

RESPONSE: Part One -

EMERGENCY RESPONSE NOTIFICATION LIST

FEDERAL:

National Response Center (24 hr) 800-424-8802

FOSC for Coastal Zone

USCG -MSO Anchorage (24 hr) 907-271-6700 (Fax 271-6751)

FOSC for Inland Zone

EPA Region X Alaska Operations, Anchorage Office 907-271-5083

or (daytime)..... 800-424-4372 (Fax 271-3424)

Seattle (24 hr)..... 206-553-1263

STATE:

SOSC for coastal or inland spills

ADEC Central Alaska Response Team (24 hr, thru State Troopers) 800-478-9300

Anchorage (SOSC office)..... 907-269-7548 (Fax 269-7648)

On-Duty Officer (Cellular Phone) 244-8126

CONTACT CHECKLIST

<i>time</i>	<i>date</i>	COAST GUARD CONTACTS	phone
___	___	NATIONAL RESPONSE CENTER.....	800-424-8802
___	___	USCG MSO Anchorage.....	907-271-6700
___	___	USCG MSO Valdez.....	907-835-7200
___	___	USCG District 17 (24hr).....	800-478-5555
___	___	USCG District 17 Public Affairs.....	907-463-2000
___	___	USCG Pacific Strike Team (24hr).....	510-437-3700
___	___	National Strike Force Coordination Center.....	919-331-6000
___	___	National Pollution Funds Center.....	703-235-4700
 FEDERAL AGENCIES			
___	___	U.S. Environmental Protection Agency	907-271-5083
		Seattle (24 hr).....	206-442-1263
___	___	U.S. Department of the Interior.....	907-271-5011
		U.S. Fish & Wildlife Service	907-271-2797
		National Park Service, Wrangell-St.Elias.....	907-822-5234
___	___	National Oceanic & Atmospheric Administration SSC.....	907-271-3593
___	___	U.S. Forest Service.....	907-271-2500
___	___	U.S. Army Corps of Engineers.....	907-753-2515
___	___	U.S. Navy SUPSALV	703-602-7527
___	___	Federal Aviation Administration.....	907-271-5936
___	___	National Weather Service.....	907-835-4505/ 271-5136
___	___	National Marine Fisheries	907-271-5006
 ALASKA STATE AGENCIES			
___	___	Department of Environmental Conservation, (24 hr, thru State Troopers).....	800-478-9300
		Anchorage (SOSC office)	907-269-7548
		Anchorage (Pipeline Corridor office).....	907-271-4336
		Kenai.....	907-262-5210
___	___	Department of Fish and Game.....	907-267-2336
___	___	Department of Military & Veteran Affairs, Division of	907-428-7000
		Emergency Services (24 hr)	800-478-2337
___	___	Department of Law.....	907-269-5100/269-5274
___	___	Department of Natural Resources	907-762-2660
		State Historic Preservation Office	907-269-8727
___	___	Department of Public Safety, State Troopers	907-269-5711
		(Dispatch, 24 Hr)	800-478-9300
___	___	Department of Transportation & Public Facilities.....	907-266-1440/266-1735
___	___	Department of Community and Regional Affairs.....	907-269-4500/561-4406
___	___	Department of Health and Social Services	907-465-3027
___	___	Department of Commerce and Economic Development	907-465-2500
___	___	Department of Administration.....	907-465-2200
___	___	University of Alaska-Anchorage (Env.& Nat. Resources)	907-279-4523

<i>time</i>	<i>date</i>	LOCAL GOVERNMENTS	
—	—	Kenai Peninsula Borough.....	262-4441/ fx-8615
		Emergency Management	262-4910
		State Troopers.....	262-4453
		Hospital Soldotna	262-4404
		Seward	224-5205
		Clinic Homer	235-8857
—	—	Kodiak Island Borough	486-9300/ fx-9374
—	—	Matanuska-Susitna Borough	745-4801/ fx-9845
		State Troopers.....	269-5722
		Hospital Palmer	745-4813
—	—	Municipality of Anchorage	343-4431/ fx-4499
		State Troopers.....	745-2131
		Police	911 or 786-8500
		Fire	911 or 267-4900
		also, Girdwood	783-2511
		Eagle River.....	694-2675
		Elmendorf AFB.....	552-4644
		Ft. Richardson	384-0774
		Chugiak.....	688-2555
		Anchorage Airport	266-2411
		South Fork - Hiland Rd.....	696-8414
		Hospital Alaska Native Center	563-2662
		Columbia.....	276-1131
		Providence	562-2211
		U.S. Air Force, Elmendorf	552-2748
		Port Director	343-6200
—	—	Big Lake.....	
		Fire	892-7750
—	—	Cooper Landing.....	
		Fire	595-1364
		Ambulance.....	595-1257
—	—	Homer	235-3130/8121/ fx-3140
		State Troopers.....	235-8239
		Police	235-3150
		Fire	235-3155
		Hospital	235-8101
		Clinic	235-8857
		Harbormaster	235-3160
		Marine Weather	235-5600
—	—	Houston.....	892-6869/ fx-6180

		Fire (volunteer).....	892-6457
___	___	Kachemak.....	235-8897/ fx-8854
___	___	Kenai.....	283-7539/ fx-3014
		Police.....	283-7879
		Fire.....	283-7666
		Harbormaster.....	283-7535
___	___	Knik.....	
		Fire.....	376-3559
___	___	Larsen Bay.....	847-2211/ fx-2239
___	___	Moose Pass.....	
		Fire.....	288-3666
___	___	Nanwalek (English Bay).....	281-2248
		Village Public Safety Officer.....	281-2218
		Clinic.....	281-2250
___	___	Nikiski.....	
		Fire.....	776-8400
___	___	Ninilchik.....	
		Fire.....	567-3929
		Clinic/Ambulance.....	567-3412
		Palmer.....	745-3271/ fx-0930
		Police.....	745-4811
		Fire.....	745-3271
		Hospital.....	745-4813
___	___	Port Graham.....	
		Village Public Safety Officer.....	284-2234
		Fire.....	284-2224
		Hospital.....	284-2241
___	___	Seldovia.....	234-7643/ fx-7430
		Police.....	234-7640
		Fire.....	234-7812
		Clinic.....	234-7825
		Harbormaster.....	234-7886
___	___	Seward.....	224-3331/ fx-3248
		State Troopers.....	224-3033
		Police.....	224-3338
		Fire.....	224-3445

		Hospital	224-5205
		Harbormaster	224-3138
___	___	Soldotna	262-9107/ fx-1245
		State Troopers.....	262-4453
		Police.....	262-4334
		Fire	262-4792
		Hospital	262-4404
		Ambulance.....	262-4500
___	___	Talkeetna.....	
		Police/Fire.....	733-2359
___	___	Tyonek	
		VPSO/Fire/Hospital.....	583-2461
___	___	Wasilla	373-9050/ fx-9085
		Police.....	373-9077
		Fire	373-8831
		also, Lakes Bogard Road.....	745-2228
		Trunk Road	745-2494
		Meadow Lakes	376-9790
___	___	Willow.....	
		Fire	495-6728
___	___	Whittier	472-2337/ fx-2404
		Police.....	472-2340
		Fire	472-2560
		Clinic	472-2303
		Harbormaster	472-2330

(Note: While Whittier is not included in the Cook Inlet Subarea, the town is immediately adjacent to the subarea perimeter. Therefore, emergency services are listed here in the event of an incident occurring near this location.)

