Stormwater Pollution Prevention Plan

for:

Kodiak State Airport
Kodiak, Alaska
(907) 487-4952

SWPPP Contact(s):

Alaska DOT&PF
Kodiak Airport Manager
1500 Anton Larsen Road
Kodiak, AK 99615
(907) 487-4952
(907) 487-4913 (fax)

SWPPP Preparation Date:

11 / 25 / 2009
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Contents

SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 Facility Information

Facility Information

Name of Facility: Kodiak State Airport

Street: 1500 Anton Larsen Road

City: Kodiak State: AK ZIP Code: 99615

County or Similar Subdivision: Kodiak Island Borough

Permit Tracking Number: AK0020648 (if covered under a previous permit)

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude:	Longitude:
1. 57º 45' 00" N (degrees, minutes, seconds)	1. 152º 29' 63" W (degrees, minutes, seconds)
2. N (degrees, minutes, decimal)	2. W (degrees, minutes, decimal)
3. _ _. _ _ _ _ º N (decimal)	3. _ _. _ _ _ _ º W (decimal)

Method for determining latitude/longitude (check one):

☐ USGS topographic map (specify scale:_____) ☐ EPA Web site ☐ GPS

X Other (please specify): FAA Alaska Supplement (UTC – 9)

Is the facility located in Indian Country? No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable."_____

Is this facility considered a Federal Facility? Yes

Estimated area of industrial activity at site exposed to stormwater: 80 acres

Discharge Information

Does this facility discharge stormwater into an MS4? No

If yes, name of MS4 operator: __

Name(s) of water(s) that receive stormwater from your facility: Buskin River / Devil's Creek / Chiniak Bay

Are any of your discharges directly into any segment of an "impaired" water? No

If Yes, identify name of the impaired water (and segment, if applicable):_____

Identify the pollutant(s) causing the impairment:_____

For pollutants identified, which do you have reason to believe will be present in your discharge? _____

For pollutants identified, which have a completed TMDL? _____

Do you discharge into a receiving water designated as a Tier 2 (or Tier 2.5) water? No

Are any of your stormwater discharges subject to effluent guidelines? No

If Yes, which guidelines apply? _____

Primary SIC Code or 2-letter Activity Code: 4581 (refer to Appendix D of the permit)

Identify your applicable sector and subsector: Sector S / S1

1.2 Contact Information/Responsible Parties

Facility Operator (s):
Name: Alaska DOT&PF – Central Region
Address: Kodiak State Airport
1500 Anton Larsen Road
City, State, Zip Code: Kodiak, AK 99615
Telephone Number: (907) 487-4952
Email address:robert.greene@alaska.gov
Fax number: (907) 487-4913

Facility Owner (s):
Name: U.S. Coast Guard
Address: P. O. Box 195025
City, State, Zip Code: Kodiak, Alaska 99619-5025
Telephone Number: (907) 487-5320 ext. 249
Email address: Fredrick.J.Miller@uscg.mil
Fax number: (907) 487-5494

SWPPP Contact:
Name: Kodiak State Airport Manager
Telephone number: (907) 487-4952
Email address: robert.greene@alaska.gov
Fax number: (907) 487-4913
Cell number: 9907) 539-7072

SWPPP Preparer:
Name: Environmental Impact Analyst
Telephone number: (907) 269-0714
Email address: jennifer.hillman@alaska.gov

Qualifications: Jennifer has a B.S. in Environmental Policy, 4 years of experience working in a wide range of federal and state environmental policy issues, has achieved AK-CESCL certification (ID#10036), and completed SWPPP trainings through EPA including 'EPA's New Industrial Stormwater Permit: What You Need to Know about the MSGP 2008' and 'Monitoring and reporting for the 2008 MSGP'.

1.3 Stormwater Pollution Prevention Team

Staff Title*	Individual Responsibilities
DISTRICT SUPERINTENDENT	Oversight of Airport Operations; SWPPP Implementation
AIRPORT MANAGER	Airport Operations, Control Measures and Corrective Actions, and Facility Inspections
CENTRAL REGION M&O ENVIRONMENTAL ANALYST	SWPPP Development and Initial Facility Inspection
CENTRAL REGION M&O ENVIRONMENTAL SPECIALIST	SPCC Plan
CENTRAL REGION M&O ENVIRONMENTAL ANALYST	Routine Inspections and Annual Report

*See Appendix J – for list of current staff names associated with the above titles and responsibilities.

1.4 Activities at the Facility

The Kodiak State Airport is located near Kodiak, AK at MP 5 Rezanof Drive (Appendix A). The facility consists of three asphalt-surfaced runways (7/25, 11/29, and 18/36). Five paved taxiways connect the runways with the terminal apron, and the U.S Coast Guard (USCG) Base – Integrated Support Command (ISC) Kodiak. Leased areas are located along the three commercial aprons, and several adjacent lease lots on the field. The USCG maintains a Helicopter and C-130 operation south of runway 18/36 at the USCG Base. Alaska DOT&PF houses airport equipment in the Snow Removal Equipment Building (SREB) located adjacent to taxiway C. The DOT&PF Maintenance and Operations (M&O) facility is located approximately one third of a mile northwest of the main airport apron, on the north side of Anton Larsen Road. Industrial activities conducted by the ADOT&PF at the airport proper include primarily deicing related activities themselves, whereas equipment maintenance is handled at the M&O facility on Anton Larsen Road. ADOT&PF has fuel storage capacity of up to 9.5K gallons of fuel, utilizes approximately 75-80 tons of bulk urea per year with storage capacity of 100 tons and utilizes 4k gallons of potassium acetate per year with storage capacity of 10K gallons.

Drainage patterns for the Kodiak State Airport are shown on figure(s) in Appendix A. In general, stormwater runoff from the runways, and taxiways, generally flow eastward from swales between the runways and taxiways into storm water catch basins, through piping and exiting into Chiniak Bay.

1.5 General Location Map

The general location map for this facility has been placed in Appendix A.

1.6 Site Map

Site map(s) for this facility are placed in Appendix A.

SECTION 2: POTENTIAL POLLUTANT SOURCES

2.1 Industrial Activity and Associated Pollutants

Industrial Activity	Associated Pollutants
DOT&PF runway deicing	Urea, E36
DOT&PF equipment fueling	Diesel fuel
DOT&PF snow removal	Diesel Fuel, Hydraulic fluid
DOT&PF runway maintenance	Paint, paint thinners, concrete*, crack sealant*
DOT&PF runway sweeping	Sediment
DOT&PF grading of safety area	Sediment
DOT&PF M&O building heating	Fuel oil
Tenant aircraft deicing	Ethylene/Propylene glycol (avg. 1,000 gallons/year)
Tenant aircraft fueling & lubrication	Aviation fuel, lubricants

*Purchased commercially.

DOT&PF maintains Material Safety Data Sheets (MSDS) at the maintenance and airport stations which discloses uses and hazards associated with chemicals to prevent harm to human health and the environment including proper uses, clean-up, storage, and disposal.

2.2 Spills and Leaks

Areas of Site Where Potential Spills/Leaks Could Occur

Location	Outfalls
Vehicle fueling area	Gravel pad at SREB and at Anton Larsen Maintenance Facility – Outfall C
Snow piling activities/storage	Adjacent to runways in vegetated lowland – Outfalls A-H

Description of Past Spills/Leaks

Date	Description	Outfalls
12/24/2007	400 gal. diesel fuel spill at Anton Larson Maintenance Facility	contained

2.3 Non-Stormwater Discharges Documentation

The 2008 MSGP provides limitations on stormwater discharges under Subpart S 8.S.1. The MSGP 'authorizes stormwater discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations."

Specifically prohibited under Sector S (Air transportation) coverage of the MSGP is "discharge of aircraft, ground vehicle, runway and equipment washwaters; nor the dry weather discharge of deicing chemicals." Discharges associated with snowmelt are not dry weather discharges.

Visual Inspection of Airport for Non-Stornwater Discharges:

- Date of evaluation: May 2009
- Description of the evaluation criteria used: Field site visit conducted of airport facilities.
- List of the outfalls or onsite drainage points that were directly observed during the evaluation: Outfalls, drainage points, and ditches previous identified were observed during dry-weather conditions.
- Different types of non-stormwater discharge(s) and source locations: No non-stormwater discharges identified during site visit.
- Action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge: N/A at this time.

2.4 Salt Storage

No salt is used at the airport facility for deicing purposes because these products are corrosive to aircraft surfaces and mechanical parts. Road salt is kept in an enclosed storage building located between Rezanof Drive and runway 7/25, for use on roads only. Salt stored inside this building is hauled back to the Anton Larsen prior to vehicle loading.

Best Management Practice (BMP)	
Salt Storage	1. Salt is stored indoors or securely covered 2. Maintain the integrity of storage containers

2.5 Sampling Data Summary

The USCG Facilities Engineering Division collected benchmark stormwater samples from two representative outfalls (Outfall A, formerly AP-3, and Outfall C, formerly AP-5) at the Kodiak State Airport

from February 2005 to January 2009 as part of their overall ISC Kodiak SWPPP (Table 2-5). Six additional airport outfalls are not included in the table as there is no historical benchmark data to evaluate. Summaries of sampling results for Outfall A and Outfall C are below.

Outfall A Summary

Biochemical Oxygen Demand (BOD): Results from 6 monitoring events were evaluated. The average value of 80.0 mg/L exceeds the 2008 MSGP benchmark of 30 mg/L. There were four results above the benchmark, with the highest being 247 mg/L.

Chemical Oxygen Demand (COD): Results from 6 monitoring events were evaluated. The average result of 113.6 mg/L is below the 2008 MSGP benchmark of 120 mg/L. There were two results above the benchmark, with values of 233 mg/L and 189 mg/L.

Ammonia: Results from 6 monitoring events were evaluated. The average value of 2.86 mg/L exceeds the 2008 MSGP benchmark of 2.14 mg/L. The maximum value was 6.54 mg/L. Four of the results exceed the benchmark value.

pH: Results from 5 monitoring events were evaluated. All results were within the 2008 MSGP benchmark range of 6.0 - 9.0 s.u.

Outfall C Summary

Biochemical Oxygen Demand (BOD): Results from 6 monitoring events were evaluated. All results were well below the 2008 MSGP benchmark of 30 mg/L.

Chemical Oxygen Demand (COD): Results from 6 monitoring events were evaluated. All results were below the 2008 MSGP benchmark of 120 mg/L.

Ammonia: Results from 6 monitoring events were evaluated. The average value of 5.87 mg/L exceeds the 2008 MSGP benchmark of 2.14 mg/L. The maximum value was 27.6 mg/L. Two of the results exceed the benchmark value.

pH: Results from 5 monitoring events were evaluated. All results were within the 2008 MSGP benchmark range of 6.0 - 9.0 s.u.

The drop inlet for Outfall A is located on the apron between the airport terminal building and the primary runway (7/25). As a result, the majority of aircraft deicing operations occur in the vicinity of the drain inlet. Control measures to mitigate impacts to the Buskin River resulting from glycol deicer discharge from the ramp near the terminal will be implemented. Deicing fluid applied to aircraft on the ramp drains to the drop inlet near the terminal building then flows north to a retention channel before entering a ditch which then flows north and discharges to the Buskin River. There is a gate at the downstream end of retention channel gate, which will remain closed during the deicing season to retain any deicing fluids in storm water. The retention channel will then be pumped a couple times per deicing season and hauled to a waste water treatment plant for disposal.

Outfall C drains a large area of the airport along the primary airport runway. Urea used for runway deicing is a likely contributing factor to the values that exceeded the benchmark for Ammonia during two sample events. Modifying deicing and snow removal procedures, as well as potential structural control measures will be considered to address pollutant concerns for this outfall.

SECTION 3: STORMWATER CONTROL MEASURES

3.1 Minimize Exposure

Due to the high average snowfall and relatively moderate coastal climate, urea is the primary deicing compound (average annual usage of 70-80 tons/year). Small amounts of the alternative deicer (E36) are also utilized (average of 4,000 gallons/year) when conditions are suitable. Sand is also used, alone or mixed with the deicers, to provide aircraft traction and to stretch deicers. The deicers are primarily only used on the runway itself, on an as-needed basis; mechanized clearing is the preferred method when weather conditions are suitable. Deicer storage is all located at the SREB located Adjacent to taxiway C. E36 is stored in a tank in order to protect from the weather. Sand and urea for use on airport surfaces is all stored inside a dedicated sand storage building next to the SREB. Small containers of lubricants and fuel are stored under cover in small outbuildings behind the SREB and low VOC runway paint is stored in sealed totes.

DOT&PF airport equipment is all stored indoors in the Sand and SREB/ARFF buildings. DOT&PF equipment maintenance is all performed at the M&O facility on Anton Larsen Road. Equipment is kept in good working condition (minimizes leaks) and older equipment is replaced. Spill kits are available and an SPCC Plan is in place to minimize potential for fuel spills (Appendix K).

Best Management Practice (BMP)	
Minimizing Exposure – Vehicle and Equipment Maintenance Areas	1. Perform all cleaning operations indoors or under covering when possible. Conduct the cleaning operations in an area with a concrete floor with no floor other than those to approved disposal methods (including sanitary sewers or treatment facilities, oil/water separators, etc.) 2. Park vehicles and equipment indoor or under a roof whenever possible and maintain proper control of oil leaks/spills. 3. Check vehicles closely for leaks and use pans to collect fluid when leaks occur. 4. Use berms, curbs, grassed swales, or other diversion measures to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area. 5. Inspect the maintenance area regularly to ensure BMPs are implemented. 6. Train employees on waste control and disposal procedures. 7. Train employees on proper washing procedures. 8. Use phosphate-free biodegradable detergents. 9. Inspect the maintenance area regularly for proper implementation of control measures.

Minimizing Exposure – Vehicle and Equipment Storage Areas	1. Store vehicles and equipment awaiting maintenance in designated areas only. 2. Use absorbents to cleanup spills and leaks. 3. Use drip pans under all vehicles and equipment for the collection of fluids. 4. Regularly seep area to minimize debris on the ground. 5. Provide dust control if necessary. When controlling dust, sweep and/or apply water or materials that will not impact surface or ground water. 6. Inspect the storage yard for filling drip pans to ensure BMPs are implemented. 7. Train employees on procedures for storage and inspection items.
Minimizing Exposure –Materials Storage Areas	1. Maintain good integrity of all storage containers (e.g., used oil, hydraulic fluids, solvents, waste aircraft fuel). 2. Create a centralized storage area for waste materials. 3. Provide secondary containment around chemical storage areas. 4. Locate storage areas away from high traffic area and surface waters. 5. Inspect storage tanks and piping systems (pipes, pumps, flanges, couplings, hoses, and valves) for failures or leaks and perform preventative maintenance. 6. Plainly label containers. 7. Maintain an inventory of fluids to identify leakage. 8. Provide fluid level indicators. 9. Properly dispose of chemicals that are no longer in use. 10. Store and handle reactive, ignitable, or flammable liquids in compliance with applicable local fire codes, local zoning codes, and the National Electric Code. 11. Develop and implement spill plans or spill prevention, containment and countermeasure (SPCC plans). 12. Train employees in spill prevention and proper materials management.
Minimizing Exposure – Fuel System and Fueling Areas	1. Develop and implement a system to report any spill exceeding 5 feet in any direction or which has entered the storm drainage system.

	2. Use fueling hoses with check valves to prevent hose draining after filling. 3. Provide spill kits on all fuel trucks, at fueling stations, in each hangar and at strategic locations. Each kit should be properly stocked and maintained. Store used materials in individual sealed container and labeled to ensure proper handling and disposal as a hazardous material. 4. Keep spills cleanup materials readily available. 5. Clean up spills and leaks immediately. 6. Use dry cleanup methods for fuel areas rather than hosing down the fuel area. Sweep up absorbents as soon as spilled substances have been absorbed. 7. Use spill and overflow protection devices. 8. Provide curbing or posts around fuel pumps to prevent collisions from vehicles. 9. Regularly inspect and perform preventative maintenance on fuel storage tanks to detect potential leaks before they occur. 10. Inspect the fueling area for leaks and spills. 11. Do not allow "topping off" of the fuel in the receiving equipment. 12. Train personnel on vehicle fueling BMPs.
Minimizing Exposure – Storing Liquid Fuels	1. Develop and implement spill plans. 2. Train employees in spill prevention and control. 3. For ASTs – use double walled tanks with overflow protection. 4. For ASTs – Keep liquid transfer nozzle/hoses in secondary containment area. 5. Store drums indoors when possible. 6. Clearly label drums with contents.

3.2 Good Housekeeping

Due to weather conditions; waste materials generated are kept indoors and/or in containers prior to proper disposal. Fuel tanks are fairly new and in good condition. Tanks and fueling area are regularly monitored for leaks and spills. Work areas are kept free of clutter and debris.

Best Management Practice (BMP)	
Good Housekeeping – Vehicle and Equipment Maintenance Areas	1. Prevent and contain spills and drips 2. Perform all cleaning at a centralized station so the solvents stay in one area. 3. Remove any parts that are dipped in liquid slowly to avoid spills. 4. Darin all parts of fluids prior to disposal. Oil filters can be crushed and recycled. 5. Transfer used fluids to the proper container promptly; do not leave full drip pans or other containers around the shop. Empty and clean drip pans and containers. 6. Clean up leaks, drips, and other spills without using large amounts of water. Use absorbents to for dry cleanup whenever possible. 7. Prohibit the practice of hosing down an area where the practice would result in the discharge of pollutants to a stormwater system. 8. Prohibit pouring liquid waste into floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections. 9. Maintain and organized inventory of materials. 10. Eliminate or reduce the number and amount of hazardous materials and waste by substituting nonhazardous or less hazardous waste materials. 11. Label and track the recycling of waste material. 12. Store batteries and other significant materials inside. 13. Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers in compliance with environmental regulations.

3.3 Maintenance

DOT&PF M&O facility has an SPCC Plan, which is in the process of being updated. A spill kit is kept stocked and on-site. Fuel tanks are inspected to ensure compliance, and the staff trained to inspect for leaks.

Equipment is regularly maintained at the M&O facility on Anton Larsen Road and kept in proper working order, thereby minimizing leak potential.

Best Management Practice (BMP)	
Maintenance – Vehicle and Equipment Monitoring and Repairs	1. Regularly inspect vehicles for leaks and maintenance 2. Vehicles are kept in good working condition and monitored for leaks to prevent discharges 3. Leaking equipment is kept indoors until repairs can be made with drip pans and absorbents in place as necessary. 4. Equipments maintenance is conducted indoors 5. All storage containers are monitored for leaks and stored indoors when possible. 6. Fuel tanks are inspected regularly for leaks and integrity.

3.4 Spill Prevention and Response

Structural Controls (Inspection Procedures)

Tanks, lines and pumps are inspected in accordance with the SPCC plan. Spill kits are staged at fueling areas, and all oil handling employees are trained annually in spill prevention, control and countermeasures.

Container Labeling

All containers with new products are labeled with the manufacturer's labeling. Container labeling is standard operating procedure at the airport and all containers are labeled when generated. Containers such as drums are labeled with USED OIL or Non-Hazardous Waste labels. No hazardous waste is generated during airport maintenance and operational activities. All tank containers are labeled with both the product type and tank number.

Preventative Measures

All equipment fuel tanks have secondary containment (double walled tanks), overfill prevention, and valves that prevent equipment overfills. Bollards surround the tanks providing additional spill protection. A spill kit is located in the equipment fueling area. In addition, equipment fuel tanks are situated away from any roadways. Buildings are heated with diesel fuel; the Sand Shed, SREB, and the generator building each have an above ground tank. Used oil from equipment maintenance is stored indoors.

Spill Response Materials

Spill kits an absorbent pads – located at the equipment fueling area
Absorbent boom – several hundred feet in length
Sand pile – for constructing containment dikes
Sound 2000 – fuel remediation compound

Spill Response Procedures

1. Assess the situation. Confirm there is no potential risk from fires, confined spaces, safety hazards. If the cause of the spill can be fixed quickly (tank overfill), stop the release.

