-775-3960
_____	Gaylord Field Office Divisions: AQD, CIS, ERD, GSD, LWMD,USTD, WMD	1-517-731-4920
_____	Marquette District Office Divisions: AQD, CIS, ERD, GSD, LWMD, SWQD	1-906-228-6561
_____	Newberry Office Divisions: ERD, LWMD	1-906-293-5131
_____	Michigan Dept. of Natural Resources:	
	Upper Peninsula Field Offices:	
	Marquette (Field Headquarters)	1-906-228-6561
	Baraga	1-906-353-6651
	Escanaba	1-906-786-2351
	Newberry	1-906-293-5131
_____	Lower Peninsula Field Offices:	
	Roscommon (Field Headquarters)	1-517-275-5151
	Cadillac	1-231-775-9727
	Gaylord	1-517-732-3541
	Mio	1-517-826-3211
	Federally Recognized Tribal Interests:	
_____	Grand Traverse Band of Ottawa and Chippewa Indians	1-231-271-3538
_____	Sault Ste. Marie Tribe of Chippewa Indians	1-906-635-6050
_____	Bay Mills Chippewa Indian Community	1-906-248-3700
_____	Little Traverse Bay Band of Odawa Indians	1-231-348-3410

2 Services available at each office are interpreted as follows: AQD-Air Quality Division, CIS-Criminal Investigations, DWRP-Drinking Water and Radiological Protection, ERD-Emergency Response Division, GSD-Geological Survey Division, LWMD-Land and Water management Division, SWQD-Surface Water Quality Division, USTD-Underground Storage Tank Division, WMD-Waste Management Division

Local Agencies:

Time/Date	Agency	Number
_____	Alcona County Emergency Management	1-517-724-5660 (24-hour)
_____	Alger County Emergency Services	1-906-387-4444 (24-hour)
_____	Alpena County Emergency Management	1-517-354-9111 (24-hour)
_____	Antrim County Emergency Management	1-231-533-8627 (24-hour)
_____	Benzie County Emergency Management	1-231-882-4013 (24-hour)
_____	Charlevoix County Emergency Management	1-800-577-1911 (24-hour)
_____	Cheboygan County Emergency Management	1-800-577-1911 (24-hour)
_____	Chippewa County Emergency Management	1-906-635-6355 (24-hour)
_____	Crawford County Emergency Management	1-517-348-6341 (24-hour)
_____	Delta County Emergency Management	1-906-786-5911 (24-hour)
_____	Emmet County Emergency Management	1-800-577-1911 (24-hour)
_____	Grand Traverse County Emergency Mgmt.	1-231-941-1911 (24-hour)
_____	Kalkaska County Emergency Management	1-231-258-8686 (24-hour)
_____	Leelanau County Emergency Management	1-231-256-9829 (24-hour)
_____	Luce County Emergency Management	1-906-643-7265 (24-hour)
_____	Mackinac County Emergency Management	1-906-643-6784 (24-hour)
_____	Manistee County Emergency Management	1-231-723-6241 (24-hour)
_____	Marquette County Emergency Services	1-906-346-4045 (24-hour)
_____	Missaukee County Emergency Management	1-231-839-4338 (24-hour)
_____	Montmorency County Emergency Management	1-517-785-4141
_____	Oscoda County Emergency Management	1-517-685-2636
_____	Otsego County Emergency Management	1-517-732-5141
_____	Presque Isle County Emergency Services	1-517-734-2156 (24-hour)
_____	Roscommon County Emergency Management	1-517-275-5101 (24-hour)
_____	Schoolcraft County Emergency Management	1-906-341-2122 (24-hour)
_____	Wexford County Emergency Preparedness	1-231-779-9211 (24-hour)

Major Oil Facilities:

Time/Date	Facility	Number
_____	Amoco 311 Coast Guard Drive Cheboygan, Cheboygan County 49721	1-231-627-6411
_____	Construction Resources Mgmt., Tank Farm 202 Delta Avenue Gladstone, Delta County 49837	1-906-497-5871
_____	Construction Resource 801 Clark Drive Gladstone, Delta County 49837	1-906-428-2906
_____	Department of Defense, Defense Fuel Support 6734 P Road Gladstone, Delta County 49837	1-207-548-2201
_____	K.I. Sawyer Air Force Base 400 Avenue C, Suite 100 Air Force Base, Marquette County 49843	1-906-346-6420
_____	Koch Materials, Elberta Facility 1300 Furnace Avenue Elberta, Benzie County 49628	1-231-352-9678
_____	Mead Publishing, Paper Division County Road 426 Escanaba, Delta County 49829	1-906-786-1660
_____	Total Petroleum, Inc., Traverse City Terminal 13544 W. Bayshore Drive Traverse City, Grand Traverse County 49684	1-231-946-9551

Oil and Oil Product Pipelines:

Time/Date	Facility	Counties Traversed	Phone
_____	Lakehead Pipe Line Company Lake Superior Place 21 West Superior Street Duluth, MN 55802-2067	Marquette Delta Schoolcraft Mackinac Emmet Cheboygan Ostego Crawford Oscoda	1-218-725-04444 (24-hour)
_____	Equilon Pipe Line (Shell/Texaco) P.O. Box 2648 Houston, TX 77252-2648	Manistee Wexford Grand Traverse Kalkaska Antrim Otsego Montmorency Cheboygan Presque Isle	1-713-241-6161

Oil Spill Removal Organizations for Northern Michigan[3]:

Time/Date	OSRO	Phone
_____	Clean Harbors Environmental Braintree, MA	1-617-849-1800
_____	Donjon Marine	1-908-686-1199
_____	Heritage Environmental Services	1-630-378-1600
_____	Marine Pollution Control Corporation Detroit, MI	1-313-849-2333
_____	National Response Corporation	1-516-369-8644
_____	OHM Remediation Services Findlay, OH	1-800-537-9540
_____	Superior Special Services Fond du Lac, WI	1-414-923-9000
_____	Trade-Winds Environmental Restoration Bay Shore, NY	1-516-755-4000

3 Oil Spill Removal Organization (OSRO) listings are maintained by the USCG on a continual basis. For the most current listing of available OSROs in the Northern Michigan Sub-area, and their response capabilities refer to the following web address: www.uscg.mil/hq/g-m/nmc/response/index.htm#OSRO.

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I. STATUTORY AUTHORITY

A. Oil Pollution Act of 1990

The Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990 (OPA), expanded federal requirements for oil spill and hazardous substances preparedness at all levels of government and by those facilities deemed to have the potential to cause "significant and substantial harm" to the public health and environment. OPA mandated the establishment of new planning entities and requirements for the National Response System to deal specifically with oil spills and CWA hazardous substances during preparedness and response activities. The Area Committee is one such entity and the Area Contingency Plans (ACPs) are planning requirements initiated by OPA.

B. Authority

1. Federal Register

Pursuant to OPA Section 4202(b)(1)(A), the President designated areas for which ACPs were to be prepared. In Executive Order 12777 (56 Federal Register [FR] 54757), the President delegated to the Administrator of the U.S. EPA responsibility for designating the Areas and appointing the Committees for the "Inland Zone," as defined by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 Code of Federal Regulations [CFR] 300.5). The U.S. Coast Guard (USCG) has responsibility for designating Areas and appointing Committees for the "Coastal Zone," as defined by the NCP.

In 57 FR 15198, the Administrator of the U.S. EPA designated the 13 existing Regional Response Team (RRT) areas as the planning areas for initial ACP development and the RRTs as the initial Area Committees. In addition, the Administrator of the U.S. EPA delegated to the 10 Regional Administrators the ability to sub-divide these initial areas based upon perceived need, sensitivity to impact by a discharge, or other mitigating circumstances.

In 57 FR 15201, the Commandant of the USCG designated the 47 existing Captain of the Port (COTP) Zones (as described in 33 CFR Part 3) as the planning areas for the Coastal Zone.

2. Final Rule

The final rule, published in 59 FR 47384, revised 40 CFR Parts 9 and 300 of the NCP. The revisions to the NCP (Section 300.210 [c][1]) required the following of ACPs:

(1) Required by statute to be developed under the direction of an FOSC;

(2) Area Committees, in consultation with the appropriate RRT, USCG District Response Groups (DRGs), the National Strike Force Coordination Center (NSFCC), Scientific Support Coordinators (SSCs), Local Emergency Planning Committees (LEPCs), and State Emergency Response Committees (SERCs), shall develop an ACP for the designated Area.

When implemented in conjunction with the NCP, the ACP shall be adequate to remove a worst-case discharge to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the Area.

C. Area Committee

To accomplish the coordinated planning structure envisioned under OPA, Area Committees, under the direction of the predesignated federal On-scene Coordinator (FOSC), are established to develop an ACP. The ACP, in conjunction with the NCP, should be adequate to remove a "worst case discharge" from a facility or vessel operating in or near the Area and to mitigate or prevent a substantial threat of such a discharge in the Area.

The Area Committee is required to develop ACPs that:

(1) Describe areas of special environmental, economic or cultural significance;

(2) Outline the responsibilities of federal, state, local, and tribal agencies and facility and vessel operators in planning and response; and

(3) Detail procedures on the coordination of response plans and equipment.

The U.S. Environmental Protection Agency (EPA) Region 5 has designated "Sub-areas" within the Region to augment planning efforts at the local level. The Northern Michigan Sub-area has been designated as such an area and its geographic extent is described in detail in Section III.

D. Area Contingency Plan

The plan has been developed to maintain consistency with the following plans:

- Region 5 Regional Response Team (RRT) Oil and Hazardous Substances Pollution Contingency Plan and Area Contingency Plan (RCP-ACP)
- NCP
- USCG Marine Safety Office (MSO) Sault Ste. Marie Area Contingency Plan
- Canada-United States Joint Marine Pollution Contingency Plan
- Canada-United States Joint Inland Pollution Contingency Plan
- Michigan Emergency Management Plan (MEMP)
- County and municipal plans of the Northern Michigan Sub-area.

The plan applies to and is in effect for:

(1) Discharges of oil into or upon the navigable waters, on the adjoining shorelines to the navigable waters, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (Section 311(b)(3) of the Clean Water Act); and

(2) Releases into the environment of hazardous substances and pollutants or contaminants that may present an imminent and substantial danger to public health or welfare in the Sub-Area.

This plan expands upon the contingency and response requirements set forth in the NCP, augments coordination with state and local authorities, and integrates existing state, local, and private sector plans for the Sub-area. It is intended to set forth procedures to mitigate or prevent a worst-case discharge or the substantial threat of a worst-case discharge.

E. Updating

Section 311(j)(4)(C)(viii) requires that the ACP be updated periodically by the Area Committee. It has been determined that this Sub-area Plan will be updated annually for five years, starting in 2000 and once every five years thereafter. Response equipment, notification, and sensitive area listings may be updated more frequently at the discretion of the Area Committee.

II. INTEGRATION WITH OTHER RESPONSE PLANS

A. Private Sector Response Plans

Private sector response plans, including those for pipelines, vessels, and facilities, are structured and written as self-contained documents that serve as a complete reference tool for pipeline, vessel, and facility operators during a spill response. These plans must be consistent with local, state, and federal government contingency plans, including the Northern Michigan Sub-area Contingency Plan. They must identify response personnel and equipment to be used to mitigate a worst-case discharge. Environmental, economic, and cultural sensitivity data, response resources, and other information required as part of private sector response plans must be consistent with this Sub-area Plan for the Northern Michigan area.

B. Local Response Plans

The counties and a number of the cities in the Northern Michigan Sub-area are required to maintain emergency operations plans that detail response procedures, agency roles, resources, and training for public response agencies. These include plans developed by the Local Emergency Planning Committees (LEPCs) under the Emergency Planning and Community Right-to-Know Act (EPCRA) and the district Emergency Management Division (EMD) plans.

C. Michigan Emergency Management Plan

The MEMP is the comprehensive, all-hazard plan that coordinates the emergency management activities of mitigation, preparedness, response, and recovery within the State of Michigan. The MEMP is a policy document developed and maintained by the Emergency Management Division, Michigan Department of State Police. The MEMP coordinates the activities, personnel, and resources of state agencies in mitigating against, preparing for, responding to, and recovering from a variety of natural and technological disasters and emergencies to which the state is vulnerable.

D. Northern Michigan Sub-area Contingency Plan

The Northern Michigan Sub-area Contingency Plan (Sub-ACP), when implemented in conjunction with other local, state, and federal government and private contingency plans, is designed to effectively facilitate the removal of a worst-case discharge from a facility, vessel, or pipeline operating in or near the area covered in the plan. This plan includes a description of the geographic area; the environmental, economic, and cultural resources that might be negatively impacted by a discharge and for which protection is planned; descriptions of the responsibilities of the stakeholders in the plan; a listing of available equipment to an owner/operator and government agencies to ensure effective and

immediate removal of a discharge; a description of the procedures for approval and use of dispersants; and a description of how the plan is integrated with other local, state, and federal agency and private sector plans.

