

## **ANNEX E: SUMMARY OF AREA RESOURCES**

### **APPENDIX I - Equipment (General)**

#### **I. FEDERAL:**

The **U.S. Coast Guard** maintains twelve pre-positioned oil pollution response equipment depots in Alaska. Locations of these depots are Ketchikan, Sitka, Juneau, Petersburg, Valdez, Cordova, Anchorage, Kenai, Seward, Homer, Kodiak, and Dutch Harbor. Except for Anchorage, the basic equipment package consists of harbor boom (mainly Kepner Sea Curtain), anchor/towing support, various sorbents, generators, emergency lights, and limited personnel protection equipment (see attached map). In Anchorage, one vessel of opportunity skimming system (VOSS) and 5,000 ft of offshore boom (seas to 4 ft.) are pre-positioned on four flatbed trailers for quick transport to the scene. The equipment is located at Fort Richardson. A response trailer with sorbent materials is maintained at Seward. Contact the FOSC or the Supervisor of the District Response Team (DRAT) for access to the pre-positioned equipment.

At Ft. Richardson, the Coast Guard VOSS and 5,000 feet of ocean boom are located in Building 800. The equipment is staged on flatbed trailers for quick response. This building is also the main warehouse for response equipment maintained by the Navy Supervisor of Salvage (NAVSUPSALV) ESSM Base Anchorage. In the event of an oil spill, this equipment is available for mobilization at the request of the FOSC. Under most circumstances, mobilization support will be coordinated by NAVSUPSALV ESSM Base Anchorage personnel. In the event that NAVSUPSALV cannot assist, an Interagency Support Agreement (ISA) is in place between the US Army and the US Coast Guard. The ISA provides authority for the US Army to arrange for immediate transportation requirements, and provides funding reimbursement, normally through the Oil Spill Liability Trust Fund by means of a Federal Project Number for a particular event.

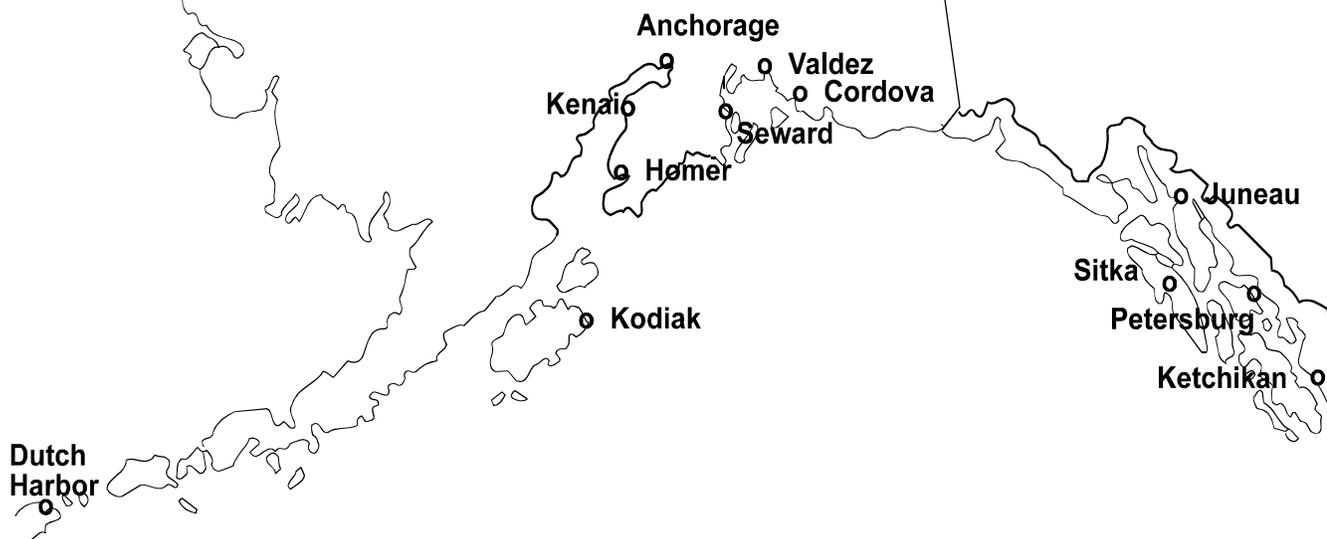
#### **Oil Spill Response Equipment Notification/Mobilization:**

**During Normal Duty Hours:** During normal duty hours, notification of personnel and mobilization of equipment will be as follows:

- FOSC authorizes mobilization of USCG equipment. FOSC representative or USCG D17 (DRAT) will coordinate with NAVSUPSALV (907 384-2968) to prepare the loads for transport, and arrange for commercial transport to the site or the load-out area. A Pollution Fund Authorization form will be required for NAVSUPSALV support.

In the event NAVSUPSALV is unavailable, USCG will notify DOD (ALCOM) and the Ft Richardson Command Operations Center (COC) of an oil spill, specify the support required, and pass along the name and telephone number of the USCG point of contact. The Ft Richardson COC

## 17th Coast Guard District Pre-Positioned Spill Response Equipment



- Ketchikan:** 2,500' harbor boom, sorbent boom/pads, SkimPac 4200 System, 2 portable 1,000-gallon tanks
- Petersburg:** 1,000' harbor boom, sorbent boom/pads
- Sitka:** 2,500' harbor boom, sorbent boom/pads, SkimPac 4200 System, 1 portable 1,000 gallon tank, 3" diesel pumps
- Juneau:** 2,600' harbor boom, sorbent boom/pads, SkimPac 4200 System, 2 portable 1,000-gallon tanks, 3" diesel pumps
- Cordova:** 1,300' harbor boom, sorbent boom/pads/sweeps
- Valdez:** 1,300' harbor boom, sorbent boom/pads/sweeps
- Seward:** 300' harbor boom, sorbent materials, Response Trailer
- Anchorage:** 5,000' 42" offshore boom, One Vessel of Opportunity Skimming System (VOSS), two inflatable barges (26,000 gal), sorbent boom/sweeps/pads
- Kenai:** 300' inner harbor boom, response trailer, sorbent material
- Homer:** 2,500' harbor boom, 300' inner harbor boom, sorbent boom/pads
- Kodiak:** 2,000' harbor boom, sorbent boom/pads, 300' 36" fence boom, 200' inner harbor boom, sorbent boom/pads, SkimPac 4200 System, 3" diesel pumps, 3 portable 1,000-gallon tanks, PPE stockpile
- Dutch Harbor:** 1,000' outer harbor boom, 300' 36" fence boom, sorbent boom/pads, SkimPac 4200 System, 1 portable 1,000-gallon tank

has procedures in place to alert the Director of Logistics, Plans and Operations Division (907 384-7359/7250), and to make arrangements for 24-hour vehicular support.

**During Other Than Normal Duty Hours:** The USCG will notify the 24-hour NAVSUPSALV duty officer (907 229-8859) and request support. If NAVSUPSALV is unavailable, USCG will notify ALCOM and request assistance to mobilize the VOSS and other prestaged response equipment from Bldg 800, Ft Richardson. ALCOM will coordinate with the Ft Richardson Command Operations Center to provide necessary support.

Designated individuals within the framework of this agreement will be given emergency contact procedures to use in contacting the USCG personnel involved in this process. Upon notification that emergency support is requested, NAVSUPSALV or US Army personnel should contact the USCG to determine the equipment destinations and specific time schedules.

Questions concerning these procedures or the USCG's emergency response equipment should be directed to USCG D17 (DRAT) at (907) 463-2247).

The Coast Guard operates vessels and aircraft that may be available for use in pollution response. The type and location of these assets are as follows:

(1) **Air Station Kodiak:**

(a) Six HH-C-130H Hercules fixed wing aircraft. A long range workhorse with 14 hours endurance and cruise speed of 290 knots. Cargo space is limited to 2,870 cubic feet with no passengers. Cargo space dimensions are 10 ft (width) x 26 ft (length) or 41 feet from ramp with Search and Rescue (SAR) bin removed x 9 ft (height). Size of loading hatch is 7'-6" high x 9'-11" wide. Under normal operation conditions with a standard fuel load, the maximum allowable loading including passengers is 50,000 lbs.

(b) Four HH-60J Jayhawk helicopters. A medium range recovery helicopter with 6 hours endurance and cruise speed of 135 knots. The cargo space is approximately 300 cubic feet. Under normal operating conditions with a standard fuel load, the maximum allowable loading, including passengers is about 2000 lbs. This aircraft is equipped with a hoist having a 600 lb. capacity and an external sling whose capacity is rated at 6,000 lbs; however, the total weight of fuel and other cargo may limit the lifting capacity of the helicopter .

(c) Five HH-65A Dolphin helicopters. A short range recovery helicopter with 3.5 hours endurance and 125 knot cruise speed.

(d) Coast Guard Aviation Support Facility Cordova (AVSUPFAC Cordova). This facility may be reached at (907) 424-7346.

(2) **Air Station Sitka:** Three HH60J Jayhawk helicopters. A medium range recovery helicopter with 6 hours duration and 135 knot cruise speed.

(3) **Seagoing Buoy Tenders (WLB):** These vessels are 180 ft. in length, with a maximum speed of 12-14 knots, and a maximum range of 13,500 to 31,000 miles. WLBs are home ported in the following locations.

- (a) CGC FIREBUSH (WLB 393): Kodiak, Alaska
- (b) CGC SEDGE (WLB 402): Homer, Alaska
- (c) CGC SWEETBRIER (WLB 405): Cordova, Alaska
- (d) CGC WOODRUSH (WLB 407): Sitka, Alaska
- (e) CGC IRONWOOD (WLB 297): Kodiak, Alaska

(4) **High Endurance Cutters (WHEC):** WHECs are 378 feet in length, with a maximum speed of 29.0 knots and a maximum range of 14,000 miles. Although no WHECs are home ported in Alaska, a WHEC is usually on patrol in Alaskan waters.

(5) **Medium Endurance Cutters (WMEC):** WMECs are 213 to 230 feet in length. Their maximum speed ranges from 14 to 19.5 knots and maximum range can approach 22,000 miles. The Register of Cutters of U.S. Coast Guard contains vessel specific information on an individual cutter's performance. One WMEC is home ported in Alaska:

- CGC STORIS (WMEC 38): Kodiak, Alaska
- CGC ACUSHNET (WMEC 167): Ketchikan, Alaska

(6) **Patrol Boats (WPB):** WPBs are 110 feet in length with a maximum speed of 30 knots, and a maximum range of 1,800 miles. WPBs are home ported in the following locations:

- (a) CGC MUSTANG (WPB 1310): Seward, Alaska
- (b) CGC LIBERTY (WPB 1334): Juneau, Alaska
- (c) CGC ANACAPA (WPB 1335): Petersburg, Alaska
- (d) CGC NASHON (WPB 1311) : Ketchikan, Alaska
- (e) CGC ROANOKE ISLAND (WPB 1346): Homer, Alaska

(7) **Inland Buoy Tenders (WLI):** The only WLI in Alaska, CGC ELDERBERRY, is home ported in Petersburg. It is 65 ft. in length, has a maximum speed of 10 knots, and a maximum range of 2,000 miles.

The **Department of Defense (DOD)** has various military facilities, vehicles, equipment, and in some cases aircraft which can be made available in the event of critical incidents. In addition, construction related equipment may be locally available. Requests for DOD support shall be made through the RRT.

The **U.S. Navy, Supervisor of Salvage (NAVSUPSALV)** is the Federal agency most knowledgeable and experienced in ship salvage, shipboard damage control and diving. They

also have extensive knowledge in oil spill response. They have equipment depots in Williamsburg, Virginia, Stockton, California, Anchorage, Alaska, and Pearl Harbor, Hawaii. These depots have an extensive array of specialized equipment and personnel for use in oil spill response and ship salvage operations. Equipment is available to FOSC's, with operators and maintenance support, on a cost reimbursable basis. Requests for NAVSUPSALV support shall be made through the RRT. Contact (907) 384-2968 (Anchorage) or (703) 602-7527 (24-hour) for current inventories and equipment availability. A listing of available resources at the NAVSUPSALV Ft Richardson warehouse is provided below. Early alert "heads-up" calls are encouraged, appreciated, and invaluable even if the extent of the response has not been determined.

## NAVSUPSALV EQUIPMENT

### BOATS:

Boom handling, 24', Monarch (260 hp)	2
Boom tending, 18', Boston Whaler w/ 120, 115, 85 hp outboard	3
Zodiac, 19' w/twin 50 hp outboards	1
Zodiac, 23' with twin 70 hp outboards	1
Inflatable, 23', resupply	4

### BOOM & MOORING SYSTEMS:

Boom Van 8'x8'x20' (1800' Ocean Boom) <i>Air Compressor, 14 cfm</i>	2
Boom, Inland Skimming System 8'X8'X20' Van, 2000' CSI Boom (18")	1
Boom Van, 8'x8.5'x20', 1800' CSI Boom (18")	2
Boom Van, 8'x8.5'x20', 2400' Slickbar Boom (24")	2
CSI Boom, 400' at Eielson AFB	6
Danforth 100# with 12" buoy	15
Deep Water Extensions	5
Boom Mooring with 1000# Anchor	6
Boom Mooring with 500# Anchor	6
Beach Gear Ground Leg	4
Anchor Eells, 8000#	4

### MATERIAL HANDLING EQUIPMENT:

Forklift, 22K	1
Forklift, 10K	1
Forklift, 6K	1
Forklift, 4K	2
Crane, 30 Ton Pettibone (Mobile)	1
Crane, Gantry	2
Truck, Tractor	1
Truck, 2-ton Stakebed	1
Trailer Rollerized	1

### SKIMMING SYSTEMS:

#### \*R=EFFECTIVE DAILY RECOVERY RATES AS PER FEDERAL REGS

Marco Class V, 36' Vessel with rotating sorbent belt (R-1371 bbls/day) Wide Load Permit required On One Trailer	1
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Marco Class V, 36' Vessel with rotating sorbent belt (R-1371 bbls/day)	2
C-130 Air Transportable	
26K Bladder	
15' Zodiac with 15 hp motor	
Air Compressor	
Boom, 660' of USS 42 (two boom legs)	
Boom Roller	
On Two Trailers	
Inland Skimming System Vans	2
Generators, 5 kW & 9kW	
Pumps: 2' peristaltic dsl (2 ea.), (110 gpm)	
2" diaphragm dsl, (50 gpm)	
electric barrel 110 VAC	
1500 Gallon Bladder	
Cleaning Pool	
Storage Shelter	
Diesel Heater	
Skimmer, Oil Mop (R-10bbl/hr)	
Skim Pacs, 2", model 4200 (2 ea) (R-4000 gal/hr)	
Skim Pacs 1-½", model 2200, (2 ea) (R-2000 gal/hr)	
Desmi Mini Max Skimmer (R-220 bbl/hr)	
Drum Skimmer with Power unit (R-4200 gal/hr)	
Pressure Washer	
Radios and Chargers, 3 ea.	
Skimming System, Class XI VOSS (2 van system) (R-1371 bbls/day)	1
With rotating sorbent belt	
Crane, 8T Portable Hydraulic, 40' Knuckle Boom	
Skimmer, Destroil, Weir Type VOSS System (R-1371 bbls/day)	1
Power Pack	
Hose Reel	
Outrigger	
Boom, foam flotation (600')	
Skimmer, Oil Mop, 36" Stationary Oil Recovery Unit (R-960 bbls/day)	2
w/ 200' Continuous loop absorbent rope	
Skimmer, Harbor, DESMI MiniMax (R-220 bbls/hr)	1
Skimmer, SkimPak 2", model 4200 (R-4000 gal/hr)	3
Skimmer, SkimPak 1-½", model 2200 (R-2000 gal/hr)	1
Skimmer, 6" Rope Mop, CSI MW-41 (R-58 bbls/day)	1

**STORAGE:**

Bladder, 500 Gallon, Towable	5
Bladder, 1000 Gallon	1
Bladder, 136K Gallon (Kodiak)	1
Bladder, 290K Gallon	1
Fastank, Oil Storage, 2500 Gallon	4

**WILDLIFE SUPPORT EQUIPMENT:**

Marine Mammal Holding Pen	2
Mooring systems	
Bird Capture & Stabilization	1
Mammal Necropsy	1

**ADDITIONAL EQUIPMENT:**

Air Compressor, 175 CFM	3
ATV, Polaris 6 Wheeler	1
<i>Pacrat Trailer</i>	
<i>Tracks</i>	
<i>Arctic Accessories</i>	
Blowers, High Volume	6
Brushheaters	6
Command Van, 8' X 8' X 20'	1
<i>Miscellaneous Office Equipment</i>	
<i>CB, Marine Mobile</i>	
<i>Copy Machine</i>	
<i>Fax Machine</i>	
<i>Printer</i>	
<i>Radio, VHF Marine Mobile (76 Channel)</i>	
Cleaning Van, 8' X 8' X 20'	1
<i>Steam Cleaner</i>	
<i>Cleaning Pool</i>	
<i>Cleaning Materials</i>	
<i>Pump, 3" Diaphragm, Diesel (350 gpm)</i>	
Drums, Overpack	3
Eye Wash Stations	3
Generator	
5 kW Diesel, 120/240 VAC, Single Phase	2
30 kW Diesel	1
<i>Ancillary &amp; Cable Kits</i>	
Heaters, Herman Nelson	6
Heaters, Elec/Kerosene. 150,000 btu	4
Hose	
2" X 50'	31
3" X 50'	19
3" X 100'	3
4" X 25'	39
6" X 50'	26
Hydraulic Cable Puller, 50T, with accessories	4
Off Shore Fire Fighting System (1 van system) (3000 gpm)	1
Pumps	
Centrifugal, 3" Diesel (350 gpm)	2
Centrifugal, 6" Diesel (1540 gpm)	2
Centrifugal, 3" Port (Trash) (360 gpm)	2
Jetting (500 gpm)	1
Diaphragm, 2" Pneumatic	3
Diaphragm, 2" Diesel (50 gpm)	2
Diaphragm, 3" Diesel (85 gpm)	1
Dop-250 Viscous Oil Transfer System (440 gpm)	2
Portable Fire, 1-½", Gas	1
Submersible, 4" Hydraulic (POL) (1100 gpm)	2
Tripod & Winch	
Submersible, 1-½", Electric	2
Submersible, 6" Hydraulic (1823 gpm)	2
Tripod & Winch	
Power Unit, Mod 6, Hydraulic, Diesel	4

Radios	
VHF, Walk/Talk Standard 55 Channel	8
VHF, Saber 1	3
Rigging Supply Van, 8' x 8' x 20'	1
15' Zodiac	
15 hp & 35 hp outboards	
Separator, Oily Water	1
Shop Van (Repair), 8' x 8' x 20'	1
Air Compressor, 125 CFM	
Generator, 30 kW Diesel	
Small Unit Support Vehicle (SUSV)	2
Snow Cat	1
Vehicle, Loader, Model 843 Bobcat	1
Water Treatment Plant, Skid-mounted (DESC)	1

## II. STATE:

Although emergency spill response equipment depots have not been established as required by law, the Department of Environmental Conservation has established nearshore response packages and begun to pre-position spill response equipment caches as directed by the State legislature.