2. Get help. If you are not alone at the site, find someone to assist you.
3. If possible stop the spill. Spill kit(s) contain tank repair putty.
4. If stopping the spill is not possible, then contain the spill. Spill kit(s) contain booms or spill socks. The goal is to reduce the amount of ground surface that gets contaminated.
5. If there is equipment available, an earthen berm can stop the flow of oil.
6. Report the spill to DOT&PF environmental staff and your supervisor. If the spill is a reportable quantity (see below), DOT&PF will need to notify the ADEC Response Team. Even if the spill is not reportable, log the spill and our response in the SPCC Plan.
7. Replace used materials after spill response.

Notification Procedures

The supervisor will notify ADEC immediately of any discharge of hazardous substance or oil to surface water. In the event of a release to land, the supervisor will notify ADEC immediately of a discharge of oil in excess of 55 gallons, or of any discharge of a hazardous substance. The supervisor will notify ADEC within 48 hours of a discharge of oil in excess of 10 gallons, but less than 55 gallons. If a discharge of oil from 1 to 10 gallons occurs, the supervisor will notify ADEC by writing within 30 days. The supervisor will notify ADEC within 48 hours of discharge in excess of 55 gallons to an impermeable secondary containment area or structure.

3.5 Erosion and Sediment Controls

The airport is situated in a relatively flat, gently sloping plain between the mountains and Chiniak Bay. Although the airport gets a considerable amount of precipitation annually, erosion and sedimentation are generally not a problem. Stormwater for large areas of the airport generally drains through gently sloped vegetated swales. Other areas of the airport have drop inlets and stormwater drain conveyance systems. Areas most susceptible to erosion and sediments are those actively disturbed sites due to construction activities. Appropriate BMPs during maintenance work that includes ground disturbance or potential discharges, followed by re-seeding will be enacted as additional erosion and sediment controls (see Appendix L for examples of typical BMPs).

3.6 Management of Runoff

Due to the coastal climate conditions, the Kodiak area gets frequent precipitation, with an average annual precipitation of approximately 75 inches relatively evenly distributed throughout the year. Stormwater drains off the gently sloped impervious areas (runway, taxiways, and apron) through gently sloped vegetated swales/ditches or into the drainage system. In the winter, runway, taxiways, and the commercial aprons are plowed to the edge and blown into vegetated swales. Stormwater Airport safety constraints limit the extent to which berms and retention ponds can be employed around aircraft areas.

Best Management Practice (BMP)	
Management of Runoff	1. Maintain as much vegetation as possible in maintenance areas and areas where stormwater leaves impermeable surfaces. 2. Utilize velocity dissipaters such as; vegetation,

	rock outfalls, and check dams. 3. Create opportunities for filtration and settling such as gently sloped vegetated ditches.

3.7 Salt Storage Piles or Piles Containing Salt

Because salts are corrosive to aircraft surfaces and mechanical parts, salt is not used on airport facilities for deicing activities. Kodiak M&O uses salt on roads only, and it is stored separately from airport deicers/sand.

See Section 2.4 for additional discussion.

3.8 MSGP Sector-Specific Non-Numeric Effluent Limits

Runoff from aircraft deicing operations drains into an oil/water separator on the main apron then northwesterly into a retention channel before drainage ditch parallel to Rezanof Drive

8.S.3.1.1 – Aircraft, Ground Vehicle and Equipment Maintenance Areas. All equipment maintenance takes place indoors at the Anton Larsen Road M&O facility.

8.S.3.1.2 – Aircraft, Ground Vehicle and Equipment Cleaning Areas. Dust and dirt is occasionally sprayed from equipment during the summer, as needed, onto the gravel pad at the Maintenance Facility on Anton Larsen Road.

8.S.3.1.3 – Aircraft, Ground Vehicle and Equipment Storage Areas. Airport equipment (snow removal and ARFF) is stored indoors. Equipment at the Anton Larsen Road facility is sometimes parked outside due to lack of indoor space issues. Equipment utilized is relatively new, and kept in proper working order.

8.S.3.1.4 – Material Storage Areas. Material is stored indoors and/or in enclosed containers.

8.S.3.1.5 – Airport Fuel System and Fueling Areas. The equipment fuel tanks (located at the M&O facility and at the SREB/ARFF) are relatively new and properly maintained, with an automatic shut-off device. Spill kits are available on-site and an SPCC Plan in place.

8.S.3.1.6 – Source Reduction. Mechanical means are used to keep the runway clear of snow and ice, when possible. Sand is also utilized for traction. Urea is utilized when necessary to keep the runway safe due to climatic conditions. When conditions allow, E36 is utilized in small quantities. Sand is used for traction and to stretch deicer use when possible.

8.S.3.1.7 – Management of Runoff. Due to the coastal climate conditions, Kodiak area gets frequent precipitation, with an average annual precipitation of approximately 75 inches evenly distributed throughout the year. The airport is situated in a flat sloping valley surrounded by wetland areas. Stormwater drains off

the gently sloped impervious areas (runway, taxiways, and apron) directly, into the stormwater drainage system. In the winter, runway, taxiways and the commercial apron are plowed to the edge and blown off.

8.S.3.2 – Deicing Season. The deicing season typically runs from October through March. Urea and potassium acetate (E-36) used for runway deicing at Kodiak State Airport. Air carriers use ethylene and propylene glycols for deicing aircraft. ISC Kodiak uses small amounts of urea to deice a taxiway; aircraft are all stored inside hangers.

3.9 Employee Training

Storm water training for airport staff will take place annually during the deicing season and will coincide with an inspection of the airport facility. In addition to training on the inspection process, training will include any updates to MSGP requirements, procedures for Quarterly Visual Assessment and discussion of operational activities at the airport facility. Training for airport staff will also include fuel handling and spill reporting procedures. Besides scheduled annual training, new staff will be trained on an as-needed basis. Staff training logs area found in Appendix G.

The level of training provided will be commensurate with each worker's assignments and responsibilities. Training may be accomplished in a number of ways:

- Through workshops, classes, working groups, conference calls, and/or shop level tailgate briefings.
- Through discussions and presentations at pollution prevention team meetings, periodic environmental compliance briefings, and similar group gatherings.
- Through signs/posters posted in significant locations in facilities.
- Through providing written copies of BMPs.
- Through online training such as EPA webcasts.

3.10 Non-Stormwater Discharges

See Section 2.3 for discussion

3.11 Waste, Garbage and Floatable Debris

Wastes and debris are covered and/or stored indoors prior to landfill disposal. Garbage is stored in covered dumpsters. Trash removal occurs on Thursdays. Outside areas around the airport are kept clear of debris and clutter. Shop waste water passes through an oil water separator and then is treated through the US Coast Guard's waste water treatment facility. Human waste is also treated through the USCG facility.

Best Management Practice (BMP)

Waste, Garbage, and Floatable Debris	1. Waste and debris are stored in cover containers or indoors and removed regularly. 2. Maintenance and airport areas are kept clear of debris and clutter. 3. The oil water separator is cleaned out annually. 4. Human waste and all water is treated through a waste water facility.

3.12 Dust Generation and Vehicle Tracking of Industrial Materials

Airport runways, taxiways, and apron areas are paved. SREB and ARFF area as well as some access roads are gravel. Transition areas between gravel and pavement are swept to keep clear of rocks and debris that could damage aircraft.

SECTION 4: SCHEDULES AND PROCEDURES FOR MONITORING

For each type of monitoring, your SWPPP must include a description of:

1. Sample Location(s). Describe where samples will be collected, including any determination that two or more outfalls are substantially identical. Urea and glycol-based deicer usage at Kodiak State Airport falls below the 100 tons/year threshold for Sector S facilities. Therefore benchmark monitoring is not required at this facility. However, benchmark sampling was conducted by the USCG at two outfalls (A and C) during the previous MSGP SWPPP as representative outfalls. Because average values for some of the pollutants (Ammonia and BOD) exceeded benchmark values during recent sampling events, benchmark sampling will continue at these two outfalls until the average of the 4 monitoring values does not exceed the benchmark.

2. Pollutant Parameters to be Sampled. Include a list of the pollutant parameters that will be sampled and the frequency of sampling for each parameter. Sector S parameters of concern are Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Ammonia, and pH. These parameters will be included in benchmark sampling events.

3. Monitoring Schedules. Include the schedule you will follow for monitoring your stormwater discharge, including where applicable any alternate monitoring periods to be used for facilities in climates with irregular stormwater runoff (MSGP, Part 6.1.6). The four quarterly benchmark samples will take place during the October-March deicing season. Monitoring will take place during each of the following months:
   November
   December
   January
   February

4. Numeric Limitations. List here any pollutant parameters subject to numeric limits (effluent limitations guidelines), and which outfalls are subject to such limits. Note that numeric limits are only included for Sectors A, C, D, E, J, K, L, and O. Numeric limitations are not applicable to Sector S facilities.

5. Procedures. Describe procedures you will follow for collecting samples, including responsible staff who will be involved, logistics for taking and handling samples, laboratory to be used, etc. Benchmark sampling and analysis will be conducted by a consultant qualified in water quality sampling, using the following procedures (some sampling may be conducted by qualified, trained U.S. Coast Guard personnel):

   Collect a grab sample within the first 30 minutes from a discharge resulting from a measurable storm event or as soon as practicable after the first 30 minutes. If the 30 minute period is exceeded, document it in the SWPPP explaining why it was not possible to take a sample within the first 30 minutes. A measurable storm event is one that results in a discharge from the outfall. The storm event is proceeded by at least 72 hours of dry weather (or 72 hours since the last measurable storm event). In the case of snowmelt, the monitoring must be performed at a time when a measurable discharge occurs. For each monitoring event, except snowmelt monitoring, identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event. For snowmelt monitoring, you must identify the date of the sampling event. When adverse weather conditions prevent the collection of samples, take a substitute sample during the next qualifying storm event. Samples will be shipped to a third-party, certified water quality laboratory for analysis.

   Submit all benchmark monitoring data using the DEC online eNOI system (https://myalaska.state.ak.us/dec/water/OPA/Login.aspx?return=https%3a%2f%2fmyalaska.state.a

k.us%2fdec%2fwater%2fopa%2fwelcome.aspx) no later than 30 days after receiving the complete laboratory results for all monitored outfalls for the monitoring period.

After the first four quarters of benchmark monitoring, average the 4 monitoring values for each pollutant. If below the benchmark values then requirements are met and no further benchmark testing is needed. However, if benchmark values are exceeded then make necessary control measure adjustments and take 4 more quarterly samples. Average the 4 benchmark values and proceed as described above depending on whether benchmarks were exceeded.

The U.S. FWS have asked that DOT&PF contact them after the first winter deicing season with benchmark sampling results. If benchmark values are exceeded, then FWS would like to re-initiate consultation (App. J), and if benchmark values are not exceeded they would like the feedback in order to incorporate a similar approach in other areas.

Inactive and Unstaffed sites exception (if applicable)
If you are invoking the exception for inactive and unstaffed sites for benchmark monitoring, include information to support this claim.

Substantially identical outfall exception (if applicable)
If you plan to use the substantially identical outfall exception for your benchmark monitoring and/or quarterly visual assessment requirements, include the following information here to substantiate your claim that these outfalls are substantially identical:

- Location of each of the substantially identical outfalls:
- Description of the general industrial activities conducted in the drainage area of each outfall:
- Description of the control measures implemented in the drainage area of each outfall:
- Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges:
- An estimate of the runoff coefficient of the drainage areas (low=under 40%; medium=40 to 65%; high =above 65%):
- Why the outfalls are expected to discharge substantially identical effluents:

SECTION 5: INSPECTIONS

For the routine facility inspections and the comprehensive site inspections to be performed at your site, include a description of the following:

- The names of the person(s), or the positions of the person(s), responsible for inspection: Airport Manager
- The schedules to be used for conducting inspections. Include here any tentative schedule that will be used for facilities in climates with irregular stormwater runoff discharges (MSGP, Part 4.2.3):
  Routine inspections will take place monthly during the deicing season (typically October through March), as denoted in table below. In addition, routine inspections will take place when stormwater discharge is occurring, during the each of the two "summer" quarters as site conditions warrant. The annual comprehensive inspection will take the place of a routine inspection during the deicing season, likely in March when day length is longer and sufficient time remains to complete annual reporting (due by end of September of each permit year).

Month	Deicing Season	Inspection Schedule
January	x	Routine
February	x	Routine
March	x	Comprehensive
April		One additional
May		routine inspection
June		during 2nd quarter
July		One additional
August		routine inspection
September		during 3rd quarter
October	x	Routine
November	x	Routine
December	x	Routine

and

- Specific areas of the facility to be inspected, including schedules for specific outfalls: Areas that are subject to deicing due to aircraft operations will be inspected during each inspection, as will equipment fueling, deicing material storage areas, and snow storage areas. Additionally, during the summer routine inspection, any potential discharges and drainages will also be inspected.

For the quarterly visual assessments to be performed at your site, include a description of the following:

- The names of the person(s), or the positions of the person(s), responsible for inspection: Airport Manager.
- The schedules to be used for conducting inspections. Include here any tentative schedule that will be used for facilities in climates with irregular stormwater runoff discharges (MSGP, Part 4.2.3): Due to winter conditions, quarterly visual assessments will need to be timed around snowfall events. It is anticipated that the visual assessment during the first and last quarters will capture snowmelt discharge.
  and
- Specific areas of the facility to be inspected, including schedules for specific outfalls: Visual assessment samples will be collected at airport outfalls A-L, formerly AP-1 – AP-9.

Inactive and Unstaffed sites exception (if applicable)
If you are invoking the exception for inactive and unstaffed sites for your routine facility inspections and quarterly visual assessments, include information to support this claim. N/A

SECTION 6: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

6.1 Documentation Regarding Endangered Species.

During consultation with the Fish & Wildlife Service (FWS), it was determined that Kodiak State Airport is within the range of several federally listed species. Steller's eiders (*Polysticta stelleri*) are federally listed as threatened and over-winter in the Kodiak Island area. Critical habitat for the Steller's eiders is not designated in the Kodiak Island area. Yellow-billed loons (*Gavia adamsii*) are a candidate species and also over-winter in the area. The northern sea otter (*Enhydra lutris kenyoni*) is federally listed as threatened. The sea otter, which the State of Alaska lists as a Species of Special Concern, reside in the Kodiak Island area. There is no critical habitat designation, although it is expected to be finalized in fall 2009. Kittlitz's murrelets (*Brachyramphus brevirostris*) area a candidate species and may be present in the area year-round.

The U.S. FWS have requested that DOT&PF contact them after the 2009/2010 deicing season with benchmark sampling results. If benchmark values are exceeded, then FWS would like to re-initiate consultation (Appendix J). Conversely, if benchmark values are not exceeded they would like the feedback in order to incorporate a similar approach in other areas.

The FWS determined that proposed activities would not have an adverse affect on these species or adversely modify critical habitat (email correspondence in Appendix J).

During consultation with the National Marine Fisheries Service (NMFS), it was determined that humpback whales (*Megaptera novaeangliae*), fin whales (*Balaenoptera physalus*), and Steller sea lions (*Eumetopias jubatus*) are listed as endangered under the ESA and are observed in waters adjacent to the Kodiak Airport. In addition, Steller sea lion critical habitat is located adjacent to the Kodiak State Airport.

The NMFS determined that proposed activities would not have an adverse affect on these species or their habitat (email correspondence in Appendix J).

Past outfall sampling has resulted in values exceeding benchmark thresholds for BOD, COD, and ammonia. Control measures to mitigate impacts of discharge from the ramp near the terminal will be implemented. Deicing fluid applied to aircraft on the ramp drains to the drop inlet near the terminal building then flows north to a retention channel before entering a ditch which then flows north and discharges to the Buskin River. The downstream end retention channel gate will remain closed during the deicing season to retain any deicing fluids in storm water. The retention channel will then be pumped a couple times per deicing season and hauled to a waste water treatment plant for disposal. In addition, deicing and snow removal procedures as well as potential structural control measures will be considered to address storm water discharges from outfalls near the runways.

Eligibility Criterion E of the MSGP is met.

6.2 Documentation Regarding Historic Properties

No subsurface disturbances resulting from building or installing control measures are occurring at this facility, therefore discharge-related activities do not have the potential to have an effect on historic properties. Eligibility Criterion A of the MSGP is met, no further action is required.

6.3 Documentation Regarding NEPA Review (if applicable)

No operations related to New Source Performance Standards (NSPS) take place at this facility.

Appendix A – General Location Map & Site Map(s)

Kodiak State Airport Location Map

Kodiak Airport Watershed Maps

Kodiak Airport Layout Plan

Kodiak Airport Aerial Photos


Location
0 0.35 0.7 1.4 Miles
STATE OF ALASKA
DOT&PF Central Region
Maintenance & Operations
Kodiak State Airport
May 6, 2009 Location Map

OUTFALL A1
GRAVEL STORAGE
OUTFALL B1
BASKIN RIVER
OUTFALL A2
RIP RAP STORAGE
AIRCRAFT DEICING AREA
DEVILS CREEK
WATERSHED A
WATERSHED B
OUTFALL D2
OUTFALL D1
OUTFALL D3
WATERSHED D
WATERSHED H
WATERSHED E
OUTFALL E
CHIGNIK BAY
OUTFALL H1
OUTFALL H2
WATERSHED C
SALT STORAGE
DOT FACILITY
WATERSHED G
OUTFALL G
OUTFALL C
GRAVEL STORAGE
L
NOT AIRPORT OUTFALL
WATERSHED F
OUTFALL F

300' 150' 0' 300' 600'

LEGEND

- OUTFALL
- WATERSHED
- DIRECTION FLOW

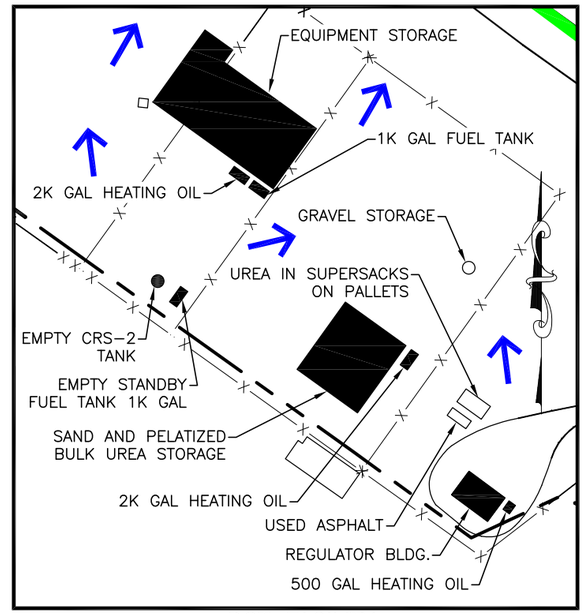
Designed By:	DESIGNER
Drawn By:	DRAFTER
Checked By:	CHECKER
Date Revised:	9/02/2010, 11:55 AM
Layout Name:	Layout
File Path and Name:	C:\Documents and Settings\CRSmith\My Documents\CRSmith\Projects\Kodiak\M & O\Kod-SWPPP.dwg

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA
STORMWATER OUTFALLS
FIGURE 1

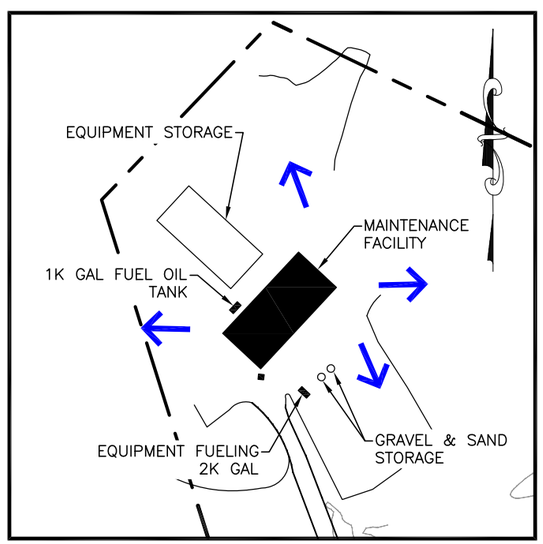
DATE: 9/2/2010
SHEET: 1 OF 2
AS-BUILT SHEET:

SEE MAINTENANCE STATION



DOT FACILITY

60' 30' 0' 60' 120'



MAINTENANCE STATION

SEE DOT FACILITY

100' 50' 0' 100' 200'