The Sub-ACP is an annex to the Region 5 Oil and Hazardous Substances Pollution Contingency Plan and Area Contingency Plan (RCP-ACP) which covers the States of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. An online version of this Sub-ACP is at: http://www.great-lakes.net/partners/epa/northmi/.

E. Region 5 Oil and Hazardous Substances Pollution Contingency Plan and Area Contingency Plan

The U.S. EPA Region 5 RRT developed the RCP-ACP to coordinate timely, effective response by various state and federal agencies and other organizations to discharges of oil or releases of hazardous substances. The RCP-ACP includes information on useful facilities and resources within U.S. EPA Region 5, from government, commercial, academic, and other sources. The RCP-ACP coordinates with state emergency response plans, the Sub-ACP, and EPCRA local emergency response plans.

The complete text RCP-ACP can be downloaded from the Internet at http://www.great-lakes.net/partners/epa/acp-rcp/acp-rcp1.html.

F. U.S. Coast Guard Marine Safety Office Sault Ste. Marie Area Contingency Plan

The USCG MSO Sault Ste. Marie Area Contingency Plan (USCG ACP) may be described as the "Sister Plan" to this Sub-ACP. The function and intent of the plan is identical to the mandates of this Sub-ACP, except that the coverage is for the "coastal" area (*e.g.*, the waters of the Great Lakes and interconnecting waterways to the shore line, including the beaches). Integration of the Sub-ACP and USCG ACP is critical as made obvious by the dynamics of oil spills. Spills that may start on the surface waters of the inland zone may flow downstream into the coastal zone. Spills in the coastal zone may travel by tidal and wind action upstream impacting the environmental, economic, and cultural resources of the inland zone. The similarity in the make-up of the inland and coastal Area Committees has allowed for the synthesis of this Sub-ACP into the dynamics of the USCG ACP.

Figure II - 1, USCG MSO Sault Ste. Marie Area.

The geographic response area of the USCG Sault Ste. Marie coastal zone is described in detail at 33 CFR Part 3 and within the USCG ACP. A generalized overview of

the area is included in **Figure II-1**. The actual response jurisdiction of MSO Sault Ste. Marie is as described above, including only the coastal zone. The Inland Sensitivity Atlas contains a more detailed delineation.

G. National Oil and Hazardous Substances Pollution Contingency Plan

The NCP (40 CFR Part 300) provides the organizational structure and procedures to prepare and respond to discharges of oil and releases of hazardous substances, including specific responsibilities among government agencies, descriptions of resources available for response, a summary of state and local emergency planning requirements, and the procedures for undertaking removal actions under the CWA. A complete outline of oil spill response and planning procedures can be found in Appendix E of the NCP.

The text of the NCP can be found on the Internet at: http://www.nrt.org/ncp.htm

H. Federal Response Plan

The Federal Response Plan was developed under the Disaster Relief Act of 1974, as amended by the Stafford Disaster Relief Act of 1988. The Federal Response Plan established a foundation for coordinating federal assistance to supplement local and state response effort to save lives, protect public health and safety, and protect property in the event of a natural disaster, such as a catastrophic earthquake, or declared major disasters by the President.

The delivery of federal assistance is facilitated through 12 annexes, or Emergency Support Functions (ESFs), which describe a single functional area of response activity. The Hazardous Materials Annex, ESF #10, addresses releases of oil and hazardous substances that occur as a result of a natural disaster or catastrophic event and incorporates preparedness and response actions carried out under the NCP. U.S. EPA serves as the Chair of ESF #10 and is responsible for overseeing all preparedness and response actions associated with ESF #10 activities. All National Response Team (NRT) and RRT departments and agencies serve as support.

The text of the Federal Response Plan can be found on the Internet at: http://www.fema.gov/fema/fed1.htm.

I. Canada-United States Joint Marine Pollution Contingency Plan

The purpose of the Canada-United States Joint Marine Pollution Contingency Plan (Joint Marine Plan), developed jointly by the USCG and Canadian CG, is to provide a coordinated system for responding to discharges or the threat of discharges of harmful substances in the contiguous waters of interest between Canada and the United States. The plan does so by supplementing the existing national response systems of each country by ensuring cooperative response planning at the local level. Responses to pollution

incidents will be carried out under the provisions and procedures of each country's national response system. The national response systems are supplemented by the procedures for communications, coordination, and consultation specified in the Joint Marine Plan and it Operational Supplement.

The Joint Marine Plan is consistent with the provisions of Article 10 of the International Convention for Oil Pollution Prevention, Response, and Cooperation, 1990 and Annex 9 of the Great Lakes Water Quality Agreement. The 1998 revised Joint Marine Plan supercedes the 1984 plan.

J. Canada-United States Joint Inland Pollution Contingency Plan

The Canada-United States Joint Inland Pollution Contingency Plan provides for a cooperative mechanism for preparedness for and response to accidental and unauthorized spills and releases of pollutants that cause or may cause damage to the environment along the shared inland boundaries of both countries and that may constitute a threat to the public health, property, or welfare. It also allows for the provision of assistance when only one country is affected, but the spill or release is of such magnitude as to justify a request for assistance.

The purpose of the Inland Plan is to establish a coordinated and integrated federal response to polluting incidents along the shared boundary through the provision of support and assistance to provincial, territorial, regional, state, and sub-regional plans of both countries. This also includes U.S. federally recognized Native American tribes and all Canada First Nations. The Inland Plan provides for an international coordination mechanism to ensure appropriate and effective cooperative preparedness, reporting, and response measures between Canada and the United States. Annex III to the Inland Joint Plan (CANUSCENT) has been developed to cover the Canada and United States lands that may be impacted by a land based event.

CANUSCENT applies to the shared inland border between the Province of Ontario and the States of New York, Michigan and Minnesota. CANUSCENT is a regionally specific plan designed to mitigate the effects of an environmental emergency on human health and safety, environment, and property by providing for a coordinated and integrated response to environmental emergency incidents which threaten the shared inland border.

The purpose of CANUSCENT is to specify the process which would be used to activate federal government response on either side of the border and to facilitate effective joint response with state/provincial, local and Tribal/First Nation organizations.

The objective of this plan is:

- To minimize the effects to human health and safety, environment and property from an environmental emergency incident which threatens the inland border.

- To provide an international coordination mechanism between responders in Canada and the United States to ensure an effective coordinated response to an environmental emergency which threatens the inland border.

- To ensure timely and accurate notification of incidents which threaten the shared inland border.

- To facilitate safe and timely movement of personnel, equipment and supplies across the Canada/United States border.

- To ensure that the applicable health and safety standards of each country are met as part of an international joint response effort.

- To ensure coordinated and timely flow of information to the public and media.

Text of CANUSCENT can be found at: www.on.ec.gc.ca/canuscent.

III. GEOGRAPHIC COVERAGE

The Northern Michigan Sub-area is contained entirely within the State of Michigan and includes the following counties:

Alcona	Delta	Missaukee
Alger	Emmet	Montmorency
Alpena	Grand Traverse	Oscoda
Antrim	Kalkaska	Otsego
Benzie	Leelanau	Presque Isle
Charlevoix	Luce	Roscommon
Cheboygan	Mackinac	Schoolcraft
Chippewa	Manistee	Wexford
Crawford	Marquette	

These counties comprise all of District 7 and the eastern part of District 8 of the Michigan Department of State Police, Emergency Management Division (**Figure III-1**).

In addition to the 26 counties and their respective governments, located within this area are also the following federally recognized Tribes:

- Bay Mills Chippewa Indian Community
- Grand Traverse Band of Ottawa and Chippewa Indians
- Little Traverse Bay Band of Odawa Indians
- Sault Ste. Marie Tribe of Chippewa Indians

In addition to the federally established tribal reservations for each of the above entities, these groups also own casinos, other lands, or land or water rights that may or may not be located within the confines of the reservation yet still remain under their jurisdictional control. Reference **Figure III-2**, Federally Recognized Native American Tribes in Michigan.

The Northern Michigan and Upper Peninsula Inland Sensitivity Atlases further geographically delineates jurisdictions and includes other lands managed at the private, local, state, tribal, and federal levels.

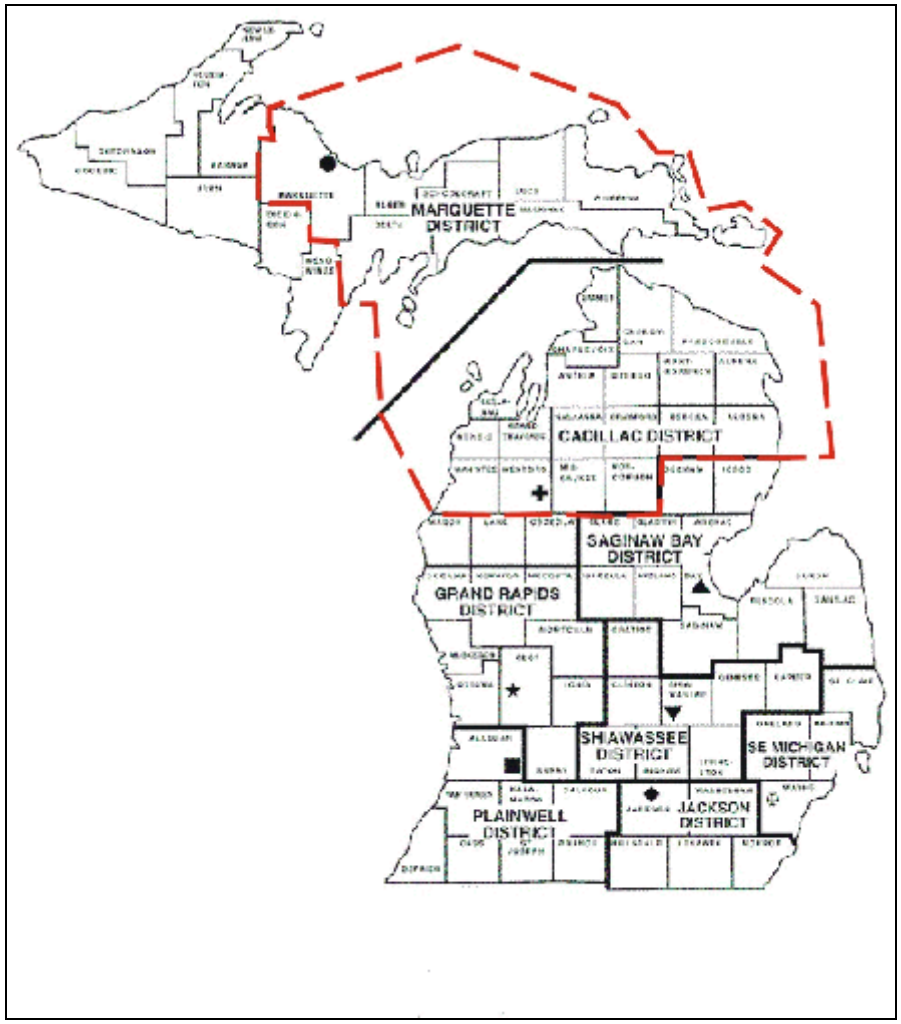

Figure III - 1, Northern Michigan Sub-area

Figure III - 2, Federally Recognized Native American Tribes in Michigan

IV. WORST CASE DISCHARGE

A. Worst Case Discharge Definition

A worst case discharge, as defined by Section 311(a)(24) of the CWA, means, in the case of a vessel, a discharge in adverse weather conditions of its entire cargo, and in the case of an offshore facility the largest foreseeable discharge in adverse weather conditions or with an onshore facility the capacity of the largest tank.

B. Worst Case Discharge Scenarios

The Northern Michigan Sub-area contains a number of potential spill sources that could release large quantities of oil, and has a number of extremely sensitive areas that could be affected by such a release. Rather than present a single worst case scenario, a series of worst case scenarios have been compiled for which responders within the area must be prepared. The area committee recommends further development of one or all of these scenarios with inputs from private, local, state and federal committee members.

Scenario 1: A major release reaches Grand Traverse Bay threatening Traverse City businesses, parks, and homes along the shoreline of the Bay. Such a release could occur:

- if an oil storage facility along Grand Traverse Bay experienced a catastrophic failure from one of its storage tanks or had some other major release.

- if a train derailment/accident occurred causing a release within Traverse City or along tracks on the western side of Grand Traverse Bay and could follow a drainage route or storm sewer into Grand Traverse Bay.

- if an oil tanker truck accident occurred on Highway 22, 31, or 72 and the spill could follow a drainage route or storm sewer into Grand Traverse Bay.