- a. **Term Contractors:** Additionally, DEC maintains Term Contracts for emergency response to both oil and hazardous material spills. These contracts can be activated by the issuance of a Notice to Proceed by the Contract Manager or State On-Scene Coordinators. See this annex, Appendix III, Tab X for information on State term contractors.
- b. **Community Spill Response Agreements:** ADEC has also entered into formal response agreements with several local communities for the purposes of oil and/or hazardous materials response. See the map and supporting information which identify these communities. Information is also provided on spill response equipment conexas pre-staged at various locations throughout the State. Also refer to the ADEC Call-out Directory (current edition) for the contact persons and telephone numbers for activating these response agreements.
- c. **State Ferries:** Another important response asset is the State response ferry which provides an expanded communications capability as well as an excellent platform to manage a significant spill response. Other State ferries may also be called upon in a major spill response to provide berthing and forward staging platforms for work crews. (See the following chart for specific information on State ferries.)

## III. INDUSTRY:

Five industry response cooperatives currently exist in the State to provide oil spill response capability for certain facilities located together in a specific region. Alaska Clean Seas serves the North Slope region, Cook Inlet Spill Prevention and Response Inc. (CISPRI) serves the Cook Inlet region, Alyeska serves the Prince William Sound region, Southeast Alaska Petroleum Resources Organization, Inc. (SEAPRO) serves Southeast Alaska, and Alaska Chadux Corp serves the non-crude industry. (See this annex, Appendix III, Tab W for information on Alaska spill cooperatives).

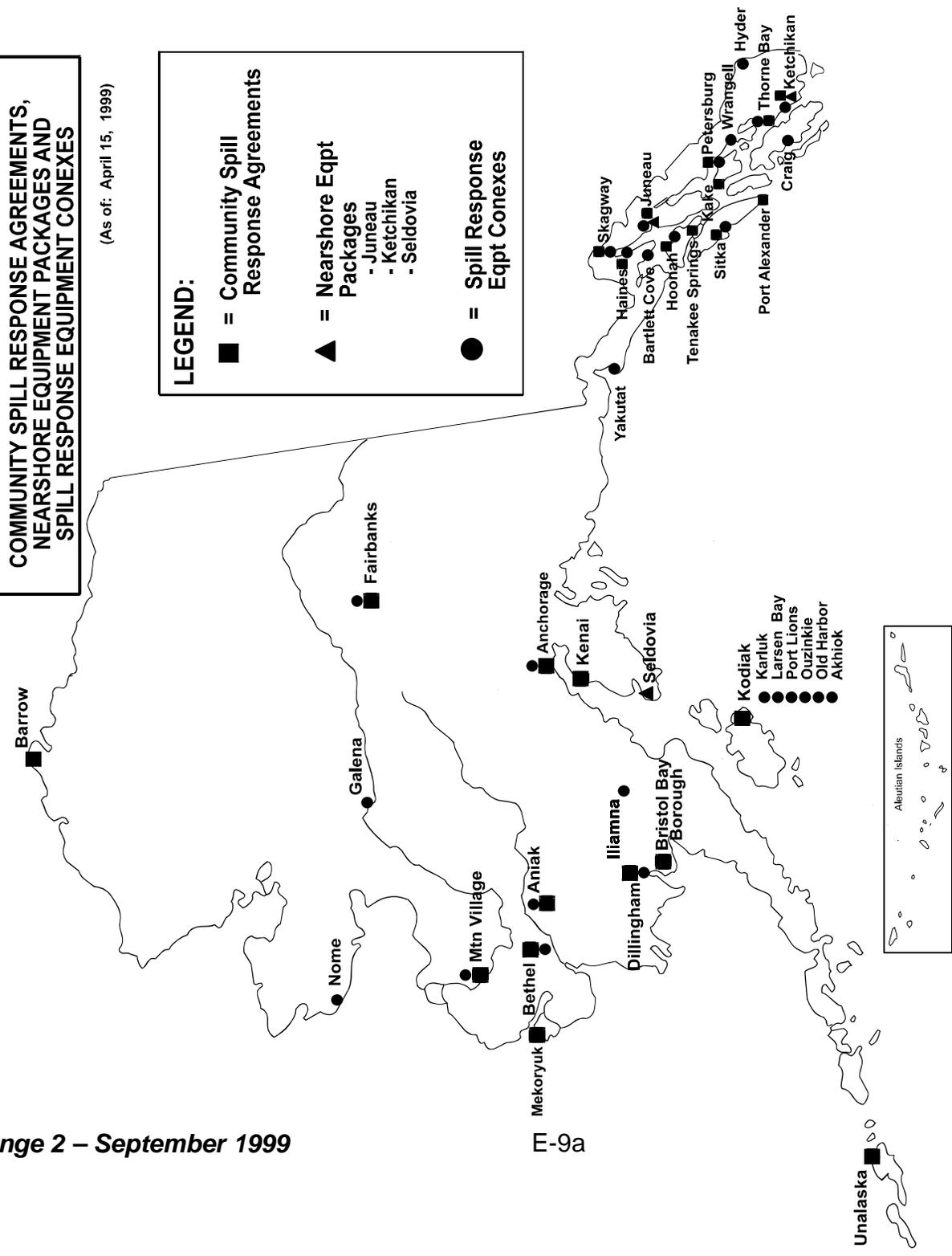


**COMMUNITY SPILL RESPONSE AGREEMENTS,  
NEARSHORE EQUIPMENT PACKAGES AND  
SPILL RESPONSE EQUIPMENT CONEXES**

(As of: April 15, 1999)

**LEGEND:**

- = Community Spill Response Agreements
- ▲ = Nearshore Eqpt Packages
  - Juneau
  - Ketchikan
  - Seldovia
- = Spill Response Eqpt Conexes



## DEC RESPONSE CONEX INVENTORY (BY DEC RESPONSE AREAS)

**Northern Alaska: Conexes available at:** Nome  
Galena  
Fairbanks

### Inventory:

Boom (with towing bridle assembly)	1 25-ft section 2-50ft sections
Boom Support Equipment (anchors, chains, rope, snap hooks)	assorted
85-gallon overpack drums	2
85 gallon drum liners	30
Standard drum plug wrench (min. 15" in length)	1
100' x 100' 20 mil plastic liner	1
Personal Protective Equipment (PPE)	assorted
Static resistant sorbent pads	2 bundles
Oil sorbent sheets (bundles)	10 bundles
Oil sorbent boom (bundles)	4 bundles
Loose absorbent material	2 bags
sorbent pad hand wringer, rustproof, steel frame	1
500 gallon storage tank, poeethylene, skid mounted	1
Tools (shovels, sledge hammer, rebar)	assorted

#### ADEC conex at DOTPF yard (Fairbanks):

100' x 100' 20 mil plastic liners	7
22 mil liners (60' x 60')	2
500-gallon storage tanks, polyethylene, skid-mounted	5

#### 2 conexes at ADEC Fairbanks Response Warehouse:

5" boom	10 bundles
Sorbent pads	20 bundles
85-gallon overpack containers	
Assorted response equipment	

**Central Alaska: Conexes available at:** Aniak  
Bethel  
Dillingham  
Iliamna  
Mountain Village  
Kodiak Island (Karluk, Larsen Bay, Port Lions,  
Ouzinkie, Old Harbor, Akhiok)  
Anchorage (DEC Response Warehouse)

### Inventory:

Oil Snares without rope (Pom-Poms)	10 bales
Sorbent Pads, 17' X 19" 100 pads per bale	65 bales
Sorbent Boom, 5" X 10' 4 per bale	10 bales
Personal Protective Equipment (PPE)	assorted
Overpack Drum, Steel 85-gallon	1
JABSCO Rotary Vane Pump	1
40' X 40' Plastic 20 mil Liner	2
Drum Liner - 8 mil, 85-gallon, 50 bags per roll	2 rolls
Sorbent Materials Hand Wringer	1

**Central Alaska Inventory (continued):**

MW41 rope mop skimmer w/return pulley(w/ 55 gallon open top drum)	1
4" oil-absorbing endless loop poly-mop	100-ft
1,800-gallon portable storage tank system	1
500-watt halogen light single head, light stand	2
Smart Ash Incinerator w/55 gallon open top drum	1
5,000 watt portable generator	1
Ice auger w/8" steel auger bit & 18" extension, 2 hp, gas mix	1
Portable water cleaning system w/absorbent material	1
85 gallon response drums loaded w/sorbents, bags, ppe	3
Knaak 30 steel locking tool box (w/ assorted tools, eqpt)	1

**Southeast Alaska: Conexes available at Bartlett Cove (Glacier Bay)**

**Craig**  
**Haines**  
**Hoonah**  
**Hyder**  
**Juneau**  
**Ketchikan**  
**Petersburg**  
**Sitka**  
**Skagway**  
**Thorne Bay**  
**Wrangell**  
**Yakutat**

**Inventory:**

85-gallon Overpack Drums, (steel), removable top, mdl 1a2 dot	6
Overpack drum liners, 4mil., 50 bags/box	1 box
Kepner, 8" x 12" seacurtain boom	1000 feet
Tow bridles (for above boom), w/2 s.s. snap hooks	2
Boom Support Equipment (connector adapters, snap hooks, anchors, chain, ropes, buoys, tow lines)	assorted
Oil snare on a rope-50' length (pom-poms on a rope)	10 boxes
Sorbent pad hand wringer	1
Sorbent pads (bundles), 18" x 18"	40 bundles
Sorbent boom (bundles), 5" x 10'	25 bundles
Sorbent sweeps (bundles), 18" x 20'	15 bundles
Lift bags, 35" x 35" x 35", w/ 2 galv. snap hooks	2
Lift bag poly liners, 4 mil. (72" x 132")	4
Tool box (with assorted tools)	1

### ALASKA MARINE HIGHWAY SYSTEM VESSEL INFORMATION TABLE

	Columbia	Matanuska	Malaspina	Taku	Aurora	Leconte	Tustumena	Bartlett	Kennicott
DATE COMPLETED	1974	1963	1963	1963	1977	1974	1964	1969	1998
LENGTH (feet)	418	408	408	352	235	235	296	193	382
BEAM (feet)	85	74	74	74	57	57	59	53	85
LOADED DRAFT	17'-6 3/4"	16'-11 5/8"	16'-11 3/8"	16'-11"	13'-10 7/8"	13'-10 7/8"	14'-4 1/2"	13'-3"	17'-6"
INT'L TONNAGE:									
Gross	13,009	9,214	9,121	7,302	3,124	3,124	4,529	2,045	12,904
Net	4,932	3,824	3,667	2,496	987	987	1,451	682	3,872
DOMESTIC TONNAGE:									
Gross	3,946	3,029	2,928	2,624	1,280	1,328	4,593	933	Not
Net	2,683	1,235	1,253	1,494	453	566	1,377	384	Available
HORSEPOWER	12,350	7,400	8,000	8,122	4,300	4,300	5,100	3,468	13,380
SERVICE SPEED (knots)	17.3	16.5	16.5	16.5	14.5	14.5	13.3	12	16.75
FUEL CONSUMPTION (gph)*	450	240	270	270	180	180	140	170	290
CREW CAPACITY	66	50	50	42	24	24	37	24	61
PASSENGER CAPACITY** (USCG authorized)	522 (winter) 971 (sum)	498 (winter) 745 (sum)	516 (winter) 701 (sum)	500	300	300	220	236	748 - SE 500 - SW
PASSENGER CAPACITY** AMHS Booking Limits	500 (winter) 625 (sum)	500	500	450	250	250	210	190	748 - SE 500 - SW
Staterooms - 4 berth	61	4	54	9	n/a	n/a	8	n/a	48
Staterooms - 3 berth	9	23	0	0	n/a	n/a	0	n/a	0
Staterooms - 2 berth	20	80	28	33	n/a	n/a	17	n/a	56
Staterooms - Handicap (4b)	0	0	0	0	0	n/a	0	n/a	3
Staterooms - Handicap (2b)	1	1	1	2	n/a	n/a	1	n/a	2
TOTAL STATEROOMS	91	108	83	44	0	0	26	0	109
TOTAL BERTHS	313	247	275	106	0	0	68	0	320
VEH CAPACITY** (linear ft)	2,680	1,760	1,760	1,380	680	680	720	580	
(approx. number of vehicles)	134	88	88	69	34	34	36	29	120 - SE 103 - SW
RATE PER DAY For Spill Response	\$65,000	\$50,000	\$25,000	\$45,000	\$25,000	\$25,000	\$25,000	\$20,000	\$65,000

\*Gallons per hour fuel consumption figures are averages based on calendar year 1996 weekly engineering reports, and include fuel usage to generate heat and electricity.

\*\*These capacity figures represent functional booking limits, not Coast Guard authorized capacity

## **APPENDIX II - Logistics**

Alaska is the largest state, with isolated communities and villages, extreme weather, vast uninhabited areas, and limited transportation options. The majority of communities in the State are accessible only by air or water, and have limited accommodations to house and support a large influx of response personnel. Accordingly, self contained support facilities for equipment and personnel will be required for sustained response in the remote regions. Due mainly to these extreme logistic requirements, the cost of the response is much higher in Alaska. General comments in the following areas are provided. Specific details can be found in the appropriate subarea contingency plans:

### **(1) Equipment:**

Staging areas for spill response are those locations where equipment from all sources is assembled and held pending deployment to the spill site. Ideally, staging areas should be large enough for interim storage of all equipment, and in close proximity to the spill site to minimize transit time for equipment to the scene. During prolonged spill control operations, equipment maintenance may be accomplished in the staging areas, and staging areas may likely have to be away from the water.

#### **(a) Air Transportation:**

Consult with the Alaska Supplement to the NOAA Flight Information Publication, or the FAA on airport and runway specifics. In general, runways are paved in locations serviced by the major commercial airlines including Alaska, United, and Delta. Commuter airlines service the smaller communities, and charter flights aboard light aircraft and helicopters are available. During summer months when tourist traffic is heavy, charter flights may be limited. Weather may close the airports for days at a time. High winds and low visibility often ground small planes. Airplane crashes are common. For a major response, local air traffic will dramatically increase. FAA can be requested to impose flight restrictions, and FAA controllers can be deployed and operate from a Coast Guard WHEC or WMEC.

#### **(b) Ground Transportation:**

The Alaska Railroad provides rail service to Anchorage, Fairbanks, Seward, and Whittier. Additionally, private truck companies and rental car/truck agencies are available for transporting response personnel and equipment. See the Resources Section of each subarea contingency plan for specific listings of local ground transportation resources.

#### **(c) Fueling Facilities**

Fueling facilities for land, marine and air equipment will be limited in remote regions. For an extended response, remote fueling sites will need to be

established to assure maximum operating and flight time on scene. Land based fueling sites will require approval from State and resource trustee's and will need to provide provisions for spill prevention.

**(d) Maintenance Facilities**

Maintenance facilities will need to be provided by the equipment owner/operators. In general, self contained maintenance facilities are required in all areas outside the major population centers.

**(2) Personnel:**

See the appropriate subarea contingency plan for specific information on lodging, transportation, clothing, food, and safety equipment. In general, shoreside lodging will be severely limited. Mobile homes, RV's or trailers may need to be brought in to meet the demand for response. One alternative is to provide "hotel barges" that are often used at remote logging camps, or utilize U.S. Naval vessels for berthing. All vessels used for lodging will need to meet appropriate Coast Guard standards or regulations.

**(3) Communications:** See Appendix V, this Annex.

**(4) Command Centers:**

Regardless of the spill volume, the designated FOSC, SOSC and LO SC will initially operate from their normal offices. Likewise, the resource agency representatives will operate from their normal work areas until adequate space is arranged, if necessary. For significant spills, these offices will prove inadequate in a very short time and a joint use command center will be required. Spills extending over a large area may require the establishment of auxiliary locations. Refer to the subarea contingency plans area specific recommendations for location of command centers.

**(5) Waste Management and Disposal:** (See Appendix VI, this annex).

### **APPENDIX III - Personnel and Information Resources**

The following tabs are included in this appendix. Generally, specific information regarding each resource is provided in the appropriate subarea contingency plan for that specific location. Where appropriate, information has been provided in this appendix regarding statewide resources.

*Tab A:	Coast Guard Resources
*Tab B:	Police and Fire Departments
*Tab C:	Tribal Governments
Tab D:	Hospitals (see appropriate subarea plan)
Tab E:	Port Authority/Harbor Masters (see appropriate subarea plan)
*Tab F:	Marine Pilots Association
Tab G:	Salvage Companies/Divers (see appropriate subarea plan)
Tab H:	Marine Towing Companies (see appropriate subarea plan)
*Tab I:	Alaska Native Organizations
Tab J:	Not Used
*Tab K:	Laboratories
Tab L:	Water Intake Facilities (see appropriate subarea plan)
*Tab M:	Environmental Interest Groups
Tab N:	Airports and Aircraft Rental (see appropriate subarea plan)
Tab O:	Trucking Companies/Car Rental (see appropriate subarea plan)
*Tab P:	NOAA Weather Service
Tab Q:	Media
*Tab R:	Volunteer Organizations
*Tab S:	Natural Resource Trustees
*Tab T:	Local Emergency Managers
Tab U:	Fishing Fleets
*Tab V:	RRT and OSC Access to Emergency Broadcast Systems
*Tab W:	Oil Spill Cooperatives
*Tab X:	State Term Contracts

\*Note: These tabs include relevant statewide resources or provide additional information within this appendix. See the Resources Section of pertinent subarea contingency plans for a listing of regional assets within the subarea.

#### **TAB A: COAST GUARD RESOURCES**

Over 1200 personnel are permanently assigned to 42 Coast Guard units throughout Alaska. These personnel operate resources and perform many duties related to maritime safety and security as well as internal administration. As outlined in COMDTINST 16165.41 the resources of districts are available to the OSC during pollution response as the District Response Group (DRG).