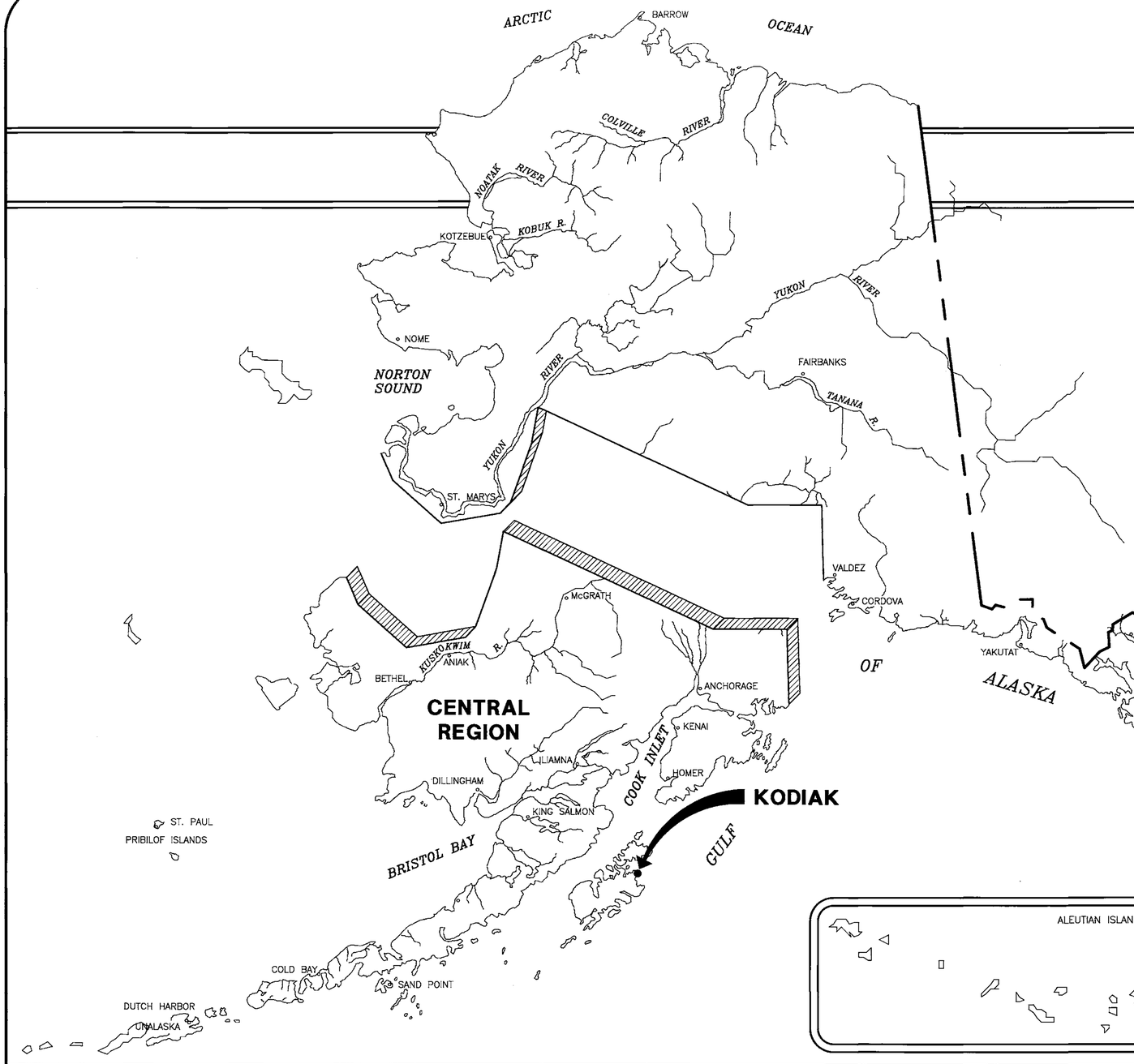
300' 150' 0' 300' 600'

Date Revised:	10/07/2010, 3:16 PM
Layout Name:	Facilities
File Path and Name:	C:\Documents and Settings\CRSmith\My Documents\CRSmith\Projects\Kodiak\M & O\Kod-SWPPP.dwg
Designed By:	DESIGNER
Drawn By:	DRAFTER
Checked By:	CHECKER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT
KODIAK, ALASKA
STORMWATER OUTFALLS
FIGURE 2

DATE: 10/7/2010
SHEET: 2 OF 2
AS-BUILT SHEET:

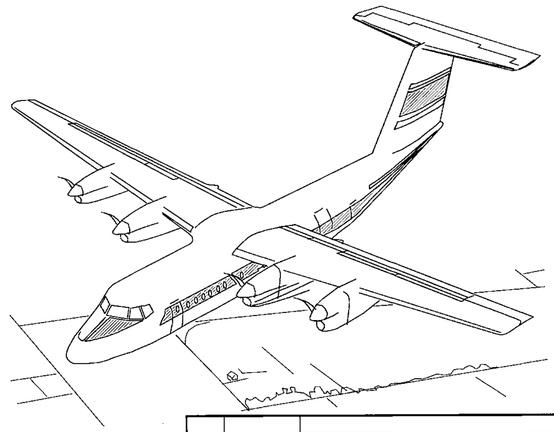


AIRPORT LAYOUT PLAN FOR

KODIAK

2004

DRAWING INDEX



BY	DATE	REVISION
JTL	05/14/10	ALP UPDATE SHEETS 2-3

SPONSORED BY
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

CONCUR Gordon C. Keith **DATE** 3/22/04
GORDON C. KEITH, P.E. **CONSTRUCTION AND OPERATIONS DIRECTOR**

APPROVED **DATE** 3.22.04
ROBERT A. CAMPBELL, P.E. **PRECONSTRUCTION ENGINEER**

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 6/16/04
By: _____ DATE: 6/18/04
FAA AIRPORTS DIVISION
ALASKAN REGION

FAA AIRSPACE REVIEW NUMBER 03-AAL-20

KODIAK
AIRPORT LAYOUT PLAN

SHEET 1 OF 13

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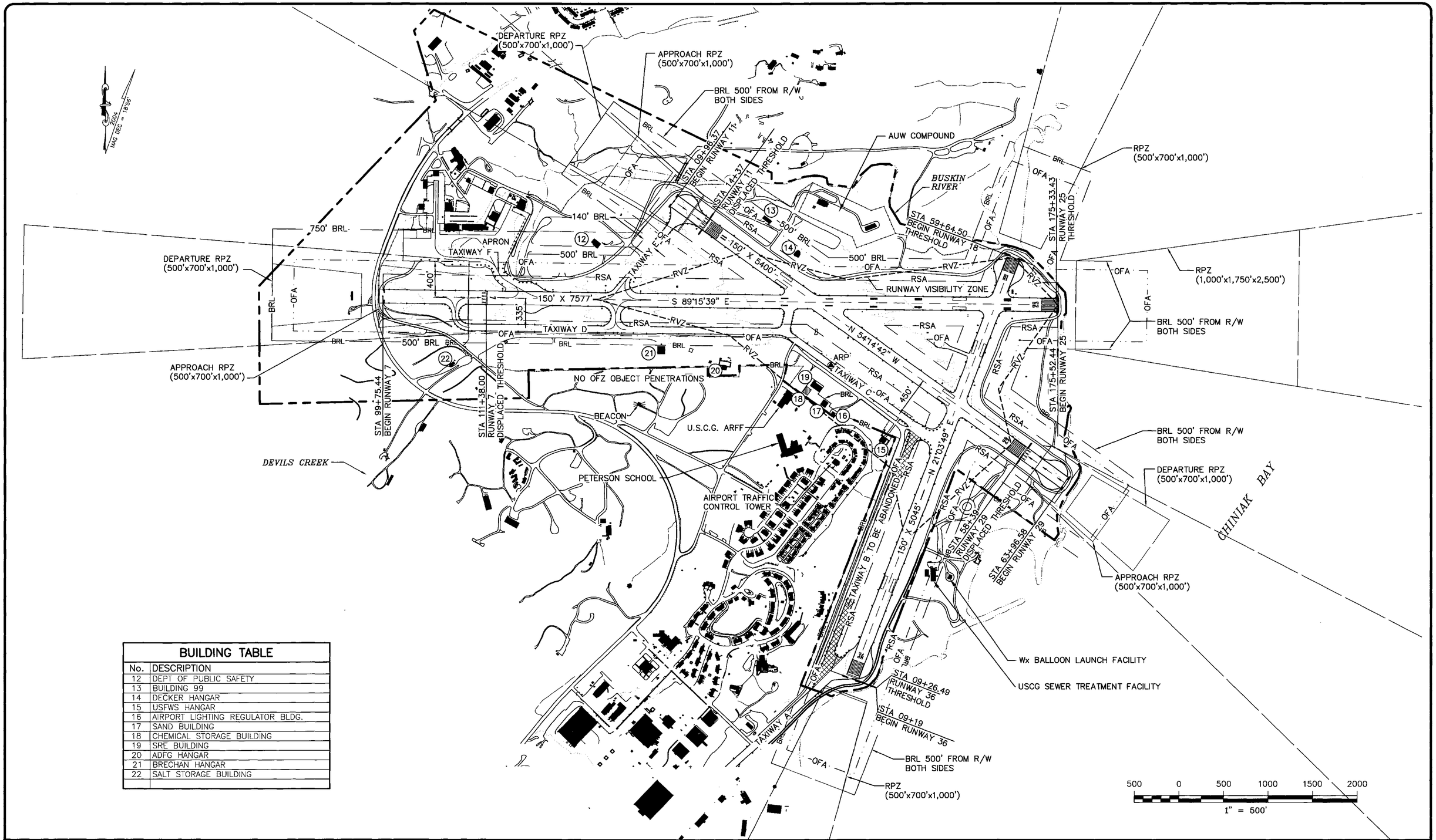
Updated 5/26/06 Sheet 2



BUILDING TABLE

No.	DESCRIPTION
12	DEPT OF PUBLIC SAFETY
13	BUILDING 99
14	DECKER HANGAR
15	USFWS HANGAR
16	AIRPORT LIGHTING REGULATOR BLDG.
17	SAND BUILDING
18	CHEMICAL STORAGE BUILDING
19	SRE BUILDING
20	ADFG HANGAR
21	BRECHAN HANGAR
22	SALT STORAGE BUILDING

FILE:
Z:\07072 DOT&PF\124 Kodiak Airport\CAD
DATE:
5/18/2010 1:1

BY	DATE	REVISIONS
VLC	5/14/10	MOVED BRL ALONG TW C TO RVZ/EXISTING BUILDING LIMIT

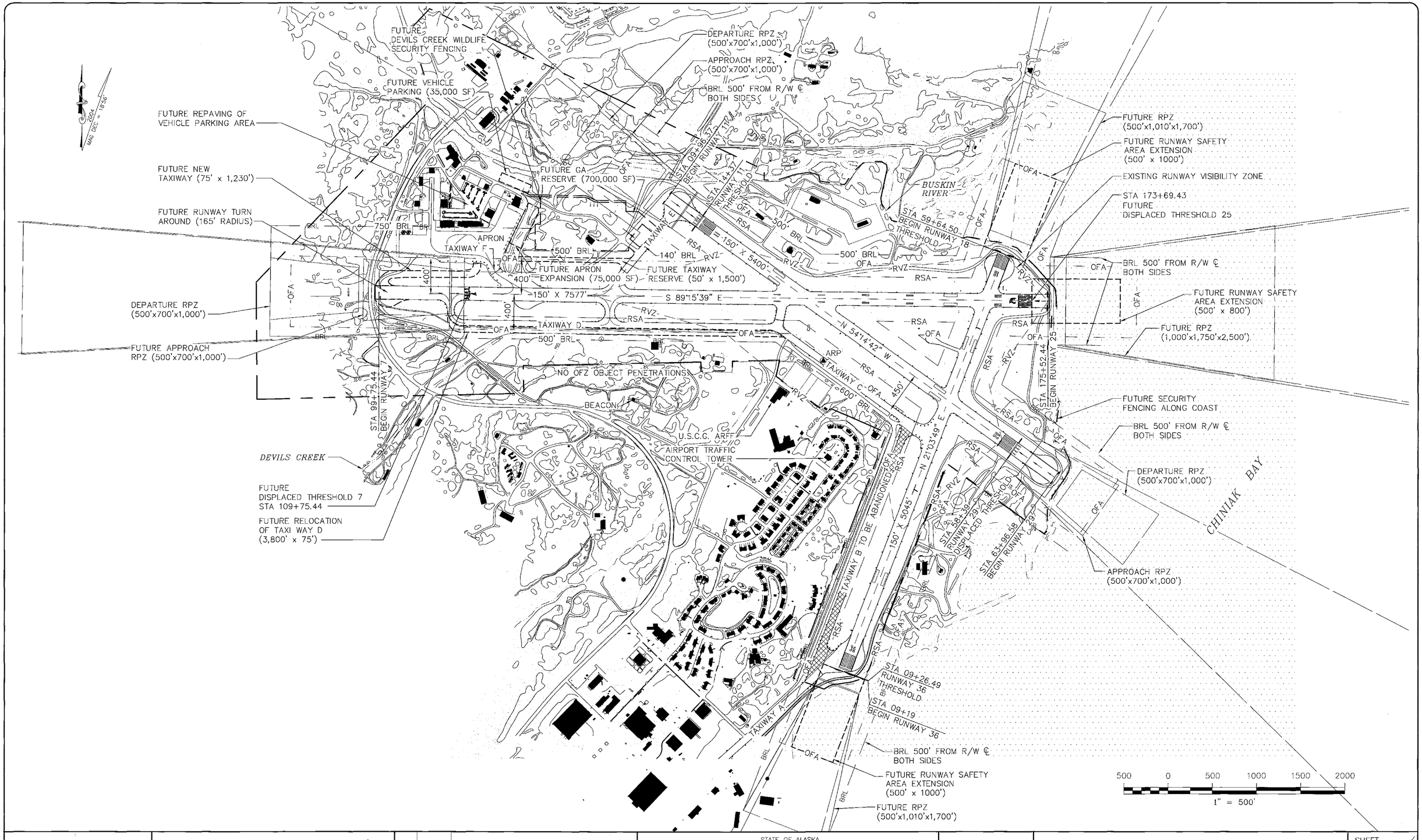
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

KODIAK AIRPORT

AIRPORT LAYOUT PLAN

AIRPORT LAYOUT PLAN – EXISTING

SHEET 3 OF 13



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DATE: 03/17/04 1=1

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 6/18/04

By: _____ DATE: 6/18/04
FAA AIRPORTS DIVISION
ALASKAN REGION

FAA AIRSPACE REVIEW NUMBER: 03-AAL-20

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: _____ DESIGN SECTION CHIEF
STEPHEN M. RYAN, P.E.

APPROVED: _____ PROJECT MANAGER
GARY E. LINCOLN, P.E.

DATE 3-17-04
DESIGN JSW
DRAWN LJW
CHECKED DAM

KODIAK AIRPORT

AIRPORT LAYOUT PLAN

AIRPORT LAYOUT PLAN – FUTURE IMPROVEMENTS

SHEET 4 OF 13

Appendix B –Multi-Sector General Permit

Sector S Specifications from MSGP

A disc with an electronic version of the 2008 MSGP is located in the back

of this binder or can be found at:

http://www.epa.gov/npdes/pubs/msgp2008_finalpermit.pdf

Appendix C –NOI

Acknowledgement of Coverage for Modified NOI

Modification to Notice of Intent for Stormwater Discharges – 10/13/2010

Acknowledgement of Coverage – 2/17/2010

Notice of Intent - 11/30/2009

MEMORANDUM

State of Alaska
Department of Transportation & Public Facilities
Central Region – Division of Maintenance & Operations

To: William Ashton
ADEC

Date: October 13, 2010

Project Name: Kodiak State Airport

From: Jennifer Hillman
Environmental Impact Analyst
ADOT&PF

Project No: Maintenance & Operations

Subject: NOI Modification Form

Attached is the Notice of Intent (NOI) Modification form for coverage under the Alaska Pollutant Discharge Elimination System (APDES) Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial activity at the Kodiak State Airport, Kodiak, Alaska.

The original NOI submitted on December 21, 2009 contained inaccurate location information and an incorrect acreage of industrial activity exposed to storm water at the site. This information has been corrected and the SWPPP contact information has been updated.

If you have questions regarding this permit application, please contact me at 907-269-0714 or Jennifer.Hillman@alaska.gov.

Attachments:
NOI Modification Form

cc: Lance Wilber, Regional Director, ADOT&PF

EPA

SUGGESTED FORMAT FOR SUBMITTING MODIFICATIONS TO A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER AN NPDES GENERAL PERMIT. PRINT THE SUGGESTED FORMAT ON YOUR COMPANY LETTERHEAD AND MAIL TO THE NOI PROCESSING CENTER.

Current NOI Information (Please copy content exactly from your NOI; indicate changes on the next page.)

I. Permit Tracking Number:

AKR05DA31

II. Operator Information (As it appears on your NOI):

Name: AK Department of Transportation

IRS Employer Identification Number (EIN): N/A

E-mail: jennifer.hillman@alaska.gov

Mailing Address:

Street: PO Box 196900 4111 Aviation Ave

City: Anchorage State: AK Zip Code: 99519-

Phone: 907-269-0714 Fax (Optional): ___-___-____

III. Facility Information (As it appears on your NOI):

Facility Name: Kodiak State Airport

Location Address:

Street: 1500 Anton Larsen Road

City: Kodiak State: AK Zip Code: 99615-

County or similar government subdivision: Kodiak Is Bor

Instructions for Completing a Modification to an EPA Notice of Intent (NOI)

Use the form on the subsequent pages to indicate the items for which you are submitting this modification. Only enter information you wish to change. You may only use this form to modify an NOI that you submitted to EPA for coverage under the 2008 Multi-Sector General Permit (MSGP). You may use this form if EPA is the permitting authority for your facility (i.e., your state does not have an authorized NPDES program or your facility is located in or is located in Indian Country). For a list of states, Indian Country, and territories covered by EPA's 2008 MSGP, please see www.epa.gov/npdes/stormwater/authorizationstatus. If you have any questions about modifying your NOI, call the Stormwater Notice Processing Center at (866) 352-7755.

When Should You Modify Your Notice of Intent (NOI)?

You can use this form to update or correct information on your NOI, including:

- ✓ Owner/operator address and contact information
- ✓ Facility/site information
- ✓ Changes in SIC Code or industrial activity designation, or
- ✓ Changes to discharge information

When Must You Submit a Notice of Termination (NOT) Instead of a Modification Form?

- ✓ The owner/operator has changed. You must submit a Notice of Termination (NOT) when you transfer control of a facility to a new owner/operator. The new owner/operator must then file a new NOI to obtain permit coverage under EPA's 2008 MSGP. Coverage is not transferable.
- ✓ You have ceased operations at the facility and there are no longer discharges associated with industrial activity at the facility;
- ✓ You are a Section G, H, or J facility and you have met the applicable termination requirements; or
- ✓ You have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit, unless EPA has required that you obtain such coverage under authority of Part 1.6.1, in which case coverage under this permit will terminate automatically.

Please submit this form with an original signature in ink – do not send a photocopy!