Scenario 2: A significant quantity of oil is released to a waterbody in the Sub-area. The product travels to a habitat supporting a large concentration of wildlife, including threatened and endangered species, and threatening public lands and resources. Examples of areas known for such concentration of wildlife and or resources are included in the Northern Michigan and Upper Peninsula Inland Sensitivity Atlases.

Scenario 3: A large quantity of oil is released into a storm or sanitary sewer located within the Sub-area, posing threats to public safety, the environment, and property. Such a release could occur:

- if a tanker truck, storage tank, or train released oil near a sewer conduit. Trucking, storage, and railroad activities are carried out in close proximity to sewers within the Sub-area.

- if a pipeline ruptured near a sewer conduit. Pipelines run in close proximity to sewers at various locations within the Sub-area.

- where a pipeline crosses a major waterbody in the Sub-area including the Straits of Mackinac and the St. Marys River.

Scenario 4: A A large capacity (e.g. 500,000 gallons or more) aboveground oil storage tank located near Lake Michigan or an inland waterway, releases a large quantity of oil. Threats to public safety, the environment, and property are posed. Locations of storage tank capacities with 500,000 gallons or more of asphalt, crude oil, or refined product include:

- storage tanks in the Cheboygan area.
- storage tanks in the Gladstone and Escanaba areas.
- storage tanks in the Elberta area.
- storage tanks in the Traverse City area.

Scenario 5: A major fire involving oil occurs in the Sub-area, threatening public safety and health, the environment, and property. Such a fire could occur:

- anywhere in the Sub-area where large quantities of oil are stored or transported. Such activities occur throughout the Sub-area in quantities sufficient to pose a significant threat in the event of a fire.

C. Critical Issues

Critical issues that need to be addressed:

- Command and Control - An ICS or Unified Command System (UCS) must be quickly initiated to facilitate the intertwining of the anticipated local, state, federal, and binational agency and private group response effort.

- Communications - Communications must be centrally managed to handle the multiple communication devices available to response personnel, including: multi-band radios, conventional telephones, cellular telephones, facsimile, and pagers. In addition, the Sub-area Committee should also keep in mind that response groups may be able to utilize satellite hook-ups for computer downloads of real time information including remotely developed trajectory models, satellite imagery, and other response-specific data.

- Waterway Access - Access points, though limited, are identified in the Northern Michigan Inland Waterways Spill Response Atlas and include marinas and boat ramps. Resources transported by land and air should be pre-authorized, as required, before the need for deployment (*i.e.*, resources and personnel deployed from Canada to the U.S., and in reverse, will have to be moved through Customs).

- Protection Priorities - Environment Canada, USCG, and U.S. EPA Region 5 have characterized the generalized shoreline sensitivity on both sides of the St. Mary's River.

- Public Health - It may become necessary to secure public and private surface water intakes downstream of the spill. Notification at the local level should be rapidly implemented. Alternate sources of potable water may need to be developed concurrent to response operations.

- Removal, Recovery, and Disposal Strategy - Open water recovery is the preferred recovery method as the shoreline is characterized by cobble, sand beaches, and fringing wetlands and avoids protracted shoreline clean-up. Storage and disposal, though, in the open water often necessitates downtime for off-loading of product once on-board capacity has been reached. The Sub-area Committee may wish to pursue identifying sources of on-water storage including barges or idle tankers to increase capacity and minimize downtime. For actions in the inland zone, the Michigan DEQ will provide information on TSD facilities and appropriate strategies.

V. RESPONSE RESOURCES

A. Federal Resources

1. U.S. Environmental Protection Agency

In Section 300.415 of the NCP, the U.S. EPA, following notification, may, as appropriate and following a preliminary site assessment, assume the lead in a removal action. Triggers for such an action include the threat to public health or welfare or the environment. Actions to be taken are to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of a release. In a "federalized" response action control is taken from the responsible party, but not the financial responsibilities. Response actions are often federalized when the responsible party is unable or refuses to take appropriate and timely action. Local and state responding parties retain their role in the action.

U.S. EPA Region 5 can provide emergency response cleanup services to Michigan's Upper Peninsula within 12 hours of notification. Emergency response cleanup services can be provided within 6 hours of notification to areas located within Michigan's Lower Peninsula. All contract personnel provided by U.S. EPA are "Hazwoper" trained for emergency response and clean-up work.

a. Environmental Response Team

U.S. EPA's Environmental Response Team (ERT) has expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering. The ERT can provide the FOSC access to special equipment to deal with chemical releases, and can provide the FOSC with advice concerning hazard evaluation, multimedia sampling and analysis, risk assessment, on-site safety, clean-up techniques, water supply decontamination and protection, use of dispersants, environmental assessment, degree of clean-up required, and the disposal of contaminated materials. The ERT also offers various training courses to prepare response personnel.

b. Superfund Technical Assessment and Response Team

U.S. EPA maintains contracts with groups specifically designated for response activities. The U.S. EPA for assessment, monitoring, support, and response roles utilizes the Superfund Technical Assistance and Response Team (START) contract. Specialties available to U.S. EPA through the START contract include: biological and ecological sciences, engineering, geology, health sciences, and analytical laboratory support. START contract personnel work directly with the U.S. EPA FOSC providing response and removal support on a 24-hour, as needed, basis.

c. Emergency and Rapid Response Services

U.S. EPA Region 5's Emergency and Rapid Response Services (ERRS) supports removal

program activities. The ERRS services are conducted in accordance with the NCP, 40 CFR Part 300, Section 311 of the CWA as amended by OPA, Section 104 of the CERCLA, as amended by SARA, and other applicable federal, state, and local regulations and statutes. ERRS resources are available at the request of the U.S. EPA FOSC to provide fully trained personnel, services, materials, equipment, and supervision within a response period of 6 to 48 hours. The ERRS scope of work includes containment, countermeasures, clean-up, mitigation, restoration and transportation and disposal of oil and/or hazardous substances released in EPA Region 5.

Typical equipment resources available through the U.S. EPA ERRS contract includes containment and absorbent boom, boats, pumps, skimmers, air monitoring instrumentation, generators, lighting equipment, pressure washers, suction and discharge hose, all types of heavy equipment, and many other items too numerous to mention within this document. Please contact the U.S. EPA FOSC for specific requests or additional resources.

The U.S. EPA Region 5 FOSC may be activated at 312-353-2318 (24-hour)

2. U.S. Coast Guard

a. National Strike Force Coordination Center

The USCG National Strike Force Coordination Center (NSFCC), located in Elizabeth City, North Carolina, coordinates the three USCG Strike Teams (Atlantic, Gulf, and Pacific). The three Strike Teams provide trained personnel and specialized equipment to assist the FOSC in training for spill response, stabilizing and containing the spill, and in monitoring or directing the response actions of the responsible parties and/or contractors. The FOSC has a specific team designated for initial contact and may contact the team directly for assistance. The NSFCC can provide the following support to the USCG or U.S. EPA FOSC:

- technical assistance, equipment, and other resources to augment the FOSC staff during spill response.
- assistance in coordinating the use of public and private resources in support of the FOSC during a response to or threat of a worst case discharge of oil or hazardous substance.
- assistance in locating spill response resources for both response and planning.
- coordination and evaluation of pollution response exercises

The USCG NSFCC may be activated by the FOSC at 252-331-6000 (24-hour)

The USCG AST may be activated by the FOSC at 609-724-0008 (24-hour)

b. District Response Group

The USCG District Response Group (DRG) is a framework within USCG District 9 to organize district resources and assets to support the USCG FOSC during response to a pollution incident. DRGs assist the USCG FOSC by providing technical assistance, personnel, and equipment, including the USCG pre-positioned equipment. The DRG consists of all USCG personnel and equipment, including fire fighting, in the event that a spill exceeds local response capabilities.

c. Public Information Assist Team

The Public Information Assist Team (PIAT) is an element of the NSFCC staff that is available to assist the FOSC's demand for public information during a response or exercise. Its use is encouraged any time the FOSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC or NRC.

3. U.S. Navy Supervisor of Salvage

The U.S. Navy (USN) is the federal agency most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has an extensive array of specialized equipment and personnel available for use in these areas as well as specialized containment, collection, and removal equipment specifically designed for salvage related and open water pollution incidents.

The Supervisor of Salvage (SUPSALV) can provide expertise and maintains a warehouse on each coast stockpiled with salvage and response gear. Refer to the NSFCC Response Resource Inventory for a listing of SUPSALV equipment.

SUPSALV is available to the FOSC at 757-887-7402

4. National Oceanic and Atmospheric Administration

The NOAA Scientific Support Coordinator (SSC) is the principal advisor to the USCG FOSC for scientific issues. The SSC leads a scientific team and strives for a consensus on scientific issues affecting the response but ensures that differing opinions within the community are related to the FOSC. The SSC can also assist the FOSC with information relating to spill movements and trajectories. The SSC serves as the FOSC's liaison between damage assessment data collection efforts and data collected in support of response operations. The SSC leads the synthesis and integration of environmental information required for spill response decisions in support of the FOSC, coordinating with state representatives, appropriate natural resource trustees, and other knowledgeable local representatives.

The NOAA SSC may be contacted at 206-526-6317 (24-hour)
216-522-7759 (FAX)
800-759-7243, PIN #5798813 (pager)

5. Region 5 Regional Response Team

Additional resources may be available from the other members of the RRT. This information and the potential resources may be requested through the FOSC.

B. State Resources

The Michigan State Police, Michigan DEQ, and Michigan DNR can provide services and resources at the time of a spill based upon the specific scenario. Other agencies within the State of Michigan also have response roles. Please refer to Section VII for State of Michigan-specific response capabilities.

C. Local Resources

Local EMCs will provide their resource list at the time of a spill incident to support the efforts of first responders. This listing should also include points of contact for each service or resource presented.

VI. USE OF CHEMICAL AGENTS/IN-SITU BURNING

A. Pre-approved Areas for Use

There are currently no pre-existing approvals for the use of dispersants or in-situ burning in the Northern Michigan Sub-area.

B. Federal Approval Procedures

1. Chemical Agents

The use of surface collecting agents, biological additives, burning agents, or miscellaneous oil spill control agents must be approved by the appropriate state and/or federal agencies before application. The FOSC must choose the best method from the available response tools in any incident. However, the physical recovery and removal of oil is the preferred clean-up technique.

The FOSC will request approval from the RRT to use chemicals on behalf of the spiller. U.S. EPA has compiled a list of dispersants and other chemicals that the FOSC or the spiller may consider for use during a spill emergency called the NCP Product Schedule. The existence of the Product Schedule does not authorize or pre-approve use of the listed products and products not listed may not be authorized by the FOSC**. "Sinking agents" will not be used in U.S. EPA Region 5**.

The FOSC may authorize the use of any agent without requesting permission if it is immediately necessary to prevent or substantially reduce hazard to human life. In this event, the RRT should be notified by the FOSC as soon as practicable. In situations where an immediate human hazard is not present, the FOSC must notify and receive the concurrence of the RRT Co-Chair:

- **U.S. EPA . . . . . (312) 353-2318 (24-hour)**
- **USCG . . . . . (800) 321-4400 (24-hour)**
- **Michigan RRT Representative . . . . . (800) 292-4706 (in-state, 24-hour)**
  (517) 373-7660 (24-hour)

In consultation with:

- **DOI RRT Member . . . . . (800) 759-8352/Mailbox #1168849 (24-hour)**

Where spills are impacting or may impact anadromous fish (*e.g.*, fish that migrate from salt water to fresh to spawn, such as salmon):

- **Department of Commerce (DOC) RRT member . . . . . 206-526-6317 (24-hour)**

The FOSC will supply the appropriate members of the RRT with information contained in the Chemical Use Checklist located in Appendix 7 of the Region 5 RCP-ACP and Appendix C of this Plan. The Checklist provides information concerning the circumstances of the spill, trajectories, environmental resources at risk, and available decision-makers with the information necessary to make an educated decision on the use of chemical agents.

2. In-Situ Burning

Under certain specific conditions, in-situ burning may offer a logistically simple, rapid, inexpensive, and relatively safe means for reducing the shoreline impacts of an oil spill. Because a large portion of the oil is converted to gaseous combustion products, the need for collection, storage, transport, and disposal of recovered material can be substantially reduced. In certain circumstances, such as oil spilled in ice conditions, burning may be the only viable response technique. In-situ burning may have significant short-term impacts but may actually produce the lowest long-term impact because it removes the oil quickly. In-situ burning should augment, not replace, other oil spill response techniques such as mechanical removal or chemical countermeasures.

The RRT strongly recommends that in-situ oil burning be considered as a means to avert potential oil spill impacts to beaches, wetlands, and Great Lakes and inland resources.

The RRT in-situ burning policy authorizes its use as a response countermeasure to an oil spill when the FOSC believes it appropriate and after key members of the RRT have been consulted and concur. In some circumstances this policy is overridden by state law and in the case of utilizing the addition of burning agents, by the NCP (40 CFR 300.910). The use of in-situ burning as a response tool will always be within state waters and inland areas and consequently is subject to state law and policy.