**AIRPORTS ACCESSIBLE BY C-130**

NAME OF AIRPORT	RUNWAY SIZE(S)	LONGITUDE/LATITUDE
ALLEN AAF (Delta Junction/Fort Greely)	4647 X 150 7499 X 150	N63°59.0' W145°43.16'
AMCHITKA	9100 X 150	N51_22.48' E179_16.24'
ANAKTUVUK PASS	4590 X 96	N68°08.09' W151°44.25'
ANCHORAGE INTERNATIONAL	10496 X 150 10897 X 150 10600 X 150	N61°10.46' W149°59.77'
ANIAK	6000 X 150	N61°34.90' W159°32.58'
ANNETTE ISLAND	7493 X 150 5709 X 150	N55°02.55' W131°34.33'
ARCTIC VILLAGE	5100 X 112	N68°06.96' W145°34.57'
ATTU	5800 X 150	N52_49.42' E173_10.49'
BELUGA (Tyonek)	5000 X 100 2400 X 60	N61°10.33' W151°02.63'
BETHEL	6398 X 150 1850 X 75	N60°46.79' W161°50.28'
BETTLES	5200 X 150	N66°54.92' W151°31.68'
BIRCHWOOD	4010 X 100	N61°24.97' W149°30.53'
BRADLEY SKY-RANCH (North Pole)	4093 X 80	N64°45.22' W147°22.14'
CAMPBELL AIRSTRIP (Anchorage)	5000 X 150	N61°09.48' W149°46.88'
CANDLE 2	3880 X 90	N65°54.46' W161°55.58'
CAPE NEWENHAM LRRS	3950 X 150	N58°38.79' W162°03.77'

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**AIRPORTS ACCESSIBLE BY C-130**

NAME OF AIRPORT	RUNWAY SIZE(S)	LONGITUDE/LATITUDE
CAPE ROMANZOF LRRS	3990 X 135	N61°46.82' W166°02.32'
CAPE SARICHEF	3500 X 120	N54°34.95' W164°54.87'
CASCO COVE CGS	5800 X 150	N52°49.70' E173°10.82'
CHALKYITSIK	3500 X 60	N66°38.98' W143°44.16'
CLEAR	3893 X 100	N64°18.07' W149°07.21'
COLD BAY	5160 X 150 10420 X 150	N55°12.34' W162°43.46'
COLDFOOT	3500 X 100	N67°14.94' W150°12.53'
CORDOVA	7500 X 150	N63°29.51' W145°28.66'
DAHL CREEK	4630 X 110	N66°56.60' W156°54.28'
DEADHORSE	6500 X 150	N70°11.69' W148°27.91'
DILLINGHAM	6404 X 150	N59°02.68' W158°30.33'
EAGLE	3600 X 70	N64°46.58' W141°09.06'
EIELSON AFB	14514 x 150	N64°39.87' W147°05.98'
ELMENDORF AFB	10000 X 200 7500 X 150	N61°15.18' W149°47.63'
EMMONAK	4400 X 60	N62°47.11' W164°29.46'
FAIRBANKS INTERNATIONAL	10300 X 250 5400 X 200 3980 X 75	N64°48.95' W147°51.48'
FARWELL	4970 X 145 3600 X 100	N62°30.40' W153°53.62'

## AIRPORTS ACCESSIBLE BY C-130

NAME OF AIRPORT	RUNWAY SIZE(S)	LONGITUDE/LATITUDE
FLAT	4045 X 114	N62°27.16' W157°59.34'
FORT JENSEN (Private)	4700 X 125	
FORT RICHARDSON (BRYANT AHP)	2900 x 100	N61°15.75' W149°39.28'
FORT WAINWRIGHT (WAINWRIGHT AAF)	8714 x 300	N64°50.19 W147°37.01'
FORT YUKON	5810 X 150	N66°34.29' W145°15.03'
GALBRAITH LAKE	5200 X 150	N68°28.74' W149°29.40'
GALENA	7254 X 150	N64°44.17' W156°56.24'
GAMBELL	4500 X 100	N63°46.01' W171°43.97'
GUSTAVUS	6700 X 150	N58°25.46' W135°42.44'
HOLY CROSS	4000 X 120	N62°11.04' W159°46.39'
HOMER	7401 X 150	N59°38.70' W151°28.69'
ILIAMNA	4800 X 150 3000 X 100	N59°45.16' W154°55.03'
INDIAN MOUNTAIN (Utopia Creek)	4100 x 120	N65°59.57' W153°42.26'
JUNEAU INTERNATIONAL	8456 X 150	N58°21.30' W130°34.58'
KENAI MUNICIPAL	7575 X 150	N60°34.28 W151°14.87'
KETCHIKAN INTERNATIONAL	7497 X 150	N55°21.33' W131°42.82'
KING COVE	3360 X 115	N55°06.95' W162°15.62'
KING SALMON	4000 X 100 8500 X 150	N58°40.61 W156°38.95'

**AIRPORTS ACCESSIBLE BY C-130**

NAME OF AIRPORT	RUNWAY SIZE(S)	LONGITUDE/LATITUDE
KLAWOCK	5000 X 100	N55°34.75' W164°33.11'
KODIAK	7562 X 150 5400 X 150 5011 X 150	N57°47.27' W151°24.00'
LOST RIVER	3650 X 100	N65°23.77' W167°09.78'
MCCARTHY NR 2	3465 X 90	N61°26.22' W142°54.22'
MCGRATH	3435 X 150	N62°57.17' W155°36.35'
MERLE K. (HUDHOLE)	7499 X 150	N60°29.51' W145°28.66'
MERRILL FIELD	3999 X 100 2640 X 75	N61°12.87' W149°57.92'
MINCHUMINA	4200 X 90	N63°52.83' W152°18.04'
MOSES POINT	4700 X 100	N64°36.84' W162°16.20'
NENANA MUNICIPAL	5000 X 100 3000 X 120	N64°32.94' W149°04.41'
NOATAK	3000 X 70	N67°33.96' W162°58.67'
NOME	6001 X 150 5576 X 150	N64°30.73' W165°26.71'
NORTHWAY	5100 X 100	N62°57.68' W141°55.75'
NULATO	3000 X 90	N64°43.63' W158°04.75'
PALMER MUNICIPAL	3616 X 100 6000 X 100	N61°35.63' W149°05.47'
PETERSBURG	6000 X 150	N56°48.10' W132°56.72'

**AIRPORTS ACCESSIBLE BY C-130**

NAME OF AIRPORT	RUNWAY SIZE(S)	LONGITUDE/LATITUDE
PILOT POINT	3514 X 70	N57°33.79' E157°33.51'
POINT HOPE	4000 X 80	N68°20.93' W166°47.96'
PORT CLARENCE CGS	4500 X 120	N65°15.22' W166°51.51'
PORT HEIDEN	6250 X 100 4600 X 100	N56°57.54' W158°37.96'
PROSPECT CREEK	5000 X 150	N66°48.77' W150°38.63'
RALPH M. CALHOUN	4400 X 150	N65°10.63' W152°10.65'
RALPH WIEN MEMORIAL (Kotzebue)	5900 X 150 3800 X 100	N66°53.07' W162°35.93
RAMPART	3500 X 75	N65°30.47' W150°08.57'
RED DEVIL	4600 X 100	N61°47.26' W157°20.88'
ST. MARY'S	6000 X 150	N62°03.63' W163°18.13'
ST. PAUL ISLAND	5077 X 150	N57°09.83' W170°13.29'
SAND POINT	3700 X 100	N55°18.92' W160°31.22'
SAVOONGA	3950 X 90	N63°41.18' W170°29.56'
SEWARD	2279 X 75 4240 X 100	N60°07.62' W149°25.13'
SHEMYA (EARECKSON AFB)	10000 x 150	N52°43.32' E174°03.62'
SHISHMAREF	5000 X 70	N66°15.41' W166°03.40'
SITKA	6500 X 150	N57°02.83' W135°21.70'

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## AIRPORTS ACCESSIBLE BY C-130

NAME OF AIRPORT	RUNWAY SIZE(S)	LONGITUDE/LATITUDE
SKAGWAY	3750 X 75	N59°27.60' W135°18.94'
SKWENTNA	3400 X 75	N61°57.92' W151°11.48'
SOLDOTNA	4973 X 130	N60°28.50' W150°59.97'
SPARREVOHN LRRS	4100 X 150	N61°05.84' W155°34.45'
SUMMIT	3840 X 100	N63°19.89' W149°07.64'
UMIAT	5350 X 145	N69°22.27' W157°23.69
UNALAKLEET	6004 X 170 2000 X 80	N63°53.29' W160°47.92'
UNALASKA /DUTCH HARBOR	3900 X 100	N53°53.93' W166°32.70'
VALDEZ	6500 X 150	N61°08.04' W153°43.27'
VENETIE	4100 X 100	N67°01.36' W123°11.07
WAINWRIGHT AAF (FORT WAINWRIGHT)	8714 X 100	N64°50.19' W147°37.01'
WALES	3820 X 65	N65°37.44' W168°05.94'
WILEY POST/WILL ROGERS MEMORIAL (Barrow)	6500 X 150	N71°17.13' W156°45.96'
WILLOW	4200 X 95	N61°45.27' W150°03.13'
WRANGELL	6000 X 150	N56°29.06' W132°22.19'
YAKUTAT	7748 X 150 6813 X 150	N59°24.77' W139°11.64'

**TAB B: POLICE AND FIRE DEPARTMENTS**

Normally fighting a shipboard fire is the responsibility of the ship crew and owner. Local government resources may be used to fight the fire. Federal government resources are not normally used to fight shipboard fires unless there is a threat to human life or safety or the fire threat creates a release of oil or hazardous substance. OPA funds may be used to fight a shipboard fire to alleviate the threat of pollution.

Navy SUPSALV has a contract with Crowley to obtain firefighting expertise. Contact numbers are (703) 607-2758 (D) or (703) 602-7527/7528 (24 hour).

Also refer to Marine Firefighting Plans developed for appropriate subareas.

**TAB C: TRIBAL GOVERNMENTS**

There are 227 Federally-recognized tribes in Alaska. The Alaska Inter-Tribal Council (AI-TC) maintains a current list of contact information for each of the tribes. Following an oil spill or hazardous substance release that has the potential to affect Tribal interests, AI-TC assists the Federal On-Scene Coordinator in identifying which of the tribe(s) in Alaska should be notified of the spill or release. Contact information for AI-TC is included in the following table.

<b><u>AI-TC Contact</u></b>	<b><u>Address</u></b>	<b><u>Telephone</u></b>	<b><u>Fax</u></b>	<b><u>Email</u></b>
Deborah Vo	431 W. 7 <sup>th</sup> Ave Suite 201 Anchorage, AK 99501	907-563-9334 (wk) 907-333-9801 (hm)	907-563-9337	dvo@aitc.org
Roland Shanks	431 W. 7 <sup>th</sup> Ave Suite 201 Anchorage, AK 99501	907-563-9334 (wk) 907-562-2182 (hm) 907-230-4918 (cell)	907-563-9337	rshanks@aitc.org

**TAB F:            MARINE PILOTS ASSOCIATION (STATEWIDE)**

The following provides a statewide listing of marine pilots associations for possible use in spill response incidents.

<b><u>Organization/Company</u></b>	<b><u>Location</u></b>	<b><u>Phone Number</u></b>
Alaska Marine Pilots Association	Anchorage	248-2436
Alaska Marine Pilot Service and Dispatching	Anchorage	243-4221/4224
Alaska Marine Pilots & Dispatching Service	King Cove Sand Point Unalaska	497-2428 383-5242 581-1240
Boyd Enterprises	Unalaska	581-1672
Jack Johnson Inc.	Anchorage	563-5907
Parker Marine	Soldotna	262-1627
Southeastern Alaska Pilots Association	Ketchikan	225-9696
South West Alaska Pilots Association	Homer	235- 8783
Stone Marine Ventures Inc.	Anchorage	338-6075

**TAB I: ALASKA NATIVE ORGANIZATIONS**

The following table lists information regarding the 12 Native Regional Corporations formed under the Alaska Native Claims Settlement Act. The Department of Community and Economic Development (located in Juneau, 907-465-4750) also maintains a list of village and village corporation contacts.

<b>ALASKA NATIVE REGIONAL CORPORATIONS</b>		
<b>NAME OF CORPORATION &amp; GENERAL LOCATION</b>	<b>ADDRESS</b>	<b>TELEPHONE NO.</b>
Ahtna Incorporated (Copper River Basin)	406 W. Fireweed Lane Anchorage, AK	274-7662
Aleut Corporation (Aleutian Islands)	4000 Old Seward Hwy Anchorage, AK	563-4328
Arctic Slope Regional Corp. (North Slope, Northern Alaska)	Box 129 Barrow, AK 99723	852-8633
Bering Straits Native Corp Norton Sound/Seward Peninsula)	Nome	443-5252
Bristol Bay Native Corp (Bristol Bay/Dillingham)	800 Cordova Anchorage, AK	278-3602
Calista Corporation (Western Alaska)	601 W 5th Ave Anchorage, AK	279-5516
Chugach Alaska Corporation (Prince William Sound, Seward)	560 E 34th Ave Anchorage, AK	563-8866
Cook Inlet Regional Corp (Mat-Su, Anchorage, Kenai)	P.O. Box 93330 Anchorage, AK	274-8638 279-8836 (Fax)
Doyon Limited (Interior, Central Alaska)	201 1st St Fairbanks, AK	452-4755
Koniag Incorporated (Kodiak Area)	4300 B St Anchorage, AK	561-2668
Nana Regional Corporation (Northwest Arctic Borough)	1001 E Benson Blvd Anchorage, AK	265-4100
Sealaska Corporation (Southeast Alaska)	One Sealaska Plaza Juneau, AK	586-1512

**Federally-Recognized Tribes in Alaska:**

One or more of the 227 Federally-recognized tribes in Alaska may be involved in the response to an oil spill or a hazardous substance release. Following an oil spill or hazardous substance release that has the potential to affect Tribal interests, the Alaska Inter-Tribal Council assists the Federal On-Scene Coordinator in identifying which of the tribe(s) in Alaska should be notified of the spill or release. The appropriate tribal representative(s) will then be notified by the Federal OSC and afforded an opportunity to provide input into the response process. To determine the tribe(s) that may be affected by an oil or hazardous substance release, contact the Alaska Inter-Tribal Council representative (see Tab C, this appendix, and the ARRT listing at the front of this plan for AI-TC contact information.) Specific information on each tribe may be found in the appropriate subarea plan.

The following website address provides a listing of the 227 Federally-recognized tribes:  
<http://www.artnatam.com/alaska.html>

**TAB K: LABORATORIES (STATEWIDE)**

The following list was extracted from ADEC's Alaska Approved UST/LUST Laboratories List. For a complete list of laboratory capabilities and approval status, contact ADEC's Storage Tank Program at 465-5301.

<b>Alaska Approved UST/LUST Laboratories (Revised June 23, 1997)</b>			
<b>Company</b>	<b>Address</b>	<b>Phone</b>	<b>Fax</b>
Analytica Alaska Inc.	811 W. 8th Ave Anchorage, AK 99501	258-2155	258-6634
Boreochem Mobile Laboratory & Consulting	3529 College Road, Suite 204 Fairbanks, AK 99709	764-2536	479-9544
Columbia Analytica – Alaska	4710 Business Park, Ste 24 Anchorage, AK 99503	563-0846	563-2973
CT&E Environmental Services Inc.	200 W. Potter Dr. Anchorage, AK 99518-1605	562-2343	561-5301
CT&E Environmental Services Inc.	3180 Peger Road Fairbanks, AK 99701	562-2343	
MultiClean Analytical Services - Anchorage	2000 W. International Airport Rd Anchorage, AK 99502	248-8273	248-8274
North Creek Analytical - Cordova	P.O. Box 705 Cordova, AK 99574	424-5584	
Northern Testing Labs Inc.	8005 Schoon St Anchorage, AK 99518	349-1000	349-1016
Northern Testing Labs Inc.	3330 Industrial Ave Fairbanks, AK 99701	456-3116	456-3125
Quanterra Environmental Services - Anchorage	5761 Silverado Way, Suite N Anchorage, AK 99518	563-4800	563-4815
KIC Lab	Pouch 340065 Prudhoe Bay, AK 99734	659-6130	659-6121

**TAB M: ENVIRONMENTAL INTEREST GROUPS (STATEWIDE)**

The following listing includes extracts from the U.S. Environmental Protection Agency's **1994/95 Public Interest Groups and Environmental Education Directory** (EPA 910-B-94-003, dated September 1994) as well as other environmental interest groups in the State of Alaska.