<i>time</i>	<i>date</i>	LOCAL EMERGENCY PLANNING COMMITTEES	
___	___	Municipality of Anchorage LEPC; George Vakalis, Chair	907-343-4000
___	___	Kenai Peninsula Borough LEPC; Steve Hoogland, Chair.....	907-776-8191
___	___	Matanuska-Susitna Borough LEPC; John Bogue, Chair	907-745-9311

<i>time</i>	<i>date</i>	INDUSTRY & SPILL RESPONSE ORGANIZATIONS	
___	___	Cook Inlet Spill Prevention and Response Inc. (CISPRI)	907-776-5129
___	___	Alaska Chadux Corporation	907-278-3348
___	___	Ship Escort Response Vessel Service (SERVS) of Alyeska Terminal	907-835-6901
___	___	Alaska Clean Seas (ACS).....	907-345-3142
___	___	Seldovia Oil Spill (SOS)	907-234-7400

NATIVE GROUPS/CORPORATIONS (Also, see Resources Section)

___	___	Koniag, Inc.....	907-561-2668
___	___	Chugach Alaska Corporation (for marine/coastal incidents).....	907-563-8866
___	___	Chugachmiut, Inc.	907-562-4155
___	___	Kodiak Area Native Association (KANA).....	800-478-5721 or 907-486-9800

REGIONAL CITIZENS ADVISORY COUNCILS

___	___	Prince William Sound RCAC	907-835-5957/ fx277-4523
___	___	Cook Inlet RCAC.....	800-652-7222 or 907-283-7222/ fx283-6102

CULTURAL RESOURCES ADVISORS

___	___	State Historic Preservation Office (DNR)	907-269-8721
___	___	Christopher Woolley (Chumis Cultural Resources Services)	907-563-3202

HATCHERIES/AQUACULTURE SITES (See Sensitive Areas Section, pp. D-41 thru D-44)

Alaska Regional Response Team See the front section of the **Unified Plan** for membership roster.

Natural Resource Trustees A complete listing is in the **Unified Plan, Annex E, Appendix III, Tab S.**

CHEMTREC (24 hr) **800-424-9300**
 Hazardous substances information provided by the Chemical Manufacturers Association

Additional listings of Alaska State agencies are provided in the Unified Plan, Annex A.

RESPONSE: PART TWO - EMERGENCY RESPONSE PROCEDURES

See the **Unified Plan** (Introduction, pages 5-8) which outlines general emergency response procedures for response officials.

EMERGENCY SPILL RESPONSE GUIDANCE:

The Coast Guard has adopted the Oil Spill Field Operations Guide (ICS-OS-420-1) for use in guiding their major spill response efforts. The guide is a product of California's Standard Oil Spill Response Management System (STORMS) Task Force, and provides detailed guidance for each Incident Command System position identified for oil spill response operations.

The Alaska Department of Environmental Conservation has published a Response Action Plan (RAP) which provides specific objectives and tasks for each Incident Command System (ICS) position defined in the RAP. The RAP is the basic document which provides DEC with the detailed guidance necessary to properly respond to a major spill incident. The RAP also includes region-specific, Type 1 Response Action Plans which provide an additional level of detail for DEC in terms of "ramping up" for a major spill response operation. A Type 1 Response Action Plan has been developed for the Cook Inlet Subarea and is appended to the basic RAP.

RESPONSE: PART THREE - OPERATION CHECKLISTS

A. VESSEL DISTRESS CHECKLIST

1. Use of this Checklist:

Purpose: To aid MSO duty officers to methodically assess a marine casualty and respond appropriately. This is not an all inclusive cookbook but merely a memory jogger in reference to several casualty considerations.

Basic priorities are to determine Worst Case Scenario and the Urgency of the Situation. If casualty is imminent and substantial, get resources underway before making routine notifications and fleshing out details. If a casualty appears not to be imminent (e.g. Disabled vsl 60 nm offshore) relax only after;

Information obtained through exhaustive interrogations of the Master and other sources makes you confident that the situation will not deteriorate; and

Window of Opportunity to act has been carefully determined and offers time to implement major measures if initial measures fail.

Determine the need for special actions and precautions, firmly compel the Master or other Responsible Party Representatives to act quickly and adequately. Review appropriate references to become familiar with various options. (Salvors Handbook, Peril at Sea and Salvage). Discuss possible measures and alternatives with Master, Owner, etc. to stimulate improved course of action. Many of the items on this checklist were taken from two sources: U.S. Navy Salvors Handbook NAVSEA 0994-LP-017-8010, 1976 Peril at Sea and Salvage, Intl. Chamber of Shipping & Oil Co. Intl. Mar. Forum, 1982).

2. What are Worst Case Scenarios(s):

- * Determine if casualty is imminent and substantial.
- * Request resources.

3. Determine Urgency of Situation within the context of:

- * Safety of Personnel.
- * Proximity to shore or shoal.
- * Weather and sea conditions.
- * Current and Tide.
- * Nature of seabed and shoreline.
- * Potential for safe anchoring.
- * Availability of assistance.
- * Damage already sustained by vessel.
- * Risk of further damage to the vessel.
- * Prospect of maintaining communications.
- * Threat of pollution.

- * Manpower & material requirements.
- * Other

4. Measure Window of Opportunity to act relative to:

- * Estimate time until worst case scenario occurs = Hours.
- * Hours til ship strands (winds, current, & distance)
- * Hours til Wx, seas, tides worsen & accelerate worst case.
- * Hours til rate of burning/pollution discharge out of control.
- * Hours delay of worst case scenario due to mitigation measures.
- * Estimate time necessary to prevent worst case scenario = Hours.
- * Hours to assess situation and determine required resources.
- * Hours til repairs completed/machinery back on line.
- * Hours to identify/arrange for dispatch of appropriate resources.
- * Hours til towing/firefighting/salvage vessels arrive.
- * Hours to rig tow line, pumps, other equipment.
- * Hours margin of error or unexpected problems.
- * Hours (other)

5. Duty Officer Actions:

- Arrange Firefighting, Law Enforcement, Etc.
- Arrange for Helo, CG vessel underway via OPCEN.
 - Control Traffic.
 - Survey damage, pollution, traffic situation.
 - Soundings around damaged vessel.
 - Transport Initial Pollution Response Teams.
- Dispatch Investigation, Inspection, Pollution Investigation, Boarding Teams as required.
- Obtain ship and situation particulars.
 - Pull available MSIS data.
 - Check Lloyds information.
 - Communications with Master, Owner, Operator, On-scene Forces.
- Arrange Broadcast NTM and Local NTM (for prolonged Hazard).
- Advise Commanding Officer.
- Advise OPCEN (CLARIFY DEGREE OF MSO OPCON).
- Arrange for Safety/Security Zones (Vsl traffic control).
- Compel Master/owner/operator to arrange/plan the following actions (as appropriate):
 - More favorable Drift taking advantage of natural conditions.
 - Drogue (paying out anchor).
 - Anchoring.
 - Reorienting DIW vessel using tug or other propulsion.
 - Rigging towing hawsers to reduce effort of towing vessels.
 - Alternatives to overcome operational difficulties.
 - Communications schedule.
 - Towing, salvage, cleanup resources.
 - Extreme last resort measures to reduce pollution and save lines.