In-situ burning, as a response alternative, will occur only under the direct oversight of an FOSC. The FOSC needs to obtain the following concurrence, as applicable:

- Local Official(s)
- U.S. EPA and USCG Co-chairs
- Michigan Representatives
- DOI
- DOC/NOAA
- Native American Community Official(s)
- Canadian Federal Government Official(s)

For greater detailed information on in-situ burning policy, refer to Appendix 8 of the Region 5 RCP-ACP. Appendix D of this Plan contains a response and evaluation checklist for the potential use of in-situ burning.

C. Michigan Approval Procedures

Dispersants and surface washing agents will not be used in state waters without state approval. The dispersant or surface washing agents selected must be approved by the RRT, State of Michigan, and Canadian federal and provincial governments per the approval process through the RRT.

State approval for the use of in-situ burning as a response tool must be made by the State OSC or representative to the State EOC located in Lansing, Michigan. Approval will be granted on a case-by-case basis factoring in such variables as wind direction, wind velocity, and the potential population exposed downwind.

D. Canadian Approval Procedures

The RRT shall coordinate dispersant or surface washing agents approval with the Joint Response Team when Canadian resources are at risk. Requests for the use of dispersants in Canadian waters, or the use of dispersants that may impact Canadian waters, should be made to:

- **Regional Environmental Emergencies Coordinator, Environmental Protection Service, Ontario . . . . . 416-973-1058 or 416-346-1971 (24-hour)**

or:

- **Manager, Environmental Emergencies, Northwest Region . . . 403-420-2580 (24-hour)**

VII. COMMAND STRUCTURE

A. Command Structure

1. Incident Command Structure

Oil and hazardous material spills require quick and efficient response at all levels. Responders may come from the local, state, or federal level, and the private sector. Spills may involve fire, police, emergency management, environmental, or public health individuals. With numerous organizations and personnel involved in a response effort, there is potential for confusion and turf battles resulting in a potential increase in danger to public health and the environment. However, there is also a great opportunity for cooperation and coordination. One way to organize cooperative efforts is the use of an Incident Command System (ICS) (**Figure VII-1**). This approach is intended to maximize effectiveness of the response personnel and resources and minimize confusion. An ICS is designed to:

- develop mutual objectives, priorities, and strategies and establish links in communication and reporting.

- increase the Incident Commander's (IC's) management capabilities by efficiently organizing the roles and responsibilities of responders from various agencies.

- accommodate incidents of varying size and complexity and provide flexibility in adjusting the changing demands as an incident progresses.

The Occupational Safety and Health Administration (OSHA) in 29 CFR 1926.65 (q)(3) mandates the establishment of an ICS under the direction of an IC. Emergency responders and their communications are coordinated through the individual in charge of the ICS.

a. Role of the Incident Commander

Most of the ICS protocols have an individual who is in overall command of the response to an incident. This individual is called the IC. Depending on the incident, the IC may be a fire chief, a sheriff, a state or federal official, or a private sector representative. The IC is responsible for assessing hazards, planning a response, directing that response, assuring safety, and all of the other response functions.

For a very small incident it is possible that one or more people could perform all of the necessary response functions. However, as an incident grows in size or complexity, it becomes necessary for an IC to delegate tasks to other individuals. The five basic response functions in an ICS are:

- **Command** - assigning and coordinating actions, including those regarding safety, public

information, and liaison with other organizations.

- **Planning** - determining hazards and possible response strategies, tracking the progress of response operations.
- **Operations** - carrying out the response.
- **Logistics** - arranging for equipment and personnel in response activities.

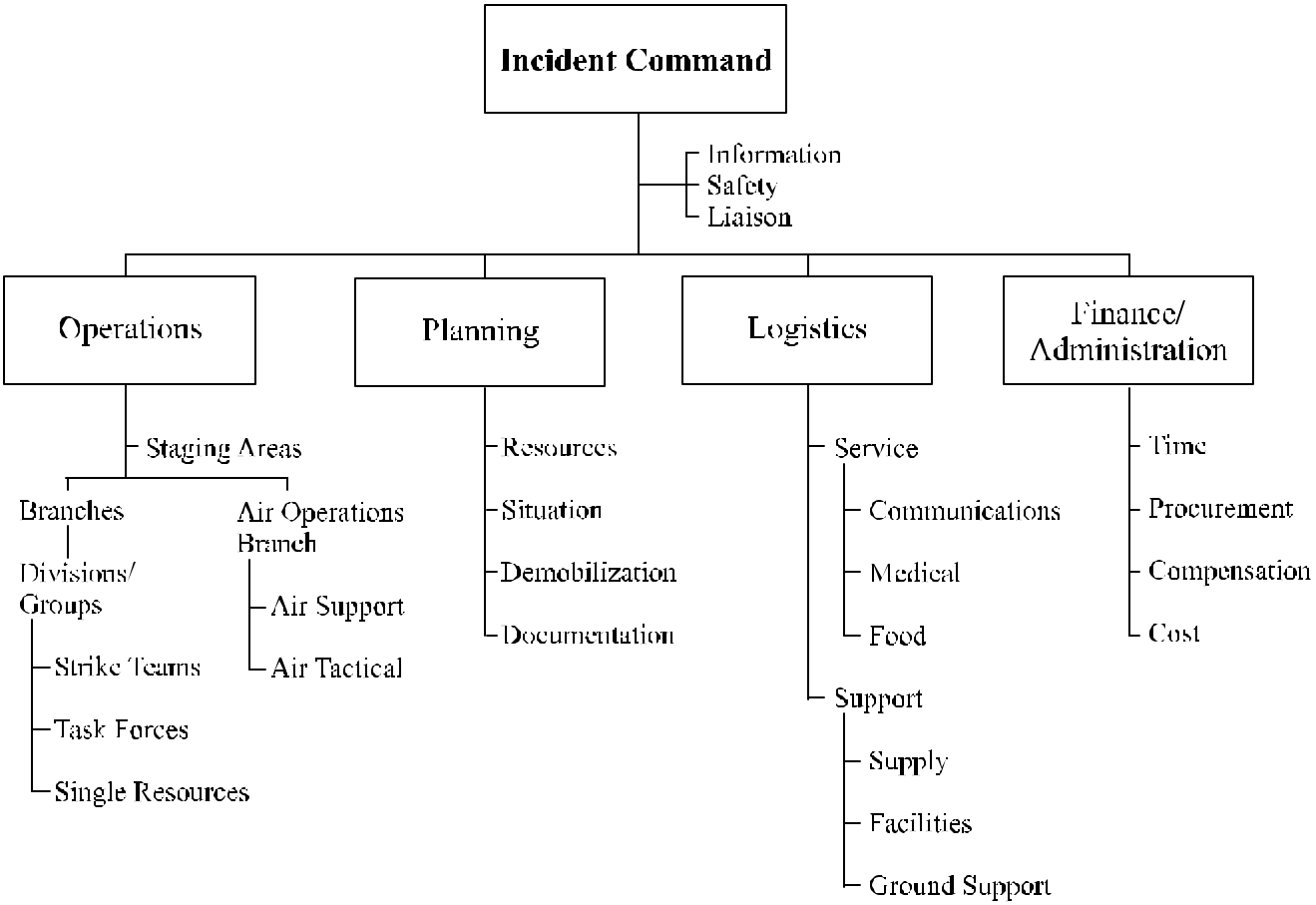

Figure VII - 1, Incident Command System Flowchart

- **Finance** - tracking and paying for response resources.

b. Evolution of Command in an Oil of Hazardous Material Incident

Incidents typically unfold over distinct but overlapping phases, reflecting a progression in response operations and priorities. Generally, the initial concern during spill response is public safety. During this phase, the local police or fire officials are in charge of the incidents. The role

of other responding groups is to support the public safety aspect as requested by the IC.

Local public safety responders rarely retain the IC past the initial public safety phase. As a spill's immediate threat to public safety are controlled, greater attention is given to environmental response and long term cleanup. In an environmental cleanup, the spiller is required to organize and carry out the response. The government, at any level, is authorized to assume control of the response if the responsible party fails to respond adequately. Except in an emergency, both the state and federal government attempt to work with the responsible party to improve private response efforts before assuming control.

Because oil and hazardous material spills involve many players and change through time, many organizations have legitimate responsibilities and roles in the response action. Rarely is one person or group directly responsible for all aspects of a response to an oil or hazardous material spill.

2. Unified Command System

A large oil or hazardous material spill incident may involve responders from many different organizations, each responding according to their own responsibilities and authorities. In these types of incidents there is seldom one individual who can assume overall command. Because of this, the concept of "Unified Command" has evolved for incidents which cross jurisdictional lines. Unified Command may be used when a public safety hazard (the primary responsibility of local officials) and an environmental hazard (the primary responsibility of the spiller and the appropriate state and federal responders) coexist.

During an incident, parties may agree to operate by Unified Command if several qualified parties have legitimate command roles. Unified Command is not "command by committee," but rather it is a mechanism for coordination, cooperation, and communication, in which each party is allowed to operate in its appropriate sphere of command. Under Unified Command, the individual in the role of the IC is replaced by a group of individuals spearheading their particular areas of expertise (**Figure VII-2**).

Several organizations share the same command responsibilities described for ICS. In addition, the senior responders for each organization meet and:

- agree to act in concert and/or coordinate.
- agree on objectives, priorities, and strategies.
- recognize each others' role and responsibilities.
- establish communication lines and methods.

Any single organization's command influence increases or decreases as the incident evolves and as its area of responsibility and expertise comes into or out of play. Often the Unified Command group may appoint a single person to carry out the command decisions of the group. The

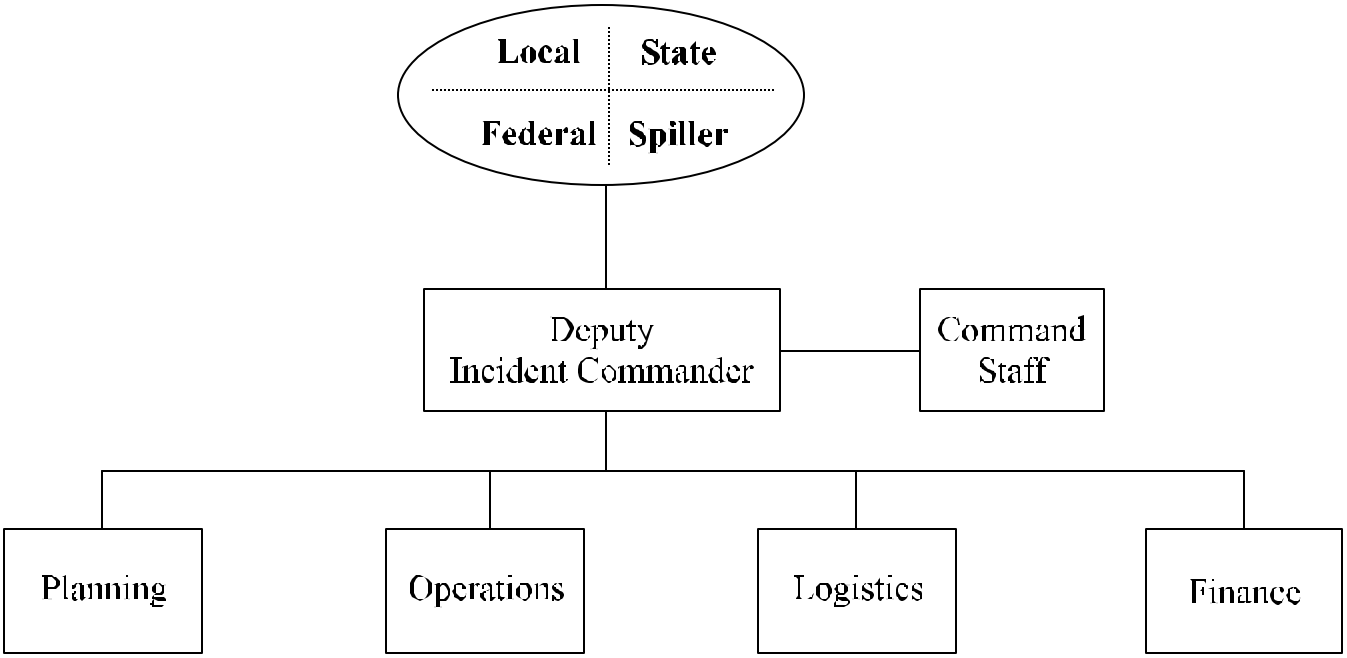

Figure VII - 2, Unified Command Structure Flowchart

remaining response functions (planning, operations, logistics, and finance) usually will also be "unified" by mingling responders of the various organizations together. The Unified Command usually remains in place as long as there remains significant public safety hazard. Following this period, Unified Command may devolve.