NPDES FORM

EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT

[illegible]

A. Permit Number: AK - 05DA31

Tracking Number (EPA Use Only):

B. Facility Operator Information

1. Name: AK Department of Transportation
2. IRS Employer Identification Number (EIN): N/A
3. Mailing Address:
   a. Street: PO Box 196900
   b. City: Anchorage c. State: AK d. Zip Code: 99519
   e. Phone: 907-269-0714 g. E-mail: [illegible]

C. Facility Information

1. Facility Name: Kodiak State Airport
2. Have stormwater discharges from your site been covered previously under an NPDES permit? ☑ YES ☐ NO
   a. If yes, provide the Tracking Number or the NPDES permit number: AK0020648
   [illegible] ☐ YES ☐ NO
   [illegible] ☐ YES ☐ NO
3. Location Address:
   a. Street: 1500 Anton Larsen Road
   b. City: Kodiak
   c. County or similar government subdivision: Kodiak Is Bor d. State: AK e. Zip Code: 99615
4. Latitude: 57-45 00 N (degrees, minutes, seconds) Longitude: 152-29 03 W (degrees, minutes, seconds)
5. Lat/Long Data Source: ☐ USGS topographic map ☐ EPA web site ☐ GPS ☑ Other: FAA Alaska Supplement (UTC-9)
   If you used a USGS topographic map, what was the scale? ______
6. Estimated area of industrial activity at your site exposed to stormwater: 700 (acres)
7. Is this a federal facility? ☑ YES ☐ NO
8. Is your facility located on Indian Country lands? ☐ YES ☑ NO
   If yes, name of reservation, or if not part of a reservation, put "not applicable": ______

D. Discharge Information

1. Does your facility discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ YES ☑ NO

If yes, name of MS4 operator: ______________________________

2. Receiving Waters and Impairments (**Note:** If additional space is needed for this question, fill out attachment 1.)

a. What is the name(s) of your receiving waters that receive stormwater directly and/or through an MS4? If your receiving water is impaired then identify the name of the impaired segment, if applicable, in parentheses following the receiving water name.	b. Are any of your discharges directly into any segment of an "impaired" water?	If you answered yes to question 2.b, then answer the following three questions:		
		b.1. What pollutant(s) are causing the impairment?	b.2. Are the pollutant(s) causing the impairment present in your discharge?	b.3. Has a TMDL been completed for the pollutant(s) causing the impairment?
Buskin River	☐ YES ☑ NO		☐ YES ☐ NO	☐ YES ☐ NO
[illegible] Creek	☐ YES ☑ NO		☐ YES ☐ NO	☐ YES ☐ NO
Chiniak Bay	☐ YES ☑ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO
	☐ YES ☐ NO		☐ YES ☐ NO	☐ YES ☐ NO

3. Water Quality Standards (for new discharges only)

a. Are any of your discharges (new and existing) to a receiving water designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water)? ☐ YES ☑ NO

b. Has the receiving water(s) been designated by the state or tribal authority under its antidegradation policy as a Tier 3 water (Outstanding National Resource Water)? ☐ YES ☑ NO

4. Federal Effluent Limitation Guidelines and Sector-Specific Requirements

a. Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? ☐ YES ☑ NO

b. If yes, which effluent limitation guidelines apply to your stormwater discharges?

40 CFR Part/Subpart	Eligible Discharges	Affected MSGP Sector	Check if Applicable
Part 411, Subpart C	Runoff from material storage piles at cement manufacturing facilities	E	☐
Part 418 Subpart A	Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	C	☐
Part 423	Coal pile runoff at steam electric generating facilities	O	☐
Part 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	A	☐
Part 436, Subpart B, C, or D	Mine dewatering discharges at crushed stone mines, construction sand and gravel mines, or industrial sand mines	J	☐
Part 443, Subpart A	Runoff from asphalt emulsion facilities	D	☐
Part 445, Subparts A & B	Runoff from hazardous waste and non-hazardous waste landfills	K, L	☐

c. If you are a Sector S (Air Transportation) facility, do you discharge deicing chemicals from more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis? ☑ YES ☐ NO

5. Identify the 4-digit Standard Industrial Classification (SIC) code or 2-letter Activity Code that best represent the products produced or services rendered for which your facility is primarily engaged, as defined in MSGP:

Primary SIC Code: 4581 OR Primary Activity Code: ☐☐

6. Identify the applicable sector(s) (and subsector(s)) of industrial activity (including co-located industrial activity) for which you are requesting permit coverage:

a. Sector: S Subsector: 1 b. Sector: ☐☐ Subsector: ☐ c. Sector: ☐☐ Subsector: ☐

d. Sector: ☐☐ Subsector: ☐ e. Sector: ☐☐ Subsector: ☐ f. Sector: ☐☐ Subsector: ☐

7. a. Is your site presently inactive and unstaffed? ☐ YES ☑ NO

b. If yes, is your site expected to be inactive and unstaffed for the entire permit term? ☐ YES ☐ NO

c. If you answer "no" to 7.b above, then indicate the range of time that you expect your facility to be inactive and unstaffed: ______________________

E. Stormwater Pollution Prevention Plan (SWPPP) Contact Information

a. SWPPP contact name: Jennifer Hillman

b. Phone: 907 269 0714 Ext. [ ] e. E-mail: jennifer.hillman@alaska.gov

d. URL of SWPPP (if applicable): _____

F. Endangered Species Protection

1. Using the instructions in Appendix B of the MSGP, under which criterion (refer to Part 1.1.4.3) are you eligible for coverage under this permit?

☐ a ☐ b ☐ c ☐ d ☑ e ☐ f

2. If you selected criterion e, from Part 1.1.4.3:

a. What federally-listed species or federally-designated critical habitat are in your action area? Steller's Eider, Kittlitz's Murrelet, Yellow-Billed Loon, Northern Sea Otter, Kittlitz's Murrelet, Humpback Whale, Fin Whale, and Steller Sea Lion

b. List the pollutants expected to be present in your discharge: Urea, E.Coli, diesel fuel, hydraulic fluid, methylene glycol, aviation fuel, biosolids

c. If you are an existing discharger, do you have effluent monitoring data from EPA's NPDES or modified previous NPDES permit? ☑ YES ☐ NO

c.1 If not, why not? ☐ No monitoring required by my permit ☐ Inadequate/outdated data ☐ Other: _____

c.2 Do you have any other data characterizing pollutants in your discharge(s)? _____

c.3 If you have benchmark monitoring data, did you exceed any of the applicable benchmarks? ☑ YES ☐ NO

c.4 Did you identify any applicable effluent limitation guidelines or waste load allocation in an approved Total Maximum Daily Load (TMDL)? ☐ YES ☑ NO

c.5 If you answered "yes" to either question F.2.c.2 or F.2.c.3 above, list which pollutant(s): BOD, ammonia

d. Attach documentation supporting criterion E eligibility. Documentation should address species and habitat listed in F.2.a and the potential effects of pollutant(s) listed in F.2.c, including any monitoring data for these pollutants on the listed species and habitat.

e. If you selected criterion F.2.e.ii, provide the organism's NPDES Tracking Number under which you are receiving eligibility: _____

G. Historic Preservation

Using the instructions in Appendix B of the MSGP, under which criterion listed in Part 1.1.4.4 are you eligible for coverage under this permit?

☑ a ☐ b ☐ c ☐ d

H. Certifier Name and Title

I certify under penalty of law that I meet the eligibility conditions of this permit and that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Print Name: Jarcie Wilder

Title: Regional Director

Signature: _____ Date: 1/17/2024

E-mail: Jarcie.Wilder@alaska.gov

NOI Preparer (Complete if NOI was prepared by someone other than the certifier)

Prepared by: Jennifer Hillman

Organization: AK Department of Transportation

Phone: 907 269 0714 Ext. [ ] E-mail: jennifer.hillman@alaska.gov

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
WASTEWATER DISCHARGE AUTHORIZATION

555 Cordova Street
Anchorage, AK 99501
Phone: (907)269-6283
Fax: (907)334-2415
william.ashton@alaska.gov

February 17, 2010

Matt DeCaro
ADOT & PF
PO Box 196900
Anchorage, AK 99507

Facility:
Kodiak State Airport
Kodiak, AK 99615

SUBJECT: Acknowledgement of Coverage /Assigned Permit Number

HIGH IMPORTANCE: Your Permit Tracking Number is AKR05DA31

This letter acknowledges that you have submitted a complete Notice of Intent form to be covered under the Alaska Pollutant Discharge Elimination System (APDES) Multi-Sector General Permit for Stormwater Discharges associated with industrial activity (MSGP) on December 21, 2009. Coverage under this permit begins at the conclusion of your sixty day waiting period; on February 19, 2010. This is not a determination of the validity of the information you provided which your eligibility for coverage under the MSGP is based on. An important aspect of certification requires that you correctly determine whether you are eligible for coverage under this permit. Your signature on the Notice of Intent certifies that you have read, understand, and are implementing all of the applicable requirements.

The Multi-Sector General Permit requires you to have developed and begun implementing a Storm Water Pollution Prevention Plan (SWPPP) and outlines important inspection and record keeping requirements. You must also comply with any additional location-specific requirements applicable to your area. A copy of the MSGP must be kept with your SWPPP. An electronic copy of this permit and additional guidance materials can be viewed and downloaded at http://www.dec.state.ak.us/water/wnpspc/stormwater/stormwater.htm.

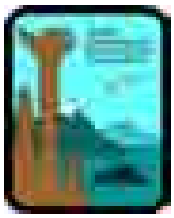
If you have general questions regarding the storm water program or your responsibilities under the MSGP, please call (907) 269-6283.

Thank you and sincerely,

Kara Kusche

Kara Kusche for William Ashton

For Agency Use
Permit #_____



Notice of Intent (NOI) For Storm Water Discharges Associated With Industrial Activity Under the APDES Multi-Sector General Permit

Submission of this completed Notice of Intent (NOI) constitutes notice that the operator identified in Section I of this form requests authorization to discharge pollutants to waters of the United States from the facility or site identified in Section II under Alaska's APDES Storm water Multi-Sector General Permit (MSGP) for industrial storm water. Submission of this NOI constitutes your notice to ADEC that the facility identified in Section II of this form meets the eligibility conditions of Part 1.1 of the MSGP. Please read and make sure you comply with all eligibility requirements, including the requirement to prepare a storm water pollution prevention plan. Refer to the instructions at the end of this form to complete your NOI.

Section I. Operator Information

Name: Alaska Department of Transportation and Public Facilities (DOT&PF)

Mailing Address:

Street (PO Box): P.O. Box 196900

City: Anchorage State: Alaska Zip: 99507

Phone: 907-269-0714 Fax(optional):

Email: matthew.decaro@alaska.gov

Section II. Facility Information

Facility Name: Kodiak State Airport

Have storm water discharges from your site been covered previously under an NPDES or APDES Permit? ☒ Yes ☐ No

a. If Yes, provide the Tracking Number if you have coverage under EPA's MSGP 2000 or the NPDES permit number if you had coverage under an EPA individual permit. AK0020648

b. If no, was your facility in operation and discharging storm water prior to October 30, 2005? ☐ Yes ☐ No

c. If no to "b", did your facility commence discharging after October 30, 2005 and before January 5, 2009? ☐ Yes ☐ No

Location Address:

Street: 1500 Anton Larsen Bay Road

City: Kodiak State: Alaska Zip: 99507

Borough or similar government subidivision: Kodiak Island Borough

Latitude: 57º 45' 00" N Longitude: 152º 29' 63" W

Determined By: ☐ GPS ☐ USGS topographic map ☒ Other FAA Alaska Supplement (UTC – 9)

If you used a USGS topographic map, what was the scale?

Estimated area of industrial activity at your site exposed to storm water: 800 (acres)

Is this a federal facility? ☒ Yes ☐ No

For Agency Use
Permit #_____

Section III. Discharge Information

Does your facility discharge into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ■ No

If yes, name of MS4 operator:

Receiving Water and Wetlands information: (if additional space is needed for this question, fill out Attachment 1.)

a. What is the name(s) of your receiving water(s) that receive storm water directly and/or through a MS4? If your receiving water is impaired, then identify the name of the impaired segment, if applicable, in parenthesis following the receiving water name.	b. Are any of your discharges directly into any segment of an "impaired" water?	c. If you answered yes to question b, then answer the following three questions:		
		i. What pollutant(s) are causing the impairment?	ii. Are the pollutant(s) causing the impairment present in your discharge?	iii. Has the TMDL been completed for the pollutant(s) causing the impairment?
Buskin River	☐ Yes ■ No		☐ Yes ☐ No	☐ Yes ☐ No
Devil's Creek	☐ Yes ■ No		☐ Yes ☐ No	☐ Yes ☐ No
Chiniak Bay	☐ Yes ■ No		☐ Yes ☐ No	☐ Yes ☐ No
	☐ Yes ☐ No		☐ Yes ☐ No	☐ Yes ☐ No
	☐ Yes ☐ No		☐ Yes ☐ No	☐ Yes ☐ No
	☐ Yes ☐ No		☐ Yes ☐ No	☐ Yes ☐ No
	☐ Yes ☐ No		☐ Yes ☐ No	☐ Yes ☐ No

Water Quality Standards (for new dischargers only)

Are any of your discharges into any portion of a receiving water designated by the state under it's antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water)? ☐ Yes ■ No

Has the receiving water(s) been designated by the state under its antidegradation policy as Tier 3 water (Outstanding Natural Resource Water)? ☐ Yes ■ No

Federal Effluent Limitation Guidelines and Sector-Specific Requirements

a. Are you requesting permit coverage for any storm water discharges subject to effluent limitation guidelines? ☐ Yes ■ No

b. If yes, which effluent limitation guidelines apply to your storm water discharge?

40 CFR Part/Subpart	Eligible Discharges	Affected MSGP Sector	Check if applicable
Part 411, Subpart C	Runoff from material storage piles at cement manufacturing facilities.	E	☐
Part 418, Subpart A	Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished products, by-products, or waste products (SIC 2874).	C	☐
Part 423	Coal pile runoff at steam electric generating facilities.	O	☐
Part 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas.	A	☐
Part 436, Subpart B, C, or D	Mine dewatering discharges at crushed stone mines, construction sand and gravel mines, or industrial sand mines.	J	☐
Part 443, Subpart A	Runoff from asphalt emulsion facilities.	D	☐
Part 445, Subparts A & B	Runoff from hazardous waste and non-hazardous waste landfills.	K,L	☐

c. If you are a Sector S (Air Transportation) facility, do you anticipate using more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis? ☐ Yes ■ No

For Agency Use
Permit #_____

Identify the 4-digit Standard Industrial Classification (SIC) code or 2-letter Activity Code that best represents the products produced or services rendered for which your facility is primarily engaged, as define in MSGP:	Primary SIC Code: 4581	Or	Primary Activity Code:		
Identify the applicable sector(s) and subsector(s) of industrial activity, including co-located industrial activity, for which you are requesting permit coverage.					
a. Sector: S	Subsector: S1	b. Sector:	Subsector:	c. Sector:	Subsector:
d. Sector:	Subsector:	e. Sector:	Subsector:	f. Sector:	Subsector:

Is your site presently inactive or unstaffed? ☐ Yes ■ No

a. If yes, is your site expected to be inactive and unstaffed for the entire permit term? ☐ Yes ☐ No

b. If no to a, then indicate the length of time that you expect your facility to be inactive and unstaffed.

Section IV. Storm water Pollution Prevention Plan (SWPPP) Contact Information

SWPPP Contact Name: Matt DeCaro, Environmental Impact Analyst II, DOT&PF

Phone: 907-269-0714 Email: matthew.decaro@alaska.gov

URL of SWPPP (if applicable):

Section V. Endangered Species Protection

Using the instructions in Appendix E of the MSGP, under which criterion listed in Part 1.1.4.5 are you eligible for coverage under this permit?

☐ A ☐ B ☐ C ☐ D ■ E ☐ F

If you select criterion E from Part 1.1.4.5:

What federally-listed species or federally-designated critical habitat are in your "action area"? Steller's eider; yellow-billed loon; northern sea otter; Kittlitz's murrelet; humpback whale; fin whale; Steller sea lion

List the pollutants expected to be present in your discharge: urea, E36, diesel fuel, hydraulic fluid, ethylene/propylene glycol, aviation fuel, lubricants

If you are an existing discharger, do you have effluent monitoring data from EPA's MSGP 2000 or another previous NPDES permit? ■ Yes ☐ No

1. If no, why not? ☐ No monitoring required for my sector ☐ Inactive/unstaffed site ☐ Other:

2. Do you have any other data characterizing pollutants in your storm water (describe)? See attached SWPPP for BOD, COD, ammonia, and pH monitoring data for 2 outfalls.

3. If you have benchmark monitoring data, did you exceed any of the applicable benchmarks? ■ Yes ☐ No

4. Did you exceed any applicable effluent limitation guideline or cause or contribute to an exceedance of a state water quality standard? ☐ Yes ■ No

5. If you answered "yes" to either question 3 or 4 above, for what pollutant(s)? BOD, ammonia

Attach documentation supporting criterion E eligibility. Documentation should address species and habitat listed above and the potential effects of pollutants in your discharge on the listed species and habitat.

If you select criterion F from Part 1.1.4.5, provide the operator's NPDES Tracking Number under which you are certifying eligibility:

Section VI. Historic Preservation

Using the instructions in Appendix F of the MSGP, under which criterion listed in Part 1.1.4.6 are you eligible for coverage under this permit? ■ A ☐ B ☐ C ☐ D

Section VII. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: GORDON C KEITH Title: REGIONAL DIRECTOR

Signature: Gordon C Keith Date: [illegible] Email: GORDON.KEITH@AK.GOV

NOI Preparer (Complete if NOI was prepared by someone other than the certifier)

Prepared By: Matt DeCaro

Organization: DOT&PF

Phone: (907) 269-0714 Email: matthew.decaro@alaska.gov

Appendix D – Visual Assessments

Visual Assessment Forms

Appendix D. Visual Assessments

MSGP Quarterly Visual Assessment Form

(Complete a separate form for each outfall you assess)

Name of Facility: NPDES Tracking No.

Outfall Name: "Substantially Identical Outfall"? ☐ No ☐ Yes

Person(s)/Title(s) collecting sample:

Person(s)/Title(s) examining sample:

Date & Time Discharge Began: Date & Time Sample Collected: Date & Time Sample Examined:

Substitute Sample? ☐ No ☐ Yes (identify quarter/year when sample was originally scheduled to be collected):

Nature of Discharge: ☐ Rainfall ☐ Snowmelt

If rainfall: Rainfall Amount: inches Previous Storm Ended > 72 hours Before Start of This Storm? ☐ Yes ☐ No* (explain):

Parameter

Color ☐ None ☐ Other (describe):

Odor ☐ None ☐ Musty ☐ Sewage ☐ Sulfur ☐ Sour ☐ Petroleum/Gas _____
☐ Solvents ☐ Other (describe):

Clarity ☐ Clear ☐ Slightly Cloudy ☐ Cloudy ☐ Opaque ☐ Other

Floating Solids ☐ No ☐ Yes (describe):

Settled Solids** ☐ No ☐ Yes (describe):

Suspended Solids ☐ No ☐ Yes (describe):

Foam (gently shake sample) ☐ No ☐ Yes (describe):

Oil Sheen ☐ None ☐ Flecks ☐ Globs ☐ Sheen ☐ Slick
☐ Other (describe):

Other Obvious Indicators of Stormwater Pollution ☐ No ☐ Yes (describe):

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.

Detail any concerns, additional comments, descriptions of pictures taken, and any corrective actions taken below (attach additional sheets as necessary).

Certification by Facility Responsible Official (Refer to MSGP Subpart 11 Appendix B for Signatory Requirements)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name: B. Title:

C. Signature: D. Date Signed:

Appendix E – Inspections

Inspection Forms

Appendix E. Inspections

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name			
NPDES Tracking No.			
Date of Inspection		**Start/End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			

Weather Information

Weather at time of this inspection?
❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds
❑ Other: Temperature:

Have any previously unidentified discharges of pollutants occurred since the last inspection? ❑Yes ❑No
If yes, describe:

Are there any discharges occurring at the time of inspection? ❑Yes ❑No
If yes, describe:

Control Measures

- *Number the structural stormwater control measures identified in your SWPPP on your site map and list them below (add as many control measures as are implemented on-site). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required control measures at your facility.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*

	Structural Control Measure	**Control Measure is Operating Effectively?**	**If No, In Need of Maintenance, Repair, or Replacement?**	**Corrective Action Needed and Notes** (identify needed maintenance and repairs, or any failed control measures that need replacement)
1		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
2		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
3		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
4		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
5		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
6		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	
7		❑Yes ❑No	❑ Maintenance ❑ Repair ❑ Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Appendix F –Corrections

Corrections Log

Appendix F. Corrections

CORRECTION LOG

Description of Corrective Action	Name	Date	Signature

Appendix G –Training

Annual Employee Training Log

Appendix G. Employee Training

Instructions:

- Keep records of employee training, including the date of the training (see Part 2.1.2.9 of the 2008 MSGP).
- For in-person training, consider using the tables below to document your employee trainings. For computer-based or other types of training, keep similar records on who was trained and the type of training conducted.