<b><u>Organization/Address</u></b>	<b><u>Telephone Number</u></b>
Alaska Center for the Environment 519 W. 8th Ave, Suite 201 Anchorage, AK 99501	(907) 274-3621
Alaska Conservation Foundation 750 W. 2nd Ave, Suite 104 Anchorage, AK 99501-2167	(907) 276-1917 (907) 274-4145 (Fax)
Alaska Environmental Assembly 750 W. 2nd Ave, Suite 104 Anchorage, AK 99501-2167	(907) 276-1917 (907) 274-4145 (Fax)
Alaska Environmental Lobby P.O. Box 22151 Juneau, AK 99802	(907) 463-3366
Alaska Environmental Political Action Committee P.O. Box 101177 Anchorage, AK 99510	(907) 277-2444
Alaska Health Project 218 E. 4th Avenue Anchorage, AK 99501	(907) 276-2864 (800) 478-2864
Alaska Lands Act Coordination Committee P.O. Box 202045 Anchorage, AK 99520	(907) 258-2020 (907) 258-2021 (Fax)
Alaska Marine Conservation Council 508 W 2nd Ave Anchorage, AK 99501	(907) 277-5357
Alaska Natural Heritage Program 707 A Street Anchorage, AK 99501	(907) 279-4549
Alaska Natural History Association 605 W. 4th Ave., Suite 85 Anchorage, AK 99501	(907) 274-8440
Alaska Public Interest Research Group P.O. Box 101093 Anchorage, AK 99510	(907) 278-3661 (907) 278-9300 (Fax)

Alaska Rainforest Campaign 1016 W 6th Ave Anchorage, AK 99501	(907) 274-7246
Alaska Raptor Rehabilitation Center P.O. Box 2984 Sitka, AK 99835	(907) 747-8662
Alaska Survival P.O. Box 320 Talkeetna, AK 99676	(907) 733-2177
Alaska Wildlife Alliance P.O. Box 202022 Anchorage, AK 99520	(907) 277-0897
Alaskans for Juneau P.O. Box 22428 Juneau, AK 99802	(907) 463-5065
American Wildlands P.O. Box 100767 Anchorage, AK 99510	(907) 563-6450
Anchorage Recycling Center P.O. Box 6161 Rosewood St Anchorage, AK 99518	(907) 562-2267
Anchorage Waterways Council 16350 Sandpiper Dr Anchorage, AK 99516	(907) 277-9287
Bristol Bay Buyback Coalition 725 Christiansen Drive Anchorage, AK 99501	(907) 279-6519
Center for Alaskan Coastal Studies P.O. Box 2225 Homer, AK 99603	(907) 235-6667
Chicagof Conservation Council Box 621 Tenakee Springs, AK 99841	(907) 736-2234
Common Ground Alaska P.O. Box 43 Ester, AK 99725	(907) 479-8300
Cook Inlet Regional Citizens Advisory Council 910 Highland Ave Kenai, AK 99611	(907) 283-7222 (907) 283-6102 (Fax)
Copper Country Alliance HC 60 Box 306-T Copper Center, AK 99573	(907) 822-3644

Denali Citizens Council P.O. Box 78 Denali Park, AK 99755	(907) 272-4905
Earth First! P.O. Box 211155 Auke Bay, AK 99821	
False Island-Kook Lake Council P.O. Box 46 Tenakee Springs, AK 99841	
Foundation for the Protection of the Common People P.O. Box 3122 Sitka, AK 99835	(907) 747-8466
Friends of Back Island Association P.O. Box 1081 Ward Cove, AK 99928	(907) 225-9555
Friends of Berners Bay 350 Irwin St #102 Juneau, AK 99801	
Friends of Chugach State Park P.O. Box 100127 Anchorage, AK 99510	(907) 344-7166
Friends of the Earth, Alaska Branch 326 West 11th Ave Anchorage, AK 99501	
Friends of Glacier Bay P.O. Box 135 Gustavus, AK 99826	
Global Relief H.C. #3, Box 5752 Soldotna, AK 99699	(907) 262-3289
Green Party 106 W. Bunnell Homer, AK 99603	(907) 235-1016
Greenpeace USA P.O. Box 104432 Anchorage, AK 99510	(907) 277-8234
Kachemak Bay Conservation Society P.O. Box 846 Homer, AK 99603	(907) 235-6262
Kachemak Heritage Land Trust P.O. Box 2400 Homer, AK 99603	(907) 235-5263

Kenai River Habitat Protection Association P.O. Box 1228 Soldotna, AK 99669	(907) 262-2714
Kodiak Environmental Network P.O. Box 2661 Kodiak, AK 99615	(907) 272-8101
Lynn Canal Conservation P.O. Box 964 Haines, AK 99827	(907) 766-2869
Narrows Conservation Coalition P.O. Box 2130 Petersburg, AK 99833	(907) 772-2211
National Audubon Society of Alaska 308 G Street #217 Anchorage, AK 99501	(907) 276-7034
Anchorage Audubon Society P.O. Box 101161 Anchorage, AK 99510	(907) 278-3007
Arctic Audubon Society P.O. Box 82098 Fairbanks, AK 99708	(907) 479-2954
Kodiak Audubon Society Box 1756 Kodiak, AK 99615	(907) 486-3814
Juneau Audubon Society P.O. Box 21725 Juneau, AK 99802	(907) 789-2655
National Parks and Conservation Association 329 F Street Anchorage, AK 99501	(907) 277-6722
National Wildlife Federation of Alaska Natural Resources Center 750 W 2nd Ave #200 Anchorage, AK 99501	(907) 258-4800 (907) 258-4811 (Fax)
National Wildlife Refuge Association- Alaska Chapter 11405 Hawkins Lane Anchorage, AK 99516	
The Nature Conservancy of Alaska 421 W 1st Avenue Anchorage, AK 9950	(907) 276-3133 (907) 276-2584 (Fax)

Northern Alaska Environmental Center 218 Driveway Fairbanks, AK 99701	(907) 452-5021
Nunam Kitlutsisti P.O. Box 2068 Bethel, AK 99559	(907) 543-2856 (907) 543-3111 (907) 543-3317
Oiled Mayors Committee 710 Mill Bay Road Kodiak, AK 99615	(907) 486-8635
Oil Reform Alliance 1520 Lakeshore Drive Homer, AK 99603	(907) 235-3855
Pelican Forestry Council P.O. Box 85 Pelican, AK 99832	
Prince William Sound Conservation Alliance 310 Egan P.O. Box 1697 Valdez, AK 99686	(907) 835-2799
Prince William Sound Regional Citizens Advisory Council 750 W 2nd Ave, Suite 100 Anchorage, AK 99501-2168	(907) 277-7222 (907) 277-4523 (Fax)
Prince William Sound Users Association 3111 C St, Suite 200 Anchorage, AK 99503	
Public Awareness Committee for the Environment P.O. Box 916 Homer, AK 99603	(907) 235-8541
Regional Conservation Committee P.O. Box 1142 Dillingham, AK 99576	
Regroup P.O. Box 2861 Soldotna, AK 99669	(907) 283-3984
Sane/Alaska 419 Barrow Anchorage, AK 99503	(907) 272-0621
Sierra Club - Alaska Field Office 241 E 5th Avenue #205 Anchorage, AK 99501	(907) 276-8768

Sierra Club Legal Defense Fund 3254th Street Juneau, AK 99801	(907) 586-2751
Sitka Conservation Society P.O. Box 316 Sitka, AK 99835	(907) 747-7509
Southeast Alaska Conservation Council 419 Sixth Avenue, Suite 328 Juneau, AK 99801	(907) 586-6942
Southeast Alaska Natural Resources Center 130 Seward Street, Suite 407 Juneau, AK 99801	(907) 465-5333
Susitna Valley Association 9600 Slalom Drive Anchorage, AK 99516	(907) 346-1943
Taku Conservation Society 1700 Branta Road Juneau, AK 99801	
Tongass Conservation Society Box 3377 Ketchikan, AK 99901	(907) 225-5827
Trustees for Alaska 725 Christensen Drive, Suite 4 Anchorage, AK 99501	(907) 276-4244
The Wilderness Society 430 W 7th Ave Anchorage, AK 99501	(907) 272-9453
Wildlife Federation of Alaska 750 W 2nd Ave #200 Anchorage, AK 99501	(907) 274-3388
Wrangell Resource Council P.O. Box 1020 Wrangell, AK 99929	(907) 874-3504 (907) 874-3431 (Fax)
Yakutat Resource Conservation Council P.O. Box 193 Yakutat, AK 99689	

**TAB P: NOAA WEATHER SERVICE**

The National Oceanic and Atmospheric Administration can provide current and forecast weather for the marine environment as well as the normal inland/coastal zones. In addition, ice reports and forecasts are available upon request.

**Lead Forecaster 271-5105/5088**

**Ice Forecaster  
(Craig Bauer) 271-5107**

**Transcribed Aviation Weather 276-8199**

The following information was extracted from the **Alaska Marine Radio Directory**.

**NOAA WEATHER RADIO (NWR)**

NOAA Weather Radio continuous voice broadcasts on 162.40 and 162.55 MHZ can usually be received 20-40 miles from the transmitting antenna site, depending on terrain and the quality of the receiver used. Where transmitting antennas are on high ground, the range is somewhat greater, reaching 60 miles or more. The VHF-FM frequencies used for these broadcasts require narrow-band FM receivers. The National Weather Service recommends receivers having a sensitivity of one microvolt or less and a quieting factor of 20 decibels.

Some receivers are equipped with a warning alert device that can be turned on by means of a tone signal controlled by the National Weather Service office concerned. This signal is transmitted for 13 seconds preceding an announcement of a severe weather warning.

**VHF CONTINUOUS COMMERCE WEATHER BROADCASTS (NWR)**

<u>Location</u>	<u>Station</u>	<u>Frequency (MHZ)</u>
Anchorage	KEC-43	162.55
Cordova	WXJ-79	162.55
Craig	WXJ-26A	162.40
Fairbanks	WXJ-81	162.55
Haines/Skagway	WXM-97	162.40
Homer	WXJ-24	162.40
Juneau	WXJ-25	162.55
Ketchikan/Annette	WXJ-26	162.55
Kodiak	WXJ-78	162.55
Nome	WXJ-62	162.55
Petersburg	WXJ-82	162.55

Seward	KEC-81	162.55
Sitka	WXJ-80	162.55
Valdez	WXJ-63	162.55
Wrangell	WXJ-83	162.40
Yakutat	WXJ-69	162.40

These VHF-FM radio stations are managed by the National Weather Service. Forecasts are issued at scheduled times; broadcast tapes are updated and amended as required. The broadcasts, in general, contain forecasts and warnings for the local area and nearby coastal waters, special severe weather bulletins, tsunami warnings, a description of the weather pattern as it affects Alaska, and weather reports from selected weather stations.

### **NATIONAL WEATHER SERVICE HF VOICE WEATHER BROADCASTS**

The following VOICE BROADCASTS are on the Upper Sideband (USB) 4125 KHz:

<u>Location</u>	<u>Station</u>	<u>Time of Broadcasts</u>
Annette	KDG58	7:00 am and 3:40 pm
*Barrow	KCB53	6:30 am and 12:00 pm
Kodiak	WHB29	8:00 am and 6:00 pm
Yakutat	KDG91	5:15 am and 7:30 pm
Cold Bay	KC195	10:30 am and 8:30 pm
**King Salmon	KC198	11:00 am and 5:15 pm
Nome	KC194	11:30 am and 9:30 pm

\* Barrow broadcasts April 1 thru September 15 only.

\*\* King Salmon broadcasts from April 1 thru October 15 only.

**COMMERCIAL BROADCAST AM AND FM RADIO STATIONS THAT BROADCAST  
NWS FORECASTS AND WARNINGS**

<u>Location</u>	<u>Station</u>	<u>Frequency (KHz)</u>
Anchorage	KFQD	750
Anchorage	KHAR	590
Anchorage	KSKA	91.1 FM
Anchorage	KYAK	650
Barrow	KBRW	680
Bethel	KYUK	580
Cordova	KLAM	1450
Dillingham	KDLG	670
Glennallen	KCAM	790
Homer	KBBI	1250
Homer	KGTL	103.5 FM
Homer	KGTL	620
Juneau	KINY	800
Juneau	KJNO	630
Kenai	KQOK	100.1 FM
Ketchikan	KTKN	930
Kodiak	KVOK	560
Kodiak	KMXT	101 FM
Kotzebue	KOTZ	720
Nome	KICY	850
Nome	KNOM	780
Saint Paul	KDLG	91.9 FM
Sand Point	KDLG	840
Seward	KRXA	950
Sitka	KIFW	1230
Soldotna	KSRM	920
Talkeetna	KSKA	rebroadcast
Unalaska	KDLG	1450
Wasilla	KMBQ	99.7

## NATIONAL WEATHER SERVICE OFFICE TELEPHONE NUMBERS

Marine weather forecasts and warnings, when issued, can be obtained by telephone as follows:

### 24 Hours Daily

(Recorded Telephone Marine Forecasts)

Anchorage	936-2727
Cordova	424-3333
Juneau	586-3997
Kodiak	487-4949
Petersburg	772-3311
Sitka	747-6011
Wrangell	874-3232

### Other Office Numbers

Location	Telephone No.	Office Hours
Annette	886-3241	12 am - 5 pm daily
Anchorage	271-5106	24 hours daily
Cold Bay	532-2448	24 hours daily
Fairbanks	456-0373	24 hours daily
Homer	235-8588	10 pm - 6 am daily
Juneau	586-7491	24 hours daily
King Salmon	246-3303	10 am - 6 pm daily
Kodiak	487-4313	6 am - 6 pm daily
Kotzebue	442-3231	12 am - 4 pm daily
Nome	443-2321	24 hours daily
Saint Paul	546-2215	12 am - 5 pm daily
Valdez	835-4505	24 hours daily
Yakutat	784-3322	24 hours daily

**MAPS AND CHARTS:** Each subarea contingency plan contains an index of U.S. Geological Survey topographic maps for that specific region. Also included are NOAA nautical charts for the area, a chart number listing, and a listing of authorized nautical map dealers.

**TAB R: VOLUNTEER ORGANIZATIONS**

<b>Volunteer Organizations</b>		
<b>Agency</b>	<b>Point of Contact</b>	<b>Telephone Number</b>
American Red Cross		
Anchorage - Disaster Services, State Coordinating Chapter		277-1538 (WK) 552-1110 (After Hours)
Fairbanks - Lead Chapter, Disaster		456-5937 (WK) 451-8267 (After Hours)
Civil Air Patrol		
*Rescue Coord Center	National Guard Armory Camp Denali	428-7230
Anchorage	Birchwood Composite Squadron	688-4995
Anchorage	Polaris Composite Squadron	272-7227
Fairbanks		474-0378
Homer		235-8062
Juneau		789-0245
Kenai		283-7801
Seward		224-3000
Coast Guard Auxiliary	17th Dist (Coast Guard)	463-2000
Bird Treatment & Learning Center	Dr. Jim Scott	562-4852 562-1852

\*Normal Process: The Alaska State Troopers will initiate a request for Civil Air Patrol assistance through the Rescue Coordination Center (RCC). The RCC will activate the Civil Air Patrol in the appropriate region, assign a mission number, and provide approval authority for the mission.

**TAB S: NATURAL RESOURCE TRUSTEES**

**FEDERAL NATURAL RESOURCE TRUSTEE AGENCY CONTACTS**

**Department of Interior**

Mr. Paul Gates  
Regional Environmental Officer  
Office of Environmental Policy and  
Compliance  
1689 C Street Rm 119  
Anchorage, AK 99501-5126  
(907) 271-5011

**Department of Agriculture**

Mr. Jim Caplan  
Dave Gibbons  
US Forest Service  
P.O. Box 021628  
Juneau, AK  
(907) 586-8870  
(907) 271-2525

**Department of Commerce**

Mr. Mark Miller  
National Oceanic and Atmospheric  
Administration  
Hazardous Materials Response  
and Assessment Division (N/ORCA3)  
7600 Sand Point Way N.E.  
Seattle, WA 98115-0070  
(206) 526-6945  
(206) 526-6317 - 24 hour

**Department of Defense**

LTC Robert J. Hansen  
Alaskan Command Engineer  
ALCOM/J42  
Bldg 5-800, G St, Suite 216  
Elmendorf AFB, AK 99506  
(907) 552-3791

**STATE OF ALASKA**

**Alaska Dept of Fish and Game**

Frank Rue, Commissioner  
P.O. Box 25529  
Juneau, AK 99802-5529  
465-4100 FAX: 465-2332

**Alaska Dept of Natural Resources**

John Shively, Commissioner  
400 Willoughby Ave  
Juneau, AK 99801-1724  
465-2400 FAX: 586-2754

**Alaska Dept of Environmental Conservation**

Michele Brown, Commissioner  
410 Willoughby Ave, Suite #105  
Juneau, AK 99801-1795  
465-5050 FAX: 465-5070

<b>EMERGENCY CONTACTS: TRUSTEES<sup>1</sup></b>			
<b>Trustee</b>	<b>Emergency Contact</b>	<b>Contact Information</b>	<b>Fax Number</b>
<b>FEDERAL TRUSTEE CONTACTS</b>			
Dept of Agriculture	1. Dave Gibbons	Wk: 907-271-2525 Hm: 907-522-7728 Email: <a href="mailto:dgibbons/r10@fs.fed.us">dgibbons/r10@fs.fed.us</a>	907-271-3992
Dept of Agriculture	2. Betsy Walatka	Wk: 907-586-8723 Hm: 907-586-1832 Email: <a href="mailto:ewalatka/r10@fs.fed.us">ewalatka/r10@fs.fed.us</a>	907-586-7555
Dept of Agriculture	3. Kathleen Adam	Wk: 907-586-8835 Hm: 907-790-3153 Email: <a href="mailto:kadam/r10@fs.fed.us">kadam/r10@fs.fed.us</a>	907-586-7555
Dept of the Interior	1. Pamela Bergmann	Wk: 907-271-5011 Hm: 907-333-0489 Email: <a href="mailto:pamela_bergmann@ios.doi.gov">pamela_bergmann@ios.doi.gov</a>	907-271-4102
Dept of the Interior	2. Doug Mutter	Wk: 907-271-5011 Hm: 907-345-7726 Email: <a href="mailto:douglas_mutter@ios.doi.gov">douglas_mutter@ios.doi.gov</a>	907-271-4102
Dept of Commerce	1. Doug Helton	Wk: 206-526-6604 Hm: 206-548-0263 Pager: 1-800-759-7243, PI#862-5708 Email: <a href="mailto:doug.helton@noaa.gov">doug.helton@noaa.gov</a>	206-526-6665
Dept of Commerce	2. Brad Smith	Wk: 907-271-5006 Hm: 907-248-4211 Email: <a href="mailto:brad.smith@noaa.gov">brad.smith@noaa.gov</a>	907-271-3030
Dept of Commerce	3. Rob Wolotira	Wk: 206-526-4360 Hm: 206-365-5389 Pager: 1-800-759-7243, PI#862-5704 Email: <a href="mailto:robert.wolotira@noaa.gov">robert.wolotira@noaa.gov</a>	206-526-6665

<sup>1</sup> 1. = Primary Contact; 2. = 1<sup>st</sup> Alternate Contact; 3. = 2<sup>nd</sup> Alternate Contact