B. U.S. EPA/USCG Structure

1. U.S. EPA

U.S. EPA Region 5 supplies the predesignated FOSC for all oil and hazardous materials incidents in the Inland Zone. The U.S. EPA also performs remedial actions for releases originating from facilities and all response actions for releases originating from hazardous waste management facilities, at the federal level.

2. USCG

The Captain of the Port (COTP), Northern Michigan is the predesignated FOSC for all oil and hazardous materials incidents in the Coastal Zone. The USCG FOSC commands and is supported by personnel assigned to USCG MSO Sault Ste. Marie. Operations Department personnel respond to all oil spills in the Coastal Zone as the direct representative of the USCG FOSC.

These personnel will direct response efforts in close consultation with federal, state, and local officials and the responsible party. Operations Department personnel will monitor from the MSO or the local IC Command Post. In the event the incident exceeds state or local response capabilities, the USCG FOSC will call in national response resources and may assume the role of IC.

C. State and Local Structure

1. State

In accordance with the Michigan Emergency Management Act, the Director of the Department of State Police is the Director of Emergency Management. The Director maintains an Emergency Management Division (EMD) within the Department of State Police. The commanding officer of the EMD is designated as the Deputy State Director of Emergency Management. The EMD consists of headquarters staff and field personnel (District Coordinators), each in charge of a specific area of the state. Within this framework, the EMD coordinates the comprehensive emergency management activities of mitigation, preparedness, response, and recovery for state and local government.

Each state department or agency appoints an Emergency Management Coordinator to act as liaison to the EMD and to coordinate the implementation of tasks assigned to the department in the Michigan Emergency Management Plan (MEMP). State department task assignments are primarily oriented toward supporting and supplementing local government efforts to mitigate against, prepare for, respond to, and recover from disasters and emergencies. **Figure VII-3** delineates the flow of responsibility in Michigan emergency management.

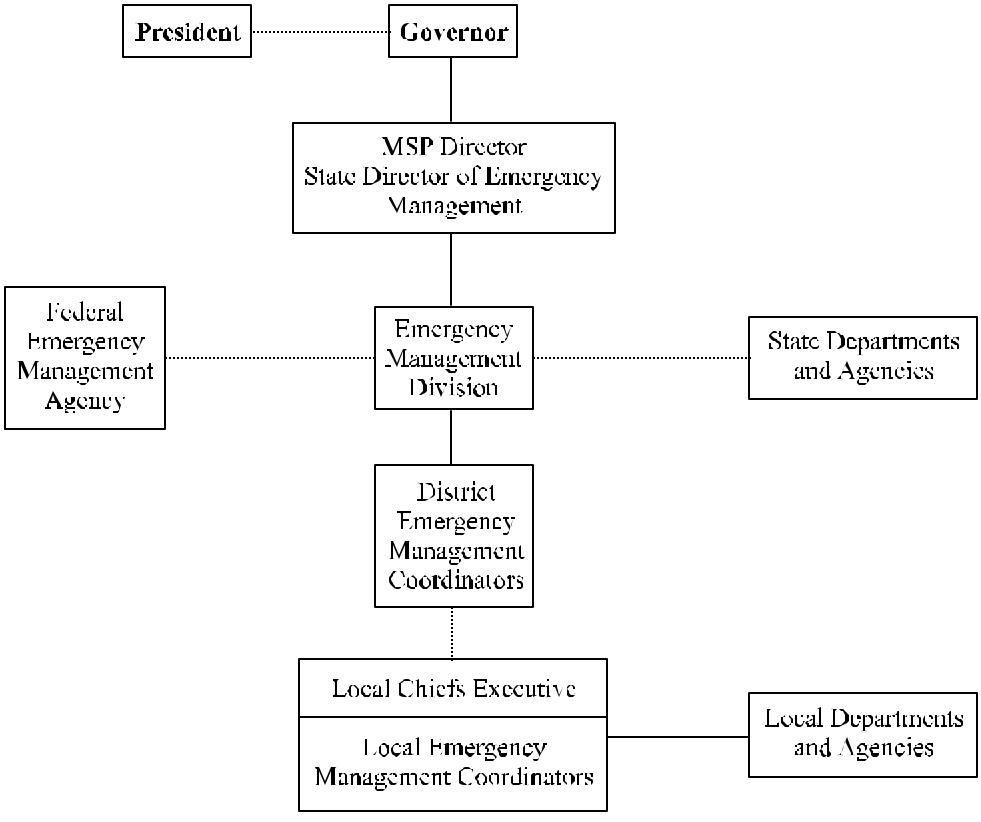

Figure VII - 3, Michigan Emergency management Flowchart

a. Response Procedures - "Technological"

When an oil or hazardous material incident occurs on land or an inland waterway, the responsible party of the facility or vessel is required to notify the local, state, and federal government according to applicable statutes and rules. The extent to which the State of Michigan becomes involved depends upon the type or scope of incident. The MDEQ, MDNR, Michigan State Police (MSP), Michigan Department of Agriculture (MDA), Michigan Department of Community Health (MDCH), and Michigan Department of Consumer and Industry Services (MDCIS) may have responsibilities when accidents occur.

The responsible party for the release is responsible for containment and cleanup, under the supervision of MDEQ, in conjunction with MDA if pesticides are involved. If the responsible party is not identified or the identified party fails to take appropriate action in a timely manner, MDEQ may initiate containment and cleanup actions through private contractors. If state funding for containment and cleanup is expended, the State of Michigan will defer responsibility to the federal government. Local government is responsible for initial emergency response and incident command. Local government first responders initially assess and classify the incident according to the Oil or Hazardous Material Incident Emergency Action Level Classification System (Table VII-1). The classification level determines appropriate emergency action to be taken. In accordance with the Michigan Fire Prevention Act, the chief of the local fire department can take all necessary steps to protect persons and property if a dangerous condition exists. The Act also requires that the State Police Fire Marshall Division be notified immediately following occurrence of an incident.

MSP personnel, in conjunction with the local fire department, determine the emergency measures to be taken. Other appropriate state agency personnel are notified to report to the scene to assess the incident and respond as necessary. The incident classification determines the role and coordination responsibilities of the MSP personnel under the incident command. State response to incidents classified at the "site area emergency" level is coordinated by the Fire Marshall or Motor Carrier Divisions. Incidents that result in a substantial release causing a "community emergency" are coordinated by the EMD.

CLASSIFICATION	INITIATING CONDITION
Minor Incident	***Transportation:*** 1. An oil or hazardous material transport vehicle has been involved in an accident/incident; however, no discharge/release of oil or hazardous material has occurred. 2. Structural integrity of shipping containers has not been jeopardized. 3. Product transfer is not necessary before transport vehicle can be moved. 4. Traffic does not require to be rerouted.
	Fixed Site: 1. An incident involving oil or hazardous material has occurred. No discharge/release or the potential for release exists. 2. No outside assistance is required.

Warning/Alert	***Transportation:*** 1. An oil or hazardous material transport vehicle has been involved in an incident. Potential for a discharge/release exists. 2. Structural integrity of shipping containers has been jeopardized. 3. Product transfer is necessary before transport vehicle can be moved. 4. Traffic is, or must be rerouted. 5. Potential exists for protective actions (evacuation/in-place shelter) in the immediate area.
	Fixed Site: 1. An incident involving an oil or hazardous material has occurred. The potential for a discharge/release at the site exists. 2. Outside assistance may be required. 3. Potential exists for protective actions (evacuation/in-place sheltering) of facility personnel.
Site Area Emergency (Federal equivalent: oil – "minor discharge," hazardous material – "minor or medium release")	***Transportation:*** 1. An oil or hazardous material vehicle has been involved in an accident/incident. A discharge/release of oil or hazardous material has occurred. 2. Evacuation/in-place sheltering of the immediate area surrounding the scene is necessary.
	Fixed Site: 1. An incident involving a discharge/release of oil or hazardous material has occurred and evacuation/n-place sheltering of facility personnel is necessary. 2. Although the incident appears to be contained within the facility, potential exists for an offsite release. 3. Outside assistance may be necessary.
Community Emergency (Federal equivalent: oil – "medium or large discharge," hazardous material – "medium or major release")	***Transportation:*** 1. An oil or hazardous material transport vehicle has been involved in an accident/incident. A substantial discharge/release of oil or hazardous material has occurred which may affect a large population and/or geographic area. 2. Evacuation/in-place sheltering of the vulnerable zone around the scene of the incident is necessary.
	Fixed Site: 1. An incident involving a substantial discharge/release of oil and/or hazardous material has occurred with significant potential impact on a large population and/or geographic area. 2. Evacuation/in-place sheltering of the immediate area surrounding the facility is necessary.
Recovery/Re-entry	The incident has occurred and immediate life, safety, and/or environmental protection measures have bee taken. Conditions that initiated protective actions have been mitigated. Long-term measures must now be taken to return the environment and/or situation to pre-incident conditions.

Table VII - 1, State of Michigan Oil or Other Hazardous Material Incident Emergency Action Level Classification System

b. Response Procedures - "Major Disaster"

When an emergency or disaster occurs, local agencies are normally the first to respond. These agencies initially assess the situation, determine its scope and magnitude, and determine if additional assistance is required. Generally, response is handled at the local level to the extent possible. The local Emergency Management Coordinator monitors the situation and notifies the EMD District Coordinator. Together they assess the nature, scope, and magnitude of the situation and determine the need for resources. If the situation escalates to the point where coordination among several agencies is required, the local Emergency Management Coordinator may decide to activate the local Emergency Operations Center (EOC) and notify key personnel to report there to manage the incident and coordinate activities. The local Emergency Management Coordinator may recommend that the Chief Executive (of the county or municipality) declare a local "state of emergency," thereby formally activating the appropriate response and recovery aspects of the local agencies, as outlined in the local Emergency Operations Plan.

If the emergency is deemed by the Chief Executive to be beyond the control of the local jurisdiction, the Chief Executive may request that the Governor declare a "state of emergency," thereby activating state assistance in accordance with the provisions set forth in the Michigan Emergency Management Act. This request is made through the EMD District Coordinator and forwarded to the EMD office in Lansing, which notifies the Governor of the nature, scope, and magnitude of the situation.

Before state assistance is authorized, the jurisdiction must have utilized all of its appropriate forces, including the use of local contractors, activation of mutual aid, and use of regional or other nearby resources. The EMD District Coordinator verifies that local resources have been exhausted. State assistance is only used to supplement local efforts and resources to help relieve extraordinary burden caused by threats to public health, safety, and property. It is not used for simple budgetary relief or to relieve hardship.

If immediate actions are required, the State Director of Emergency Management may initiate temporary assistance to the affected area. The EMD monitors the situation and maintains contact with the jurisdiction. Appropriate state agencies may be notified and mobilized as necessary. The EMD District Coordinator helps coordinate response and recovery activities at the scene through the local EOC.

c. State of Michigan Agency Response Roles

Michigan Department of Environmental Quality (MDEQ) – MDEQ is the primary environmental emergency response agency in the state for all non-agricultural-related spills. The primary response role for MDEQ is of technical advisor. These personnel are responsible for complaint investigation and emergency spill response and oversee the environmental aspects of spill containment, control, and mitigation.

Michigan State Police (MSP) – The MSP EMD serves as the designated emergency/disaster response coordination agency for the state and as the primary state contact point in the event of a declared disaster resulting in the activation of the MEMP.

Michigan Department of Agriculture (MDA) – The MDA is the lead agency in spill responses involving agricultural chemicals and/or fertilizers.

Michigan Emergency Response Commission (MERC) – The MERC is the primary coordination agency and liaison with the LEPCs throughout the state. The MERC is co-chaired by MSP EMD and MDEQ.

Michigan Department of Natural Resources (MDNR) – The MDNR is the lead agency for the state in decisions involving fish and wildlife issues during a spill response working cooperatively with the MDEQ OSC.

Michigan Department of Community Health (MDCH) – The MDCH provide support in performing laboratory analyses on the material involved in a release.

Michigan Department of Consumer and Industry Services (MDCIS) – The MDCIS monitors employee exposure to airborne contaminants resulting from a hazardous material release.

2. Local

Each county has an Emergency Management Coordinator and enabling legislation creating an emergency management program. In accordance with the provisions of the Michigan Emergency Management Act, some municipalities with a population of 10,000 or more have also elected to appoint an Emergency Management Coordinator and meet other criteria established by the EMD, Department of State Police, to be formally recognized as an emergency management program. Coordination between the EMD and local emergency management programs is accomplished through the EMD District Coordinator. The District Coordinator provides day-to-day administrative and technical support to local emergency management programs, in addition to operational support when incidents occur.