6. Basic information to Obtain:

- Name, call sign, flag.
- Type of ship; LOA, NET, Gross, and DWT Tonnage.
- Tank/Hold Configuration.
- Cargo (Type, Quantity).
- Fuel (Type, Quantity).
- Voyage (LPOC & NPOC).
- DTG of Incident.
- Ship's position, course, & speed at time of incident.
- Brief description of incident, damage sustained, loss of capability.
- Weather, seas, current, tide.
- Other assistance required & underway (details including ETA).
- Frequencies guarded (include cellular phone and SATCOM numbers).
- Name, Address, Phone, Telex of: Agent, Owner, Operator, Charterer, Salvor, Etc.

7. Supplementary Basic Information to Obtain:

- Vessel History: Number & types of previous casualties.
- Details of damage to ship, equipment, capabilities.
- Ability of ships personnel to restore vessel capability.
- Whether damage continues to be sustained.
- Assessment of fire risk and precautions taken.
- Damage to other ships or property.
- Disposition of cargo/fuel on board and quantities involved.
- Time assistance requested and ETA on-scene.
- Details of towing/salvage contractor & equipment.
- Adequacy of assistance; further assistance requirements.
- Priority requirements of parts, materials, equipment.
- Actual & potential spill of oil or hazardous substances.
- Other parties advised of/responding to incident.
- Manning situation - Adequacy.
- Any other important information.

8. Pollution Information to Obtain/Consider:

- Cause, source tanks, quantities of spilled & potentially spilled product.
- Whether spill is continuing & rate of discharge.
- Can internal transfer stem the release?
- Action being taken & being arranged.
- Environmental factors affecting pollution movement.
- Estimate of spill movement, area of spill, and future affects.

9. Flooding Ship Information to Obtain/Consider:

- Size & location of flooded compartment.
- If flooding progressing; what rate?
Flooding gal/min=3600 (hole area in sq.ft)(sq.root of height of water over hole in ft.).
- Can flooding be slowed by securing hatches & pressurizing space?

- Bending moment & sheer stress situation (load master computer).
- Arrange for master & owner to assess ways to limit hull stress, etc.

10. Drifting Ship Information to Obtain/Consider:

- Details for problem causing ship to be disabled.
- Details of repair effort, estimate time of repair, and reliability of estimates.
- Obtain any ship data regarding drift behavior of vessel.
- Require Master to obtain fixes at a given interval to determine drift behavior.
- Ship capabilities or tow vsl may be able to change drift by changing ships head.
- A combination of changes in trim, heel, rudder position may change drift 30 degrees.
- Use of engine may change drift direction & speed.
 - Full astern can bring stern of single screw ship into the weather.
 - With rudder hardover tanker head can be maneuvered into the weather.
 - Free flapping rudder may be brought hard stbd with ahead/astern revs.
 - Twin screw vessel may be maneuvered.
 - Holding rudders in position may aid repairs.
- Use of Anchors:
 - In deep water lower anchor - 60 fathoms will reduce downweather progress.
 - Use anchor to arrest movement as soon as anchor can find bottom.
 - Make anchors ready at earliest opportunity; deteriorating conditions may preclude later attempts.
 - Don't cloud decision to lower anchors with fear that they may be lost if can't be weighted.
- Towing:
 - Towing arrangements varies with conditions & towing vessel.
 - Small vessel incapable of towing large vessel may still influence drift.
 - Master should plan & rig tow alternatives upon knowing tow required e.g.
 - Preparing insurance/tow wires.
 - Breaking anchor cable on deck.
 - Arranging proper shackles & chains for towing bracket.
 - Communicate early with towing vessel to coordinate plans e.g.
 - High resilience in tow line minimizes risk of parting, e.g.: lower anchor a little way & connect tow line to cable.
 - Chain through the fairlead.
 - Plan alternatives for passing towing hawsers.
 - Fixed fairleads/chocks with largest radius often preferable to rollers.
 - Adjusted trim may improve maneuverability under tow.

B. NOTIFICATION OF SPILL INCIDENT

1. SPILL REPORT

a. Time Received

b. Caller Name, Address & Phone Number

c. Vessel/Facility Information

(1) Name

(2) Type of Vessel/Facility

(3) Nationality (Vessel Only)

(4) Location of Incident

(5) Time of Incident

(6) Type of Incident (Explosion, Grounding, etc)

(7) Pollutant(s)

(8) Estimated Amount Spilled

(9) Total Potential Amount

(10) Weather/Sea Conditions

(11) Point of Contact (Responsible Party Name & Phone #)

(12) Vessel Agent(s) (Name & Phone #)

d. Spill Classification

Inland	- Major	(>10K gallons)
	- Medium	(1K - 10K gallons)
	- Minor	(<1K gallons)
Coastal	- Major	(>100K gallons)
	- Medium	(10K - 100K gallons)
	- Minor	(<10K gallons)

2. NOTIFICATION (See Emergency Notification Lists).

3. INITIATE CHRONOLOGICAL LOG OF EVENTS

C. INITIAL RESPONSE

- * Dispatch Pollution Response Teams.
- * Prepare Press Statement: Press Statement to read along these lines:
State that the Coast is responding to (describe discharge event). Give brief details of the discharge and describe what the Coast Guard/EPA/State of Alaska is doing at this time. Announce that a formal press release will be prepared as soon as more information is received. The rule is TELL IT ALL, TELL IT NOW, TELL THE TRUTH!

It is critical to give accurate information to the press as quickly as possible. If no information is available, tell them so, but ensure that they are given the information as soon as it is available.
- * Assess Personnel Safety: Determine personnel safety equipment needed based on potential and existing exposure/hazards.
- * Assess fire/explosion hazard.
- * Determine threat to public health.
- * Secure or isolate source.
- * Define nature of incident.
 - Determine Responsible Party.
 - Determine status of spill.
 - Determine movement of spilled product
 - Determine environmental resources/vulnerable areas at risk.
- * Evaluate severity of incident and the need for additional resources.
 - Initial assessment of incident severity.
 - Estimate duration of spill response efforts.
- * Issue Letter of Federal Interest and Letter of State Interest to RP.
- * Issue Letter of Designation of Source.
- * Issue Directive/Administrative Order.
- * Issue Letter of Federal Assumption or Letter of State Assumption (as appropriate).
- * Initiate response strategy.

OIL SPILL RESPONSE CHECKLIST

This list serves as a memory jogger for the OSC and staff in addressing issues associated with an oil spill. The extent to which the list is used depends on the size, impact, and nature of the discharge. Reports indicating a large or potentially large spill (tanker explosion, fire, aground or disabled vessel, pipeline rupture, etc.) require immediate action to alert responders and commence deployment/staging of response equipment. When a ship casualty occurs, use the Ship Distress Checklist, in conjunction with this list. Do not hesitate taking extra precautions that can later be appropriately scaled down as the incident develops.