Training Date:	
Training Description:	
Trainer:	
Employee(s) trained	Employee signature

Training Date:	
Training Description:	
Trainer:	
Employee(s) trained	Employee signature

Training Date:	
Training Description:	
Trainer:	
Employee(s) trained	Employee signature

Appendix H –Annual Report

MSGP Annual Reporting Form

For Agency Use

Permit Tracking #_____

Alaska Department of Environmental Conservation

MSGP Annual Reporting Form

Section I. General Information		
Facility Name: Kodiak State Airport		
APDES Permit Tracking Number:		
Facility Physical Address Street:		
City:	State: Alaska	Zip:
Lead Inspector's Name:	Title:	
Additional Inspectors Names:		
Contact Person:	Title:	
Phone:	Email:	
Inspection Date:		

Section II. General Inspection Findings

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to storm water? ☐ Yes ☐ No

If NO, describe why not:

Note: *Complete Section III of this form for each industrial activity area inspected and included in your SWPPP or as newly defined, in Section II parts 2 and 3 below, where pollutants may be exposed to storm water.*

2. Did this inspection identify any storm water or non-storm water outfalls not previously identified in your SWPPP? ☐ Yes ☐ No

If YES, for each location, describe the sources of those storm water and non-storm water discharges and any associated control measures in place:

3. Did this inspection identify any sources of storm water or non-storm water discharges not previously identified in your SWPPP? ☐ Yes ☐ No

If YES, describe these sources of storm water or non-storm water pollutants expected to be present in these discharges, and any control measures in place:

4. Did you review storm water monitoring data as part of this inspection to identify potential pollutant hotspots? ☐ Yes ☐ No ☐ NA, no monitoring performed

If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:

5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measure to prevent scouring:

6. Have you taken or do you plan to take and corrective actions, as specified in Part 3 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection?

☐ Yes ☐ No

If YES, how many conditions requiring review for corrective active as specified in Parts 3.1 and 3.2 of the MSGP were addressed by these corrective actions?

Note: Complete the attached Corrective Action Form (Section IV) for each condition indentified, including any conditions identified as a result of this comprehensive storm water inspection.

Section III. Industrial Activity Area Specific Findings

Complete one block for each industrial activity area where pollutants may be exposed to storm water. Copy this page for additional industrial activity areas.

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with storm water;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste material from areas of no exposure to exposed areas.

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?	☐ Yes	☐ No
3. Have any control measures failed and require replacement?	☐ Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐ Yes	☐ No

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form.)

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?	☐ Yes	☐ No
3. Have any control measures failed and require replacement?	☐ Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐ Yes	☐ No

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form.)

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?	☐ Yes	☐ No
3. Have any control measures failed and require replacement?	☐ Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐ Yes	☐ No

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form.)

Note: Copy this page and attach additional pages as necessary.

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?	☐ Yes	☐ No
3. Have any control measures failed and require replacement?	☐ Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐ Yes	☐ No

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form.)

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?	☐ Yes	☐ No
3. Have any control measures failed and require replacement?	☐ Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐ Yes	☐ No

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form.)

Industrial Activity Area:

1. Brief Description:

2. Are any control measures in need of maintenance or repair?	☐ Yes	☐ No
3. Have any control measures failed and require replacement?	☐ Yes	☐ No
4. Are any additional/revised control measures necessary in this area?	☐ Yes	☐ No

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form.)

Section IV. Corrective Actions

Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in the comprehensive storm water inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # of for this reporting period.

2. Is this corrective action:

- ☐ An update on a corrective action from a previous annual report; or
- ☐ A new corrective action?

3. Identify the condition(s) triggering the need for this review:

- ☐ Unauthorized release of discharge
- ☐ Numeric effluent limitation exceedance
- ☐ Control measures inadequate to meet applicable water quality standards
- ☐ Control measures inadequate to meet non-numeric effluent limitations
- ☐ Control measures not properly operated or maintained
- ☐ Change in facility operations necessitated change in control measures
- ☐ Average benchmark value exceedance
- ☐ Other (describe):

4. Briefly describe the nature of the problem identified:

5. Date problem identified:

6. How problem was identified:

- ☐ Comprehensive site inspection
- ☐ Quarterly visual assessment
- ☐ Routine facility inspection
- ☐ Benchmark monitoring
- ☐ Notification by EPA or ADEC
- ☐ Other (describe):

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modification are needed, basis for that determination:

8. Did/will this corrective action require modification of you SWPPP? ☐ Yes ☐ No

9. Date corrective action initiated:

10. Date corrective action completed: Or expected to be completed:

11. If corrective action not yet completed, provide the status of the corrective action as the time of the comprehensive site inspections and describe any remaining steps (including timeframes associated with each step) necessary to complete the corrective action:

Section V. Annual Report Certification

Compliance Certification

Do you certify that your annual inspection has met the requirements of Part 4.2 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit? ☐ Yes ☐ No

If No, summarize why you are not in compliance with the permit:

Annual Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Authorized Representative: Title:

Signature: Date Signed: Email:

Appendix I – Blank Forms

MSGP Industrial Discharge Monitoring Report (MDMR)

M&O Monthly Airport Runway Deicer Tracking Form

For Agency Use

Permit Tracking #_____

Alaska Department of Environmental Conservation

MSGP Industrial Discharge Monitoring Report (MDMR)

Reason(s) for Submission (Check all that apply):	
☐	Submitting monitoring data (fill in all Sections).
☐	Reporting no discharge for all outfalls for this monitoring period (fill in Sections I, II, III, IV, and VI).
☐	Reporting that your site status has changed to inactive and unstaffed (fill in Sections I, II, VI and include date of status change in comments field in Section V).
☐	Reporting that your site status has changed to active (fill in all sections and include date of status change in comments field in Section V).
☐	Reporting that no further pollutant reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the MSGP (fill in Sections I, II, and VI).

Section I. Permit Information

Permit Tracking Number: AK0020648

Section II. Facility Information

Facility Name: Kodiak State Airport

Facility Physical Address

Street:

City: State: Alaska Zip:

Contact Name: Email:

MDMR Preparer (Complete if MDMR was prepared by someone other than the person signing the certification in Section VI):

Prepared By: Organization:

Email: Phone:

Section III. Discharge Information

Identify Monitoring Period:	☐ Check here if proposing alternative monitoring periods due to irregular storm water runoff. Identify alternative monitoring schedule and indicate for which alternative period you are reporting monitoring data.
☐ Quarter 1 (April 1 – June 30)	☐ Quarter 1: From To
☐ Quarter 2 (July 1 – September 30)	☐ Quarter 2: From To
☐ Quarter 3 (October 1 – December 31)	☐ Quarter 3: From To
☐ Quarter 4 (January 1 – March 31)	☐ Quarter 4: From To

Are you required to monitor for cadmium, copper, chromium, lead, nickel, silver, or zinc? ☐ Yes ☐ No (Skip to Section IV)

What is the hardness level of the receiving water? mg/L

Section IV. Outfall Information

How many outfalls are identified in your SWPPP? List names of outfalls required to be monitored in the table below.

Do any of your outfalls discharge substantially identical effluents? ☐ Yes ☐ No

If YES, for each monitored outfall, indicate outfall names that are substantially identical in the table below.

a. Monitored Outfall Name*	b. Substantially Identical Outfalls [List name(s) of outfall(s) that are substantially identical to outfall in a.]	c. No Discharge?
		☐
		☐
		☐
		☐

*Reference attachment if additional space is needed to complete the table.

Section V. Monitoring Information

Permit Tracking Number:

Nature of Discharge: ☐ Rainfall (complete a, b, and c below) ☐ Snowmelt

a. Duration of the rainfall event (hours): b. Rainfall amount (inches): c. Time since previous measurable storm event (days):

Outfall Name	Monitoring Type (QBM, ELG, S, I, O)*	Parameter	Quality or Concentration	Units	Results Description	Collection Date	Exceedance due to natural background pollutant levels	No further pollutant reductions achievable?
							☐	☐
							☐	☐
							☐	☐
							☐	☐
							☐	☐
							☐	☐
							☐	☐
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							☐	☐
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* (QBM) – Quarterly benchmark monitoring; (ELG) – Annual effluent limitation guidelines monitoring; (S) – State specific monitoring; (I) – Impaired waters monitoring; (O) – Other monitoring as required by ADEC

Comment and/or Explanation of Any Violations (Reference all attachments here)

Section VI. Certification

	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		
Printed Name and Title of Principal Executive Officer or Authorized Agent		Signature of Principal Executive Officer or Authorized Agent	Date

Email of Principal Executive Officer or Authorized Agent:

Instructions for Completing the MSGP Industrial Discharge Monitoring Report (MDMR)

Who Must Submit A Discharge Monitoring Report to ADEC?
An operator or owner of a facility covered under the Multi-Sector General Permit (MSGP or permit) that are required to monitor pursuant to Parts 6.2, 6.3, and 8 of the permit must submit the MSGP Discharge Monitoring Report (MDMR) consistent with the reporting requirements specified in Part 7.1 of the permit.

Completing the Form

Type or print, in the appropriate areas only. "NA" can be entered in areas that are not applicable. If you have any questions about how or when to use this form, contact the ADEC Storm Water Program at (907) 269-6285 or online at http://www.dec.state.ak.us/water/wnpspc/stormwater/stormwater.htm.

Reasons for Submission
Indicate your reason(s) for submitting this MDMR by checking all boxes that apply. The reasons for submission are defined as follows:

- *Submitting monitoring data*: For each storm event sampled, submit one MDMR form with data for all outfalls sampled. Select this reason even if you only have monitoring data for some of your outfalls (i.e., some outfalls did not discharge). If you select this reason, you are required to complete all Sections of the form.
- *Reporting no discharge for all outfalls for this monitoring period*: Indicates that there were no discharges from all outfalls during this monitoring period. If you select this reason, you are only required to complete Sections I, II, III , IV, and VI.
- *Reporting that your site status has changed to inactive and unstaffed*: Indicates that your facility is currently inactive and unstaffed (See Part 6.2.1.3 of the permit for more information). If you select this reason, you are only required to complete Sections I, II, and VI and include date of status change in the comment field in Section V.
- *Reporting that your site status has changed from inactive to active*: Indicates that your facility is currently active (See Part 6.2.1.3 of the permit for more information). If you select this reason, you are required to complete all Sections of the form and include date of status change in the comment field in Section V.
- *Reporting that no further reductions are achievable for all outfalls and for all pollutants via Part 6.2.1.2 of the permit*: Indicates that your facility has determined that no further pollutant reductions are technologically and economically practicable in light of best industry practice to meet the technology-based effluent limitations or are necessary to meet the water-quality-based effluent limitations in Parts 2 of the permit (See Part 6.2.1.2 of the permit for more information). If you select this reason, you are required to complete Sections I, II and VI. However, if you can make this finding for some outfalls and pollutants, but not for others, you cannot select this reason; you will instead be able to identify which outfalls and which pollutants you can make this finding for in Section V.

Section I. Permit Tracking Number
Enter the APDES or NPDES tracking number assigned by ADEC's or EPA's Storm water Program to the facility. If you do not know the tracking number, you can find the tracking number assigned to your facility on ADEC's Water Permit Search www.dec.state.ak.us/water/WaterPermitSearch/Search.aspx or EPA's Notice of Intent (NOI) Search website (www.epa.gov/npdes/noisearch) if you submitted your NOI on EPA's website.

Section II. Facility Information

- Enter the facility's official or legal name. Unless the name of your facility has changed, please use the same name provided on your NOI. You can use ADEC's Water Permit Search, www.dec.state.ak.us/water/WaterPermitSearch/Search.aspx or EPA's NOI Search website (www.epa.gov/npdes/noisearch) to view your NOI if you submitted your NOI on the EPA website.
- Enter the street address, including city, state, and zip code of the actual physical location of the facility. Do not use a P.O. Box.
- Identify the name, telephone number, and email address of the person who will serve as a contact for ADEC on issues related to monitoring at your facility. This person should be able to answer questions related to storm water discharges and monitoring or have immediate access to individuals with that knowledge. This person does not have to be the facility operator but should have intimate knowledge of monitoring activities at the facility.
- If the form was prepared by someone other than the person who is signing the certification statement in Section VI (for example, if the MDMR was prepared by a member of the facility's storm water pollution prevention team or a consultant for the certifier's signature), include the name, organization, telephone number, and email address of the MDMR preparer.

Section III. Discharge Information

- Indicate the appropriate monitoring period (Quarter 1, 2, 3, or 4) covered by the MDMR. "Alternative" monitoring periods can apply to facilities located in arid and semi-arid climates or in areas subject to snow or prolonged freezing. To use alternative monitoring periods, you must provide a revised monitoring schedule here in the first monitoring report submitted and indicate for which alternative monitoring period you are reporting monitoring data. If using alternative monitoring periods, identify the first day of the monitoring period through the last day of the monitoring period for each of the four periods. The dates should be displayed as month (Mo) / day (Day). See Parts 6.1.6 and 6.1.7 of the permit for more information.
- If you are submitting benchmark monitoring data, identify if your facility is required to collect benchmark samples for one or more hardness-dependent metals (i.e., cadmium, copper, lead, nickel, silver, and zinc). If you select "yes" to this question you must also complete the table in Section III., and if you select "no" to this question, you may skip to Section IV.
- If you selected "yes" for the previous question, then you are required to submit to ADEC with your first benchmark report a hardness level established consistent with the procedures in Appendix J of the permit, which is representative of your receiving water. If your outfalls discharge to more than one receiving water, as reported in your NOI form, you should report hardness for the receiving water with the lowest hardness values. Hardness values must be reported in milligrams per liter (mg/L).

Section IV. Outfall Information

- Enter the total number of outfalls identified in your SWPPP. Outfalls are locations where storm water exits the facility, including pipes, ditches, swales, and other structures used to remove storm water from the facility.
- Indicate if your facility has two or more outfalls that you believe discharge substantially identical effluents (i.e., storm water), based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to storm water, and runoff coefficients of their drainage areas. See Parts 5.1.5.2 and 6.1.1 of the permit for more information on substantially identical outfalls.
- If you selected "yes" for the previous question, then you must list the outfall name(s) in Column b that you expect to be substantially identical to the corresponding outfall in Column a.
  a. *Monitored Outfall Name:* List name(s) of outfall(s) you are required to monitor.
  b. *Substantially Identical Outfalls:* List name(s) of outfall(s) substantially identical to "*Monitored Outfall*" in Column a. (if applicable)].
  c. *No Discharge:* Check box if you are reporting "No Discharge" for the monitored outfall for the reporting period identified in Section III.

Example:

a. Monitored Outfall Name	b. Substantially Identical Outfall	c. No Discharge
Outfall A	Outfall B; Outfall C	☐
Outfall D		☒

Reference attachments if additional space is needed to complete the table in Section IV.

Section V. Monitoring Information

- Enter the APDES or NPDES tracking number assigned to the facility reported in Section I.
- For the reported monitoring event, indicate whether the discharge was from a rainfall or snowmelt event. If you select "rainfall" ,then indicate:
  a. the duration (in hours) of the rainfall event;
  b. rainfall total (in inches) for that rainfall event; and
  c. time (in days) since the previous measurable storm event.
- If the discharge occurs during a period of both rainfall and snowmelt, check both the rainfall and snowmelt boxes and report the appropriate rainfall information in items a-c. To report multiple monitoring events in the same reporting period, copy Page 2 of this Form and enter each monitoring event separately with data for all outfalls sampled.

- For each pollutant monitored at an outfall, you must complete one row in the Table as follows:
  - *Outfall Name*: Provide the outfall name for which you monitored (e.g., Outfall 1, Outfall 2, Outfall 3).
  - *Monitoring Type*: Provide the type of monitoring using the specified codes below:
    - QBM – Quarterly benchmark monitoring;
    - ELG – Annual effluent limitations guidelines monitoring;
    - S – State specific monitoring;
    - I - Impaired waters monitoring; or
    - O – Other monitoring as required by ADEC.

- *Parameter(s)*: Enter each "Parameter" (or "pollutant") monitored. For QBM and ELG monitoring, use the same parameter name as in Part 8 of the permit.
- *Quality or Concentration*: Enter sample measurement value for each parameter analyzed and required to be reported. Enter "ND" (i.e., not detected) for any sample results below the method detection limit or "BQL" (i.e., below quantitation limit) for sample results above the detection limit but below the quantitation limit.
- *Units*: Enter the units for sample measurement values (e.g., "mg/L" for milligrams per liter) for each parameter analyzed and required to be reported. For monitoring results reported as ND or BQL, this space will be left blank and the units will be reported under *Results Description*.
- *Results Description*: This section must be completed for any monitoring results reported as ND or BQL in the "Quality or Concentration" column. For ND, report the laboratory detection level and units in this column. For BQL, report the laboratory quantitation limit and units in this column.
- *Collection Date*: Identify the sampling date for each parameter monitoring result reported on this form.
- *Exceedance due to natural background pollutant levels:* Check box if following the first 4 quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 quarters of data) you have determined that the exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background for that outfall and any substantially identical outfalls. See Part 6.2.4.2 of the permit for more information. Attach supporting rationale for your determination to the submitted MDMR and reference attachment in comments portion of Section V.
- *No further pollutant reductions achievable:* Check box if after collection of 4 quarterly samples (or sooner if the exceedance is triggered by less than 4 quarters of data), the average of the 4 monitoring values for any parameter exceeds the benchmark and you have made the determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limitations or are necessary to meet the water-quality-based effluent limitations in Parts 2 of the permit (See Part 6.2.1. of the permit for more information) for that outfall and any substantially identical outfalls. Attach supporting rationale for your determination to the submitted MDMR and reference attachment in comments portion of Section V.

- Where violations of the permit requirements are reported, include a brief explanation to describe the cause and corrective actions taken and reference each violation by date. Also, this section should include any additional comments such as are required when changing site status from inactive and unstaffed to active or vice versa. Attach additional pages if you need more space.

Attach additional copies of Section V as necessary to address all outfalls and parameters.

Section VI. Certification

Enter *Printed Name and Title of Principal Executive Officer or Authorized Agent* with *Signature of Principal Executive Officer or Authorized Agent*, and the *Date* this form was signed and the email address of the "*Principal Executive Officer or Authorized Agent.*" If you submit multiple pages of Section V monitoring data, each page must be appropriately signed and certified as described below.

The MDMRs must be signed as follows:

(1) For a corporation, a responsible corporate officer shall sign the MDMR, a responsible corporate officer means:

(A) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or

(B) the manager of one or more manufacturing, production, or operating facilities, if

(i) the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental statutes and regulations;

(ii) the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and

(iii) authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship, the general partner or the proprietor, respectively; or

(3) for a municipality, state, or other public agency, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means

(A) the chief executive officer of the agency; or

(B) a senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

Include the name, title, and email address of the person signing the form and the date of signing. An unsigned or undated MDMR will not be considered valid.

Where to File the MDMR Form

Monitoring data collected pursuant to Parts 6.2, 6.3, and 8 of the permit must be reported on the paper MDMR form and sent to the following address:

If you file by mail, please submit the original form with a signature in ink. ADEC will not accept a photocopied signature. Remember to retain a copy for your records.

MSMRs sent by mail:

Alaska Dept. of Environmental Conservation
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501
Phone: (907) 269-6285

M&O MONTHLY AIRPORT
RUNWAY DEICER TRACKING FORM

Instructions. Our stormwater discharge permit requires us to track the amount of deicing materials used on a monthly basis. These records must be maintained with the SWPPP. Please record the amount of E36 and/or urea used during each application. Also record the general location of the application.

Date	Material Used (E36, Urea)	Quantity Pure Product Applied	Location of Application	Temperature Weather Conditions	Initials	Comments

Appendix J – Miscellaneous

Airport Tennant Letter – 10/27/2009

Fish and Wildlife Service Endangered Species Consultation – 8/7/2009

National Oceanic and Atmospheric Administration
Endangered Species Consultation – 11/3/2009

SWPPP Staff Title and Responsibility Table

Alternate Authority Authorization Letter

Mock Appendix R SWPPP Inspection 8-12-2010

SEAN PARNELL, GOVERNOR

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

ANCHORAGE OFFICE OF AVIATION LEASING

4111 AVIATION AVENUE
P.O. BOX 196900
ANCHORAGE, AK 99519-6900
(907) 269-0450 FAX: (907) 243-5092

October 27, 2009

Dear Airport Tenant:

As you may already be aware, the U.S. Environmental Protection Agency (EPA) regulations on stormwater runoff from specific industrial operations have been revised. The EPA Multi-Sector General Permit (MSGP) specifies stormwater management requirements for industrial operations, including Air Transportation (Sector S). As required by these EPA regulations, the Department of Transportation and Public Facilities (DOT&PF) has applied for the EPA general stormwater permit for operation of the airport and common areas. The primary requirement is to write a storm water pollution prevention plan (SWPPP).