Local agencies are responsible for carrying out the emergency functions assigned to them in their local Emergency Operations Plan. Most emergency situations can be adequately managed using these local government resources, augmented by volunteer and other private groups, as appropriate.

For detailed information specific to a local jurisdiction, refer to the individual local Emergency Operations Plan.

D. Tribal Structure

For emergency response procedures specific to each tribe, contact the following organizations within the Northern Michigan Sub-area.

Contact	Address	Phone/FAX
Bay Mills Indian Community of the Sault Ste. Marie Band of Chippewa Indians, Bay Mills Reservation	Route 1, Box 313 Brimley, Michigan 49715	(906) 248-3241 FAX: (906) 248-3283
Grand Traverse Band of Ottawa and Chippewa Indians of Michigan, Peshawbestown Community Center	2605 N.W. Bayshore Drive Suttons Bay, Michigan 49682	(231) 271-3538 FAX: (231) 271-4861
Little River Band of Ottawa Indians	409 Water Street Manistee, Michigan 49660	(231) 723-8288 FAX: (231) 723-8761
Little Traverse Bay Band of Odawa Indians	P.O. Box 246-1345, U.S. 31 N Petoskey, Michigan 49770	(231) 348-3410 FAX: (231) 348-2589
Sault Ste. Marie Tribe of Chippewa Indians of Michigan	523 Ashmum Street Sault Ste. Marie, MI 49783	(906) 635-6050 FAX: (906) 632-4959
Bureau of Indian Affairs, Michigan Agency	2901.5, I-75 Spur Sault Ste. Marie, MI 49783	(906) 632-6809 FAX: (906) 632-0689

VIII. DISPOSAL PROCEDURES

A. State

In the State of Michigan, to determine if an environmental media is considered hazardous waste you must consult with the MDEQ. There are different requirements depending on whether the spill occurred on the surface or from an underground storage tank.

For surface pollution response and remediation: . . . . . **(800) 292-4706 (in-state, 24-hour)**
517-373-9837 (out of state, business hours)

For release from an underground storage tank . . . . . **(800) MICHUST (in-state, 24-hour)**
517-373-8168 (out of state, business hours)

For the most current listing of the State of Michigan's approved treatment, storage, and disposal (TSD) facilities reference the Internet site at http://www.deq.state.mi.us/wmd/docs/hwprogram/tsdlist.html.

B. Federal

1. Oil

The used oil management standards (40 CFR Part 279) apply only to "used oil," defined as any oil that has been refined from crude oil, used, and as a result has been contaminated by physical and chemical impurities. If used oil is destined for disposal, these regulations reference the RCRA hazardous waste management standards. Mixtures of waste oil (*e.g.*, spilled or unused product oils) and used oil are regulated as used oil. Waste oil and oily wastes are subjects to the hazardous waste management regulations (40 CFR Parts 124, 260-266, 268, and 270). Non-hazardous used oil debris may be disposed of in an industrial or a municipal solid waste landfill. Refer to the State of Michigan policy for additional comment and guidelines. It is federal policy to encourage the recycling of waste and used oils where possible.

For additional general information from U.S. EPA's Office of Solid Waste, call the RCRA Hotline at **(800) 424-7672**.

2. Hazardous Materials

In order to ensure proper treatment and disposal of hazardous substances from CERCLA emergency response or removal sites, Section 300.65 of the NCP requires that off-site transport of hazardous substances use only facilities operating under federal or state permits or authorization. Hazardous substances removed from such sites may be transferred only to facilities that are operating in compliance with RCRA, Toxic Substances Control Act (TSCA), and all applicable state requirements. These requirements also preclude the use of disposal units that

have releases of hazardous wastes or hazardous constituents, and of disposal facilities that have not been addressed by corrective action.

U.S. EPA Region 5's Regional Off-Site Contact (ROC) maintains current information on the acceptability status of disposal facilities in the Region. The ROC can verify for the FOSC facility status for receiving wastes under the NCP. The ROC must determine whether the facility is acceptable for hazardous waste disposal or has relevant violations or releases that may preclude its use for off-site transfer of CERCLA wastes. The FOSC is responsible for contacting the ROC prior to wastes being shipped. Specific FOSC roles and responsibilities for implementing the requirements can be found in *Superfund Removal Procedures Special Circumstances* (January 1998).

C. International

Disposal of oil, hazardous materials, and contaminated materials recovered in clean-up operations shall be disposed of in accordance with the applicable laws and procedures of federal, state, provincial, territorial, and local governments. The On-scene Commander (Canada) and FOSC will take measures to ensure that waste disposal is carried out in compliance with the applicable laws and procedures of federal, state, provincial, territorial, and local governments.

IX. FISH AND WILDLIFE AND SENSITIVE ENVIRONMENTS

A. Federal Natural Resource Trustee Responsibilities

The USFWS is the lead agency for DOI in the management of migratory birds, federally-listed threatened and endangered species, and USFWS lands. The USFWS will provide responders with information concerning the presence of trust natural resources, as well as technical assistance concerning the effects of oil on these resources. The USFWS may help coordinate wildlife recovery and rehabilitation efforts in conjunction with the state natural resource trustee.

Other federal agencies may play similar roles to that of USFWS including the Department of Defense, Department of Agriculture, and NOAA.

B. Notification of Natural Resource Trustee

In the event of a spill, the spiller is required to notify the National Response Center (NRC) at **(800) 424-8802**, immediately. The NRC will contact the appropriate federal response agency, who should then notify the Department of Interior's (DOI's) Office of Environmental Policy and Compliance (OEPC) and the state natural resource agencies, as follows:

DOI, USFWS, Region 3 Regional Pollution Response Coordinator Bishop Henry Whipple Federal Bldg. Fort Snelling, MN 55111-4056		612-725-3536 (office hours) 612-725-3536 (24-hours) 612-725-3526 (fax)
DOI, USFWS, Michigan Ecological Services East Lansing Field Office 2651 Coolidge Road East Lansing, MI 48823	Charles M. Wooley (Primary - 24-hours) Lisa L. Williams (Primary – duty hours)	517-351-8470 (phone) 517-351-1443 (fax) 517-351-8324 (phone) 517-351-1443 (fax)
Michigan DNR, Division of Wildlife Mason Building, 5th Floor P. O. Box 30444 Lansing, MI 48909-7944		517-373-1263 (office hours)
Michigan DNR Upper Peninsula Field Headquarters 1990 US-41 South Marquette, MI 49855		906-228-6561 (office hours)
Michigan DNR Lower Peninsula Field Headquarters P. O. Box 128 Roscommon, MI 48653		517-275-5151 (office hours)

Only one contact per agency is necessary, the person initially contacted will notify appropriate personnel within their agency.

C. State Natural Resource Trustee Responsibilities

MDNR is the designated natural resource trustee for wildlife and aquatic life in the State of Michigan. In response to a spill event, MDNR personnel have the following responsibilities:

- Notify other appropriate state natural resource agency personnel and initiate response protocol.
- Coordinate efforts with other participating natural resource trustees (*e.g.*, NOAA, USFWS).
- Provide the OSC with specific fish and wildlife habitat information and consult with responders for establishing staging and recovery areas and access points.
- Provide the OSC with critical habitat information for state listed threatened and endangered species and environmentally sensitive areas.
- Provide the OSC with assistance in coordination of wildlife rescue and rehabilitation.
- Participate in NRDA.

D. Natural Resources Damage Assessment

The goal of the NRDA process is to restore the injured environment, its components, and services to pre-spill conditions as rapidly as possible.

Trustees for natural resources (land, fish, wildlife, biota, air, water, ground water, drinking water supplies) within the geographic area covered by this Sub-area Plan are the MDNR, the federal DOI (USFWS, NPS), and the following Native American communities:

- Grand Traverse Band of Ottawa and Chippewa Indians
- Sault Ste. Marie Tribe of Chippewa Indians
- Bay Mills Chippewa Indian Community
- Little Traverse Bay Band of Odawa Indians

Section 1006 of OPA empowers trustees to determine resource injuries; assess natural resource damages (including reasonable costs of assessing damages); present claims, recover damages; and to develop and implement plans for the restoration, rehabilitation, replacement, or acquisition of the equivalent of the injured natural resources under their trusteeship. The NRDA process is implemented concurrently with spill response efforts, and may continue for years following the spill incident. The NRDA process consists of the following primary phases:

- **Pre-spill Planning Phase** – Trustees, Sub-area Committee members, potential responsible parties, and the public coordinate and initiate planning activities to ensure a cost-effective and coordinated assessment in the event of a discharge.

- **Pre-assessment Phase** – Trustees must formally decide to initiate this phase (Pre-assessment Determination) and must determine whether to proceed with a damage assessment (Damage Assessment Determination). The trustees identify potentially affected resources, and may complete limited data collection and analysis during this phase.

- **Damage Assessment Phase** – Spill-related injuries to natural resources are determined, damages are quantified, and restoration and planning costs are ascertained. The trustees may use compensation formulas, models, or conduct extensive biological sampling and detailed economic evaluations to make these assessments.

- **Post-Assessment Phase** – A demand for total damages claimed by the trustees resulting from the discharge that is presented to the responsible party. The demand identifies the discharge, the applicable trustees, the amount of damages, and a Report of Assessment describing the trustee restoration approach and its cost.

E. Inland Sensitivity Atlas

The Northern Michigan and Upper Peninsula Inland Sensitivity Atlases are a Geographic Information System (GIS) product intended to provide contingency planners and spill responders with the most accurate and relevant information possible for spill preparedness and response. Data were collected about sensitive environmental, economic and cultural resources; potential spill sources; and response resources for the Northern Michigan Sub-area. Descriptions of the different information "layers" are included below.

- The Natural Heritage Data was provided by the State of Michigan and includes state and federally-listed threatened or endangered species. Categories within this layer include vascular plants, birds, amphibians and reptiles, mammals, invertebrates, fish, and natural communities in two habitat subcategories: aquatic/riparian or terrestrial/upland.

- Many private, local, state, and federal managed lands are high-priority sensitive natural resources that offer habitats for a wide range of plant and animal species, and may also support high levels of human use. Examples of managed areas may include parks, forests, trout streams, wildlife management areas, natural areas, recreational lands forest preserves, and others.

- Other areas that do not have a specific designation or are not directly managed or owned by a trustee group have also been identified. These areas may include private lands with sensitive resources that merit protection.

- Tribes are the designated natural resource trustees for Native American communities.

Reservations and other tribally owned areas may have significant cultural, environmental, and economic resources that are vulnerable to oil spill damage.

- Environmental Sensitivity Index (ESI) data sets were obtained from NOAA to display shoreline sensitivity. The ESI shoreline data were mapped and ranked based on their potential sensitivity to an oil spill. The elements used to determine the relative sensitivity of shoreline habitats include shoreline type (e.g., substrate, grain size, elevation, and origin), exposure to wave and current energy, biological productivity and sensitivity, and ease of cleanup.

- Historic sites, including standing structures and buried archeological sites, are vulnerable to the effects of spilled oil and clean-up efforts.

- Surface water intakes are sensitive because of their significance to public health and the economy. Response procedures may involve the temporary shutdown of these facilities. All intakes for public water supplies and power/industrial use have been mapped. Intakes used intermittently have not been mapped.

- Marinas are typically high-use recreational areas and may include camping and fueling facilities as well as boatlifts, ramps, and slips. Due to the high economic value of the boats and other equipment located at marinas and their potential for staging area use during response marinas may be considered relatively high priority.

- Dams and navigational locks on commercial navigable waterways are vulnerable economic resources that could be adversely affected by an upstream oil spill. These facilities are also essential to the flow of commercial shipping and recreational boat traffic. In addition, due to the dynamics that even the smallest dams place on the current, their consideration to impact an oil spill response should always be considered.

- Fixed oil storage facilities store quantities of oil above and/or below ground. The term “oil” includes crude and refined products as well as vegetable oils and animal fats. The atlas documents those facilities with a storage capacity of 42,000 gallons (1,000 barrels) or more.

- Due to the potential volume of oil pumped through the major pipelines, the potential impact of a rupture is significant. Crude and refined product pipelines have been mapped, whereas natural gas transmission lines have not.

X. EXERCISES

The National Preparedness for Response Exercise Program (PREP) was developed to establish a workable exercise program that meets the intent of OPA. The PREP incorporates the exercise requirements of USCG, U.S. EPA, the DOT's Office of Pipeline Safety's Research and Special Program Administration (RSPA), and the Mineral Management Service (MMS).

The PREP guidelines are not regulations. However, the four federal agencies have agreed that participation in PREP will satisfy all exercise requirements imposed by OPA. Although participation in PREP is voluntary, those choosing not to participate in PREP are required to comply with the exercise requirements in the regulations imposed by each of the four regulatory agencies.

The PREP is structured around a system of internal and external exercises. The internal exercises are conducted wholly within a plan holder's organization, testing the various components of a response plan to ensure the plan is adequate for the organization to respond to an oil or hazardous material spill.