**STATE TRUSTEE CONTACTS**

Dept of Fish and Game	1. Mark Fink	Wk: 907-267-2338 Hm: 907-337-7933 Email: mark_fink@fishgame.state.ak.us	907-267-2464
Dept of Fish and Game	2. Claudia Slater	Wk: 907-267-2336 Hm: 907-561-6078 Email: claudia_slater@fishgame.state.ak.us	907-267-2464
Dept of Environmental Conservation	1. Brad Hahn Central Alaska Area	Wk: 907-269-7548 Hm: 907-345-3905 Email: bhahn@envircon.state.ak.us	907-269-7648
Dept of Environmental Conservation	2. Ed Meggert Northern Alaska Area	Wk: 907-456-2124 Hm: 907-456-6196 Email: emeggert@envircon.state.ak.us	907-451-2362
Dept of Environmental Conservation	3. Bob Mattson Southeast Alaska Area	Wk: 907-465-5357 Hm: 907-789-5734 Email: bmattson@envircon.state.ak.us	907-465-2237
Dept of Law	1. Alex Swiderski	Wk: 907-269-5274 Hm: 907-248-6725 Email: alex_swiderski@law.state.ak.us	907-278-7022
Dept of Law	2. Craig Tillery	Wk: 907-269-5274 Hm: 907-248-3494 Email: craig_tillery@law.state.ak.us	907-278-7022
Dept of Law	3. Breck Tostevin	Wk: 907-269-5274 Hm: 907-248-4062 Email: <a href="mailto:breck_tostevin@law.state.ak.us">breck_tostevin@law.state.ak.us</a>	907-278-7022
Dept of Natural Resources	1. Sam Means	Wk: 907-269-8548 Hm: 907-333-7229 Email: samm@dnr.state.ak.us	907-269-8913
<b>OTHER TRUSTEE CONTACTS</b>			
Tribal Trustees	1. Deborah Vo	Wk: 907-563-9334 Hm: 907-333-9801 Email: <a href="mailto:dvo@aitc.org">dvo@aitc.org</a>	907-563-9337

<sup>1</sup> 1. = Primary Contact; 2. = 1<sup>st</sup> Alternate Contact; 3. = 2<sup>nd</sup> Alternate Contact

**TAB T: LOCAL EMERGENCY MANAGERS**

**LOCAL EMERGENCY MANAGERS**

(Source: DMVA/ADES)

<b>Emergency Management Assistance and Other Assistance</b>		
<b>Location/Borough</b>	<b>Point of Contact</b>	<b>Phone Number</b>
Anchorage	Office of Emergency Mgt	267-4904
Bethel	Bethel Fire Department	543-2131
Bristol Bay Borough	Borough Fire Department	246-4224
Cordova	Fire Department	424-6117
Dillingham	Fire Department	842-2288
Fairbanks North Star Borough	Office of Emergency Mgt	459-1219
Haines	Northern Southeast LEPC	766-3377
Juneau	Fire Department	586-5322
Kenai Peninsula Borough	Office of Emergency Mgt	262-4441
Ketchikan Gateway Borough	Planning Department	225-6618
City of Kodiak	City Manager's Office	486-8640
Kotzebue	Fire Department	442-3404
Mat-Su Borough	Dept of Public Safety	373-8800
Nome	Police Department	443-5262
North Slope Borough	NSB Search and Rescue	852-0284
Petersburg	Fire Department	772-3355
Sitka	Fire Department	747-3233
Unalaska	Dept of Public Safety	581-1233
Valdez	Police Department	835-4360
Wrangell	Police Department	874-3304

For a complete listing of Local Emergency Planning Committee (LEPC) chairpersons, refer to the State of Alaska, Dept of Military and Veterans Affairs Internet home page at: <http://www.ak-prepared.com/lepclist.htm>.

**TAB V: RRT AND OSC ACCESS TO EMERGENCY BROADCAST SYSTEMS**

Three separate systems for broadcast of emergency messages are available to the RRT and the OSC. These include the NOAA Weather Radio System, the State of Alaska Emergency Broadcast System (EBS) and the National Warning System (NAWAS).

**a. NOAA Weather Radio System:** The Alaskan NOAA Weather Radio System is handled through the National Weather Service (NWS) and is constantly updated. The NOAA Weather Radio System operates in two modes, i.e. normal and alarm. In the normal mode the system provides regionally specific updated weather information. In an emergency, NWS can activate the alarm mode. In the alarm mode, NWS can remotely activate any one of 15 remote radio weather transmitters. The OSC or the RRT can activate the alarm mode of the Alaskan NOAA Weather Radio System by contacting the NWS at (907) 271-3458 and state that they wish to activate the NOAA Weather Radio System for service geographical areas. All messages should be short and concise. As a minimum, provide the following information:

- (1) Describe the nature of the emergency
- (2) Actions underway by Federal, State agencies and Responsible Party
- (3) Special instructions to the public

Standard NOAA weather radio transmitters (with a nominal 45-mile broadcast radius) are situated at strategic locations throughout the State. In addition, when NOAA makes a broadcast on its weather radio affecting a specific geographical region, it can also notify the local primary Common Program Control Station (CPCS-1) (a component of the Emergency Broadcast System) covering the affected area and ask the CPCS-1 station to re-broadcast the emergency message.

**b. State of Alaska Emergency Broadcasting System:** The Alaska Division of Emergency Services (DES) is responsible for activation of the State Emergency Alert System (EAS). The State EAS can be activated statewide or regionally. To use the EAS, contact DES and request system activation. Because the Alaska Rural Communications System (ARCS) is not included in the EAS at present, some outlying communities in Alaska cannot be reached by the EAS. Other methods will have to be employed.

**c. National Warning System (NAWAS):** DES also operates the Alaska component of NAWAS. The NAWAS alerting system is designed to provide immediate notification to 23 communities and agencies located in Alaska. This system uses dedicated commercial leased land lines. To use this alerting system contact DES and request they activate the NAWAS. To activate either the EBS or the NAWAS contact DES at

**1-800-478-2337                      or                      (907) 428-7000**

and provide information per paragraph a(1), (2), and (3) above.



**TAB W: OIL SPILL RESPONSE COOPERATIVES****OIL SPILL RESPONSE COOPERATIVES**

Organization	Contact Name	Telephone Number		Address	Fax Number
		Office	24-Hour		
Alaska Clean Seas (ACS)	Operations Manager	659-3202	659-2405	Pouch 340022 Prudhoe Bay, AK 99734-0022	659-2616
Cook Inlet Spill Prevention & Response (CISPRI)	Doug Lentsch	776-5129	776-5129	P.O. Box 7314 Mile 26.5 N. Spur Nikiski, AK 99635	776-2190
Alyeska Ship Escort Response Vessel System (SERVS)	Duty Officer	835-6973	835-6901	P.O. Box 109 Mail Stop 730 Valdez, AK 99686	265-8983 835-6962
Alaska Chadux Corp.	Bob Heavilin	278-3365	278-3365	721 West 1st Avenue Anchorage, AK 99501	278-3330
Southeast Alaska Petroleum Resource Organization (SEAPRO)	Dave Owings	225-7002	228-2700	540 Water St, Suite 202 Ketchikan, AK 99901	247-1117

**TAB X: STATE TERM CONTRACTS**

**ASSESSMENT**

Contractor	Contact Name	Telephone Number		Address	Fax Number
		Office	24-Hour		
Ecology & Environment	Greg Horner Bill Richards	257-5000	272-3221 or 561-1567	840 K Street Anchorage, AK 99501	257-5007
EMCON Alaska	Andrew Dimitriou	562-3452	229-7907 (cellular)	4701 Business Park Blvd, Suite 36 Anchorage, AK 99503	563-2814
	Karen Cougan/S. Rose	479-7720	479-7720 (extension 30)	3437 Airport Way Suite 203B Fairbanks, AK 99709	479-7721
Hart Crowser	Jim Gill	276-7475	345-5073	2550 Denali, Suite 900 Anchorage, AK 99503	276-2104
Oasis Environmental	Max Schwenne Brad Authier	258-4880	258-4880	807 G Street, Suite 250 Anchorage, AK 99501	258-4033
Shannon & Wilson	Fred Brown Tim Terry	561-2120	344-2557	5340 Fairbanks Street, #3 Anchorage, AK 99518	561-4483

**HAZARDOUS MATERIALS CLEANUP**

Contractor	Contact Name	Telephone Number		Address	Fax Number
		Office	24-Hour		
EMCON Alaska	Andrew Dimitriou	562-3452 479-7720	229-7907 (cellular)	4701 Business Park Blvd, Suite 36 Anchorage, AK 99503	563-2814
	Karen Cougan/S. Rose		479-7720 (extension 30)	3437 Airport Way Suite 203B Fairbanks, AK 99709	479-7721
Philip Environmental	Tom Poliquin Tim Law/Tim Shaw	272-9007	272-9007	1813 East 1st Ave, Suite 205 Anchorage, AK 99502	272-6805
Shannon & Wilson	Fred Brown/Tim Terry	561-2120	344-2557	5430 Fairbanks Street, #3 Anchorage, AK 99518	561-4483
	John Cronin Ron Abbott	479-0600		2055 Hill Road (P.O. Box 70843) Fairbanks, AK 99707	479-5691

**OIL SPILL RESPONSE - TERM CONTRACTORS**

NAME & ADDRESS	CONTRACT MANAGER TITLE	PHONE FAX	EMERGENCY PHONE	EMERGENCY PROCEDURE
Philip Environmental 1813 E. 1st Avenue, Suite 201	Robert Soptei Senior Project Manager	272-9007 272-6805	272-9007	Emergency phone staffed 24-hours/day; non-working hours covered by answering service with list.
Shannon & Wilson 5430 Fairbanks Street Anchorage, AK 99518	Tim M. Terry, VP Fred Brown, Senior VP	561-2120 561-4483	344-2557	Call Tim Terry or Fred Brown for Anchorage, southcentral, or southeast areas.  Call Rohn Abbott for Fairbanks, north or northcentral areas. The office most accessible to the incident will respond. A list of office staff/support personnel is maintained for emergency response.
2055 Hill Road Fairbanks, AK 99709	Rohn D. Abbott, Senior VP	479-0600 479-5691	457-6771	
Exclusive Landscaping & Paving P.O. Box 58136 Fairbanks, AK 99711-0136	John M. McComas, VP Daniel Himebauch Owner/President  Sherman French, Supt	488-8833 488-8999	456-8653  488-3998  488-0650	Contact D. Himebauch or J. McComas and state the nature and location of the emergency, giving as much specific information as possible. Fax a copy of the emergency response Notice to Proceed (NTP) with authorized signature to 488-8999.
1570 Richardson Highway North Pole, AK 99705-5943				
Forty-Niner Remediation & Oilspill Group (F.R.O.G.) P.O. Box 112608 Anchorage, AK 99511	Sam Womack	344-8623 522-8623	344-5917 (pager)	Expertise in cleaning up both oil and hazardous waste spills. Experience in various kinds of remediation.
Seldovia Oil Spill Response Team (S.O.S. Team) P.O. Box 194 Seldovia, AK 99663	Karl Pulliam	234-7400 234-7699	234-7400	Operator for the Alaska Responder 650 barge along with the associated equipment. Also maintain a fairly large list of vessels of opportunity.
Alaska Pacific Response Group P.O. Box 91989 Anchorage, AK 99509-1989	Bruce Metcalfe	229-6989 277-8428	263-8618	This is an incident management organization, not a cleanup contractor. They have a lot of experience in setting up and running an incident command post using the ICS.
Alaska Pollution Control 425 Outer Springer Loop Road Palmer, AK 99645	Cecilia M. Hidalgo, Pres Carl Luchsinger Tim Klingbeil	746-5036 746-3640	344-5036 344-5036	First contact person is Carl Luchsinger. Second contact person is Tim Klingbeil. The emergency phone is manned 24 hours/day.
Pacific Environmental Corp. 600 W. 58th Avenue, Building J Anchorage, AK 99518	Rex Lumpkin Area Manager	562-5420 562-5426	562-5420	Answering service is staffed 24 hours/day.

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## **APPENDIX IV - Special Forces**

### **TAB A: U.S. COAST GUARD NATIONAL STRIKE FORCE COORDINATION CENTER (NSFCC)**

The National Strike Force (NSF) was created in 1973 as a Coast Guard staffed "Special Force". This special force assists FOSC's responding to potential and actual oil and hazardous material spills as directed by the National Contingency Plan (NCP).

The National Strike Force is composed of four units including three, 35 member Strike Teams. These teams are:

- (1) Atlantic Strike Team located in Fort Dix, New Jersey, (609) 724-0008/0009;
- (2) Gulf Strike Team located in Mobile, Alabama, (205) 639-6601; and the
- (3) Pacific Strike Team located in Novato, California (415) 883-3311.

The Strike Teams are managed by a fourth unit, the National Strike Force Coordination Center which is located in Elizabeth City, North Carolina (252) 331-6000.

The NSF is a unique, highly trained cadre of Coast Guard professionals who maintain and rapidly deploy with specialized equipment in support of FOSC's preparing for and responding to oil and hazardous substance incidents in order to prevent adverse impact to the public and reduce environmental damage. NSF capabilities include:

- (1) responding with trained personnel and specialized equipment to prevent, contain and/or remove spills of oil and releases of hazardous substances;
- (2) providing spill management expertise;
- (3) assisting with response planning and consultation;
- (4) conducting operational training in oil and chemical spill response techniques and equipment usage
- (5) coordinating, conducting, and evaluating the National Preparedness for Response Exercise Program (PREP);
- (6) identifying, locating, and assisting in the transportation of specialized equipment needed for spill response; and
- (7) providing support from the Public Information Assist Team (PIAT) to FOSCs during pollution responses.

Upon receiving a request, personnel and equipment will be deployed to the scene in the most expeditious manner possible. This may involve over-the-road transport: all three Strike Teams have tractor-trailer rigs which give them rapid deployment capabilities. In the event air transportation of equipment is required, aircraft support will be coordinated by the appropriate Area Commander.

By requesting assistance from any one Strike Team, an FOSC immediately gains access to the entire National Strike Force personnel roster and equipment inventory. Each team maintains a state of readiness which enables them to dispatch two members immediately, four members within two hours, and up to twelve members within six hours as the circumstances of the incident dictate. Equipment would be dispatched within four hours of a request for assistance.

Since response support is time critical, early notification of Strike Team assistance of potential assistance will allow the teams to begin logistics planning even before a formal request is made.

### **Logistical Considerations:**

Strike Teams make every effort to be as logistically independent, however, assistance may be required from the FOSC in arranging the following support:

- (1) Heavy lifting equipment, such as cranes and forklifts capable of handling a 16,000 lb. containment barrier box;
- (2) Fork extensions for forklift;
- (3) Small boats, vessels of opportunity;
- (4) Tractor-trailer rigs;
- (5) Electrical power, land lines for telephones and computers, potable water supply and fuel supply for command posts.

Specific logistic needs will be clarified during the initial request for assistance and these needs vary, dependent upon the incident and location. Strike Teams attempt to minimize the incident and location. Strike Teams attempt to minimize the effort by the FOSC's staff required to arrange support. However, the local knowledge of the FOSC's staff may be relied upon by the Strike Teams to make reasonable decisions regarding logistics.

**TAB B:      PUBLIC INFORMATION ASSIST TEAM (PIAT)**

The PIAT is an element of the NFSCC staff which is available to assist OSC's to meet the demands for public information during a response or exercise. Its use is encouraged any time the OSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC (919) 331-6000.

**TAB C:      U.S. COAST GUARD DISTRICT RESPONSE GROUP (DRG)  
U.S. COAST GUARD DISTRICT RESPONSE ADVISORY TEAM (DRAT)**

The DRG is a framework within each Coast Guard District to organize district resources and assets to support U.S.C.G. OSCs during a response to a pollution incident. DRGs assist the OSC by providing technical assistance, personnel, and equipment, including the Coast Guards pre-positioned equipment. Each DRG consists of all Coast Guard personnel and equipment within the district including the DRAT that is available to provide support to the OSC in the event that a spill exceeds local response capabilities. The DRAT has personnel specifically trained in pollution fund management, equipment, and environmental assessment.

**TAB D:      U.S. NAVY (USN)**

The 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 in specialized oil containment, collection, and removal equipment.

The Supervisor of Salvage (SUPSALV) can provide salvage expertise and maintains a warehouse on each coast stockpiled with salvage and response gear. Request for USN assistance is made through the OSC or RRT.

**TAB E:      SCIENTIFIC SUPPORT COORDINATOR (SSC)**

NOAA SSC's are the principal advisor to the U.S. Coast Guard OSC for scientific issues, communication with the scientific community, and coordination of requests for assistance from State and Federal agencies regarding scientific studies. The SSC strives for a consensus on scientific issues affecting the response, but ensures that differing opinions are communicated to the OSC. At the request of the OSC, the SSC leads the scientific team during a response, and is responsible for providing scientific support for operational decisions and for coordinating on-scene scientific activity. The SSC leads the synthesis and integration of environmental information required for spill response decisions in support of the OSC, coordinating with State representatives, appropriate trustees and other knowledgeable local representatives. The SSC is supported by a scientific support team that includes expertise in environmental chemistry, oil slick tracking, pollutant transport modeling, natural resources at risk, environmental tradeoffs of countermeasures and cleanup, and information management. At the request of the OSC, the NOAA SSC may facilitate the OSC's work with the lead administrative trustee for natural resources to ensure coordination between damage assessment data collection efforts and data collected in support of response operations.

**TAB F: ENVIRONMENTAL RESPONSE TEAM (ERT)**

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

**TAB G: AGENCY FOR TOXIC SUBSTANCE AND DISEASE REGISTRY (ATSDR)**

The ATSDR maintains appropriate disease/exposure registries, provides medical care and testing of individuals during public health emergencies, develops, maintains, and informs the public concerning the effects of toxic substances, maintains a list of restricted or closed areas due to contamination, conducts research examining the relationship between exposure and illness, and conducts health assessments at contaminated sites. The ATSDR also assists the EPA in identifying most hazardous substances at CERCLA sites, develops guidelines for toxicological profiles of hazardous substances, and develops educational materials related to the health effects of toxic substances. ATSDR resources are an important tool for the OSC to use in assessing the possible effects of an environmental emergency on the public's health.

The Agency's 24-hour telephone number is: **(404) 639-0615.**

## **APPENDIX V - Communications**

**I. General:** Adequate communications equipment along with a well thought out communications plan are imperative to a coordinated response. For responses involving numerous vessels or operations distant from the command center, the communications center will have to be placed as close to the response location as feasible. The communication center will require telephones, facsimile machines, single side band, and VHF-FM base station with additional portable radios. The distances involved may necessitate the installation of VHF repeater stations to allow communications at greater distances. Contingency planners must seriously address their communications requirements prior to the event of a spill. Failure to properly command and control response resources will prove devastating to the response.

**a. Radios:** Marine communications at the command center and aboard vessels will generally require 25 watt VHF marine radios with high gain antennas. Vessels usually monitor channel 16 and switch to other working frequencies. When aircraft are used in conjunction with on-water activities such as directing vessel movements, VHF marine frequency radios will be required for use by the aircraft. Due to aircraft noise, these radios should be equipped with headsets and boom mikes. Communications with aircraft from the command center will require standard VHF frequency capability. ALASCOM's Marine Radio Service provides vessel to vessel, vessel to shore, and shore to vessel communications through the marine VHF single side band service. In large spills where the responsible party is unknown or is not responsive, the contracted response organization will be required to provide the necessary communications "package".