The SWPPP we have developed only covers DOT&PF activities, not your activity. Therefore, it is your responsibility to research and determine if a stormwater permit is required for your operations and if so, to comply with the EPA rules and the Clean Water Act. Failure to comply could result in a significant penalty.

To assist you in determining your responsibilities, we have attached an EPA fact sheet. You will also need to review the regulations at http://cfpub.epa.gov/npdes/stormwater/msgp.cfm. Each regulated tenant must develop a SWPPP, apply for permit coverage, and implement the SWPPP. The MSGP permit requires various inspections and training requirements. For you information, Alaska is located within Region 10 for EPA.

If you decide that you are regulated and intend to file for the permit, please check with your airport manager as it is recommended that we coordinate our SWPPPs. Also, if you perform deicing, the airport manager will be contacting you regarding a monthly reporting requirement.

If you prepare a SWPPP, please send a copy of the final plan to our office. Thank you.

Sincerely yours,

Tina Schimschat

Tina Schimschat
Chief, Central Region Aviation Leasing

cc: Airport Manager
Matt Decaro, Environmental Analyst (269-0714)
Attachment: EPA Industrial Stormwater Fact Sheet (9 pages)

INDUSTRIAL STORMWATER

FACT SHEET SERIES

Sector S: Vehicle Maintenance Areas, Equipment Cleaning Areas, or Deicing Areas Located at Air Transportation Facilities

U.S. EPA Office of Water
EPA-833-F-06-034
December 2006

What is the NPDES stormwater permitting program for industrial activity?

Activities, such as material handling and storage, equipment maintenance and cleaning, industrial processing or other operations that occur at industrial facilities are often exposed to stormwater. The runoff from these areas may discharge pollutants directly into nearby waterbodies or indirectly via storm sewer systems, thereby degrading water quality.

In 1990, the U.S. Environmental Protection Agency (EPA) developed permitting regulations under the National Pollutant Discharge Elimination System (NPDES) to control stormwater discharges associated with eleven categories of industrial activity. As a result, NPDES permitting authorities, which may be either EPA or a state environmental agency, issue stormwater permits to control runoff from these industrial facilities.

What types of industrial facilities are required to obtain permit coverage?

This fact sheet specifically discusses stormwater discharges from airports, airport terminals, airline carriers, and establishments as defined by Standard Industrial Classification (SIC) Major Group 45. Facilities and products in this group fall under the following categories, all of which require coverage under an industrial stormwater permit:

- Servicing, repairing, or maintaining aircraft and ground vehicles
- Equipment cleaning and maintenance (including vehicle and equipment rehabilitation mechanical repairs, painting, fueling, lubrication)
- Deicing/anti-icing operations which conduct the above described activities

The operator and the tenants of the airport that conduct industrial activities as described above and which have stormwater discharges are required to apply for coverage under an NPDES stormwater permit for the discharges from their areas of operation. The airport management and tenants of the airport are encouraged to apply as co-permittees under a permit, and to work in partnership in the development and implementation of a stormwater pollution prevention plan.

Non-stormwater discharges, including discharges from aircraft, ground vehicle and equipment wash-waters, dry weather discharges from airport deicing/anti-icing operations, and dry weather discharges resulting from runway maintenance are not required to obtain coverage under an industrial storm-water permit. Dry weather discharges are generated from processes other than those described in the definition of stormwater. The definition of stormwater includes stormwater runoff, snow melt runoff, and surface runoff and drainage.

What does an industrial stormwater permit require?

Common requirements for coverage under an industrial stormwater permit include development of a written stormwater pollution prevention plan (SWPPP), implementation of control measures, and submittal of a request for permit coverage, usually referred to as the Notice of Intent or NOI. The

SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at your facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The industrial stormwater permit also requires collection of visual, analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. For more information on EPA's industrial stormwater permit and links to State stormwater permits, go to **www.epa.gov/npdes/stormwater** and click on "Industrial Activity."

What pollutants are associated with my facilities activities?

Pollutants conveyed in stormwater discharges from air transportation facilities will vary. Generally, the concern with the use of ethylene and propylene glycols is that they exert high oxygen demands when released into receiving waters. Additionally, the concentration of nitrogen and possibly ammonia are the concern with the respect to deicing/anti-icing operations where urea is used. There are a number of factors that influence to what extent industrial activities and significant materials can affect water quality.

- Geographic location
- Topography
- Hydrogeology
- Extent of impervious surfaces (e.g.,, concrete or asphalt)
- Type of ground cover (e.g., vegetation, crushed stone, or dirt)
- Outdoor activities (e.g., material storage, loading/unloading, vehicle maintenance)
- Size of the operation
- Type, duration, and intensity of precipitation events

The activities, pollutant sources, and pollutants detailed in Table 1 are commonly found at air transportation facilities.

Table 1. Common Activities, Pollutants Sources, and Associated Pollutants at Air Transportation Facilities

Activity	Pollutant Source	Pollutant
Aircraft deicing/ anti-icing	Runoff of spent deicing chemicals (e.g. ethylene glycol or propylene glycol) from aircraft exteriors	Biochemical oxygen demand (BOD)
Runway deicing/ anti-icing	Runoff of spent deicing chemicals (e.g. ethylene or propylene glycol, urea, potassium or sodium acetate, potassium or sodium formate) from deicing areas	BOD, nitrogen, ammonia
Aircraft servicing	Spills or leaks during servicing	Engine oil, hydraulic fluid, fuel, lavatory waste
Aircraft fueling	Spills and leaks during fuel transfer, spills due to "topping off" tanks, runoff from fueling areas, washdown of fueling areas, leaking storage tanks	Jet fuel, fuel additives, oil, lubricants, heavy metals
Aircraft, ground vehicle, and equipment maintenance and washing	Spills and leaks during maintenance	Engine oils, hydraulic fluids, transmission oil, radiator fluids, and chemical solvents
	Disposal of waste parts	Batteries, oil, fuel filters, oily rags
	Spent washwater	TSS, metals, fuel, hydraulic fluid, oil, lavatory waste
Runway maintenance	Materials removed from runway surface	Tire rubber, oil and grease, paint chips, jet fuel
	Chemicals used to clean the runway surface	Chemical solvents

What BMPs can be used to minimize contact between stormwater and potential pollutants at my facility?

A variety of BMP options may be applicable to eliminate or minimize the presence of pollutants in stormwater discharges from air transportation facilities. You will likely need to implement a combination or suite of BMPs to address stormwater runoff at your facility. Your first consideration should be for pollution prevention BMPs, which are designed to prevent or minimize pollutants from entering stormwater runoff and/or reduce the volume of stormwater requiring management. Prevention BMPs can include regular cleanup, collection and containment of debris in storage areas, and other housekeeping practices, spill control, and employee training. It may also be necessary to implement treatment BMPs, which are engineered structures intended to treat stormwater runoff and/or mitigate the effects of increased stormwater runoff peak rate, volume, and velocity. Treatment BMPs are generally more expensive to install and maintain and include oil-water separators, wet ponds, and proprietary filter devices.

BMPs must be selected and implemented to address the following:

Good Housekeeping Practices

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and training employees in good housekeeping techniques. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices has proven to be an effective means of ensuring the continued implementation of these measures.

Minimizing Exposure

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be a very effective pollution prevention measure.

Erosion and Sediment Control

BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities, soils, cover, materials, or other factors are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances, trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

Management of Runoff

Your SWPPP must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others, vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures.

A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. Though not specifically outlined in this fact sheet, BMPs must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

All BMPs require regular maintenance to function as intended. Some management measures have simple maintenance requirements, others are quite involved. You must regularly inspect all BMPs to ensure they are operating properly, including during runoff events. As soon as a problem is found, action to resolve it should be initiated immediately.

Implement BMPs, such as those listed below in Table 2 for the control of pollutants at air transportation facilities, to minimize and prevent the discharge of pollutants in stormwater. Identifying weaknesses in current facility practices will aid the permittee in determining appropriate BMPs that will achieve a reduction in pollutant loadings. BMPs listed in Table 2 are broadly applicable to air transportation facilities; however, this is not a complete list and you are recommended to consult with regulatory agencies or a stormwater engineer/consultant to identify appropriate BMPs for your facility.

Table 2. BMPS for Potential Pollutant Sources at Air Transportation Facilities

Pollutant Source	BMPs
Deicing/anti-icing aircraft	❑ Establish a centralized aircraft deicing station with containment of surface and subsurface drainage. ❑ To reduce deicing fluid applied: - Forced-air deicing systems - Computer-controlled fixed-gantry systems - Infrared technology - Hot water - Varying glycol content to air temperature - Enclosed-basket deicing trucks - Mechanical methods - Solar radiation - Hangar storage - Aircraft covers - Thermal blankets fro MD-80s and DC-9s ❑ Apply deicing fluid and anti-icer to planes on deicing pads if available. ❑ Apply anti-icer to aircraft that will be parked overnight to make it easier to remove accumulated snow and ice in the morning. ❑ Apply anti-icer to aircraft immediately after deicing to provide extended hold-over time prior to take-off. ❑ Ensure that stormwater inlets are blocked when deicing/anti-icing during dry weather. ❑ Use mechanical vacuum systems or other devices to collect aircraft deicing runoff from the apron surface for proper disposal. ❑ Dispose collected aircraft deicing runoff to sanitary sewage facility (if allowed by sewer authority), on-site treatment, or recycle (resell or reuse). ❑ Use portable tanks, retention and detention ponds for temporary storage of collected deicing runoff. ❑ Collect contaminated runoff in a wet pond for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations). ❑ Recover and recycle/dispose of unused deicing fluids in deicing trucks. ❑ Recover deicing materials when applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent materials from later contaminating stormwater.

Table 2. BMPS for Potential Pollutant Sources at Air Transportation Facilities (continued)

Pollutant Source	BMPs
Deicing/anti-icing runways and pads	❑ Evaluate and optimize present chemical application rates ❑ Use sand where possible to enhance friction. ❑ Plow and broom runways prior to application of deicing chemicals. ❑ Heat solid deicers and sand prior to application. ❑ Install and calibrate devices to meter the amount of pavement deicer being applied. ❑ Emphasize anti-icing operations which minimize the need to deice. ❑ Install runway ice detection systems ("pavement sensors") to monitor pavement temperatures. ❑ Pre-wet with liquid deicers to improve adhesion of solid deicers to the iced surface. ❑ Use deicers which have less of an environmental impact (e.g. sodium formate and potassium acetate as opposed to urea and glycol). ❑ Ensure proper handling and disposal of unused deicing chemicals in vehicles. ❑ Use ice detection systems. ❑ Use airport traffic flow strategies and departure slot allocation systems.
Aircraft, ground vehicle, and equipment maintenance areas (including aircraft service areas)	Good Housekeeping ❑ Eliminate floor drains that are connected to the storm or sanitary sewer; if necessary, install a sump that is pumped regularly. Collected wastes should be properly treated or disposed of by a licensed waste disposal company. ❑ Prevent and contain spills and drips. ❑ Do all cleaning at a centralized station so the solvents stay in one area. ❑ Remove any parts that are dipped in liquid slowly to avoid spills. ❑ Use drip pans, drain boards, and drying racks to direct drips back into a fluid holding tank for reuse. ❑ Drain all parts of fluids prior to disposal. Oil filters can be crushed and recycled. ❑ Transfer used fluids to the proper container promptly; do not leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers. ❑ Clean up leaks, drips, and other spills without using large amounts of water. Use absorbents for dry cleanup whenever possible. ❑ Prohibit the practice of hosing down an area where the practice would result in the discharge of pollutants to a stormwater system. ❑ Prohibit pouring liquid waste into floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections. ❑ Maintain an organized inventory of materials. ❑ Eliminate or reduce the number and amount of hazardous materials and waste by substituting nonhazardous or less hazardous materials. ❑ Label and track the recycling of waste material (e.g., used oil, spent solvents, batteries). ❑ Store batteries and other significant materials inside. ❑ Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers in compliance with RCRA regulations.

Table 2. BMPS for Potential Pollutant Sources at Air Transportation Facilities (continued)

Pollutant Source	BMPs
Aircraft, ground vehicle, and equipment maintenance areas (including aircraft service areas) (continued)	Minimizing Exposure ❑ Perform all cleaning operations indoors or under covering when possible. Conduct the cleaning operations in an area with a concrete floor with no floor drainage other than to sanitary sewers or treatment facilities. ❑ If operations are uncovered, perform them on a concrete pad that is impervious and contained. ❑ Park vehicles and equipment indoors or under a roof whenever possible and maintain proper control of oil leaks/spills. ❑ Check vehicles closely for leaks and use pans to collect fluid when leaks occur. Management of Runoff ❑ Use berms, curbs, grassed swales, or other diversion measures to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area. ❑ Collect the stormwater runoff from the cleaning area and provide treatment or recycling. ❑ Discharge vehicle wash or rinse water to the sanitary sewer (if allowed by sewer authority), wastewater treatment, a land application site, or recycle on-site. DO NOT discharge washwater to a storm drain or to surface water. Inspections and Training ❑ Inspect the maintenance area regularly to ensure BMPs are implemented. ❑ Train employees on waste control and disposal procedures. ❑ Inspect the maintenance area regularly for proper implementation of control measures. ❑ Train employees on proper waste control and disposal procedures.
Aircraft, ground vehicle, and equipment cleaning areas	❑ Perform all cleaning operations indoors. ❑ Confine activities to designated areas outside drainage pathways and away from surface waters. ❑ If washing outdoors, cover the cleaning operation and ensure that all washwaters drain to the intended collection system. ❑ Use phosphate-free biodegradable detergents. ❑ Contain and recycle washwaters. ❑ Collect stormwater runoff from the cleaning area and provide treatment or recycling. ❑ Inspect cleaning area regularly to ensure BMPs are implemented and maintained. ❑ Train employees on proper washing procedures.
Aircraft, ground vehicle, and equipment storage areas	❑ Store aircraft, ground vehicles and equipment indoors. ❑ Cover the storage area with a roof. ❑ Store aircraft, ground vehicles, and equipment awaiting maintenance in designated areas only. ❑ Park leaking deicing trucks in contained areas. ❑ Install perimeter drains, berms, and dikes around storage areas to limit run-on. ❑ Use absorbents for dry cleanup for spills and leaks. ❑ Use drip pans under all vehicles and equipment for the collection of fluid leaks. ❑ Clean pavement surface to remove oil and grease without using large amounts of water.

Table 2. BMPS for Potential Pollutant Sources at Air Transportation Facilities (continued)

Pollutant Source	BMPs
Aircraft, ground vehicle, and equipment storage areas (continued)	❑ Regularly sweep area to minimize debris on the ground. ❑ Provide dust control if necessary. When controlling dust, sweep and/or apply water or materials that will not impact surface or ground water. ❑ Inspect the storage yard for filling drip pans regularly to ensure BMPs are implemented. ❑ Train employees on procedures for storage and inspection items.
Material storage areas	❑ Store materials indoors. ❑ Maintain good integrity of all storage containers (e.g., used oils, hydraulic fluids, spent solvents, waste aircraft fuel). ❑ Create a centralized storage area for waste materials. ❑ Cover and/or enclose chemical storage areas (including temporary cover such as a tarp that prevents contact with precipitation). ❑ Provide secondary containment around chemical storage areas. ❑ If containment structures have drains, ensure that the drains have valves, and that valves are maintained in the closed position. Institute protocols for checking/testing stormwater in containment areas prior to discharge. ❑ Locate storage areas away from high traffic areas and surface waters. ❑ Inspect storage tanks and piping systems (pipes, pumps, flanges, couplings, hoses, and valves) for failures or leaks and perform preventive maintenance. ❑ Plainly label all containers. ❑ Maintain an inventory of fluids to identify leakage. ❑ Provide fluid level indicators. ❑ Properly dispose of chemicals that are no longer in use. ❑ Store and handle reactive, ignitable, or flammable liquids in compliance with applicable local fire codes, local zoning codes, and the National Electric Code. ❑ Provide drip pads/pans where chemicals are transferred from one container to another to allow for recycling of spills and leaks. ❑ Develop and implement spill plans or spill prevention, containment, and countermeasure (SPCC) plans, if required for your facility. ❑ Train employees in spill prevention and control and proper materials management.
Airport fuel system and fueling areas	❑ Conduct fueling operations (including the transfer of fuel to tank trucks) on an impervious or contained pad and under a roof or canopy where possible. Covering should extend beyond spill containment pad to prevent rain from entering. ❑ When fueling in uncovered area, use concrete pad (asphalt is not chemically resistant to the fuels being handled). ❑ Develop and implement a system to report any spill exceeding 5 feet in any direction or which has entered the storm drainage system. ❑ Use drip pans and absorptive materials beneath aircraft during fueling operations where leaks or spills of fuel can occur and where making and breaking hose connections. ❑ Use fueling hoses with check valves to prevent hose drainage after filling. ❑ Insure that storm water valves, plugs and similar appurtenances are closed during fuel transfer operations.

Table 2. BMPS for Potential Pollutant Sources at Air Transportation Facilities (continued)

Pollutant Source	BMPs
Airport fuel system and fueling areas (continued)	❑ Provide spill kits on all fuel trucks, at fueling stations, in each hangar and at strategic locations. Each kit should have at a minimum, loose absorbent, pigs, broom and shovel. Store used materials in individual sealed container and labeled to ensure proper handling and disposal as a hazardous material. ❑ Keep spill cleanup materials readily available. ❑ Clean up spills and leaks immediately. ❑ Use dry cleanup methods for fuel areas rather than hosing down the fuel area. Sweep up absorbents as soon as spilled substances have been absorbed. ❑ Use spill and overflow protection devices. ❑ Minimize run-on of stormwater into the fueling area by grading the area such that stormwater only runs off. ❑ Collect stormwater runoff and provide treatment or recycling. ❑ Provide curbing or posts around fuel pumps to prevent collisions from vehicles. ❑ Regularly inspect and perform preventive maintenance on fuel storage tanks to detect potential leaks before they occur. ❑ Inspect the fueling area for leaks and spills. ❑ Do not allow "topping off" of the fuel in the receiving equipment. ❑ Train personnel on vehicle fueling BMPs.
Storing liquid fuels	❑ If area is uncovered, connect sump outlet to sanitary sewer (if allowed by the sewer authority) or an oil/water separator, catch basin filter, etc. If connecting to a sanitary sewer check with the system operator to ensure that the discharge is acceptable. If implementing separator or filter technologies ensure that regular inspections and maintenance procedures are in place. ❑ Develop and implement spill plans. ❑ Train employees in spill prevention and control. Above ground tanks ❑ Provide secondary containment, such as dikes, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). ❑ If containment structures have drains, ensure that the drains have valves, and that valves are maintained in the closed position. Institute protocols for checking/testing stormwater in containment areas prior to discharge. ❑ Use double-walled tanks with overflow protection. ❑ Keep liquid transfer nozzles/hoses in secondary containment area. Portable containers/drums ❑ Store drums indoors when possible. ❑ Store drums, including empty or used drums, in secondary containment with a roof or cover (including temporary cover such as a tarp that prevents contact with precipitation). ❑ Provide secondary containment, such as dikes or portable containers, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). ❑ Clearly label drum with its contents.
Deicing chemical loading areas	❑ Store bulk aircraft deicing fluids in contained areas. ❑ Load deicing trucks in contained areas.

What if activities and materials at my facility are not exposed to precipitation?

The industrial stormwater program requires permit coverage for a number of specified types of industrial activities. However, when a facility is able to prevent the exposure of ALL relevant activities and materials to precipitation, it may be eligible to claim no exposure and qualify for a waiver from permit coverage.

If you are regulated under the industrial permitting program, you must either obtain permit coverage or submit a no exposure certification form, if available. Check with your permitting authority for additional information as not every permitting authority program provides no exposure exemptions.

Where do I get more information?

For additional information on the industrial stormwater program see **www.epa.gov/npdes/stormwater/msgp**.