1. INITIAL ACTION

a. **During Initial Notification**

- Obtain complete call back information on reporting source, if available;
- Determine area of Jurisdiction;
- Complete initial Pollution Report (Federal) and Situation Report (State);
- Make initial notifications;
- Ensure source can be/has been secured;
- Consider activating RRT and NRT.

b. **Always notify**

- Chain of command - get Pollution Investigators underway;
- State Dept. of Environmental Conservation (ADEC), 1-800-478-9300;
- Trustees of Natural Resources when impacted;
- CCGD 17 OPCEN for Med/Major, 1-800-478-5555;
- National Response Center (NRC) for Med/Major, 1-800-424-8802
- Consider water intakes (e.g. power plant cooling water, irrigation drinking water).

c. **Assessment** Assess extent of pollution by the following actions:

- Verify spill report with; Reporting party; Fire/Police Depts.; Harbormasters; Federal/State Regional Park Rangers, and other agencies;
- Dispatch Pollution Investigation team(s), minimum of two per team;
- SAFETY: Ascertain hazards; FIRE, EXPLOSION, HAZMAT (gasoline, benzene, etc), consider applicable safety standards, consider natural dangers and precautions related to terrain, weather, sea state, lighting, etc.;
- Overflights (D17 OPCEN 1-800-478-5555);
- Vessel observations (RCC Kodiak, CGC ROANOKE ISL., CGC SEDGE), and/or
- Shoreline patrols;
- Determine if spill is feasible for cleanup;
- Determine the pollutant and source;
- Has the source been secured?;
- Account for oil;
- Determine if any of the oil sinks.

d. **Identify Responsible Party**

- Inform of legal responsibilities to conduct a cleanup;
- Issue responsible party or all suspects a Letter of Federal Interest and Letter of State Interest.
- Issue responsible party a Letter Of Designation;
- If responsible party's actions (if needed) are adequate, monitor cleanup;
- Withhold Custom's clearance of suspect foreign vessels pending receipt of surety bond/letter of undertaking;

e. Federalizing a Response (funding the cleanup)

- If feasible for cleanup and the responsible party has not been identified or is not taking adequate action, and no other agency is funding the cleanup then federalize the case by opening an FPN/OSLTF.
- Ensure that the responsible party is issued a "Letter of Federal Assumption."

f. State Assumption of a Spill Response Operation:

- If a spill demands cleanup and the responsible party has not been identified or is not taking adequate action, and the spill is not under primary Federal jurisdiction, then the State On-Scene Coordinator may assume the lead for the spill response operation.
- Issue Letter of State Assumption to responsible party (if known)

g. Initial Mitigation

- Conduct initial containment and secure source of discharge if it can be done SAFELY (includes physical safety of personnel, explosion/fire hazard of spilled material).
Containment options include:
 - Containment boom (try not to use sorbents first);
 - Containment of flow through dams;
 - Use of sand/clay/dirt around storm drains; and
 - Plugging of fuel tank vents.

2. DETERMINE RESPONSE PRIORITIES

- Evaluate magnitude & severity of the discharge, or threat, to public health, welfare, or environment (damage assessment to be done by trustees of natural resources);
- Determine spill trajectory considering current, tides, winds (use SSC, NRC and local observations);
- Identify sensitive areas & wildlife. Refer to Environmental Sensitivity Index maps;
- Locate water intakes to industry and public works that may be affected;
- Obtain assistance from NOAA SSC;
- Actively solicit input from ADEC;
- Consider activating the RRT;
- Consider personnel and equipment logistics, capabilities, and limitations;
- Consider accessibility of areas;
- Determine collection points;
- Set response priorities; your highest priorities should include;

- Remove or control remaining potential pollution;
- Protecting sensitive areas with deflection booms, dams, etc.
- Reduce the spreading of the spill by; containing & collecting "free" oil; chemically dispersing; or burning;
- Minimizing impact to birds and mammals via hazing or other techniques as determined by natural resource trustees.

3. DETERMINE PROPER CLEANUP METHODS

- Ensure cleanup methods are appropriate for area being cleaned; refer to the API "Oil Spill Response" and other publications;
- Do not conduct cleanup methods that cause more damage than the oil that would have been removed (consult with SSC, ADEC, DOI, ADFG etc);
- Ensure workers know what to look out for, avoid, or protect;
- If dispersants, burning, or use of other chemicals are a viable option, seek approval and plan logistics early;

4. HOW CLEAN IS CLEAN?

- Consult with Trustees, State Rep (ADEC), SSC and members of scientific community. It is our policy to evaluate all appropriate interests to ensure concerns are addressed prior to making a final decision.

5. DAMAGE ASSESSMENT AND WILDLIFE REHABILITATION

- Ensure trustees of natural resources are notified and aware of their responsibility for:
 - Damage assessment and associated cost recovery; and
 - Devising protection, rehabilitation and restoration plans
- Ensure DOI (USFW Service) and ADF&G (which will normally take the lead) are arranging for the coordination of bird cleaning activities;
- Notify special groups: CIRCAC, PWSRCAC, Bird Rescue Center Homer

6. EVIDENCE COLLECTION

- Until responsible party is KNOWN, collect evidence from ALL possible sources;
- Document damage with photos and written statements (Wildlife/Vegetation);
- Notify MSO Investigations Dept. when marine casualty or documented/licensed personnel are involved;
- Determine/document path of discharge;
- Determine/document cause of discharge;
- Obtain witness statements and photos;
- Collect physical evidence (Charts, logs, transfer sheets, etc.) and
- Conduct Drug Testing on vessel crew
- Ensure proper sampling early in the response and protect under chain of custody;
 - Sample each potential source (tank, pipelines, etc.);
 - Sample water not contaminated for comparison;

Sample oil in water. Where oil is patchy and covering different areas, take samples from each area.

7. DOCUMENTATION

- Remind all personnel to document their actions/observations and communications by date, time and initials;
- Consider assigning two documentation officers early on in incident. One will take care of all costs, personnel and equipment daily records for CG, and if case is federalized, contractor costs. The second will take care of all other documentation.
- Transmit daily POLREPs; they shall include estimate expenses to date on all federal cases and USCG costs on spills that are funded by Resp. Party.
- Centralize all incident related notes daily;
- Save any tape recordings; (RCC, OPCEN, etc)
- Start and maintain incident specific radio, telephone, and visitor logs.

8. SITE CONTROL

- Control access to sensitive areas or where public could get hurt or delay response efforts;
- Consider establishment of a Safety Zone;
- Use local police, highway patrol and park rangers as necessary;
- Use Channel 16 (VHF-FM) for Broadcast Notice to Mariners;
- Local airports & FAA to control aircraft (NOTAMS);
- Coast Guard Cutters to assist in controlling aircraft and/or vessel movement in remote areas.

9. MEDIA

- Notify CCGD 17 Public Affairs for support;
- Designated certain phone numbers to public affairs efforts; (min of 2);
- Consider a press release/briefing in large cases;
- Consider CG PIAT from HQ, (request via NRC);
- Have news reports taped;
- Monitor news reports so that steps can be taken to correct inaccurate reports and raise issues not presently covered;

10. PERSONNEL

- Arrange for reserve, Pacific Strike Team, other unit augmentation (MSO Valdez & Juneau) to support response effort;
- Proper clothing & equipment;
- Food/Berthing
- Fatigue - On large cases don't have everyone working the first shift. Save some experienced people so they can take over refreshed;
- Brief responders prior to each shift (include safety)
- Conduct debriefing after each shift to ensure field observations are accurately received back at command post;
- Brief on media/public relations.

11. LOGISTICS

- Staging areas;
- Transportation;
- Communications;
- Personnel support and scheduling;
- Refueling of vessels/vehicles (especially in remote areas);
- Vessel berths and scheduling;
- Storage containers to collect recovered oil.

12. DISPOSAL

- Ensure waste disposal complies with RCRA requirements;
- Ensure a HAZARDOUS WASTE MANIFEST is generated for disposals involving 5 gallons or more of petroleum products (or as otherwise dictated by EPA-RCRA Hot Line 1-800-424-9346). Disposals of less than 5 gallons or 50 lbs must comply with RCRA but may not require a manifest. Obtain one copy of manifest on responsible party disposals and two copies on federal disposals;
- Determine temporary and ultimate disposal sites as appropriate.