**b. Telephones:** Telephone support will have to be coordinated through the local telephone utility. The requirements for telephone support may overload the capability of some of the remote locations resulting in delays in acquiring a suitable number of lines. Long distance service may also be severely limited during initial operations.

**c. Telefax:** Dedicate at least two Fax machines to the command center. Fax machines may be purchased or rented on the local economy in the larger cities within the region. For remote responses, plan to deploy to the spill location with adequate Fax capability since availability will be limited in the bush. Use one machine for incoming and one for outgoing traffic. Establish procedures very early in the response for sending, receiving, and distributing Fax's. Publish the Fax numbers within the Command Center so that these numbers can be referenced to agencies and organizations outside the command structure.

**d. Portable Telephones:** Cellular telephone coverage is rather limited in Alaska and can't be relied upon as a primary means of communication. However, cellular phones can provide an additional means of maintaining communications with individuals outside the command center. The USCG's Pacific Strike Team has an International Maritime Satellite Organization (INMARSAT) Telesystem capable of transmitting and receiving calls from anywhere in the world. The system can also send and receive Fax's. ADEC also has one of these systems on hand, and another to be ordered.

ADMVA/DES has six Personal Satellite Terminals (PST) on the American Mobile Satellite Corporation (AMSC) system and three on the INMARSAT system.

**e. Portable Communications Trailers:** Portable communications trailers are rare in Alaska. The major industry response co-ops have the capability to establish portable communications centers, either in flyaway kits or road transportable units. The DOD has extensive communications that could conceivably be brought to bear in the event of a significant spill.

**f. Copiers:** Dependable, high volume copiers will be required in the command center. The size of the response will dictate the number of copiers required. Having more than one copier is advisable in the event that one machine breaks down from overuse.

## **TAB A: FEDERAL COMMUNICATIONS RESOURCES**

**1. General:** The following is a description of U.S. Coast Guard coverage in Alaska. The U.S. Coast Guard provides VHF-FM coverage in only those coastal areas of general boating public, namely Ketchikan, Sitka, Juneau, Valdez, and Kodiak. The U.S. Coast Guard does not provide continuous VHF-FM coastwide coverage in Alaska. However, HF coverage for the most part is continuous from the aforementioned local stations. Communications are monitored continuously at Ketchikan, Sitka, Juneau, Valdez, and Kodiak on both VHF Channel 16 and 2182 KHz. In addition, Coast Guard cutters and aircraft have HF, VHF, and UHF capabilities. All Coast Guard ships (while in port) and shore stations in Alaska are interconnected with a wide area network. All data and recorded message traffic is carried on this network. Telephone service is available at all Coast Guard units. Cellular phone capabilities are available only in Valdez, Anchorage, and Juneau. The Juneau Coast Guard District Office maintains a sole satellite capability with other DOD entities.

Communications management and support is provided by the Seventeenth District Telecommunications Branch which can be accessed by calling (907) 463-2318, after working hours via the 24-hour Command Center at (907) 463-2000.

**2. Response Scenarios:** The following recommendations apply to response scenarios which are likely to occur and communications strategies for use during those type incidents.

a. Situation 1: Ability to receive initial report of grounding, collision, spill, etc. This essentially the same basic information requirements for Search and Rescue (SAR) missions.

Primary communications strategy would initially be by VHF Marine radio and on telephone as the primary means of passing the initial report. Secondary communications would employ HF and/or telephone depending upon the capabilities available in the surrounding area. Under normal circumstances a call would be made to the USCG Communications Center who would, in turn, pass the information to Command Center personnel for further prosecution.

b. Situation 2: Voice communications with on-scene USCG investigation personnel. The investigator typically will not have a cutter on scene and may arrive via charter aircraft or vessel. The investigator must be able to pass and receive information in a timely manner (2-6 hours after the initial report) to the cognizant MSO. The investigator may not be able to use the assets of the damaged vessel due to safety or location issues.

Primary communications strategy would be by VHF Marine radio either directly to the USCG Communications Center or possibly via the Alascom VHF Marine operator. If telephone service is available in the general area, subsequent reports would use that means.

Secondary communications strategy would be via HF, VHF-FM, and/or telephone. Use of the Marine operator for phone patch is authorized when other means are not available.

- c. Situation 3: Command and control for a small number of on-scene units. In a small response, there will typically be one cutter, one helicopter, and two vessels from other organizations. They will need to talk to each other as well as the MSO.

Primary communications strategy will be VHF-FM for close in operations. HF communications guard with aircraft will be maintained by Communications Station (CommSta) Kodiak. Air-to-surface communications will be a combination of VHF-FM/HF or VHF, depending upon the surface vessel capabilities.

- d. Situation 4: Command and control for large number of on-scene units (estimated occurrence is once every 5-10 years). During an incident near the scale of the Exxon Valdez, communications requirements (voice and data) with numerous units (air and surface) from multiple organizations should be anticipated.

Primary Communications Strategy - VHF-FM and/or HF.

Secondary Communications Strategy - HF and/or VHF-FM, and UHF depending on unit capabilities and civilian capabilities. Normally the on-scene coordinator will have capabilities meeting both DOT and civilian sector capabilities. If not, a transportable telecommunications center can be airlifted in to provide the capability. This assets is situated in Sacramento, CA. and requires COMPACAREA (Ptt/Poc) coordination to mobilize for air shipment. It also requires radio operators from the requesting district.

**3. Coast Guard Communications Capabilities:** The following are Coast Guard Aircraft, Ship, and Shore Station communications capabilities.

- a. C-130 (Fixed wing), H60, and HH65 (Helicopter) Communications Capabilities:

HF 2-30 MHZ

VHF 30-87.975 MHZ, Guard 40.5  
 VHF 108-117.975 MHZ, AM, RX only  
 VHF 118-155.975 MHZ, AM TX/RX, Guard 121.5  
 VHF 156-173.95 MHZ, FM, Guard 156.8 (Channel 16)  
 UHF 225-399.975 MHZ, AM, Guard 243.0  
 ADF FULL DF CAPABILITIES EXCEPT FOR HF

b. Patrol Boats (WPB), and Buoy Tenders (WLB):

HF 2-30 MHZ  
 VHF-FM 146-174 MHZ, Preprogrammed channels only, State Trooper  
 155.2500, and State Disaster 155.2950 are preprogrammed.  
 VHF-FM 156-162 MHZ marine band  
 UHF 225-399.975 MHZ

c. Coast Guard Shore VHF-FM Fixed Sites:

**Juneau**

Althrop Peak  
 Cape Fanshaw  
 Federal Bldg  
 Robert Barron  
 Yakutat  
 Yakutat (HF)  
 Lena Pt (HF)

**Ketchikan**

Base Ketchikan  
 Cape Decision  
 Gravina Island  
 Mary Island  
 Sukkwan Island  
 Zarembo Island  
 Pt Higgins (HF)

**Sitka**

AirSta Sitka  
 Mud Bay  
 Air Sta (HF)

**Kodiak**

Cape Gull  
 Diamond Ridge  
 Pillar Mountain  
 Site Summit  
 Sitkinak Dome  
 Tuklung Mountain  
 Rugged Island  
 Barren Island  
 CommSta Kodiak (HF)

**Valdez**

Cape Hinchinbrook  
 Cape Hinchinbrook (HF)  
 Yakataga (HF)  
 Potato Point  
 Point Pigot  
 Valdez MSO  
 Cordova Downtown  
 Cordova AVSUFAC  
 Naked Island

The city names in **bold/underline** are the Control stations manned 24 hours a day, 365 days a year. Those locations listed beneath are remoted to the respective control station by either landline, microwave, UHF, or VHF or a combination thereof.

All sites (except those under Valdez) have the following channels:  
6, 12, 16, 21A, 22A, 81A

Valdez (except for Cordova) have channels:  
6, 13, 16, 21A, 22A, 81A

Cordova has channels: 13, 16, 21A, 22A

Those locations marked (HF) Guard 2182 KHz International Distress and calling frequency, and are capable of operation in the 2-30 MHZ range but on preprogrammed frequencies only. DO NOT contain any State or Local emergency frequencies. Changes require a technician to physically go to the remote site and reprogram the frequency, they are not remotely changeable/programmable.

Communications Station (CommSta) Kodiak maintains a full long range HF capability 2-30 MHZ.

d. Portable Communications Capabilities:

(1) USCG Juneau Communications Capabilities:

- Honda Generators (2 each), .4KVA 3.5 Amps (400 Watts)
- HF Transceiver (1 each), 2-30 MHZ
- CB Transceiver (1 each), 23 channel
- Portable Tactical UHF SATCOM (MISTE II) Briefcase, 225-399.995 MHZ
- Saber 1 DES capable hand held VHF-FM radios (15 each), 146-174 MHZ, preprogrammed channels only, contains State Trooper 155.2500. Three (3) six-station chargers and 15 spare batteries available.
- Motorola MSF 5000 VHF-FM/AM Base Station, 125 Watt, 132-174 MHZ, 6 preset channels must be preprogrammed, requires IBM PC to program. Digital data capable 1200/4800 baud.
- PRC-77 (5 each), VHF-FM military low band transceiver, portable man packs, Low 30.00-52.95 MHZ; High 53.00-75.95 MHZ; 1.5 to 4 watts, 5-mile range.
- URC 94 (1 each), HF/VHF AM/FM/CW/SSB Upper/Lower Sideband, Transceiver, HF 1.5-29.999 MHZ, 100 Watts, 12,000 mile range.  
VHF 30.0-79.999 MHZ, 50 Watts, 5-mile range.

(2) Ketchikan Capabilities: Hand held VHF-FM radios 156-162 MHZ.

(3) Valdez Capabilities:

- Cellular Telephone (6 each)
- Hand held VHF-FM radios (6 each), 156-162 MHZ
- Hand held VHF-FM radios (4 each), 146-174 MHZ

(4) Kodiak Air Station (AirSta) Capabilities:

- Hand held VHF-FM radios, 156-162 MHZ

(5) Kodiak Communications Station (CommSta) Capabilities:

- URC 94 (1 each), HF/VHF AM/FM/CW/SSB Upper/Lower Sideband, Transceiver, HF 1.5-29.999 MHZ, 100 Watts, 12,000 mile range. VHF 30.0-79.999 MHZ, 50 Watts, 5-mile range.
- ARC 94, 2-30 MHZ, 1k increments, 125 Watts
- ARC 190, 2-30 MHZ, 100 Hz increments, 400 Watts
- ARC 618, 118-135.9 MHZ, 1k increments
- ARC 513, 150-173.995 MHZ, 25k increments
- ARC 159, 225-399.975 MHZ, 25k increments
- ARC 182 V/U, 1 VHF 30-87.975 MHZ, Guard 40.5  
2 VHF 108-117.975 MHZ, AM, RX only  
VHF 118-155.975 MHZ, AM TX/RX, Guard 121.5  
3 VHF 156-173.95 MHZ, FM, Guard 156.8 (Channel 16)  
4 UHF 225-399.975 MHZ, AM, Guard 243.0

## **TAB B: STATE COMMUNICATIONS RESOURCES**

**1. General:** The ADEC currently operates an assortment of communications equipment including a variety of hand held and base station radios and three portable satellite terminals. Additionally, there are sixteen wide area mountaintop repeater sites in Juneau, Prince William Sound, the Kenai Peninsula, the Anchorage area, Fairbanks, Kodiak and the North Slope which are available to enhance area communications.

**2. Emergency Response Communications Goal:** The communications goal for emergency response to releases of oil and hazardous substances within the geographic boundaries of the State, regardless of size, location, or nature of the released materials is to:

- ◆ Provide *minimum initial Off-Site and On-Site communications capability* that is reliable, secure, and adequate to protect the public health, welfare, and environment. This minimum capability includes:
  - Off-Site Communications: The ability to contact a home office from a remote site using a portable two-way radio, satellite phone system, existing landline, cellular phone, or other comparable and adequate means, and;
  - On-Site Communications: The ability to communicate within the geographic area affected by the release with at least two hand held. line-of-sight, two-way radios or comparable and adequate equipment.
- ◆ Provide for the safety of responding staff and ensure their ability to effectively and expeditiously execute the State's responsibilities, and;
- ◆ Rapidly provide *additional Off-Site and On-Site communications* needed to keep pace with the escalation of an incident. This includes:
  - Additional Off-Site telecommunication capability as needed to allow DEC operations to continue unimpeded using whatever array of equipment is appropriate for the incident, and;
  - Additional On-Site capability to allow effective communications across the geography of the affected area.

**3. Off-Site Communications:** Off-site communications are those communications from personnel working in the field or at temporary field office sites to home offices or other dispatch points such as State Troopers for emergency after hours calls). Off-site communications play a critical role in initial emergency response activities, as the initial responder will be relying entirely on the off-site system to gather and disseminate information, to initiate additional emergency response activities, and to manage the response mobilization while on-site communications systems are acquired and installed.

Potential off-site communications systems include public utility phone lines, two-way radio links, cellular radio telephone links, and portable satellite telephone links. The best off-site communication link is based on the use of a dedicated two-way radio system because it allows maximum mobility for personnel, and can effectively function as the preliminary on-site system while the response is mobilizing.

If a spill occurs outside the coverage area of existing radio systems, some other form of communication must be used (i.e., cellular telephone, portable satellite telephone, or a local landline telephone).

**a. Current DEC Off-Site Communications Capability:**

The current DEC off-site communication system consists of three portable, briefcase-sized remote area satellite terminals, and wide area VHF mountaintop repeaters, through which a variety of hand held and mobile radios communicate, and which are linked by a State-owned microwave system to dispatch centers. These systems are described below.

**(1) Remote Area Satellite Terminal.**

The recent acquisition of three portable, briefcase-sized satellite terminals (INMARSAT-M) provides satellite linkage for telephone, telefax, and computer modem capabilities. This system provides the only method of conducting off-site communications from any location in the state (assuming line-of-sight access is available to the satellite).

**(2) Wide Area VHF Repeater.**

During the Exxon Valdez oil spill response, Exxon funded efforts by the State to construct seven VHF fixed repeater sites covering the spill area. At other sites, existing repeaters operated by State Parks and the Department of Fish and Game are jointly shared by DEC. Repeater sites located near population centers (Pillar Mountain near Kodiak for example) are in commercial sites shared by many users.

Repeaters located in unpopulated remote areas (e.g., Prince William Sound) consist of State-owned winterized shelters, each with a 20-foot tower, installed on concrete foundations set into mountaintop bedrock. Each shelter houses a VHF repeater battery plant that is recharged during the fall, spring, and summer seasons by an array of solar panels. The battery plant then operates the site through the winter months when there is very little sunlight to recharge the batteries. The repeater sites are located at:

**Prince William Sound**

Jack Peak  
Heney Ridge  
Naked Island  
LaTouche Island  
Ellamar

**S. Kenai Peninsula**

Gore Peak  
Mount Bede  
Rugged Island  
Pipeline Hills  
Ski Hill

**Kodiak**

Shuyak Island  
Pillar Mountain  
Kitoi Bay

**Fairbanks**

Ester Dome

**Cook Inlet**

Hope  
Mt Susitna

**Juneau**

Douglas Island

**North Slope**

Lisburne (LPC)  
Kuparuk (CPF-3)  
Deadhorse (DEC Office)

These sites require periodic maintenance visits to repair winter storm damage, conduct Federal Communication Commission (FCC) required measurements on transmitters, and to fill the battery plants with water.

**(3) Hand Held Radios.**

DEC operates 66 Motorola Sabre II hand held radios which are programmable and capable of operating on any of 48 channels. Two Motorola Sabre III hand held radios are also available (programmable with 108 channels). When DEC personnel respond to a reported spill in the area covered by the existing wide area repeater system, they can talk directly back to their own office. If the spill occurs in an area where another State agency has a repeater that is monitored by a dispatch center, and if that frequency is programmed into the responders' radios, they can relay messages back to their office through the dispatch center.

**(4) Public Telephone Network.**

When DEC personnel respond to an area where there is no radio link they can use, they must rely on the Remote Area Satellite Terminal or on local telephone lines, if they exist. Cellular telephones are an option where the capability exists. Use of the local telephone system is very inefficient and time-consuming as personnel must travel from the spill site to the phone to relay information and requests.

**4. On-Site Communications:** On-site communications are those communications between people working in the field, or between the field and temporary field office sites set up to manage the response. Contractors and other State or Federal agencies may also use the DEC on-site system. On-site communications are used primarily to coordinate and manage ongoing operations, as well as to provide a conduit for health and safety messages for all workers. Depending on the size of the spill response, more than one on-site communications system may be required.

On-site communications involve numerous personnel operating from unpredictable and constantly changing locations on both land and on the water. Communications systems based on the use of the public telephone network (phones, cellular or satellite phone links) have a valid on-site support role for only a few personnel. Phone lines do not allow for free movement of personnel throughout the spill area. Satellite phones are too expensive for general distribution to many people. Cellular phones support a limited number of simultaneous conversations, are available only in the most populated geographic areas, and have a limited operating range when compared to mountaintop repeaters. On-site communications can best be provided by a dedicated two-way radio system, where individual users are equipped with either hand held radios or base stations, and communicate with each other through a wide area repeater.

Three on-site communications functions must be supplied during cleanup operations, regardless of the size of the spill, or geographic extent of the operation. The following functions must be available during the mobilization phase as people begin working in the field.

- A command and control channel to allow the Operations Section of the Incident Command Post to give direction to and receive status reports from supervisory personnel working in the field;
- A logistics channel to allow the Logistics Section of the Incident Command System (ICS) to coordinate material supply and distribution;
- A safety channel on which emergency calls for rescue or medical assistance can be relayed.

The same radio channel can be used for all three of these functions; however, it may often be desirable to install separate radio systems for each function for the following reasons:

- If the spill is large and requires many people, vessels, and aircraft to conduct the response, a single radio channel will not be able to handle all the messages that need to be passed between all parties during peak work hours of the day.
- Logistic support and safety channels are required for all vessels of opportunity and contract aircraft used on a spill. Vessels and aircraft come to the spill with their own radio equipment built in. This equipment operates on frequencies that are not compatible with the State frequencies used by DEC. As difficult and expensive as it may be to install separate ground-to-air and marine coast station radio systems covering a large spill, it would be many times more difficult, time consuming, and

expensive to install DEC compatible radio equipment in every contract vessel and aircraft used during the spill response.