A list of names and telephone numbers for each EPA Region or state NPDES permitting authority can be found at **www.epa.gov/npdes/stormwatercontacts**.

References

Information contained in this Fact Sheet was compiled from EPA's past and current Multi-Sector General Permits and from the following sources:

- City of Phoenix, Street Transportation Department. 2004. Best Management Practices for Section S - Vehicle Maintenance Equipment Cleaning, or Deicing at Air Transportation Facilities. **http://phoenix.gov/STREETS/vehmnt2.pdf**
- Orange County, California, Watershed & Coastal Resources Division. "Airplane Maintenance and Repair." **www.ocwatersheds.com/StormWater/documents_bmp_existing_development.asp**
- Pierce County Washington Public Works and Utilities. 2002. "Stormwater Pollution Prevention Manual: A Guide to Best Management Practices for Industries, Businesses, and Homeowners." **www.co.pierce.wa.us/pc/services/home/environ/water/wq/bmpmanaul.htm**
- Switzenbaum, et. al., 1999. Workshop: Best Management Practices for Airport Deicing Stormwater: Publication 173. **www.umass.edu/tei/wrrc/WRRC2004/pdf/Switz173.pdf**
- U.S. EPA. 1992. Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices. EPA 832-R-92-006 **www.epa.gov/npdes/stormwater**
- U.S. EPA, Office of Science and Technology. 1999. Preliminary Data Summary of Urban Stormwater Best Management Practices. EPA-821-R-99-012 **www.epa.gov/OST/stormwater/**
- U.S. EPA, Office of Water. 2002. Source Water Protections Practices Bulletin: Managing Aircraft and Airfield Deicing Operations to Prevent Contamination of Drinking Water. EPA-816-F-02-018. **www.epa.gov/safewater/sourcewater/pubs/fs_swpp_deicingair.pdf**
- U.S. EPA, Office of Wastewater Management. *NPDES Stormwater Multi-Sector General Permit for Industrial Activities (MSGP).* **www.epa.gov/npdes/stormwater/msgp**

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish and Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249

in reply refer to AFWFO

August 7, 2009

Brett Nelson
Alaska Department of Transportation
Northern Region - Fairbanks

Re: Kodiak State Airport SWPPP (*Consultation number 2009-0168)*

Dear Mr. Nelson,

On July 8, 2009, we received your email that you are currently help prepare a Storm Water Pollution Prevention Plan (SWPPP) for Multi-Sector General Permit (MSGP) storm water discharge coverage at the Kodiak State Airport. Alaska DOT&PF leases the airport from the U.S. Coast Guard (USCG) Integrated Support Command (ISC) Kodiak and will be taking over storm water management responsibilities from the USCG. As a result, you are required to identify any Endangered Species Act (ESA) listed species or designated critical habitat in the airport area, and if present, then to determine whether issuance of the MSGP would have an adverse affect on any listed species or critical habitat. The primary reason that MSGP storm water discharge coverage is needed at the airport is due to deicing activities that take place in support of aircraft operations. Air carriers use deicers on aircraft surfaces and also fuel aircraft/ground vehicles at the airport. DOT&PF maintains the runway and aprons, using urea and E36 (potassium acetate), with some sand on the ramps, and also fuels maintenance equipment at the DOT&PF airport facility. All industrial activities with potential exposure to storm water will be addressed in the airport SWPPP. You are still in the process of determining how many outfalls will require analytical sampling due to deicing usage being close to the 100 ton threshold. Benchmark analytical sampling for airports includes Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Ammonia, and pH.

As we discussed on July 9, 2009, two outfalls have been monitored quarterly over the past several years. You agreed to send monitoring results from those outfalls, as well as talk to the DOT at Kodiak and find out if there is an infield area that the 2 main carriers can de-ice when temperatures are above freezing, but there is still frost on the wings. Two listed and two candidate species may occur in the action area. Threatened Steller's eiders (*Polysticta stelleri*) and candidate yellow-billed loons (*Gavia adamsii*) over-winter in the area between October and May, while threatened northern sea otters (*Enhydra lutris kenyoni)* and candidate Kittlitz's murrelets (*Brachyramphus brevirostris)* may be present year-round.

On July 20, 2009, we received your email following up on our earlier conversation about a plan to mitigate impacts to the Buskin River resulting from glycol deicer discharge from the ramp near the terminal. Deicing fluid applied to aircraft on the ramp drains to the drop inlet near the

terminal building and then flows north to a retention channel, before entering a ditch which then flows north and discharges to the Buskin River at outfall AP-3. It was brought to your attention that the outlet end of the retention channel has a gate that can be closed to retain storm water. You are updating the airport storm water management plan to include the provision that the retention channel gate will remain closed during the deicing season to retain any deicing fluids in storm water. The retention channel will then be pumped a couple times per deicing season and hauled to a waste water treatment plant for disposal. You believe this plan will reduce total glycol deicer discharge to the Buskin River, and quarterly benchmark sampling at this outfall should reflect this during the next year.

On July 31, 2009, we received your email that the deicing season for Kodiak State Airport is October through March, with most occurring late October – early March. Average deicer usage by the air carriers is less than 1,000 gallons. Last winter usage was 500 gallons of pure product, which was then diluted with water. You don't know the capacity of the retention ditch, but the airport manager thinks that pumping it a couple times during the winter would remove a good portion of the deicers present. There is potential that the gate could be opened to allow a test sample prior to releasing contents if it was determined that it was sufficiently diluted. Pumping the retention ditch a couple times seems like a good cost effective practice for reducing deicer load in discharges.

The EPA Sector-Specific Benchmarks for airports (Table 8.S-1 of the MSGP) are: Biochemical Oxygen Demand (BOD) – 30 mg/L; Chemical Oxygen Demand (COD) – 120 mg/L; Ammonia – 2.14 mg/L; and pH – 6.0-9.0 (should be 6.5-8.5). Samples greater than any one of the benchmark concentrations will not be released from the retention ditch and will be pumped out. The airport manager is confident there are a couple companies able to pump the retention ditch. Pumping the ditch would be similar to a septic system, and then it would be hauled to the wastewater treatment plant for disposal.

You also provided the benchmark monitoring results for Outfalls AP-3 and AP-5. You plan to report back on those outfall results for the next year, especially the results for January/February 2010. Given both threatened species may by in the area at that time, we would like to re-initiate consultation after the winter de-icing season of 2009/2010 if either of these outfalls is still exceeding benchmarks. Conversely, if this approach is successful, we would appreciate cost and feedback analysis to incorporate a similar approach in other areas. Thank you for the interactive dialogue, innovative solution, and willingness to report back to us.

We believe the probability that this action will result in the taking of listed species is discountable. As a result, the Service concurs with your determination that the proposed action is not likely to adversely affect listed species or adversely modify critical habitat. Preparation of a biological assessment or further consultation under section 7 of the ESA is not necessary at this time. In view of this, requirements of section 7 have been satisfied. However, obligations under the ESA must be reconsidered if new information reveals project impacts that may affect listed species or critical habitat in a manner not previously considered, if this action is subsequently modified in a manner which was not considered in this assessment, or if a new species is listed or critical habitat is determined that may be affected by the identified action. Note: sea otter critical habitat is expected to be finalized in fall 2009 and may be affected by the identified action.

This letter relates only to federally listed or proposed species, and/or designated or proposed critical habitat, under our jurisdiction; namely, the Aleutian shield fern (*Polystichum aleuticum*, listed as endangered in 1988), spectacled eider (*Somateria fischeri*, listed as threatened in 1993), North American breeding Steller's eider (*Polysticta stelleri*, listed as threatened in 1997), the southwest distinct population segment of northern sea otter (*Enhydra lutris kenyoni*, listed as threatened in 2005), short-tailed albatross (*Phoebastria albatrus*, listed as endangered in 2000), polar bear (*Ursus maritimus*, listed as threatened in 2008), Kittlitz's murrelet (*Brachyramphus brevirostris*, listed as a candidate species in 2005), and yellow-billed loon (*Gavia adamsii*, listed as a candidate species in 2009). This letter does not address species under the jurisdiction of the National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Clean Water Act, National Environmental Policy Act, Marine Mammal Protection Act, or Bald and Golden Eagle Protection Act.

Thank you for your cooperation in meeting our joint responsibilities under section 7 of the ESA. If you have any questions, please contact me at (907) 271-3063 and refer to consultation number 2009-0168.

Sincerely,

Tim Langer

Tim Langer, Ph.D.
Endangered Species Biologist

T:\s7\2009 sec 7\NLAA\20090168 s7 letter.pdf

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

November 3, 2009

Mr. Brett Nelson
Alaska Department of Transportation
Northern Region - Fairbanks
2301 Peger Rd
Fairbanks, AK 99709

Re: Kodiak State Airport Storm Water Pollution Prevention Plan

Dear Mr. Nelson:

National Marine Fisheries Service (NMFS) received your 13 August 2009 email stating that you are working on a Storm Water Pollution Prevention Plan (SWPPP) for Multi-Sector General Permit (MSGP) storm water discharge coverage at the Kodiak State Airport. Alaska Department of Transportation (ADOT) leases the airport from the U.S. Coast Guard (USCG) Integrated Support Command Kodiak and will take over the storm water management responsibilities from the USCG. As a result of this action, ADOT is required to indentify any Endangered Species Act (ESA) listed species or designated critical habitat in the airport area, and if present, then to determine whether issuance of the MSGP would have an adverse affect on any listed species or critical habitat. NMFS sent a letter (18 September 2009) to ADOT identifying threatened and endangered species associated with the Kodiak State Airport SWPPP. Although NMFS was unable to fully assess this project and have not completed any consultation under the ESA, we concur that the action appears consistent with a determination that this action is not likely to adversely affect Steller sea lions and there habitat.

If there are any questions please contact Barbara Mahoney in our Anchorage office at 907-271-3448.

Sincerely,

Alexis Jensen (for Kaja Brix)

Kaja Brix
Assistant Regional Administrator
Protected Resources Division

Appendix J – Staff Title and Responsibilities

Title	Staff Name
DISTRICT SUPERINTENDENT	Carl High
AIRPORT MANAGER	Robert Greene
AIRPORT MANAGER ALTERNATE	Bruce McNeil
CENTRAL REGION M&O ENVIRONMENTAL SPECIALIST	Jennifer Hillman

STATE OF ALASKA

Sean Parnell, GOVERNOR

DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

MAINTENANCE AND OPERATIONS

1500 ANTON LARSEN RD
KODIAK, AK 99615
PHONE: (907) 487-4882
FAX: (907) 487-4313

To: Kodiak Airport SWFP

During the absence of the Kodiak Airport Manager, the Kodiak Airport Foreman assumes all responsibilities as the airport manager. The Airport Foreman has all authority to act in behalf of the Airport Manager.

Kodiak Airport Manager- Robert M. Greene
Kodiak Airport Foreman- [illegible]@McNeil

Robert M. Greene
Kodiak Supervisor
Department of Transportation
1500 Anton Larsen Rd.

Appendix K – SPCC Plan

Spill Prevention Control and Countermeasure Plan

Alaska Department of Transportation and Public Facilities
Anchorage, Alaska

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

Kodiak Maintenance Station

Anton Larsen Road
Kodiak, Alaska

October 2010

Version 1.0, 11/28/2005

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List of Tables

Appendices

LIST OF ACRONYMS AND ABBREVIATIONS

ARFF	Airport Rescue and Fire Fighting
AST	Aboveground Storage Tank
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
ADEC	Alaska Department of Environmental Conservation
ADOT&PF	Alaska Department of Transportation and Public Facilities
M&O	Maintenance and Operations
NPDES	National Pollutant Discharge Elimination System
PE	Professional Engineer
RA	Regional Advisor
SPCC	Spill Prevention, Control, and Countermeasure
STI	Steel Tank Institute
SWPPP	Stormwater Pollution Prevention Plan
UST	Underground Storage Tank

INTRODUCTION

Purpose

The purpose of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is to describe measures implemented by Alaska Department of Transportation and Public Facilities (ADOT&PF) to prevent oil discharges from occurring, and to prepare ADOT&PF to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge at the Kodiak Maintenance Station.

This Plan has been prepared to meet the requirements of Title 40, *Code of Federal Regulations,* Part 112 (40 CFR part 112), and supersedes the plan developed in 2000 to meet provisions in effect since 1974.

In addition to fulfilling requirements of 40 CFR part 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections, and as a resource during emergency response. It is the policy of ADOT&PF to prevent the discharge of oil and hazardous substances and to provide for prompt and coordinated response to contain and cleanup spills, should they occur.

ADOT&PF has determined that this facility does not pose a risk of substantial harm under 40 CFR part 112, as recorded in the “Substantial Harm Determination” included in Appendix B of this Plan.

This Plan has been developed for ADOT&PF above ground storage tanks (ASTs) at the Kodiak Maintenance Facility and provides guidance on activities that ADOT&PF must perform to comply with the SPCC rule:

- Complete monthly and annual site inspections as outlined in the Inspection, Tests, and Records section of this Plan (Section 3.7) using the inspection checklists included in Appendix C.
- Perform preventive maintenance of equipment, secondary containment systems, and discharge prevention systems described in this Plan as needed to keep them in proper operating conditions.
- Conduct annual employee training as outlined in the Personnel, Training, and Spill Prevention Procedures section of this Plan (Section 3.8) and document them on the log included in Appendix E.
- If either of the following occurs, submit the SPCC Plan to the EPA Region 10 Regional Administrator (RA) and the Alaska Department of Environmental Conservation (ADEC), along with other information as detailed in Section 5.4 of this Plan:

- The facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the U.S. or adjoining shorelines in a single spill event; or

- The facility discharges oil in quantity greater than 42 gallons in each of two spill events within any 12-month period.

- Review the SPCC Plan at least once every five (5) years and amend it to include more effective prevention and control technology, if such technology will significantly reduce the likelihood of a spill event and has been proven effective in the field at the time of the review. Plan amendments, other than administrative changes discussed above, must be recertified by a Professional Engineer on the certification page in Section 1.2 of this Plan.

- Amend the SPCC Plan within six (6) months whenever there is a change in facility design, construction, operation, or maintenance that materially affects the facility's spill potential. The revised Plan must be recertified by a Professional Engineer (PE).

- Review the Plan on an annual basis. Update the Plan to reflect any "administrative changes" that are applicable, such as personnel changes or revisions to contact information, such as phone numbers. Administrative changes must be documented in the Plan review log of Section 1.4 of this Plan, but do not have to be certified by a PE.

Part 1: Plan Administration

1.1 Management Approval and Designated Person (40 CFR 112.7)

ADOT &PF is committed to preventing discharges of oil to navigable waters and the environment, and to maintaining the highest standards for spill prevention control and countermeasures through the implementation and regular review and amendment to the Plan. This SPCC Plan has the full approval ADOT&PF. ADOT&PF has committed the necessary resources to implement the measures described in this Plan.

The Facility Operator is the Designated Person Accountable for Oil Spill Prevention at the facility and has the authority to commit the necessary resources to implement this Plan.

Authorized Facility Representative (facility response coordinator): Robert Greene
Signature:
Title: Kodiak Airport Manager
Date: 11/9/10

1.2 Professional Engineer Certification (40 CFR 112.3(d))

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR part 112) and has visited and examined the facility, or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR part 112, that procedures for required inspections and testing have been established, and that this Plan is adequate for the facility. [40 CFR 112.3(d)]

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR part 112. This Plan is valid only to the extent that the facility owner or operator maintains, tests, and inspects equipment, containment, and other devices as prescribed in this Plan.

Signature

Professional Engineer Registration Number

Name Jennifer MacLeod

Title Mid Continent Engineer

Company MCE

Date 11/9/10

1.3 Location of SPCC Plan (40 CFR 112.3(e))

In accordance with 40 CFR 112.3(e), a complete copy of this SPCC Plan is maintained at the Kodiak Maintenance facility in the office building as part of the Storm Water Pollution Prevention Plan (SWPPP). The front office is attended whenever the facility is operating.

1.4 Plan Review (40 CFR 112.3 and 112.5)

1.4.1 Changes in Facility Configuration

In accordance with 40 CFR 112.5(a), ADOT&PF periodically reviews and evaluates this SPCC Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge, including, but not limited to:

- commissioning of containers;
- reconstruction, replacement, or installation of piping systems;
- construction or demolition that might alter secondary containment structures; or
- changes of product or service, revisions to standard operation, modification of testing/inspection procedures, and use of new or modified industry standards or maintenance procedures.

Amendments to the Plan made to address changes of this nature are referred to as technical amendments, and must be certified by a PE. Non-technical amendments can be done (and must be documented in this section) by the facility owner and/or operator. Non-technical amendments include the following:

- change in the name or contact information (i.e., telephone numbers) of individuals responsible for the implementation of this Plan; or
- change in the name or contact information of spill response or cleanup contractors.

ADOT&PF must make the needed revisions to the SPCC Plan as soon as possible, but no later than six months after the change occurs. The Plan must be implemented as soon as possible following any technical amendment, but *no later than six months* from the date of the amendment. The Airport Manager is responsible for initiating and coordinating revisions to the SPCC Plan.

1.4.2 Scheduled Plan Reviews

In accordance with 40 CFR 112.5(b), ADOT&PF will review this SPCC Plan at least once every five years (in the past, such reviews were required every three years). Revisions to the Plan, if needed, are made within six months of the five-year review. A registered Professional Engineer certifies any technical amendment to the Plan, as described above, in accordance with 40 CFR 112.3(d). The last SPCC review occurred in *July 2000*. This Plan is dated *July 2010*. The next plan review is therefore scheduled to take place on or prior to *July 2015*.

1.4.3 Record of Plan Reviews

Scheduled reviews and Plan amendments are recorded in the Plan Review Log (Table 1-1). This log must be completed even if no amendment is made to the Plan as a result of the review. Unless a technical or administrative change prompts an earlier review of the Plan, the next scheduled review of this Plan must occur by *July 2015.*

1.5 Cross-Reference with SPCC Provisions (40 CFR 112.7)

This SPCC Plan does not follow the exact order presented in 40 CFR part 112. Section headings identify, where appropriate, the relevant section(s) of the SPCC rule. Table 1-2 presents a cross-reference of Plan sections relative to applicable parts of 40 CFR part 112.

Table 1-1: Plan Review Log

By	Date	Activity	PE certification required?	Comments

* Previous PE certifications of this Plan are summarized below.

Date	Scope	PE Name	Licensing State and Registration No.

Table 1-2: SPCC Cross-Reference

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Provision	Plan Section	Page
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* Only selected excerpts of relevant rule text are provided. For a complete list of SPCC requirements, refer to the full text of 40 CFR part 112.

Part 2: General Facility Information

Name:	Alaska Department of Transportation and Public Facilities, Kodiak Maintenance Station
Address:	1500 Anton Larsen Road Kodiak, Alaska 99615 (907) 487-4952
Type:	Maintenance Facility
Date of Initial Operations:	2000
Owner/Operator:	Alaska Department of Transportation and Public Facilities P.O. Box 196900 4111 Aviation Drive Anchorage, Alaska 99519
Primary contact:	Robert Greene, Airport Manager Work: (907) 487-4952 Cell (24 hours): (907) 539-7072

2.1 Facility Description (40 CFR 112.7(a)(3))

2.1.1 Location and Activities

The Kodiak Maintenance Station includes the Maintenance and Operations (M&O) building, one sand storage building, sand and pelletized urea storage, a regulator building and an equipment storage building which also serves as the Airport Rescue and Fire Fighting (ARFF) building. A vicinity map and site map are presented in Figures 1 and 2. The station stores equipment and resources necessary for airport maintenance, airport fire response, and maintenance of state roads. The aboveground storage tanks (AST) are used to store and dispense fuel to facility vehicles and to heat the facility. Used oil and lubricant tanks and a hydraulic fluid reservoir are also located at the facility. Outside activities include equipment fueling, runway maintenance, and deicing and sanding activities.

2.1.2 Oil Storage

Oil storage at the facility consists of seven ASTs: 1k gallon diesel heating oil tank and a 2k fueling tank located next to the Maintenance building, a 2k gallon heating oil and 1k gallon diesel fuel tank located next to the equipment storage building, a 2k gallon heating oil tank located next to the pelletized urea building and a 500 gallon heating oil tank next to the regulator building. There is also a standby tank near the equipment storage building with a 1k gallon capacity (see Figure 2).