A. Internal Exercises

Internal exercises include: Qualified Individual Notification Drills; Emergency Procedures Drills for Vessels and Barges; Spill Management Team Tabletop; and Unannounced Exercises.

The internal exercises will be self-certified and self-evaluated by the plan holder organization. Each plan holder will be on a triennial cycle for exercises, which began on January 1, 1994. Within this triennial cycle, each plan holder must exercise the various components of the entire response plan. The PREP document contains a list of 15 core components. These are not all-inclusive, a plan may have more or less components, but these are generally what should be in the plan. The completion of the required internal exercises over the three year period will satisfy the regulatory requirements for exercising the entire plan once every three years.

B. External Exercises

The external exercises, or Area Exercises, test the interaction of the plan holder with the entire response community in a specific Area or Sub-area. For the purpose of the PREP, an Area is defined as that specific geographic area for which a separate and distinct ACP has been developed. The Area Exercises will exercise the governmental-industry interface for pollution response. The PREP goal is to conduct 20 Area Exercises per year throughout the country, with the federal government leading six exercises and industry leading the 14 other exercises. The Area Exercises will be realistic exercises, including equipment deployment. A design team consisting of federal, state, and local government and industry representatives will develop the exercises. The Area Exercises will be scheduled by NSFCC, which will receive input from the Area Committee. These various levels of input are designed to ensure all federal, state, local,

and private concerns are taken into consideration when scheduling the exercises.

Additional information on the PREP program is available on the Internet at:
http://www.uscg.mil/hq/g-m/nmc/response/index.htm#PREP

Appendix A

MICHIGAN HAZMAT INCIDENT NOTIFICATION MESSAGE FORM

Place an "X" in the appropriate box(es) and enter available information.

Date: _____, Reporting Time: _____

Reported by: _____, Telephone: _____

Time of Incident: _____

Incident Description: _____

_____

_____

Transportation: _____, Fixed Site: _____

Facility/Carrier Involved: _____

Facility/Carrier Contact: _____, Telephone: _____

Address of Incident: _____

City or Township: _____, County Name: _____

Spill: _____, Leak: _____, Fire: _____, Explosion: _____, Other: _____

Released Into: Air: _____, Water: _____, Ground: _____

Class: Minor: _____, Alert: _____, Site Area Emergency _____, Community Emergency: _____

Incident Status: Escalating: _____, Stable: _____, De-escalating: _____, Terminated: _____

Protective Action Recommended: In-place Shelter: _____, Evacuation: _____, None: _____

Protective Action Status: In-place Shelter: _____, Evacuation: _____, None: _____

Number of Injuries: _____, Number of Deaths: _____

Material Name: _____

Liquid: _____, Gas: _____, Solid: _____

Extremely Hazardous Substance (EHS): Yes: _____, No: _____

Amount of Material Released: _____

Duration of Release: _____

Total Amount which could be Released: _____

Other Chemicals or Incompatibles Involved: _____

Health Risks and Precautions: _____

_____

Emergency Medical Treatment Recommended: _____

_____

Wind Direction (From): _____ (*i.e.*, N, NNW), Wind Speed: _____ (MPH)

Air Temperature (^{o}F): _____, Clear: _____, Partly Cloudy: _____, Overcast: _____

Rural: _____, Residential: _____, Commercial: _____, Industrial: _____, Open Water:_____

Release Impact/Number of Persons Affected: _____

Special Populations: Schools: ____, Rest Homes: _____, Hospitals: _____, Jails/Prisons: _____

Shopping Centers: _____, Other: _____

Response Status (List Jurisdictions Involved: PD, FD, Hazmat Team, Etc.): _____

_____

Investigating Agency: _____, Telephone: _____

Agencies Notified: Local Fire Dept.: _____, Local Police Dept.: _____

Facility/Carrier: _____, Local EMC: _____

Local Health Dept.: _____, MSP FMD/MSD: _____

DNR PEAS Hotline: _____, National Response Center: _____

Other: _____

Appendix B
FEDERAL ON-SCENE COORDINATOR POLLUTION REPORT

I. HEADING

Date:
Subject:
From:

To[1]:		
	K. Mould, U.S. EPA OSWER	FAX: 703-603-9133
	R. Karl, Chief, U.S. EPA Region 5 ERB	FAX: 312-353-9176
	B. Bolen, Chief, U.S. EPA Response Section II	FAX: 312-353-9176
	B. Messenger, Chief, U.S. EPA ESS	FAX: 312-353-9176
	T. Lesser, U.S. EPA Office of Public Affairs	FAX: 312-353-1155
	M. Chezik, DOI, Philadelphia, PA	FAX: 215-597-9845
	_____, U.S. EPA ORC	FAX: _____
	_____, U.S. EPA Enforcement Specialist	FAX: _____
	_____, State Agency	FAX: _____
	_____, USCG, District 9	FAX: _____
	_____, U.S. Fish and Wildlife	FAX: _____
	_____, County Official	FAX: _____

POLREP Number:

II. BACKGROUND

Site Number:
Delivery Order Number:
Response Authority:
ERNS Number:
CERCLIS Number:
NPL Status:
State Notification:
Action Memorandum Status:
Start Date:
Demobilization Date:
Completion Date:

II SITE INFORMATION

A. Incident Category

[1] Where an incident generates substantial interest in the response community and the lead agency experiences a demand for POLREPS beyond the normal RRT distribution, the lead federal agency may elect to post POLREPS electronically, in lieu of direct transmission to individual offices. (Ninth Coast Guard District utilizes NOAA's FirstClass E-mail system.)

B. Site Description

1. Site location
2. Description of threat

C. Preliminary Assessment/Site Inspection Results

IV. RESPONSE INFORMATION

A. Situation

1. Current situation
2. Removal activities to date
3. Enforcement

D. Planned Removal Activities

E. Next Steps

F. Key Issues

VII. COST INFORMATION

The expenditures are an estimate based on figures known to the FOSC at the time the report is written. The cost accounting will not necessarily represent an exact monetary figure that the government may include in any claim for cost recovery.

VIII. DISPOSITION OF WASTES

Wastestream	Medium	Quantity	Containment/ Mitigation Control	Treatment	Disposal

Appendix C
CHEMICAL USE CHECKLIST

Activity	Responsibility
A. Compile Data	
1. Spill Data Circumstances time/date of incident location type of oil product volume of product released total potential of release type of release (instantaneous, continuous, etc.)	**FOSC**
2. Characteristics of Spilled Oils specific gravity viscosity	**FOSC**
3. Weather and Water Conditions/Forecasts air temperature, wind speed, direction water conditions, temperature, depth	**SSC**
4. Oil Trajectory Information 48-hour surface oil trajectory forecast surface area of slick expected conditions of landfall 48-hour dispersed or chemically treated oil trajectory forecast oil movement in water column surface oil movement and expected landfall concentration of the dispersant/oil mixture in the water column	**SSC**
5. Chemical Characteristics and Application Equipment **Chemical Characteristics (Product 1, Product 2, Product 3)** chemical name trade name manufacturer when available location characteristics toxicity effectiveness reactions applicability flash point amount available	**U.S. EPA, USCG, SSC, State**

type of containers application method benefits to problem (*e.g.*, reduce vapor, increase viscosity **Transportation and Equipment (Company 1, Company 2, Company 3)** name location equipment available transportation of equipment	
6. Comparison of the Effectiveness of Conventional Cleanup Methods vs. Chemicals containment at the source burning shoreline protection strategies shoreline cleanup strategies time necessary to execute response	**U.S. EPA, USCG, SSC, State**
7. Habitats and Resources at Risk shoreline habitat type and area of impact resources endangered/threatened species critical habitat for the above species waterfowl use shellfish finfish commercial use public use areas other resources of significance	**FOSC, SSC**
8. Other Uses of the Water – Nearby and Downstream water supply (potable/industrial)	**FOSC**
B. Recommendations	
1. Possible Options do not use chemicals use chemicals on a trial basis disperse or chemically treat in limited/defined areas disperse or chemically treat to maximum extent possible	**U.S. EPA, USCG, SSC, State**
2. Other Recommendations/Rationale	
C. Evaluation of Decision	
1. Will application remove a significant amount of the slick from the surface water?	**U.S. EPA, USCG, SSC, State**

2. Can the extent or location of shoreline impacts be altered in a positive manner?	
3. Will damage to endangered/threatened species, mammals, waterfowl be lessened?	
4. Will the damage to habitats and resources resulting from the chemical use be less than those resulting without the use?	
5. If recreational, economic, and aesthetic considerations are a higher priority than natural resource considerations, what is the most effective means of their protection?	
D. Monitoring of Chemical Use	
1. Records chemical brand equipment and methods used in application dilution of chemical prior to application, if any rate of application times and area of application wind and wave conditions during application	**FOSC, State**
2. Effectiveness – Visual and Photographic Documentation oil before and after chemical application resurfacing of dispersed or chemically treated oil sampling of the water beneath the oil slick and the oil/chemical combination to determine the level of petroleum hydrocarbons in the water	
3. Environmental Impacts – Visual and Photographic Surveys the extent of shoreline impact by chemically treated and untreated oil mortality or abnormal behavior of fish, birds, or mammals comparison of shoreline areas impacted by oil and oil/chemical mixtures analysis of oil concentrations in sediments under chemically treated oil investigation of water column organisms for signs of adverse impact due to chemically treated oil collections and analysis of birds affected by chemicals or oil/chemical mixture	
4. Public Health sampling water supplies for petroleum and chemical constituents	

Appendix D
IN-SITU BURNING EVALUATION AND RESPONSE CHECKLIST

Agencies Required to Grant Concurrence to Conduct a Burn

A. U.S. EPA/USCG RRT Co-Chair — Yes _____, No_____
Name: _____,Telephone:_____

B. State RRT Representative — Yes _____, No_____
Name: _____, Telephone:_____

C. U.S. Dept. of Interior — Yes _____, No_____
Name: _____, Telephone:_____

D. Other Applicable Agencies, as appropriate — Yes _____, No_____
Name: _____, Telephone:_____
Name: _____, Telephone:_____
Name: _____, Telephone:_____

Nature, Size, and Type of Product Spilled

A. Name of Incident: _____

B. Date of Incident: _____, Time of Incident: _____

C. Type: Grounding: ____, Transfer Operations: ____, Explosion: ____, Collision: ____, Other: ____

D. Did Source Burn? Yes _____, No _____; Is Source Still Burning? Yes _____, No _____, N/A _____

E. Spill Location: Lat./Long.: _____, Descriptive Location: _____

F. Distance and direction to nearest land: _____, Nearest Population: _____

G. Product Released: Heavy Crude: _____, Bunker C: _____, #6 Fuel: _____, Medium Crude: _____, Diesel #2: _____, Jet Fuel: _____, Gasoline: _____, Other: _____

H. Product Easily Emulsified? Yes _____, No _____

I. Product Emulsified? Light (0-20%): _____, Moderate (21-50%): _____, Heavy (>51%): _____, No: _____

J. Estimated Volume of Released Product: gals: _____, bbls: _____, tons: _____

K. Estimated Volume of Potential Release: gals: _____, bbls: _____, tons: _____

L. Release Status: Continuous: _____, Intermittent: _____, Instantaneous: _____
Estimated Release Rate if Continuous/Intermittent: _____ gal/bbl/ton

M. Estimated Water Surface Covered (square miles): _____

N. If onshore, what is the wetland surface area covered (square miles): _____

Weather – Current and Forecast

A. Weather: Clear _____, Partly Cloudy _____, Overcast _____, Rain _____, Snow _____, Fog _____
24-hour projection: _____, 48-hour projection: _____

B. Wind Speed: _____ knots, Direction (from): _____
24-hour projection: _____, 48-hour projection: _____

C. Stability Class: A _____, B _____, C _____, D _____, E _____

D. Dominant Current, if known: Speed _____ knots, Direction (from) _____

E. Wind Wave Conditions: Calm _____, Choppy _____, Waves: <1' _____, 1-3' _____, >3' _____
24-hour projection: _____, 48-hour projection: _____

F. Ice Present? Yes ____, No ____ Percent Coverage: <10% ____, 11-30% ____, 31-50% ____, >51% ___

Trajectories of Spill – Open Water Burning

A. Estimated trajectory (attach map/chart)

B. Expected area(s) and time(s) of landfall (attach map/chart)

C. Estimated percent naturally dispersed and evaporated within first 24 hours: _____

Evaluation of Response Operations

A. Size, forecasted weather and trajectories, amount of available equipment, time to deploy and time to recover? Yes _____, No _____

