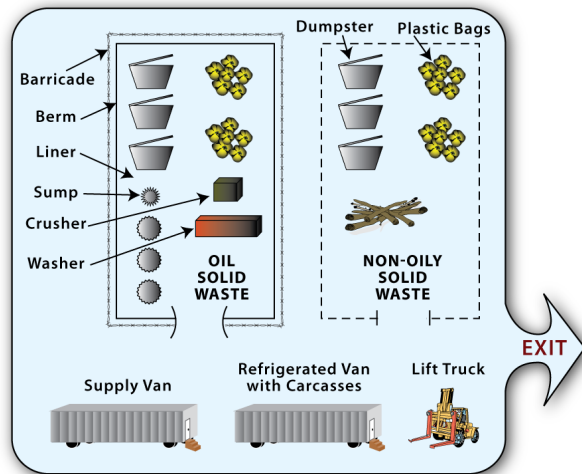


LIQUID HANDLING AND DISPOSAL SUMMARY

Category	Specific Waste	Generation Source	Initial Container at Source	Transfer Platform	Management Options
Recovered Oil	-	<ul style="list-style-type: none"> Oil recovery sites 	<ul style="list-style-type: none"> Vacuum trucks Portable tanks Recovery barges Mobile skimmers Pollutanks Response vessels Fast tanks Mini or micro-barges OWS 	<ul style="list-style-type: none"> Temp storage tanks Vacuum trucks Portable tanks Recovery barges Mini or Micro-barges Vessel of Opportunity Member Company facility 	<ul style="list-style-type: none"> On-site separation: water separation by decanting, then: Member Company facility or Vessel-of-Opportunity to out-of-state facility Off-site recycling facility
Oily Liquids	Water covered with crude or non-crude oil	<ul style="list-style-type: none"> Oil recovery sites 	<ul style="list-style-type: none"> Vacuum trucks Portable tanks Recovery barges Mobile skimmers Pollutanks Response vessels Fast tanks Mini or micro-barges OWS 	<ul style="list-style-type: none"> Temp storage tanks Vacuum trucks Portable tanks Recovery barges Mini or micro-barges Tanker or Barge of Opportunity Member Company facility 	<ul style="list-style-type: none"> On-site separation: water separation by decanting, then: Member Company facility or Vessel-of-Opportunity to out-of-state facility Off-site recycling facility
	Oily decontamination and waste storage cell water, including oil contaminated snow.	<ul style="list-style-type: none"> Decontamination areas Wildlife and otter treatment areas Hydro-flushing Snow melting 	<ul style="list-style-type: none"> Portable tanks or drums Temporary containment Settlement ponds Vacuum truck SuperSucker Baker tanks 	<ul style="list-style-type: none"> Tanker or Barge of Opportunity 	<ul style="list-style-type: none"> Member Company facility Off-site recycling facility
Non-Oily Liquids	Sewage and Gray Water	<ul style="list-style-type: none"> Porta-potties (discharge to POTWs only) VMT wildlife and otter treatment areas Response vessels 	<ul style="list-style-type: none"> Collected by Porta-potty contractor Wildlife facilities sewage systems tanks Facilities sewer systems if not issue for capacity of facility 	<ul style="list-style-type: none"> Sewage pumping contractor 	<ul style="list-style-type: none"> Cities with publicly owned treatment facility – aka wastewater treatment plans
Oily Snow	Oily Snow	<ul style="list-style-type: none"> Oil recovery sites 	<ul style="list-style-type: none"> Temporary pit Bulk bin 	<ul style="list-style-type: none"> Tank truck Vacuum truck SuperSucker Baker tanks 	<ul style="list-style-type: none"> Natural melt Snow melters Heaters On-site separation, then off-site recycling facility

Solid Waste

SOLID WASTE INTERIM STORAGE SITE



- Assumptions for estimating waste volumes generated:
- Upper limit for bagged waste is 40 lb/bag.
- Three 40-lb bags fill a drum.
- A drum is approximately $\frac{1}{4}$ cubic yard.
- 12 bags = 1 cubic yard.
- 20-cubic-yard bins hold about 240 bags of waste.