The actual two-way radio equipment used to conduct on-site communications is identical to that used for off-site communications, except that the off-site system requires an additional link back to the home office or other dispatch center. This link consists of a base station connected by dedicated phone lines to a dispatch center. This link can take up to a week to engineer and install under the best of circumstances, making portable on-site radio systems impractical for use as an off-site system during the initial response.

**a. Current DEC On-Site Communications Capability:**

All the repeaters, hand held radios, and portable base stations (previously discussed under off-site communications) can also be used for on-site communications. The following equipment can only be used for on-site communications systems, either because it lacks communications links back to a central dispatch point, or because it does not have sufficient channel selection capability to be useful with the existing network of off-site repeaters.

**(1) Portable Repeaters.**

DEC operates six Motorola suitcase repeaters (4 VHF and 2 UHF systems). Compatibility must be addressed prior to deployment to ensure the proper repeaters and hand held radios are mobilized (i.e., VHF repeaters with VHF hand held radios). These repeaters are deployed at temporary locations to improve communications between hand held radios operating in the area. Direct communications between hand held radios are limited to line-of-sight paths over distances of two to four miles. By installing a repeater on a tall structure or mountaintop, any two hand held radio users who can simultaneously see the repeater can then communicate with each other.

The DEC repeaters normally operate from 120 VAC. For short periods (several hours), they can be operated at a reduced power level from a built in battery pack. DEC maintains 6 field 12-volt Gel-cell battery packs with integral chargers which can power a repeater for about one week on a single charge (depending on usage). The repeaters are weather resistant, but are not designed to operate unattended for long periods of time exposed to heavy rain, high wind, or low temperatures. Unless there are existing mountaintop shelters in a spill area with existing AC or DC power that can be tapped, these repeaters generally cannot be used where they can be most effective, on high terrain overlooking the spill area. Instead, they must be used from vehicles, or from the top floors of existing buildings. This limits the effective range of any communication system built around their use.

**(2) Hand Held Radios.**

DEC operates five additional models of hand held radios in addition to those discussed in the off-site communication section. These handheld radios will most likely be used as scene of action (fly-away) support. Once a portable or other repeater is set up, these radios are equipped with sufficient channels to operate in a given area. They include:

- Twenty-two Motorola Sabre I Radios  
(VHF programmable, 12 channels)
- Sixty-six Motorola Sabre II Radios  
(VHF programmable, 48 channels)
- Two Motorola Sabre III Radios  
(VHF programmable, 108 channels)
- Nineteen Motorola P-100 Radios  
(VHF, 2 channels)
- Eleven Motorola MX-360 Radios  
(VHF, 6 channels)
- Seven Motorola HT-50 Radios  
(UHF programmable, 6 channels)
- Twenty-nine Motorola MT-500 Radios  
(UHF, 8 channels)

As noted, several of these radios can be field programmed to operate on user selectable frequencies if the proper programming equipment, test equipment, and an experienced technician are available. These radios are best used with the portable repeaters previously discussed. When an on-site radio system is required for a spill, one or more repeaters are selected, and the necessary number of compatible hand held radios are then programmed to operate with the selected repeater, as well as on any other channels that might be in use at a spill site. The repeater and hand held radios are then shipped to the spill and placed in operation.

### **(3) Portable VHF Base Stations.**

DEC operates five Motorola Syntor X9000 base stations each fitted into a small shipping case. These are small vehicular radios that have been equipped with base station antennas, an AC power supply, and DC Gel-cell batteries with chargers. The base stations can be set up inside buildings at temporary command posts for on-site communications. In this setting, they are more convenient than hand held radios, have a greater range, and have better signal

quality. These base stations will operate for several days on the internal DC Gel-cell batteries, depending on usage.

#### **(4) Base and Hand Held Ground-Air Radios.**

DEC has nine handheld and one base VHF ground-air radios to spread out over the State. Ground-to-air radios are used to communicate with local aircraft for the purposes of dispatching, flight following, weather advisories, and clearing landing pads at staging areas or other loading areas.

#### **(5) Hand Held VHF Marine Radios.**

DEC operates three hand held and two base VHF marine radios. Marine radios are used to coordinate activities between vessels and for marine logistics support. The Saber radios, MX 360 radios, and the flyaway kits are preprogrammed with some of the Marine channels, depending on the primary use location.

**5. Auxiliary Power Supply.** DEC maintains four lightweight Honda 1000-watt generators (one for each response team area) for the purpose of recharging or powering field communications.

#### **6. Other State Assets.**

**a. DMVA/DES.** DMVA/DES has four C/KU Band transportable satellite communications systems that can be deployed in an emergency. Two of the systems can be transported in small aircraft. The other two have trailer-mounted antenna and require C-130 aircraft for deployment to off-road sites. In the initial stages of a response, these systems might be available to the Unified Command, but only until commercial services are established/reestablished and are adequate to handle the communications requirements of the response. Although the DMVA/DES systems are primarily intended for use by State agencies, all members of the Unified Command would have access to the communications systems when deployed.

## **APPENDIX VI - Waste Management And Disposal**

This appendix contains guidelines for the management and disposal of wastes generated during a response to an oil spill. Tab A addresses the management of the various waste streams that may be generated during a spill response incident. Tab B identifies disposal options for these various types of waste streams. These guidelines are intended to minimize the on-site accumulation of wastes that could interfere with the containment and cleanup of an oil spill. Collection, storage, transportation, treatment and disposal of the wastes from a spill cleanup shall be conducted in a manner that minimizes environmental and public health impacts.

## **TAB A: WASTE MANAGEMENT**

### **1. Waste Streams:**

The term “waste” is used throughout this appendix. It is used for the purpose of identifying the types of materials that are generated as the result of a spill and spill clean up, and is not used to define these materials for purposes of state and federal solid waste and hazardous waste statutes and regulations. To formally confirm that these materials are not considered wastes in the regulatory use of that term and to optimize the management of these materials in a safe and environmentally responsible manner (e.g., recycling of recovered crude oil), the following definition is used for purposes of this document: “waste” means materials that are generated as a direct result (e.g., recovered crude oil) and the indirect result (e.g., refuse, sewage, and hazardous wastes) of an oil spill; “waste” for these purposes does not mean “solid waste” as defined by Alaska (AS 46.03.900(5) and 18 AAC 60.910(53) and federal (42 U.S.C. § 6903(27)) laws.

The following wastes may be generated as a result of an oil spill.

- **Oily Solid Wastes**

- Sand/gravel/tarballs
- Asphalt patches
- Sludge
- Sorbent pads/booms/rags
- Pallets and other wood
- Shoreline debris
- Logs and driftwood
- Shoreline kelp and popweed
- Oily personnel gear and clothing
- Damaged response equipment and gear
- empty drums/containers
- Animal carcasses

- **Non-Oily Solid Wastes**

- Domestic trash and garbage
- Bagged human waste
- Discarded equipment and construction materials

- **Oily Liquid Wastes**

- Recovered or skimmed oil and mixtures of oil and water
- Used engine oils, hydraulic fluids
- Fuels, contaminated with water and solids
- Engine room bilge/ballast waters from vessels
- Rainwater runoff from waste storage areas
- Washwaters from cleaning boats, equipment, gear
- Washwaters from cleaning oiled wildlife
- Other oily waters

- **Non-Oily Liquid Wastes**

- Sewage, liquid human wastes (gray and black waters)
- Lab wastes
- Chemicals, such as solvents

Wildlife carcasses and contaminated fish may be retained as evidence. Their ultimate disposal will comply with applicable regulations and the oily waste disposal procedures described in this section.

## 2. Waste Stream Identification Numbers:

OILY WASTE	WASTE STREAM *NUMBER	OTHER WASTES	WASTE STREAM *NUMBER
Fresh Oil	101	Domestic Wastes	201
Weathered Oil	102	Debris	202
Emulsion	103		
Hydraulic Fluids	104	Pallets	203
Beach Debris	105	Paperboard	204
PPE	106	Drums	206
Sand/Soil	107		
Sorbents/rags	108		
Oily Wastewaters	109	<u>HAZARDOUS WASTES:</u>	301
Carcasses	110		

\*Note: The numbering system depicted here is one of several possible methods to categorize waste materials to facilitate tracking and eventual disposal.

## 3. Procedures for Transportation, Storage, and Disposal:

Temporary waster storage areas will be strategically selected and located as points of accumulation and temporary storage for oil spill related wastes, and may include temporary storage areas at recovery sites and long term storage areas at more permanent facilities. Waste generated by response efforts will be stored at these storage areas pending waste characterization, final identification of disposal options, and placement of contractual arrangements with approved disposal facilities. Temporary waste storage areas must be approved by ADEC and the land resource trustee. It will be the responsibility of the RP to provide manpower and equipment required to transfer the wastes from the operations areas to the storage areas and to fully operate these areas.

At the storage areas, wastes will be segregated into waste streams and stored in appropriate containers. In general, waste streams will not be mixed unless specifically directed to by the Environmental Unit Leader. Later in the response effort, wastes may be forwarded under manifest directly from the point of generation to the disposal facility without the need for temporary storage.

a. **Liquid wastes** recovered through skimming or washing operations will be accumulated in barges, portable tanks, bladders, drums, or other approved means held pending waste classification and characterization. Each container must be labeled as to contents and provided with an identification number for tracking and accounting purposes. Decanting of water will be conducted (with State approval) in most cases to reduce the volumes of liquid wastes. Different classes of liquid wastes should not be mixed in the same containers without approval of the disposal officer.

If the recovered oil has not undergone significant weathering or emulsification and is free of foreign material, it can be transported to a refinery or oil terminal as a product rather than a waste. Oil which cannot be recovered in this way will be deemed a waste oil and subject to additional testing and handling requirements.

On decontamination vessels, all oily wash water should be segregated from other wastes and stored on board the vessel for future transport to an identified disposal facility.

Oily water collected at boat cleaning stations should be segregated into the following four categories:

- Bilge waters
- Bottom liquids from cargo compartments or holds
- Oily deck and hull wash waters
- Oily hold wash waters

Oily wash waters from the cleaning of gear, boom, and equipment should also be segregated and stored separately. Used oil from gear and maintenance operations should not be mixed with any other liquids, and collected and stored in marked containers.

Other liquid wastes like hydraulic fluids, antifreezes and contaminated fuels should also not be mixed, but stored in 55 gallon drums and marked as to their contents.

All unidentified liquid wastes should be labeled as such, segregated and handled according to hazardous waste management standards (40 CFR 261) pending laboratory analysis for RCRA hazardous waste characteristics.

b. **Solid wastes** should be double bagged and placed in portable dumpsters or shipping vans and transported to the temporary storage areas. Basic separation of like wastes should take place at this level. Clear, color-coded plastic bags may be used to segregate solid wastes for different disposal options. Solid waste that is too large for plastic bags will be segregated into properly marked dumpsters or shipping vans. Large spills may require a dedicated solid waste storage barge.

All dumpsters, shipping vans, or other means for storage of oily solid wastes will be lined with plastic sheeting prior to use. To control free liquid accumulation within the

containers, an inner lining of oil and water absorbing fabric will be used. Additional granular sorbent material will be added as required to eliminate free liquids. For responses where oily debris is extensive and likely to accumulate rapidly, debris may need to be piled in vacant storage yards with a drainage system to collect any runoff, or in lined earth pits.

Bird and animal carcasses should be bagged, tagged, and segregated. Tags should include location of the recovery. Bird and animal carcasses will be handled as directed by the appropriate authority. Refer to Annex G, Wildlife Protection Guidelines.

Oily PVC waste materials should be bagged and tagged to show contents. These bags should be segregated from other waste streams and transported to a storage **area**.

c. **Non-oily waste** (scrap materials, construction materials, etc.) and domestic garbage and refuse should be collected and segregated according to the particular requirements of municipal or private waste process and disposal facilities to prevent oil contamination and transported to storage or final disposal site.

#### **4. Waste Handling and Labeling:**

Proper waste handling, manifesting, custody transfer and labeling is important for the proper movement and documentation of all waste materials generated in an oil spill response. Wastes must be segregated according to the various types and must not be mixed. All segregated wastes will be properly labeled showing the type of waste in each container. For all unidentified wastes, they need to be labeled as such and segregated from the other wastes. All unidentified wastes/oils will be assumed to be hazardous until sample results are available. If a waste turns out to be hazardous, it will be handled and treated in accordance with current hazardous waste regulations.

#### **5. Records:**

All waste oils, regardless of type, must be managed by a complete set of records. These records should show where the waste was recovered, the type of waste, approximate volume, date collected, date transported to staging or disposal site, date received at temporary storage area or disposal site, the number of containers shipped and the number received, date, location and method of final disposal. To aid in the implementation of the records requirements, the following procedures are recommended:

a. Waste management activities should be conducted as secure storage areas set up at strategic locations.

b. Each load of waste departing the point of generation should be inspected and assigned to an internal waste stream matrix and inventory record.

c. A waste tracking form should be completed for each load of waste. Information required on this form includes date and time, transporter name, vessel of truck number,

description of waste and generating process, the assigned waste stream number, and destination of the waste.

d. Waste moved to off site treatment or disposal facilities are transported under the appropriate manifest with copies retained.

e. Once each day, a "waste management summary report" will be completed documenting the following daily and cumulative totals for each waste stream:

- (1) waste received
- (2) waste stored on site
- (3) waste stored off site
- (4) waste disposed by disposal facility

## **TAB B: DISPOSAL**

**DISPOSAL OPTIONS:** Options for disposal of oily waste may include open burning, incineration, landfilling, bioremediation, and oil/water separation and recycling. See Table 1 of this annex for a list of disposal options that may be appropriate for different categories of waste streams. Table 2 of this annex lists contractors that may be available for waste disposal management.

The RP will be responsible for developing a waste disposal plan that provides the necessary logistical and procedural information for the 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 ADEC.

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.

### **1. Short Term Management and Disposal Options for Liquid Wastes**

If a spill occurs, both oil and non-oily liquid wastes will be generated or collected during cleanup. This section describes short-term management and disposal options for oil and non-oily liquid wastes, including domestic wastewaters.

#### **a. Oily Liquids**

Recovered oil and oily wastewater from spill-related activities will be stored on board tank vessels, in portable tanks, tank trucks, or in approved shore-side tanks where primary oil/water separation may occur. With State approval, on-site decanting may be allowed. After primary oil/water separation, one of the following disposal options will be used:

- Tender of recovered oil to the contracting vessel for offshore treatment;
- Transportation of recovered oil to a refinery or oil terminal for re-use as a product;
- Barging oily water to the Continental U.S. for additional treatment or disposal, unless the spill fluid emanated from oil production facilities and can be recycled or disposed of at the original facility; or
- Barging heavily weathered and emulsified oils to the continental U.S. for treatment, additional oil recovery, and wastewater and solids disposal in a commercial waste management facility.

Treatment facilities for these options are described below.

## **(1) Onshore Treatment Facilities:**

Crude oil recovered soon after a spill will generally be suitable for reclamation by a production facility or refinery. Because the chemical make-up of spilled oil changes as it weathers, it is less likely that oil collected during a long-term cleanup operation can be reclaimed. Oil that is emulsified, weathered and mixed with debris from the sea or from beach cleaning operations is a mixture of liquids and solids and requires special handling and treatment prior to disposal. There are currently no appropriate disposal options in Alaska for these emulsified wastes. Therefore, they will be stored on barges and shipped to appropriate waste handling facilities in the continental U.S. for treatment.

Oily wastewater, if associated with oil production or terminal facilities, can be treated and disposed of at those facilities (such as the Ballast Water Treatment Plan at the Valdez Marine Terminal) with the approval of EPA and ADEC. Laboratory analysis of these wastewaters may be necessary so that contaminants do not interfere with the treatment process. If particular oily wastewaters cannot be treated because of incompatible contaminants or inadequate plant capacity, those wastewaters will be taken to alternate treatment facilities (i.e., tanker owner's refinery in continental U.S., permitted bulk receiving facility). For certain wastewaters, physical chemical treatment methods (e.g., air stripping or granular activated carbon) may be preferred over biological treatment.

Contaminated wastewaters will require sampling, analysis, and possible pre-treatment before potential disposal in a municipal sewage treatment facility. EPA, ADEC, and municipal approval may be required. Any discharge into a municipal sewage system must meet EPA pre-treatment standards. If analysis indicates that wastewaters are hazardous, they will be shipped to a disposal facility in the continental U.S.

## **(2) Offshore Treatment Facilities:**

The objective of any onboard treatment will be to reduce the water content of the liquid wastes or recovered product collected and transported by the vessel, thereby increasing the vessel's storage capacity. It is reasonable to assume that some primary phase separation could take place in the vessels being loaded with oily wastewaters. The accumulated water could be extracted, treated, and after the appropriate permits are obtained, discharged overboard. Treatment facilities to be considered include:

- Screw pumps (very suitable for low and highly viscous liquids)
- Centrifuges (operation not affected by vessel movement)
- Gravel filters (operation not significantly affected by vessel movement)

- Dissolved air flotation (DAF) unit (effective in removing low concentrations of oil, but its operation can be affected by vessel movement)

The performance of the onboard treatment facilities can be enhanced by the use of emulsion breakers and flocculation agents. Care should be exercised, however, to ensure that they do not become a source of pollution.

Unless the tanker or vessel is anchored in a sheltered area, treatment can be impacted by inclement weather.

### **(3) In-State Resources for Waste Treatment and Recycling:**

There are several facilities in the state that treat oily wastes or related materials. In general, however, operational or permit requirements limit the facilities' ability to handle recovered liquids.

Alaska Pollution Control is an oil recycling facility located in Palmer. The plant is currently accepting a variety of spilled and recycled refinery products, including lubricating oil, gasoline, diesel, and fuel oil. Currently, the products must be less than 1000 ppm total halogens and must not be hazardous waste by definition. Exact requirements must be verified prior to use of the facility, and the blended products must meet specifications for heating value. The products are processed and sold for use as industrial fuel. The plant does not accept crude oil for operational reasons, but does accept 10,000 to 20,000 gallons of water per week from spills and tank clean-outs. The water is processed and discharged to a Publicly Owned Treatment Works (POTW) under pre-treatment limits. Hydrocarbons recovered from the wastewater are processed in the same manner as the other products.

Various portable processes could be used to pre-treat waste before shipping to an oil recycling facility. In addition, it is possible to ship water that meets pre-treatment standards to a POTW. The acceptability of the waste will depend on its source and characteristics, as well as the volume. Each municipality has different requirements.