13. REMOTE AREAS:

- Make maximum use of reserves, other CG units, other government officials to quickly respond and assess incident;
- Get MSO resources underway as soon as possible for large cases.

14. PERSONNEL ASSIGNMENTS

- Consider assigning individuals to the following billets:

<u>Position</u>	<u>Name</u>	<u>Call Sign</u>	<u>Beeper</u>
OSC			
Asst. OSC			
Scientific Support Coord			
Public Affairs (PAO)			
Operations Officer			
Investigation Officer			
Port Control Officer			
Cleanup Manager			
Asst Cleanup Manager			
Communications Officer			
Watchstander			
Field Post Officer			
Site Monitor/Supervisor			
(for each cleanup site/area of operations)			
Documentation Officer			
Historian			
Contracting Officer			

Accounting Officer
Logistics Officer
Resp Equip/Supp Officer

COMMUNICATIONS CHECKLIST

As major pollution cases develop, a communications officer will be designated to keep track of communications resources and which parts of the radio frequency spectrum are being used by responders, assisting resources, and involved parties. Accordingly, it is vital that MSO personnel making contact with other parties ask about the other's radio telephone, FAX, and computer capabilities. Follow this checklist during a major case:

For a person calling by telephone

- Is the caller going to be near this or another phone? What's the number?
- Does the caller have a radio? What frequencies are being used/monitored?
- Is there a FAX machine available to the caller? What's the number?
- Do you have a beeper/pager? What's the number?
- Any other way to contact you?

For a person calling on the radio:

- Will the radio be on? Can the caller always hear the radio?
- What frequencies does the caller monitor and use? Have caller contact MSO when frequency changes.
- Are your batteries low?
- Any other way to contact you?

For using a FAX machine:

- Please print your fax and phone numbers on the first page.
(some machines automatically print a different number on the pages)
- Please leave your machine on "auto receive" if you can.
- Any other way to contact you?

For using computer links:

- Please include your modem and telephone numbers in your information.

D. CONTAINMENT AND CLEANUP

1. STRATEGY.
 - a. Offshore considerations
 - b. Nearshore considerations
 - c. Shoreline considerations
 - d. Inland considerations
 - e. Sensitive areas
2. STAGING AREAS.
3. INTEGRATED CLEANUP SYSTEM.
 - a. Booming and containment
 - b. Recovery of spilled product and contaminated debris (test for components of recovered product)
 - c. Temporary storage (RCRA permit)
 - d. Transport of collected material for disposal (RCRA permit)
4. MONITOR OIL MOVEMENT.
 - a. Overflights
 - b. Computer modeling/trajectories
 - c. Continue to monitor proximity of spill to sensitive areas
5. USE OF DISPERSANTS, OTHER CHEMICALS OR OTHER SPILL MITIGATING DEVICES OR SUBSTANCES (Refer to Unified Plan, and see below).
 - a. Pre-approved areas
 - b. RRT approval process
 - c. Forms
 - d. Field tests
 - e. Documentation of effectiveness
6. SHORELINE CLEANUP.
7. SET ASIDE AREAS FOR RESEARCH PURPOSES AND COUNTERMEASURE EFFECTIVENESS DETERMINATION.
8. MONITOR AND REFINE CLEANUP STRATEGIES.
9. DEVELOP CRITERIA/GUIDANCE FOR TERMINATING CLEANUP. Input from:
 - a. Unified Command (FOSC, State, Responsible Party)
 - b. SSC and Federal, State and local scientific community including trustees
 - c. RRT

E. WASTE REMOVAL AND DISPOSAL

The RP will be responsible for developing a waste removal and disposal plan that provides the necessary logistical and procedural information to ensure a fast and efficient transfer of wastes to disposal facilities. The disposal plan must be in compliance with existing laws and regulations. Oversight of the waste disposal plan will normally be the responsibility of the State of Alaska DEC. Alaska law (18 AAC 75.130) requires that the final disposal of a hazardous substance, including oil, be approved by ADEC. Oil spill reporting regulations (18 AAC 75.100) require that disposal information be provided within the oil spill report.

For information and guidelines on procedures for transporting, storage, and disposal of wastes and a listing of disposal related permits, refer to the **Unified Plan, Annex E, Appendix 2**.

F. SECURE OPERATIONS

1. UNIFIED COMMAND COORDINATION.
2. FINAL SURVEY.
3. CLEAN/RETURN EQUIPMENT.
4. SURVEY/REPLACE EQUIPMENT.
5. RESTORE DAMAGED AREAS.
 - a. Consultation with appropriate Natural Resource Trustees
 - b. Consultation with property owners

G. COST RECOVERY/DOCUMENTATION

Refer to the **Unified Plan, Annex C, Appendix I** (Federal Spill Funding Procedures), and **Appendix III** (State Administrative Guidelines).

H. HEALTH AND SAFETY

Personnel involved in oil spill response activities must comply with all applicable worker health and safety laws and regulations. The primary Federal and State regulations are the Occupational Safety and Health Administration (OSHA) standards for hazardous waste operations and emergency response found in 29 CFR 1910.120 and 8 AAC 10.0101, respectively. These rules regulate the safety and health of employees involved in cleanup operations conducted under the Resource Conservation and Recovery Act of 1976 (RCRA).

The regulations also apply to both emergency response and post-emergency cleanup of hazardous substance spills. The definition of hazardous substance used in these regulations is much broader than CERCLA, encompassing all CERCLA hazardous substances, RCRA hazardous waste, and all DOT hazardous materials listed in 49 CFR Part 172. Thus, most oils and oil spill responses are covered by these regulations. The rules cover employee protection during initial site characterization and analysis, monitoring activities, material handling activities, training, and emergency response. Further discussion concerning these regulations is outlined in the **Unified Plan, Annex H**.

OSHA classifies an area impacted by oil as an uncontrolled hazardous waste site. However, the regulations do not automatically apply to an oil spill cleanup. There must be an operation that involves employee exposure or the reasonable possibility for employee exposure to safety or health hazards. A typical beach cleanup worker collecting tarballs of weathered oil or deploying sorbents to collect sheen may not be exposed to a safety or health risk.

The role of the site safety and health supervisor is to assess the site, determine the safety and health hazards present, and determine if OSHA regulations apply. If an OSHA field compliance officer is on scene, he or she should be consulted to determine the applicability of OSHA regulation. Disputes should be referred to the Department of Labor representative on the RRT. The individual making the site characterization should communicate the hazards associated with the spill, and provide recommendations for the protection of workers' safety and health through a site safety plan. The responsibility for the health and safety of personnel supporting a pollution response mission rests with the On Scene Coordinator (OSC).

In oil spill response where OSHA regulations apply, the OSC must ensure that paragraphs (b) through (o) and paragraph (q) of 29 CFR 1910.120 are complied with. Of most concern are the training requirements for response personnel. Personnel who are routinely involved in pollution response should complete a 40-hour course meeting the OSHA training in paragraph (e) of 29 CFR 1910.120. Training records should reflect that OSHA requirements have been satisfied. Contractors are responsible for certifying the training of their employees.