SOLID WASTE TREATMENT AND DISPOSAL OPTIONS

CATEGORY	SPECIFIC WASTE STREAMS	TREATMENT & DISPOSAL	OPERATIONAL/ENVIRONMENTAL CONSIDERATIONS
Oily Solids	Sorbents, boom, PPE, clothing, sludge	<ul style="list-style-type: none"> • Wringer/presses to remove free oil • Air-curtain incinerator • Non-hazardous – burn in commercial incinerator • Hazardous – PRAC or RP Company hazardous waste contractor 	<ul style="list-style-type: none"> • See waste management plan for characterization. • ADEC approval and/or air quality permit needed for air-curtain incinerator use.
	Vegetation and debris	<ul style="list-style-type: none"> • Open burning at or near spill site/cleanup operations • Hot water washing to remove and collect oil • Air-curtain Incinerator 	<ul style="list-style-type: none"> • ADEC approval needed for open burning or air-curtain incinerator use • Hot-water washing can generate large volumes of dirty water that will need to be managed.
	Contaminated soil, sand, gravel	<ul style="list-style-type: none"> • In-situ remediation • Non-hazardous – Commercial contaminated-soil incinerator • Thermal desorption unit for oil recovery • Hazardous – PRAC or RP Company hazardous waste contractor 	<ul style="list-style-type: none"> • In-situ remediation must be approved by ADEC. • Thermal desorption unit can be used to recover oil from soil that would otherwise have hazardous waste characteristics.
Non-Oily Solids	Construction material, garbage	<ul style="list-style-type: none"> • Burial at spill site • Open burning • Municipal landfill (Soldotna, Kenai, Homer, Kodiak Anchorage) • Ship out of state 	<ul style="list-style-type: none"> • Burial of solid waste at or near spill site requires ADEC approval and/or a solid waste disposal permit. • Open burning of solid waste at or near spill site requires ADEC approval and/or an open burn permit. • Local approval needed for disposal of waste in municipal landfills. Landfills must have sufficient storage capacity
Hazardous & Other Regulated Wastes	Hazardous waste (batteries, filters, paints, lamps, Draeger tubes)	<ul style="list-style-type: none"> • PRAC or RP Company hazardous waste contractor 	<ul style="list-style-type: none"> • Manage in accordance with PRAC or RP Company hazardous waste disposal procedures.
	Coolants (antifreeze, glycol)	<ul style="list-style-type: none"> • PRAC or RP Company hazardous waste contractor • Recycle 	<ul style="list-style-type: none"> • Member Company will make arrangements for Disposal or recycling.
Dead Animal Carcasses	Oiled & non-oiled carcasses	<ul style="list-style-type: none"> • Store in refrigeration vans until disposition approved by appropriate resource agency 	<ul style="list-style-type: none"> • Handled in accordance with wildlife plan and approved tactics

OILY SOLIDS WASTE MANAGEMENT OPTIONS

	OILY DEBRIS VEG/SORBENT BOOM/PPE/ETC	NON-OILY SOLID WASTE	Combustible Waste – This is an option for oily and non oily solids (debris)	NON-HAZARDOUS SOLID WASTE SAND /GRAVEL/SOILS
Option	Oily waste disposal contractor.	Local Landfills	On-site burning.	Initial lined and covered stockpile. Dispose at thermal oxidation contractor.
Location	Anchorage.	Anchorage, Soldotna, Seward, Homer.	Project Specific	Anchorage/ Alaska Soil recycling Fairbanks/On-site OIT
Status	Private / Commercial	Borough.		Private / Commercial
Volume Limitations	Availability of bins, bags, totes	Approval may be required from landfills	Project Specific	N/A
Delivery Mode	DOT totes/bags/drums, other contractor approved containers.	Bulk Transport	On-site.	Bulk Transport, covered, ADEC approval required.
Waste Limitations	No hazardous waste contractor acceptance required.	Lcal landfill acceptance for standard and special wastes.	Will require land owner, borough, fire department and ADEC approval.	Oxidation contractor approval required. Must be solid and non-hazardous.
Testing Requirements	Contractor specific requirements or generator knowledge.	Material specific or generator knowledge.	To be determined.	GRO, DRO, BTEX and/or RRO (AK Methods). Generator knowledge may be acceptable.
Manifesting & Labeling	Non-haz labels/DOT transporter manifests	Not required.	N/A	Transport approval letter must accompany each load.

Oily debris and soil Storage

Short-term stockpiling (<180 days) requires 10 mil liner & 6 mil reinforced polyethylene cover

Long-term stockpiling (>180 days but < 2 years) requires a 20 mil liner & 6 mil cover

Most treatment facilities in Alaska are only permitted to treat petroleum type contamination. List of approved facilities

<https://dec.alaska.gov/spar/csp/offsite-remediation/>