### **(4) Other Commercial Oil Recovery Methods:**

Other oil recovery methods are being used elsewhere in the U.S. These methods include the following:

- Oil is heated to a temperature below its flash point and injected into sludges to dissolve the waxy and gelatinous deposits to facilitate their recovery.
- Gravity separation, chemicals, heat, lighter oils and solvents, and

emulsion-breaking chemicals are used to thin heavier fractions.

- Coker units are used at refineries to dispose of certain types of sludge.
- Mixing different oil types to enable their processing may make variable angle mixers more efficient.
- A rotary vacuum filter, consisting of a horizontal drum with a filter media on its outer surface, is partially submerged and rotated in a tank containing sludge. A vacuum pulls liquid inward while retaining solids on the outside, which are then scraped off.
- A scroll-type centrifuge rotating at 75-100 rpm forces solids against an inner bowl and on to discharge. High-feed rate and durability make this a popular item at refineries. The effluent still requires treatment and the solids produced might not be pumpable. Neither heat nor chemicals may be necessary to optimize the performance of two-stage centrifuges. Generally, centrifuges are operated only for 1-3 weeks at a time of 40-60% rated capacity.
- Gravity-belt filters press sludge between two moving belts and force out oil and water. These filters rely on the application of costly high molecular-weight polymers to coagulate sludge. Changes in the sludge, including pH and H<sub>2</sub>S emissions, can result in problems. This method, however, has been used for many years on biosludges in Europe.

These technologies are not currently commercially available in Alaska: however, they may be considered in the event of a spill.

**b. Non-Oily Liquids:**

Oil spill cleanup operations produce large amounts of liquid sewage wastes that originate from domestic sources such as toilets, laundry and shower facilities, cooking, and gathering centers. The volume of such wastes is directly proportional to the number of cleanup workers involved.

Domestic wastewater may be collected and transported to a municipal sewage treatment system for disposal after approval from the municipal government. If the volume of sewage generated by cleanup workers exceeds the additional load handling capacity of the municipal sewage treatment plant, land-based or barge-mounted wastewater treatment plants on-site can be used to treat surplus waste volumes.

If additional wastewater treatment facilities (either land-based or barge-mounted) are to be used, the volume and concentration must be estimated for proper sizing of treatment

systems. The Responsible Party should consult with EPA and ADEC for guidelines and standards for accomplishing this.

The sewage collected from remote areas may originate from non-flushing, portable toilets that produce a concentrated waste stream high in BOD, suspended solids, and deodorant chemicals. Domestic wastewater treatment alternatives to municipal treatment facilities include:

- Physical-chemical package plants
- Extended aeration package plants
- Rotating biological contactor package plants

Packaged domestic wastewater treatment plants are recommended because they are portable and can be mobilized quickly, if available. These treatment facilities require plan review, an ADEC wastewater permit, and an EPA NPDES permit. A vessel with a U.S. Coast Guard- approved Type II Marine Sanitation Device (MSD) does not need an ADEC or EPA permit for discharges. (All vessels built after January 1980 are required to have a Type II or Type III MSD).

## **2. Short Term Management and Disposal Options for Solid Wastes**

If a spill occurs, oily and non-oily solid wastes will be collected, segregated, and stored at interim temporary storage areas and, if necessary, at the sites of cleanup operations on beaches. Most solid wastes will be stored in plastic bags after collection.

Hazardous wastes will be handled in accordance with RCRA and transported to the continental U.S. for disposal. Non-hazardous wastes will be handled in the most economic manner. Solid waste will be incinerated if capacity allows; a secondary option is transport to landfills in Alaska or the continental U.S.

### **a. Hazardous Oily Solid Wastes**

RCRA hazardous solid wastes may be generated from oil spill response activities. Potential sources of RCRA hazardous wastes are:

- Spill-related materials that exhibit hazardous characteristics
- Maintenance wastes generated by vessels and vehicles used in response and clean up.
- Laboratory wastes and residues from testing and disposal of spill-related material.

A hazardous waste storage area will be established if hazardous wastes are generated. If necessary, satellite accumulation areas will also be established. Proper container storage and labeling practices will be followed. Assigned personnel will monitor operations throughout the spill area to prevent improper waste disposal and to minimize the creation of hazardous waste through "mixing" (the disposal of small quantities of hazardous waste into solid waste containers, such as used oil tanks or boat washing slop tanks).

Hazardous waste management procedures include ascertaining that response contractors are aware of regulatory requirements, including handling practices, obtaining generator I.D. numbers, proper labeling, storage, and monitoring of operational areas by personnel trained in hazardous waste management.

Hazardous wastes will be disposed of in a permitted hazardous waste facility in the continental U.S. since no permitted waste disposal site exists in Alaska at this time.

**b. Non-Hazardous Oily Solid Wastes**

**(1) Incineration:** Waste incineration can be an economical means of destroying organic compounds. Ash generated as a result of incineration will be tested for hazardous characteristics and properly transported for disposal at appropriately permitted facilities.

With approval from the North Slope Borough, up to 15 tons per day of non-hazardous oily solid waste, except sand and gravel, may be shipped to the North Slope borough incinerator facility at Deadhorse. For spills in Prince William Sound, the Valdez Marine Terminal's incinerator can handle non-hazardous oily and non-oily solid waste as capacity allows.

Several other state-approved facilities for incineration of response waste exist in Alaska. In Southeast Alaska, municipal incinerators are available in Juneau and Sitka, and one is proposed for Ketchikan. Use of these facilities for incineration of response wastes requires written approval from ADEC. Consult with the local ADEC Office on the status of approved landfills and incineration facilities.

**(2) Disposal at Facilities in the Continental U.S.:** Some solid waste is not suitable for incineration (e.g., rain suits and some kinds of boom). These wastes will be shipped to landfill disposal sites in the continental U.S.

**(3) Burial:** On-site burial may be used at remote locations where oily debris will otherwise have to be transported large distances for centralized disposal. The operation will consist of excavating an on-site disposal pit and burying the oily waste. The advantages of this disposal method are reduced costs for transporting, packaging, storage, and ultimate disposal fees.

Disadvantages of this method include the logistics of transporting excavation equipment and personnel to remote sites and possible future leakage from the uncontained disposal pits.

On-site burial of oily waste requires a solid waste disposal permit from ADEC. Although on-site burial may be permitted in remote locations, the likelihood of it occurring without engineering controls is minimal. On-site burial is not a preferred waste management option because of the technical difficulties involved and public and agency concerns about such disposal.

**(4) Waste Sludge Disposal:** The sludge resulting from certain treatment facilities will require further treatment or disposal. Sludge treatment may include:

- Fluidized bed incineration
- Steam stripping
- Digestion, dewatering, vacuum filtration, centrifugation
- Controlled land disposal

The quantity of sludge generated by the treatment process will depend on the solid content of the oily wastewaters treated.

Steam stripping can recover oil adhering to the solid, and the process can produce a sludge possibly suitable for disposal at a permitted facility.

Depending on the organic content of the sludge, aerobic or anaerobic sludge digestion may be feasible. Heating the contents of the sludge digester will accelerate the rate of biological decomposition of the sludge and reduce the residence time required for sludge stabilization. The water resulting from the sludge dewatering operation may be returned to the wastewater treatment system ahead of the biological oxidation process. The stabilized sludge may be suitable for land disposal at a permitted landfill site.

**c. Non-Hazardous, Non-Oily Solid Wastes:** Non-oily solid wastes (refuse) are generated from a variety of sources during oil spill cleanup operations.

Care will be taken to separate non-oily solids wastes from oily wastes and to maintain separation until ultimate disposal. Separate trucks for onshore operations will be maintained for the transportation of non-oily solid wastes. The non-oily waste material may be sent to an appropriate municipal landfill or municipal incinerator with capacity to handle the wastes for disposal, if approved by local officials. Since most towns and cities have municipal landfills, disposal will likely occur at local population centers. The Responsible Party should coordinate with municipal officials.

The refuse produced by a large-scale oil spill cleanup operation may have a significant impact on the local landfill. For example, oil spill cleanup operations in Prince William Sound have increased local refuse disposal as much as 500% in the past, with a corresponding increase in personnel and equipment requirements for local landfill operations. In such situations, it is important to coordinate with the community to assure that personnel and equipment requirements are met.

Disposal of wastes in solid waste sites will conform with the facility's permit requirements.

### **3. Long-Term Management and Disposal Options:**

**a. Open Burning:** On-site burning is a potential disposal method for non-hazardous oil-stained rock and sand mixtures, tar balls, logs, driftwood, and miscellaneous solid wastes.

#### **(1) Remote Stockpile Burning:**

Open burning may be a feasible method for large quantities of combustible oily wastes that are stockpiled in remote areas, but this method generally requires weather that encourages smoke dispersal. Burn residue produced from open burning needs to be collected, tested for hazardous characteristics, and properly transported to disposal sites. Open burn pits designed to facilitate efficient removal of residues would provide for smooth cleanup operations.

Open burning in Alaska is regulated by ADEC. Before an open burning operation, written approval must be obtained from ADEC. Approval is contingent upon submission of an open burning plan including concerns outlined in the Alaska Air Quality Control Regulations (18 AAC 50). These concerns include: air contaminants, location of sensitive population centers, weather considerations, visibility impacts, coordination, public information, and other project specifications. In addition, the plans for open burning must include an evaluation of feasible alternatives and a demonstration that open burning is the most feasible alternative.

#### **(2) In-Situ Open Burning:**

Combustible materials, such as oiled logs, branches, and other natural materials found along beaches, can be burned in piles where they have been collected. A propane torch can be used to initiate combustion or a burn promoter, such as fuels, can be added to the oiled materials.

Open burning can also be applied to any oily wastewater collected for off-site disposal. However, this disposal method would require a site-specific ADEC Open Burning Permit and an ADEC Wastewater Disposal Permit. Burn residue

will have to be contained and collected at each site and tested for hazardous characteristics, thus leading to possible logistical problems.

Sustained burns of logs and other large items can penetrate some substrates to a depth of about one foot to remove oil. Oil that has migrated downward into some beach materials beyond that depth would not be burned.

Other disadvantages or constraints might include:

- Public concerns.
- Threat of spreading (forest fire)
- Burn residue might be hazardous or otherwise present a pollution problem
- Direct biological impacts from heat may be a concern where an extensive area is fired.
- Smoke plume may not meet regulatory requirements.

**b. Incineration:** Incineration can be used to dispose of oily waste materials at the source or at temporary collection and storage areas. The incineration process must be combined with appropriate flue gas cleaning and residue handling in order to complete the overall waste management process. A variety of wet, semi-dry, and dry acid-gas scrubbing processes are available with extensive, successful experience in application to incineration systems. The applicability of a specific process is determined through evaluation of flue gas characteristics, reagent and residue handling costs, need for plume suppression, and other factors. Sensitive instrumentation for detecting pollutant levels within the system is also vital, as is the ability of the equipment to adjust to changing conditions. Two technologies currently dominate the waste incineration industry: rotary kiln incineration, and fluidized bed incineration. Both technologies are established incineration techniques with several commercial plants currently in existence. For this reason, the advantages and disadvantage of both systems are well known and documented.

Rotary kiln incineration appears to be the better overall option for necessary permanent incineration capacity. If on-going operations justify use of a permanent incineration system, the following system appears preferable:

- One or more medium-sized, modularized rotary kiln systems on the same site with good access by water and land.
- Necessary feed storage, feed preparation, ash-handling facilities, and other support services as needed for all units, making these common to all incineration units to the extent possible and practical.

- Operation of one unit at a time on locally-generated wastes at reduced capacity to maintain the facilities in ready condition and to maintain the skills of the operating crew.
- Delivery of spill wastes and containerized materials to the site by barge for processing. Storage of the wastes most amenable to storage will stretch the processing period and reduce the size, number, and cost of the facilities.

The above incineration system can be developed and implemented in a reasonably short time in compliance with regulatory requirements.

Some oil spill cleanup specialists have indicated that there are portable incinerators that provide good backup in an emergency because they can be quickly dispatched to remote sites.

**c. Bioremediation:**

**(1) In-Situ Biodegradation:** Bioremediation involves adding nutrients (nitrogen and phosphorus) to enhance indigenous microbial activity. Successful bioremediation can accelerate the clean up of a spill and reduce the amount of oily wastes requiring disposal.

Bioremediation of spill oil is still in the research phase. If bioremediation is successful, it could be used on oiled sand, pebbles, cobble, driftwood, and other natural beach materials. The shoreline configuration must be amenable to this method, but smaller debris does not have to be transported to a remote site for ultimate disposal. Other constraints are that larger items of debris must be dealt with separately and the technique might require several seasons for significant degradation to occur.

**(2) Landfarming:** Some oil spill specialists in other parts of the country consider landfarming a feasible alternative to oily waste disposal. In Alaska, however, due to the low temperatures, short summers, high precipitation, and the scarcity of flat soily areas, further research must be done before the plausibility of this method can be determined. In landfarming, oily sludges are spread on a selected site and then combined with soil, moisture, and nutrients in the presence of oxygen to promote bacterial degradation of the hydrocarbon components. This requires an even application of flowing oily wastes. Smaller items, such as sand, pebbles, short seaweed (less than 6 inches long), sludges, and contaminated soils can also be processed this way. The most suitable sites are large fields with deep, tillable soil and a constant supply of water. Some sites might require the placement of a liner. The soil is prepared, the nutrients and wastes are applied, and then the field is tilled periodically. The soil pH must be controlled and the field must not have a greater than 1% or 2% grade.

Necessary equipment includes backhoes, tractors, rototillers, disc harrow or plows, fencing, pumps, and sprinkler systems. This method requires a permit and monitoring. If a liner is used, it must be removed when the hydrocarbons reach approved levels.

**d. Landfilling:** Approximately five permitted landfills that can accept oily wastes are currently in use in Alaska. These landfills are associated with oil fields on the North Slope and are typically reserved exclusively for the company operating the landfill. At this time, no landfill facility in Alaska will accept significant amounts of oily solid wastes. In the event of a large spill, landfill disposal will be feasible only if ADEC permits disposal of significant amounts of oily waste at existing sites and/or expedites permitting of proposed sites.

The advantages of having an in-state oily waste landfill include immediate availability and accessibility, as well as reduced logistical requirements for transportation, packaging and disposal.

An ADEC solid waste permit is required to site an oily waste landfill in Alaska. Discussions with regulatory solid waste management personnel indicate that successful state approval of a permit will be contingent on site-specific engineering designs. To be effective, a facility must be fully constructed and permitted before a spill.

**TABLE 1  
WASTE DISPOSAL OPTIONS**

WASTE STREAM	PRIMARY OPTION	FIRST ALTERNATIVE	SECOND ALTERNATIVE
Fresh Oil (101)	Refining	Fuel Blending	Ex-Situ Burning
Weathered Oil (102)	Fuel Blending	Land Treatment	Solidify & Landfill
Emulsions (103)	Fuel Blending	Land Treatment	Solidify & Landfill
Hydraulic Fluids (104)	Refining		
Oil Debris (105)	Incineration	Open Burning	Landfill
Oily PPE (106)	Incineration	Landfill	
Oily Sand/Gravel (107)	Ex-Situ Burning	Land Treatment	Landfill
Oily Sorbents (108)	Fuel Blending	Incineration	Landfill
Oily Wastewater (109)	Electrocoagulation Treatment		
Animal Carcasses (110)	Offer for Research	Incineration	
Domestic Wastes (201)	Incineration	Landfill	
Non-Oily debris (202)	Incineration	Landfill	
Pallets (203)	Recycle/Reuse	Open Burn	Landfill
Paperboard (204)	Recycle/Reuse	Open Burn	Landfill
Drums (206)	Recycle/Reuse	Landfill	
Hazardous Wastes (301)	Special Handling, Storage, Treatment		

**TABLE 2  
WASTE DISPOSAL CONTRACTORS**

Listed are some contractors who can provide disposal or waste management services. These are not the only available contractors, but represent the variety of services available.

<u>WASTE TYPE</u>	<u>DISPOSAL FACILITIES</u>	<u>COMMENTS</u>
Recovered Products (gas, diesel, etc)	Alaska Pollution Control 907-344-5036 10620 Old Seward Highway Anchorage, AK 96515	Processes oily water, motor oils and recovered fuels.
	Alaska Soil Recycling 907-349-3333 1040 O'Malley Road Anchorage, AK 96515	Soil burning facility.
	Basin Oil Company 800-439-2948 8661 Dallas Ave S Seattle, WA 98108	Non-Haz used oils blended for ship bunkers.
	Petroleum Reclaiming Services 206-587-6206 3003 Taylor Way Tacoma, WA 98421	Waste oil processor. Also takes oily water.
	Philip Environmental 800-228-7872 1011 Western Ave, Ste 700 Suite 700 Seattle, WA 98104	Full service haz waste disposal contractor.
	Chemical Waste Management 800-962-4987 17629 Cedar Springs Arlington, OR 97812	Full service haz contractor. Landfills located in Oregon and Calif.
	Clean Soils 907-258-7645 2301 Spar Avenue Anchorage, AK 99501	Soil burning facilities in Anchorage and Kenai. Mobile facility also available.

**Table 2****WASTE DISPOSAL CONTRACTORS (cont.)**

<b><u>WASTE TYPE</u></b>	<b><u>DISPOSAL FACILITIES</u></b>	<b><u>COMMENTS</u></b>
	Foss Environmental 206-281-3823 7440 W Marginal Way S Seattle, WA 98108	Full service contractor.
Contaminated Soil	Philip Environmental  Chemical Waste Mgt.	Solid or haz-waste disposal.  Same.
Oily Contaminated Equipment/materials & PPE	DOH Environmental 800-478-1917 10012 Jensine Juneau, AK 99803  Channel Sanitation Services 907-780-4288 5600 Tonsgard Court Juneau, AK 99801	Spill cleanup contractor. Can manage waste through appropriate contractors.  Non-hazardous disposal only.
	Chemical Waste Mgt.	Approved landfills.
Decontamination Solutions	Philip Environmental  Chemical Waste Mgt.	Full service haz- waste disposal.  Approved landfills.
Oily Sorbents	Channel Sanitation  Basin Oil	Incineration of non-hazardous oily materials.  Delivers non-hazardous sorbents to facility for energy recovery.
Spent Chemicals	Philip Environmental  Chemical Waste Mgt	Full service.  Full service.

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