OSHA has recognized the need to remove oil from the environment and has empowered the OSHA representative to the RRT to reduce the training requirement to a minimum of 4 hours for responders engaged in post-emergency response operations. An example of a post-emergency response effort is shoreline cleanup operations. The reduced training applies to all Coast Guard personnel and to the private sector. This information may be found in OSHA Instruction CPL 2-2.51. The level of training required depends on the potential for exposure. Workers required to use respirators must have 40 hours of off-site training.

The OSHA field compliance officer should be contacted to ascertain the worker training requirements and develop an implementation plan to minimize the hazards of exposure to workers involved in cleanup

operations. State requirements which are more restrictive will preempt Federal requirements.

Within the State of Alaska, hospital decontamination stations have not been established. Therefore, field decontamination is critical prior to transporting injured workers to a medical facility.

Annex H, Appendix I of the Unified Plan provides a Standard Site Safety Plan for Emergency/Post-Emergency Phase Coastal Oil Spills developed by the US Coast Guard. The plan is generic in nature and must be expanded to provide specific safety procedures for each incident.

Annex H, Appendix II of the Unified Plan provides the Training Guidelines for Local Emergency Planning Committees. The State Emergency Response Commission (SERC) Training Committee prepared this guidance for planners/responders/managers of responses to hazardous materials emergencies.

I. DISPERSANTS AND OTHER CHEMICAL COUNTERMEASURES

The document, "Oil Dispersant Guidelines for Alaska" (prepared by the Alaska Regional Response Team, Response Technology Working Group, and dated January 1991) was used extensively in the preparation of this section. The **Unified Plan, Annex F**, contains this source document in its entirety. Additional information was extracted from a report entitled "Dispersant Application and *In Situ* Burning as Oil Spill Response Techniques, with Particular Emphasis on Their Applicability to Cook Inlet, Alaska." Scientex Corporation prepared the report (dated September 25, 1992) for the Cook Inlet Regional Citizens Advisory Council.

Considerable information regarding this subject matter is included in the Unified Plan. This section provides information specific to the Cook Inlet region.

1. Background Information

Due to the unique tidal and current conditions, and the presence of tidal rips in Cook Inlet, oil spill cleanup efforts provide responders with challenges not often met elsewhere in the world. Physical containment and mechanical recovery, while continuing to be the primary response options in Cook Inlet, are at times difficult to effect and require highly skilled vessel operators and crews.

Due to the extreme tidal ranges and strong currents in Cook Inlet, mechanical recovery using a tow boat configuration would appear to offer limited recovery success. In addition, the powerful rip currents present in Cook Inlet, particularly in the area east of Kalgin Island between Anchor Point and the Forelands (Burbank, 1977), would render the use of the drift mode of containment marginal in most non-slack tide conditions. Drift mode booms are subject to collapse when they encounter rips, and oil has been known to disappear for periods of time, only to resurface hours later (Ploen, personal communication, 1992). Maintaining a towing configuration at speeds of less than 1 knot, so that collected oil will not be washed over the boom (splashover) and/or removed under the boom, is a difficult task and requires highly skilled vessel operators. The winter months pose an additional problem; ice can wreak havoc on any attempt at containment or recovery.

In spite of these difficulties, successful mechanical cleanup operations have been conducted in Cook Inlet (Westcott, CISPRI, personal communication, 1992). Physical containment and mechanical cleanup are the primary initial methods of spill response in Cook Inlet, not only due to State mandates requiring such a response, but because adequate manpower and equipment resources are generally available.

A timely response is the single most important element in any viable strategy for combating an oil spill in order to minimize slick expansion and to prevent its movement toward sensitive areas. Response organizations in the Cook Inlet subarea have been able to establish an effective contingency plan and communication network (Sienkiewicz et al, 1992), thereby reducing response time considerably. Physical containment and mechanical recovery are the mainstays of these response organizations, as they are for most oil spill cleanup operations throughout the world.

Dispersants may provide an alternative to mechanical recovery, especially when mechanical recovery is not possible and oil slicks threaten shorelines or sensitive ecological habitats. Dispersants are designed to increase the natural dispersion, evaporation, and biodegradation of

spilled oil. Dispersants can be applied in seas that are too rough for mechanical equipment to be effective. A problem associated with dispersant use is the potential toxicity of the products themselves as well as the dispersed oil. Additionally, questions remain as to the effectiveness of dispersants when used in actual spill situations.

Dispersant application and *in situ* burning are possible oil spill response options that can, given the appropriate conditions, be used in lieu of or as supplements to mechanical recovery. It is conceivable that for a large spill all three types of response could be used on various portions of the spill.

2. Use of Dispersants in Cook Inlet

Conditions may make mechanical means of oil spill control and recovery inadequate and alternative methods will be necessary. Dispersants may represent a feasible response tool, especially in cases when an oil slick drifts into areas west of the 10 fathom line off the eastern shore of middle Cook Inlet, where according to Burbank (1977), tidal currents exhibit a strong westward set on the flood tide. A compelling case for dispersants could be argued should Cook Inlet's western coastline be threatened, provided conditions delineated in this appendix are met. Protecting the western coastline is of primary importance for various reasons, among them: the presence of a high concentration of marine and coastal wildlife, including rookeries and breeding zones for many species; the presence of exposed and sheltered tidal flats and marshes; and the lack of roads providing access to the shoreline which would hinder any shore cleanup effort.

In addition to the Dispersant Decision Matrix (See Figure 2), the application of chemical dispersants may be considered when: (a) strong tide rips are encountered; (b) significant ice conditions prevail; (c) the slick moves toward a dangerous shallow area, such as a reef or submerged rock zone, or toward sensitive coastal areas; and (d) the window of opportunity is reduced due to approaching severe weather conditions. A discussion of each condition is provided below.

a. Tide Rips: In general, small or weak tidal rips may actually assist in the control of an oil spill by concentrating the slick on the surface of the water along the convergence zone. However, a stronger tide rip can be a hindering factor for mechanical oil spill control methods. A strong tide rip may cause the oil to submerge at the convergence zone, thereby causing the breakup of the main slick and the subsequent reforming of several smaller slicks as the oil resurfaces at different locations. A tide rip may also cause containment booms to collapse or even submerge (Ploen, personal communication, 1992). The effectiveness of booms and recovery devices may also be affected by the debris collected along these zones. In some reported cases, the floating oil has been absorbed by the debris which is often made up of vegetation remains (Whitney, NOAA, personal communication).

Chemical dispersants may be an effective alternative for reducing or eliminating the potential impact of a large spill in cases where the movement of the slick can be projected to be heading in the direction of a strong tide rip, though predicting the occurrence of such situations may be difficult. When used in combination with other oil spill control techniques, chemical dispersants may prove effective, especially when responder resources are overwhelmed by the size of the spill or by the presence of several smaller slicks.

b. Severe Ice Conditions: Cook Inlet is subject to severe ice conditions during a good portion of the winter months. This is particularly true in upper Cook Inlet, where 100 percent ice coverage is common in some areas. Because most oil industry activity in southern Alaska takes place in middle and upper Cook Inlet, the presence of ice on the surface of the sea poses a significant obstacle to any response strategy. The length and severity of the winter season in the region poses particular problems to almost every aspect of the oil industry. For example, a recent Kenai Pipeline spill occurred as a result of a pipeline freezing (Sienkiewicz et al, 1992).