B. Has dispersant use been considered? Yes _____, No _____

C. Why is in-situ burning considered necessary:_____

_____

_____

D. Will in-situ burning augment mechanical recovery and/or chemical countermeasures? Yes ____, No ____

E. Will in-situ burning replace mechanical recovery and or chemical countermeasures? Yes _____, No ____

If "yes," please explain:
_____

_____

_____

Weather, Sea, and Oil Conditions

A. Wind: <20 knots? Yes _____, No _____

B. Waves: <3' in choppy wind driven seas? Yes _____, No _____

C. Currents: <0.75 knots relative velocity boom/water? Yes _____, No _____

D. Visibility: Sufficient to see oil, vessels towing boom, and aerial overflight for burn observation? Yes _____, No _____

E. Oil Conditions:
1. Fresh oil, <2-3 days exposure? Yes _____, No _____
2. >2-3 mm thickness? Yes _____, No _____
3. <25% water content for optimal ignition? Yes _____, No _____

Habitats Impacted and Resources at Risk

A. State Natural Resource Agency notified and consulted? Yes _____, No _____
Name: _____, Telephone: _____

B. U.S. Fish and Wildlife Service notified and consulted? Yes _____, No _____
Name: _____, Telephone: _____

C. Park/Resource Manager notified and consulted? Yes _____, No _____

Name: _____, Telephone: _____

D. Wetland type(s) impacted:
1. Wooded swamp _____
2. Freshwater impoundment marsh _____
3. Great Lakes coastal marsh _____
4. Other riparian marsh _____
5. Inland marsh _____
6. Other marsh _____

E. Other Habitats Impacted:
1. Small pond _____
2. Small river or stream _____
3. Low-lying bank _____
4. Other types _____

F. Predominant Vegetation Type: _____

G. Season: Winter _____, Spring _____, Summer _____, Fall _____

H. Biological Resources Present:
1. Threatened/endangered species (attach list) _____
2. Mammals _____
3. Waterfowl _____
4. Wading birds _____
5. Diving birds _____
6. Shore birds _____
7. Raptors _____
8. Fish _____

I. Natural/Recreational Areas (attach list):
   1. National Park _____
   2. National Wildlife Refuge _____
   3. State Park _____
   4. State Wildlife Area _____
   5. Other Natural/Recreational Areas _____

F. Native American interests present? Yes _____, No _____
   Name: _____, Telephone: _____

G. Historic and Archeological Resources:
   _____ Unknown
   _____ Not Present
   _____ Present (contact SHPO)
   Name: _____, Telephone: _____

Equipment and Personnel – Open Water Burning

A. Vessels, fire boom, residue containment equipment available? Yes _____, No _____
   Vessels equipped with appropriate fire fighting gear? Yes _____, No _____

B. Aircraft(s) for ignition and aerial observation available? Yes _____, No _____
   Flight requirements: daylight hours, visibility >1 mile, ceiling > 500', FAA certified for helitorch.

C. Ignition System:
   1. Available? Yes _____, No _____
   2. Type/method to be used: _____
   3. Burn Promoters? Yes _____, No _____

D. Personnel properly trained, equipped, and covered by site safety plan? Yes _____, No _____

E. Communications system available for aircraft, vessels, EOC and working? Yes _____, No _____

Equipment and Personnel – Inland Burning

A. Vessels, fire boom, residue containment required? Yes _____, No _____
   If yes, are they available? Yes _____, No _____

B. Are the appropriate fire fighting gear and personnel on-scene? Yes _____, No _____

C. Is aircraft(s) for ignition and aerial observation required and available? Yes _____, No _____
   Flight requirements: daylight hours, visibility >1 mile, ceiling > 500', FAA certified for helitorch.

D. Ignition System:
   1. Available? Yes _____, No _____
   2. Type/method to be used: _____
   3. Burn Promoters? Yes _____, No _____

E. Personnel properly trained, equipped, and covered by site safety plan? Yes _____, No _____

F. Communications system available for aircraft, vessels, EOC and working? Yes _____, No _____

Proposed Burn Plan

A. Proposed burning strategy:
   1. _____ Ignition away from source after containment and movement to safe location
   2. _____ Immediate ignition at or near source
   3. _____ Ignition of uncontained slick(s) at a safe distance

B. Estimated amount of oil to be burned in boom: _____ sq. ft.

C. Estimated duration of burn: _____ minutes

D. Are simultaneous burns planned? Yes _____, No _____; If "yes," how many? _____

E. Are sequential or repeat burns planned? Yes _____, No _____

F. Method for terminating burn: _____

G. Proposed method for ignition: _____

H. Ability to collect burn oil residue? Yes _____, No _____

I. Estimated smoke plume trajectory: _____ miles

Evaluation of Anticipated Emissions

A. Using a section of an appropriate chart, plot and calculate the following locations and distances:

   1. Location of proposed burn in reference to source.
   2. Location of proposed burn in reference to nearest ignitable oil slick(s)
   3. Location of proposed burn in reference to nearest land
   4. Location of nearby human habitation

   Determine the following:

   1. Distance between burn and land: _____ miles
   2. Distance between proposed burn and spill source: _____ miles
   3. Distance between burn and human habitation: _____ miles
   4. Surface area of proposed burn: _____ sq. ft.

E. Risk of secondary fires? Yes _____, No _____

F. Plot the estimate smoke plume with particulate concentration of > 150 $\mu g/m^3$

G. Will anticipated smoke plume disperse before reaching human population? Yes _____, No _____

H. Will Canadian air space be affected by project smoke plume? Yes _____, No _____
   If "yes," contact Canadian Coast Guard at: _____

Determination of Acceptability

A. Does the estimated smoke plume impact a populated area with particulate concentrations averaged over one hour exceeding 150 $\mu g/m^3$? Yes _____, No _____

B. Can the impacted population be temporarily relocated prior to burning? Yes _____, No _____

Operational Controls – Required for all Burns

A. Forecasted weather, winds, and atmospheric stability class obtained? Yes _____, No _____

B. Trial Burn conducted, observed, and anticipated smoke plume behavior confirmed? Yes _____, No _____

C. Safe downwind distance validated, or expanded if winds are inconsistent with forecast? Yes _____, No _____

D. Burn extinguishing measures in place and available? Yes _____, No _____

Public Notification – With Local EMC Guidance

A. Level 1 public notification (*e.g.*, radio broadcast to public, safety zone broadcast to mariners, road closure, etc.) implemented? Yes _____, No _____

B. Provisions to initiate Level 2, 3, or 4 warnings, instruction available? Yes _____, No _____

Unified Command Decision Regarding In-Situ Burning

A. _____ Do not conduct in-situ burn.

B. _____ In-situ burning may be conducted in limited or selected areas (attach map).

C. _____ In-situ burning may be conducted as requested.

Signature of FOSC: _____, Printed Name:_____

Signature of State Rep.: _____, Printed Name: _____

Time and Date of Decision: _____

Additional conditions that may apply: _____

_____

_____

_____

_____

Appendix E
WILDLIFE REHABILITATION – MINIMUM FACILITY REQUIREMENTS[1]

Facility needs usually focus on the majority of species affected by a petroleum discharge, which are historically avian. Facility requirements can vary significantly, depending upon the overall size of response, species, and age of the wildlife contaminated, the type of contamination, the season and weather, the location of the spill, and the rehabilitation effort. The facility required will vary accordingly to the needs of the specific spill situation, and should be determined by a qualified wildlife responder experienced in oil spill response work.

Facility:

A suitable facility must have a large open space on the ground floor that can easily be configured and reconfigured to accommodate the changing needs of this unique form of wildlife rehabilitation. All rehabilitation efforts should be accommodated under one roof. Experience has taught that multiple buildings or tents are ineffective and unsuitable. A warehouse, township garage, armory, motor pool, or convention hall that is accessible to a trained labor force, is within reasonable distance from lodging, and has adequate parking and exterior grounds could meet this requirement. If a facility is situated in a secure site (*e.g.*, military installation or refinery) accommodations for a fluctuating volunteer work force need to be addressed. The facility may be located up to 3-4 hours from the spill site, provided that on-scene stabilization is administered prior to transport. An oil spill stabilization site can be located at the time of a spill.

It is recommended that a list be assembled of potential sites within the identified area and the sites be physically reviewed by a representative of a wildlife response group with major oil spill response experience. Once actual facilities have been identified, all costs, availability, and contract information should be reviewed every six months.

Facility Requirements:

This list represents minimum facility needs for rehabilitating 100-150 oiled animals. Space requirements includes:

Identified Space	Area
Front desk/admissions	250 sq. ft.
Logistics office	250 sq. ft.
Kitchen/food storage	200 sq. ft.
Husbandry area (large central room)	1,200 sq. ft.
Supplies/storage	250 sq. ft.
Wildlife Cleaning Area I	750 sq. ft.
Medical treatment/exam	200 sq. ft.

[1] Material derived from Tri-State Bird Rescue & Research, Inc.

Pathology/lab/cold storage	100 sq. ft.
Isolation Ward	200 sq. ft.
Volunteer/worker rest room	150 sq. ft.
Bathrooms/decon/changing room	200 sq. ft.
Outside pool areas @ 10'x15'x2' pool per 15 birds + access and maintenance space	3,300 sq. ft.
Non-hazardous and regulated (medical and oily) trash Outside Inside	 400 sq. ft. 50 sq. ft.
Outside area for oily waste water	300 sq. ft.
Loading dock and parking for 50 (opposite side of building from outside cages)	5,000 sq. ft.
Total interior square footage	3,800 sq. ft.
Total exterior square footage	9,000 sq. ft.
TOTAL SQUARE FOOTAGE	**12,600 SQ. FT.**

Note: If an existing wildlife rehabilitation center were used, it would require space in addition to the space allocated for any existing caseload. Animals impacted by an oil spill must be cared for separately from the in-house population.

Hot and Cold Water Capacity:

When selecting a wildlife response facility it is important that the water supply will not be contaminated by the oil spill. For preplanning purposes, potential facility locations should be selected in areas of low spill probability. All oily waste must be collected and disposed of in accordance with applicable regulations. The large quantities of rinseate, pool, and general use water generated during a spill response are permitted access to most municipal systems. It is therefore inadvisable to select a location that relies on a septic system to handle waste, for this large volume of water can exceed the designed capacity of most septic systems. Ideally, there should be external access to cold water supplies for filling outdoor pools.

Due to the nature of wildlife rehabilitation, large amounts of water are used in many locations throughout the facility. It is therefore advisable that the facility should have floors that can tolerate being wet, with drains at least in the areas designated for cleaning activities.

Water Needs	Amount/Type
Cold water volume (pools and general use)	23,360 gallons per day
Hot water volume (animal cleaning, only)	450 gallons per hour @ 104 degrees F
Water pressure (animal cleaning, only)	50-60 psi
Water hardness (animal cleaning, only)	0.042-0.060 ppm

Note: true sea birds (diving and pelagic species) cannot be successfully rehabilitated unless the water is maintained at the proper water hardness.

A potential facility in terms of size, availability, and location should not be discarded due to hot water and hardness capacities. Provided there is adequate cold water supply, mobile hot water and treatment systems can be retrofitted into existing equipment without much difficulty.

Electric and Lighting:

The electric needs of a wildlife response facility are very similar to a conventional production operation in so far as the need for general and task lighting, with an adequate number of separately circuited outlets throughout the space capable of providing 20 amp protection. Because of the potential risk of electric shock in wet areas, the addition of a ground fault interrupter (GFI) circuit breaker in those areas is desirable.

In addition to lighting and the heat, ventilation, and air conditioning systems, electric power will be used for hot water heaters, freezers, refrigerators, heat lamps, pet dryers, office and medical equipment, pool pumps and filters, power tools, etc. General a 200 amp 120/240 volt 3-wire single phase service with minimum of ten 20 amp circuits in addition to the lighting and HVAC needs, with the ability to expand will be required.

HVAC Systems:

The three main concerns regarding air quality are:

1. Eliminating thermal stress to debilitated animals by providing a stable, draft free inside air temperature between 70-80 degrees F.
2. Minimizing human and animal exposure to petroleum volatiles.
3. Minimizing animal exposure to pathogenic organisms (bacterial and fungal).

Air within a wildlife response facility should be exchanged six times per hour within office space, ten times per hour within large open areas involving animal care, and twenty times per hours within critical care and surgical areas and still maintain ambient temperatures.

Typical HVAC systems used in industrial space are often forced air or closed re-circulating systems which by themselves will not meet the above requirements. These systems will need to be augmented with portable filtration (HEPA) and air exchange units. The design of the systems should be determined by the wildlife response group once the facility has been selected and the specifics of the animal caseload are known. Air quality in systems that employ return air filters can be enhanced through the replacement of the existing air filters with an electrostatic type. This will not preclude the need for HEPA-type filtration and regular air exchanges as outlined above.

Communications:

The wildlife response facility will require a minimum of three telephone lines (public, private, fax/modem) with the ability to add additional lines.