Ice poses obstacles to most mechanical containment and removal strategies. Vessels must not only be available, but they must be equipped for ice conditions. In Cook Inlet, a significant number of fishing vessels that would be available as support vessels during the warmer months are usually dry-docked for the winter. In addition, booms and oil recovery equipment may be impeded by severe ice conditions. In such cases, dispersants may be considered as an option, provided the ice coverage does not prevent the dispersant from migrating to the oil-water interface. Although, Siron et al (1991) found that the behavior of dispersed oil in the water column in ice conditions did not differ significantly from that in non-icy conditions, experiments have shown that dispersant effectiveness can be significantly reduced in ice conditions (Fingas et al, 1991).

c. Slick Movement Toward Dangerous or Sensitive Areas: Drift patterns observed along middle and lower Cook Inlet are quite complex (see Figure 1). The drift along the eastern coastline between Anchor Point and East Foreland, inside to 10 fathoms depth line, is parallel to the shoreline during both flood and ebb tides (Burbank, 1977). A spill occurring inside this corridor, which extends to about 3 miles from the shoreline, may be effectively controlled with traditional mechanical methods, although booms would still have to contend with strong currents. West of this line, however, in middle Cook Inlet, the drift is westward during flood tide and parallel to the rips during ebb tide. Also during ebb tide, the drift takes a westward turn in lower Cook Inlet, south of the Kalgin Island Shoal (Burbank, 1977).

These drifts could transport an oil slick across rips in a relatively short time, making traditional response options difficult for reasons cited previously. The drift patterns could also lead a slick toward shoals, shallow rocks, mud flats, and reefs, which could be hazardous to response vessels and could strand equipment. Additionally, oil slicks could be steered by currents toward sensitive areas. In these cases, when traditional means are unavailable or impractical, chemical dispersants may provide a feasible response tool.

d. Threat of Severe Weather: Mechanical containment and recovery methods require a certain amount of response time which may not be available should severe weather conditions be imminent. Under these circumstances the application of dispersants, especially by aerial spraying, could be the only recourse to protect sensitive resources and coastlines. Even though such a response would still require a rapid decision-making process, aircraft travel and application time is less than the process of containment and recovery by traditional mechanical methods. In addition, after a dispersant is applied, winds and water movement brought about by inclement weather conditions could actually aid the action of the dispersant. This particular condition may arise with some degree of frequency in Cook Inlet since southern Alaska is located in the usual path of weather-making frontal systems.

FIGURE 1: Net Surface Circulation in Lower Cook Inlet, Based Primarily on Data Collected During the Spring and Summer Seasons

(Taken from Burbank, David C., 1977. Circulation Studies in Kachemak Bay and Lower Cook Inlet. Volume 3 of Environmental Studies of Kachemak Bay and Lower Cook Inlet. Alaska Department of Fish and Game, Marine/Coastal Habitat Management. Anchorage, Alaska)

3. General Alaska Dispersant Use Criteria

The dispersant use criteria developed for Alaska classify coastal waters into three dispersant use zones. In all cases, the use of dispersants will be based on the determination that the impact of dispersants or dispersed oil will be less harmful than non-dispersed oil. These zones are defined by: 1) physical parameters such as bathymetry and currents; 2) biological parameters such as sensitive habitats or fish and wildlife concentration areas; 3) nearshore human use activities; and 4) time required to respond.

In each zone, dispersant use should be considered as a means to prevent or reduce the amount of oil reaching the shoreline or other sensitive resources including:

- endangered or threatened species protected by Federal and State governments;
- nesting, spawning, breeding, and nursery areas for mammals, birds, fish, and shellfish;
- fish and wildlife concentration areas where these animals feed, rest, or migrate;
- sensitive marine habitats, including:
 - seagrass beds
 - kelp beds
 - shellfish beds
 - tidal flats
 - marshes
 - shallow subtidal areas
 - low energy bays and harbors
 - rocky intertidal areas;
- aquaculture and commercial areas which are shallow enough to allow impacts from oil spills; and
- recreational and industrial areas.

a. Zone 1

- (1) The use of dispersants in Zone 1 is acceptable and should be evaluated after consideration of mechanical means as a response tool to mitigate oil spill impacts. The OSC is not required to acquire approval from EPA or the State of Alaska prior to dispersant use in this zone. However, the OSC will notify the EPA and the State of the decision as soon as practicable.
- (2) Zone 1 areas are characterized by water conditions (depth, distance, and currents) that will allow dispersed oil to be rapidly diluted to low concentrations, and are far enough away from sensitive resources that dispersant operations will not cause disturbances. In this zone, there is a significant likelihood that spilled oil will impact sensitive resources and an immediate response is required in order to mitigate environmental consequences.

b. Zone 2

No areas or conditions within Cook Inlet have been identified as Zone 2.

c. Zone 3

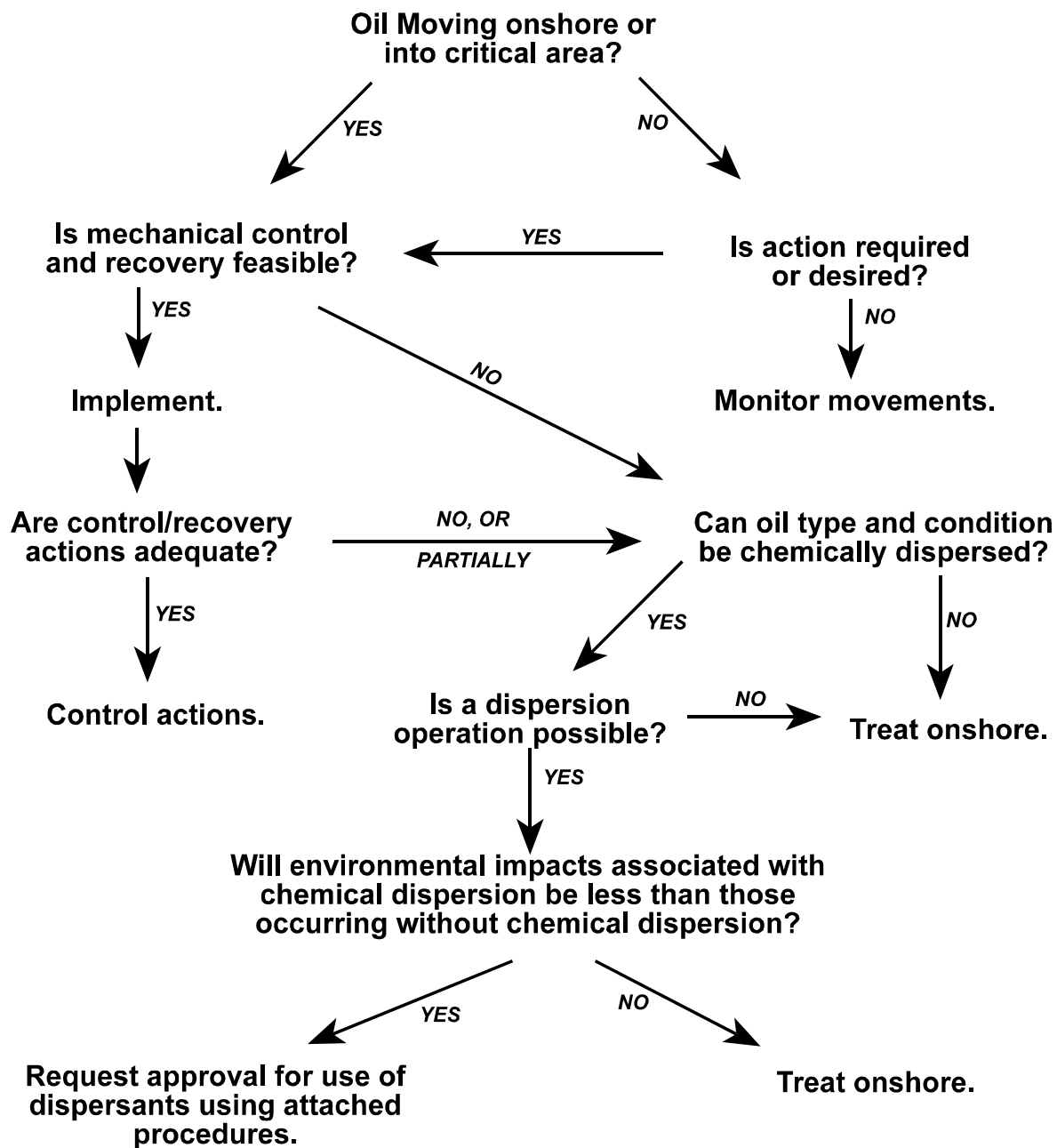
- (1) The use of dispersants is not recommended in Zone 3. Dispersants may be used in Zone 3 if, on a case-by-case basis, it is determined that the disturbance of the organisms and/or direct exposure to dispersants or dispersed oil would be less deleterious than the impact of spilled oil. The OSC is required to consult with the RRT and obtain approval of the EPA

and the State of Alaska prior to the use of dispersants in Zone 3.

- (2) Zone 3 is defined as the area immediately in or around the resources requiring protection, including the resources themselves. Dispersant use in this area may disturb resources, may not have adequate time for effectiveness, may directly expose the resources to dispersants, or may expose other resources to unacceptably high levels of dispersed oil. These sensitive resources include those listed above in Zone 1, Paragraph #1.

The Alaska Regional Response Team-approved Dispersant Decision Matrix is provided in Figure 2. The ARRT "Oil Spill Response Checklist: Dispersant Use" (dated December 12, 1990), is included in the Unified Plan, Tab A to Appendix I to Annex F. The ARRT approved the checklist as a mechanism for a party responding to an oil spill to request Federal OSC approval of dispersant use. The Federal OSC will use incident-specific information provided in Sections I through VIII of the checklist as the basis of his/her decision regarding dispersant use.

Figure 2 - Dispersant Decision Matrix



NOTE: Immediate threat to life PRE-EMPTS the necessity to use this matrix.

4. Dispersant Use Zones in Cook Inlet

Because of the presence of large numbers of commercially valuable adult salmon, that section of Cook Inlet north of a line drawn along the latitude at Anchor Point north of Kachemak Bay is considered to be Zone 3 during the period from July 1 to August 15. The general rationale is presented below and illustrated in Figure 4.

a. Upper Cook Inlet - North of Point Possession and North Foreland (See Figure 3)

- (1) Upper Cook Inlet is unique because the extreme upper portion contains two Zone 3 designations (dispersant use not recommended) which are based upon tidal stages. During the first three hours of an ebb tide, the Zone 3 boundary is roughly defined by the five-fathom isobath. For periods outside this time window, Zone 3 is defined as the area north of a line between Point Possession and North Foreland.
- (2) A dual Zone 3 designation is needed because dispersant use during a flood tide could result in relatively high concentrations of dispersed oil impacting shallow waters or intertidal habitats. Restricting dispersant use in this area to the ebb tide period eliminates these concerns while still allowing dispersant use in the northern portion of Upper Cook Inlet. Providing the option for dispersant use in this area is deemed desirable due to:
 - the high spill potential;
 - the difficulty in mechanically containing spills;
 - the extreme tidal fluctuations which rapidly transport spilled oil; and
 - sensitive coastal habitats requiring protection from potential oil contamination.
- (3) Zone 3 - Ebb Tide. The Ebb Tide Zone 3, which exists only during the first 3 hours of an ebb tide, occurs shoreward of the five-fathom isobath. This shallower isobath is used because: 1) the ebb tide will rapidly transport the dispersed oil to deeper waters; 2) benthic communities in Upper Cook Inlet exhibit relatively low productivity; and 3) increased water depths from the high tide stage will enhance dilution capabilities.
- (4) Zone 1 - Ebb Tide. The Ebb Tide Zone 1, which exists only during the first 3 hours of an ebb tide, extends outward from the five-fathom isobath. Dispersant use is restricted to an ebb tide period to prevent high concentrations of dispersed oil from being transported to shallow nearshore waters.

FIGURE 3: Cook Inlet Dispersant Use Zones, Northern Sector

- (5) Zone 3 - Flood Tide. The Flood Tide Zone 3 is defined as the area north of a line extending from Point Possession to the North Forelands, for all periods outside of the first three hours of an ebb tide. This designation is necessary due to the potential for strong tidal currents to rapidly transport high concentrations of dispersed oil into important shoreline habitats.

b. Middle Cook Inlet - South of a Line Between Point Possession and North Foreland to East Foreland and West Foreland (See Figures 3 and 4)

- (1) Zone 3. Zone 3 occurs inshore of the five-fathom isobath near the northeast shoreline of this section. The five-fathom isobath is used in this area due to a lack of fish and wildlife resources and the presence of strong currents that run parallel to the shoreline. The Zone 3 designation extends out to the 10-fathom isobath along the southeast shoreline to provide protection to the Swanson River estuary area. Along the west shoreline, the Zone 3 boundary follows the 10-fathom isobath.
- (2) Zone 1. The remaining waters within this Inlet section are designated as Zone 1. This designation will allow for an immediate dispersant use decision to protect important fish and wildlife resources in Cook Inlet.

c. Lower Cook Inlet - South of East and West Forelands

- (1) Zone 3. Zone 3 occurs inshore of the 10-fathom isobath. The 10-fathom isobath provides ample protection to the razor clam beaches and several river estuaries along the east and west shorelines, including Redoubt Bay where large numbers of birds seasonally reside. Around Kalgin Island, a Zone 3 designation is established along the five-fathom isobath due to strong currents that run parallel to the shoreline and the two- to five-mile buffer provided by the five-fathom isobath. Kachemak and Kamishak Bays are given special protection through an expanded Zone 3 area due to the important fishery resources associated with these bays. The shoreline in the extreme southern portions of Cook Inlet drops off rapidly resulting in the 10-fathom isobath being located very near the shoreline. Consequently, Zone 3 is defined as an area extending one mile out from the shoreline for areas exhibiting such shoreline characteristics. The one-mile buffer distance will allow for dilution of dispersed oil prior to impacting the shoreline or shallow-water areas. See Figure 4 for dispersant use zones.
- (2) Zone 1. Zone 1 is identified as an approximately five-mile wide buffer area extending outside of Zone 3. It is believed that the five-mile wide Zone 1 area will provide adequate time to conduct a dispersant response prior to oil entering the sensitive Zone 3 area.

FIGURE 4 - Cook Inlet Dispersant Use Zone, Southern Sector

J. IN SITU BURNING GUIDELINES FOR COOK INLET

Refer to the **Unified Plan, Annex F**, for ARRT approved *In Situ* burning guidelines. The document "*In Situ* Burning Guidelines for Alaska" by the ARRT appears in its entirety in the Unified Plan.

K. PUBLIC AFFAIRS

The FOSC and SOSC Public Affairs/Public Information Officer will handle media inquiries. For local media contacts consult the Resources Section, Part Three of this subarea plan. Refer to **Annex L of the Unified Plan** for guidance on Public Affairs inquiries.

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