The capacities of oil containers present at the site are listed below and are also indicated on the facility diagram in Figure 2. All containers with capacity of 55 gallons or more are included. The capacity of the oil/water separator is not included in the total storage capacity for the facility

since it is used to treat storm water and as a means of secondary containment for areas of the facility with potential for an oil discharge.

Table 2-1: Oil Containers

ID	Storage capacity	Content	Description
Fixed Storage			
1	1,000 gallons	Diesel	Aboveground horizontal single walled top diked tank
2	2,000 gallons	Diesel	Double walled aboveground horizontal tank elevated on built-in saddles
3	2,000 gallons	Diesel	Double walled aboveground horizontal tank elevated on built-in saddles
4	1,000 gallons	Diesel	Double walled aboveground horizontal tank elevated on built-in saddles
5	2,000 gallons	Diesel	Double walled aboveground horizontal tank elevated on built-in saddles
6	500 gallons	Diesel	Double walled aboveground horizontal tank elevated on built-in saddles
7	1,000 gallons	Empty	Double walled aboveground horizontal tank elevated on built-in saddles

Total Oil Storage:	**9,500 gallons**

Other containers: A 64 gallon oil/water separator in the maintenance building and a 150 gallon oil/water separator in the equipment storage building.

Note: The oil/water separator is used to treat facility drainage (i.e., wastewater) prior to treatment at the Coast Guard waste water treatment plant. This equipment is used to meet certain secondary containment requirements under 40 CFR part 112, as described later in this Plan. Thus, the capacity of the oil/water separator is not counted towards the facility total storage capacity.

2.2 Evaluation of Discharge Potential

2.2.1 Distance to Navigable Waters and Adjoining Shorelines and Flow Paths

The nearest navigable water body that would be impacted by a spill from this facility is the Devil's Creek, a tributary to Buskin River which ultimately drains to Chiniak Bay. Devil's Creek runs underneath the airport and Buskin is immediately adjacent to the northern boundary line. A release from the facility would either flow north and east to a vegetated low area (for the maintenance facility) or north and east into a vegetated low ditch along the south of the airport.

2.2.2 Discharge History

The last documented spill was 12/24/2007 when a 400 gallon diesel fuel spill occurred at the maintenance facility, the spill was contained and reported. If this facility has a greater than 1,000 gallon release to the water, or two federally reportable spills in a 12 month period, then the SPCC Plan must be submitted to the EPA Regional Administrator and ADEC.

PART 3: Discharge Prevention - General SPCC Provisions

The following measures are implemented to prevent oil discharges during the handling, use, or transfer of oil products at the facility. Oil-handling employees have received training in the proper implementation of these measures.

3.1 Compliance with Applicable Requirements (40 CFR 112.7(a)(2))

This facility uses an oil/water separator as part of its drainage system to contain oil discharged. The separator provides environmental protection equivalent to the requirements under 112.8(b)(3) to use ponds, lagoons, or catchment basins to retain oil at the facility in the event of an uncontrolled discharge. As described in Section 3.5 of this Plan, the operational and emergency oil storage capacity of the oil/water separator is sufficient to handle the quantity of oil expected to be discharged from tank overfills or transfer operations. All tanks are double walled and have overflow protection to prevent spills.

3.2 Facility Layout Diagram (40 CFR 112.7(a)(3))

Figure 1 in Appendix A shows the general location of the facility on a U.S. Geological Survey topographic map. Figure 2 in Appendix A presents a layout of the facility and the location of storage tanks and drums. The diagram also shows the location of storm water drain inlets and the direction of surface water runoff. As required under 40 CFR 112.7(a)(3), the facility diagram indicates the location and content of ASTs.

3.3 Spill Reporting (40 CFR 112.7(a)(4))

The discharge notification form included in Appendix I will be completed upon immediate detection of a discharge and prior to reporting a spill to the proper notification contacts.

3.4 Potential Discharge Volumes and Direction of Flow (40 CFR 112.7(b))

Table 3-1 presents expected volume, discharge rate, general direction of flow in the event of equipment failure, and means of secondary containment for different parts of the facility where oil is stored, used, or handled.

Table 3-1: Potential Discharge Volumes and Direction of Flow

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Fuel Tank – Maintenance Building				
Failure of aboveground tank (collapse or puncture below product level)	2,000	Gradual to instantaneous	South to isolated low area	Double walled construction

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Tank overfill	1-55	55 gal/min	South to isolated low area	Double walled construction
Pipe failure	2,000	32 gal/min	South to isolated low area	Double walled construction
Leaking pipe or valve packing	2,000	3-8 gal/min	South to isolated low area	Double walled construction
Heating Fuel Tank – Maintenance Building				
Failure of aboveground tank (collapse or puncture below product level)	1,000	Gradual to instantaneous	North and east to isolated low area	Box containment
Tank overfill	1 to 55	55 gal/min	North and east to isolated low area	Box containment
Pipe failure	1,000	32 gal/min	North and east to isolated low area	Box containment
Leaking pipe or valve packing	1,000	3-8 gal/min	North and east to isolated low area	Box containment
Maintenance Building				
Leak or failure of drum	1 to 55	Gradual to instantaneous	Stored indoors – flow into oil/water separator	Oil/water Separator
Heating Fuel Tank - Equipment Storage Building				
Failure of aboveground tank (collapse or puncture below product level)	2,000	Gradual to instantaneous	North to vegetated low area	Double walled construction
Tank overfill	1 - 55	55 gal/min	North to vegetated low area	Double walled construction
Pipe failure	2,000	32 gal/min	North to vegetated low area	Double walled construction
Leaking pipe or valve packing	2,000	3-8 gal/min	North to vegetated low area	Double walled construction
Fuel Tank- Equipment Storage Building				
Failure of aboveground tank (collapse or puncture below product level)	1,000	Gradual to instantaneous	North to vegetated low area	Double walled construction
Tank overfill	1-55	55 gal/min	North to vegetated low area	Double walled construction
Pipe failure	1,000	32 gal/min	North to vegetated low area	Double walled construction
Leaking pipe or valve packing	1,000	3-8 gal/min	North to vegetated low area	Double walled construction
Heating Fuel Tank - Equipment Storage Building				
Failure of aboveground tank (collapse or puncture below product level)	2,000	Gradual to instantaneous	North to vegetated low area	Double walled construction

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Tank overfill	1-55	55 gal/min	North to vegetated low area	Double walled construction
Pipe failure	2,000	32 gal/min	North to vegetated low area	Double walled construction
Leaking pipe or valve packing	2,000	3-8 gal/min	North to vegetated low area	Double walled construction
Heating Fuel Tank - Equipment Storage Building				
Failure of aboveground tank (collapse or puncture below product level)	500	Gradual to instantaneous	North to vegetated low area	Double walled construction
Tank overfill	1-55	55 gal/min	North to vegetated low area	Double walled construction
Pipe failure	500	15 gal/min	North to vegetated low area	Double walled construction
Leaking pipe or valve packing	500	3-5 gal/min	North to vegetated low area	Double walled construction

3.5 Containment and Diversionary Structures (40 CFR 112.7(c))

Methods of secondary containment at this facility include a combination of structures drainage systems (e.g., oil/water separator), and land-based spill response (e.g., drain covers, sorbents) to prevent oil from reaching navigable waters and adjoining shorelines:

< For bulk storage containers (refer to Section 4.2.2 of this Plan):

< **Double-wall tank construction.**

< **Sorbent material.** Spill cleanup kits that include absorbent material, booms, and other portable barriers are located inside the maintenance building and in the equipment storage building. The spill kits are located within close proximity of the oil product storage and handling areas for rapid deployment should a spill occur. Sorbent material, booms, and other portable barriers are stored for quick deployment in the event of a discharge during loading/unloading activities or any other accidental discharges. The response equipment inventory for the facility is listed in Appendix H of this Plan. The inventory is checked regularly to ensure that used material is replenished.

< **Oil/water separator.** The oil/water separator is designed to separate and retain oil at the facility. The oil/water separator in the maintenance facility is a Rockford OST5628 separator which has a static holding capacity for oil/water mixture of 64 gallons, 50 gallons of internal oil storage and a

design flow rate of 35 gallons per minute. The oil/water separator in the equipment storage building is a Rockford OST5636 separator which has a static holding capacity for oil/water mixture of 150 gallons, 100 gallon internal oil storage, and a design flow rate of 75 gallons per minute. Best Management Practices are used to minimize the amount of solids and oil that flow into the oil/water separator. Facility personnel are instructed to avoid and address small spills using sorbents to minimize runoff of oil into the oil/water separator. The oil/water separator is inspected monthly as part of the scheduled inspection to check the level of water within the separator and measure the depth of bottom sludges and floating oils. Floating oil is removed by a licensed waste collector on an annual basis and as necessary.

3.6 Practicability of Secondary Containment (40 CFR 112.7(d))

ADOT&PF management has determined that secondary containment is practicable at this facility.

3.7 Inspections, Tests, and Records (40 CFR 112.7(e))

As required by the SPCC rule, ADOT&PF performs the inspections, tests, and evaluations listed in the following table. Table 3-2 summarizes the various types of inspections and tests performed at the facility. The inspections and tests are described later in this section, and in the respective sections that describe different parts of the facility (e.g., Section 4.2.6 for bulk storage containers).

Table 3-2: Inspection and Testing Program

Facility Component	Action	Frequency/Circumstances
Aboveground container	Test container integrity. Combine visual inspection with another testing technique (non-destructive shell testing). Inspect outside of container for signs of deterioration and discharges.	Following a regular schedule (monthly, annual, and during scheduled inspections) and whenever material repairs are made.
Container supports and foundation	Inspect container's supports and foundations.	Following a regular schedule (monthly, annual, and during scheduled inspections) and whenever material repairs are made.
Liquid level sensing devices (overfill)	Test for proper operation.	Monthly

3.7.1 Daily Inspection

A DOT&PF employee performs a complete walk-through of the facility each day. This daily visual inspection involves: (1) looking for tank/piping damage or leakage, stained or discolored soils; (2) observing shop drains, ditches, and low lying areas for oil stains and the presence of oil.

3.7.2 Monthly Inspection

The checklist provided in Appendix C is used for monthly inspections by ADOT&PF personnel. The monthly inspections cover the following key elements:

- Observing the exterior of aboveground storage tanks, pipes, and other equipment for signs of deterioration, leaks, corrosion, and thinning.
- Observing the exterior of portable containers for signs of deterioration or leaks.
- Observing tank foundations and supports for signs of instability or excessive settlement.
- Observing the tank fill and discharge pipes for signs of poor connection that could cause a discharge, and tank vent for obstructions and proper operation.
- Verifying the proper functioning of overfill prevention systems.
- Checking the inventory of spill response kits.
- Observing the quantity of accumulated oil within the oil/water separator to ensure within capacity.

All problems regarding tanks, piping, containment, or spill response kits must immediately be reported to the Airport Manager. Visible oil leaks from tank walls, piping, or other components must be repaired as soon as possible to prevent a larger spill or a discharge to navigable waters or adjoining shorelines. Pooled oil is removed immediately upon discovery.

Written monthly inspection records are signed by the Airport Manager and maintained with this SPCC Plan for a period of three years.

3.7.3 Annual Inspection

Facility personnel perform a more thorough inspection of facility equipment on an annual basis. This annual inspection complements the monthly inspection described above and is performed during the summer (coupled with the SWPPP annual inspection if possible) each year using the checklist provided in Appendix C of this Plan.

The inspection will preferably take place after a large storm event to observe drainage ditches and oil/water separator functioning.

Written annual inspection records are signed by the Airport Manager and maintained with this SPCC Plan for a period of three years.

3.7.4 Periodic Integrity Testing

In addition to the above monthly and annual inspections by facility personnel, all tanks are periodically evaluated by an outside certified tank inspector.

3.8 Personnel, Training, and Discharge Prevention Procedures (40 CFR 112.7(f))

The Airport Manager is the facility designee and is responsible for oil discharge prevention, control, and response preparedness activities at this facility.

ADOT&PF management has instructed facility personnel in the operation and maintenance of oil pollution prevention equipment, discharge procedure protocols, applicable pollution control laws, rules and regulations, general facility operations, and the content of this SPCC Plan. Any new facility personnel are provided with this same training.

Annual discharge prevention briefings are held by the Airport Manager for all facility personnel involved in oil operations. The briefings are aimed at ensuring continued understanding and adherence to the discharge prevention procedures presented in the SPCC Plan. The briefings also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices. Facility operators and other personnel will have the opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

Future training exercises will be periodically held to prepare for possible discharge responses.

Records of the briefings and discharge prevention training are kept on the form shown in Appendix E and maintained with this SPCC Plan for a period of three years.

3.9 Security (40 CFR 112.7(g))

Security issues addressed in the SPCC regulations include vandalism, accidental damage from vehicles or foot traffic, unauthorized or inappropriate access, and safety precautions for equipment that is not in service. Accordingly, security measures should be implemented to control access, emphasize operational safety, and enhance spill prevention efforts. Specific features referenced in the regulations consist of fences, locks, and lighting.

The fuel storage tanks at the equipment storage building are within the fenced boarders of the airport and are not accessible to the public or vehicle traffic. Tanks are stored in well lit areas to detect spills in darkness.

The fuel storage tanks at the Maintenance Facility are located adjacent to the building and on the back side away from the street. At this time, there are no fenced in enclosures for protection. Areas are well lit for security and for inspection in darkness.

When tanks are in non-operating or standby status, valves that allow outward flow of fuel are to be securely closed in non-operating status.

This lighting around tanks is adequate to observe the tanks, see potential spills in darkness, and discourage vandalism.

3.10 Conformance with State and Local Applicable Requirements (40 CFR 112.7(j))

All bulk storage tanks at this facility are in conformance with local and state laws.

PART 4: Discharge Prevention – SPCC Provisions for Onshore Facilities (Excluding Production Facilities)

4.1 Facility Drainage (40 CFR 112.8(b))

Any potential discharge from ASTs and discharges occurring during loading/unloading operations will be contained by the oil/water separator, drainage ditches or low lying areas. The maintenance station is approximately miles from surface waters which allows buffering capacity for spills. The facility includes a drainage system and an oil/water separator, which are used as containment for spill sources on paved and indoor areas. This separator provides environmental protection equivalent to ponds, lagoons, or catchments basins required under 40 CFR 112.8(b)(3) and (4), as allowed in 40 CFR 112.7(a)(2). Discharges outside the containment areas, such as those occurring in the fuel dispensing area or while unloading heating oil, will flow by gravity into vegetated ditches and low-lying areas where oil will be retained until it can be pumped out.

4.2 Bulk Storage Containers (40 CFR 112.8(c))

Table 4-1 summarizes the construction, volume, and content of bulk storage containers at Kodiak Maintenance facility.

Table 4-1: List of Oil Containers

Tank	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention & Containment
#1	Maintenance Building	UL listed Above Ground Fire Guard Secondary Containment Storage Tank	2,000	Diesel	Double walled tank with liquid level gauge, overfill protection and interstitial monitoring.
#2	Maintenance Building	UL listed Above Ground Fire Guard Secondary Containment Storage Tank	1,000	Diesel	Single walled top diked tank with liquid level gauge, overfill protection and interstitial monitoring.
#3	Equipment Building	UL listed Above Ground Fire Guard Secondary Containment Storage Tank	2,000	Diesel	Double walled tank with liquid level gauge, overfill protection and interstitial monitoring.

#4	Equipment Building	UL listed Above Ground Fire Guard Secondary Containment Storage Tank	1,000	Diesel	Double walled tank with liquid level gauge, overfill protection and interstitial monitoring.
#5	Equipment Building	UL listed Above Ground Fire Guard Secondary Containment Storage Tank	2,000	Diesel	Double walled tank with liquid level gauge, overfill protection and interstitial monitoring.
#6	Storage Building	UL listed Above Ground Fire Guard Secondary Containment Storage Tank	1,000	Diesel	Double walled tank with liquid level gauge, overfill protection and interstitial monitoring.
#7	Regulator Building	UL listed Above Ground Fire Guard Secondary Containment Storage Tank	500	Diesel	Double walled tank with liquid level gauge, overfill protection and interstitial monitoring.
	Inside Maintenance and Equipment Storage Building	Steel drums	55	Motor oil and used oil	Building serves as containment since floor drains flow into oil/water separator

4.2.1 Construction (40 CFR 112.8 (c)(1))

All oil tanks used at this facility are constructed of steel, in accordance with industry specifications as described above. The design and construction of all bulk storage containers are compatible with the characteristics of the oil product they contain, and with temperature and pressure conditions.

Piping between fixed aboveground bulk storage tanks is made of steel and placed aboveground on appropriate supports designed to minimize erosion and stress.

4.2.2 Secondary Containment (40 CFR 112.8(c)(2))

All ASTs are double walled tanks with overfill protection and liquid level gauges. In the event of a spill oil will flow to low vegetated areas isolated from waterways until it is able to be retrieved.

The 55-gallon drums are stored indoors when possible and the drain system and oil water separators in the Maintenance and equipment storage buildings serve as a source of secondary containment.

4.2.3 Corrosion Protection (40 CFR 112.8(c)(4))

All tanks are coated with White Chemline Polyurethane to prevent corrosion. Tanks are monitored and inspected regularly for leaks and wear. All piping is above ground and is made of black iron

4.2.4 Inspections and Tests (40 CFR 112.8(c)(6))

Visual inspections of ASTs by facility personnel are performed according to the procedure described in this SPCC Plan. Leaks from tank seams, gaskets, rivets, and bolts are promptly corrected. Records of inspections and tests are signed by the inspector and kept at the facility for at least three years.

Annual inspections by certified and contracted individuals are conducted and records of certified tank inspections are kept at the facility for at least three years. Shell test comparison records are retained for the life of the tanks.

Table 4-2 summarizes inspections and tests performed on bulk storage containers (“EE” indicates that an environmentally equivalent measure is implemented in place of the inspection/test, as discussed in Section 3.1 of this Plan).

Table 4-2: Scope and Frequency of Bulk Storage Containers Inspections and Tests

	Tank ID							
Inspection/Test	**#1**	**#2**	**#3**	**#4**	**#5**	**#6**	**#7**	**Drums**
Visual inspection by facility personnel (as per checklist of Appendix C)	M A	M A	M A	M A			M A	M A
External inspection by certified inspector	20 yr	20 yr	10 yr	EE			10 yr	EE
Internal inspection by certified inspector	†	†	20 yr*	EE			20 yr*	EE
Tank tightness test meeting requirements of 40 CFR 280					2 yr	2 yr		

Legend: M: Monthly
A: Annual
EE: Inspection not required given use of environmentally equivalent measure (refer to Section 3.1 of this Plan).
* Or earlier, as recommended by the certified inspector based on findings from an external inspection.
† Internal inspection may be recommended by the certified inspector based on findings from the external inspection.

The frequency above is based on implementation of a scheduled inspection/testing program. To initiate the program, ASTs will be inspected by the following dates:

All tanks will be visually inspected monthly beginning November 2010.
All tanks must be undergo an external inspection on or before December 31, 2011

4.2.5 Overfill Prevention Systems (40 CFR 112.8(c)(8))

All tanks are equipped with a liquid level gauge. General secondary containment is provided in the event of overfills, as described in this Plan.

Storage drums are not refilled, and therefore overfill prevention systems do not apply.

Facility personnel are present throughout the filling operations to monitor the product level in the tanks.

4.2.6 Visible Discharges (40 CFR 112.8(c)(10))

Visible discharges from any container or appurtenance – including seams, gaskets, piping, pumps, valves, rivets, and bolts – are quickly corrected upon discovery.

Oil is promptly removed and disposed of according to the waste disposal method described in Part 5 of this Plan.

4.3 Transfer Operations, Pumping, and In-Plant Processes (40 CFR 112.8(d))

Transfer operations at this facility include:

- The filling of heating oil to storage tanks.
- The filling of operations vehicles.

All piping at this facility is aboveground and cathodically protected against corrosion and is provided with a protective wrapping and coating. All pipes are visually inspected on a monthly basis. Inspection includes aboveground valves, piping, appurtenances, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. Observations are noted on the monthly inspection checklist provided in this Plan. If corrosion damage is found, additional examination and corrective action must be taken as deemed appropriate considering the magnitude of the damage.

Lines that are not in service or are on standby for an extended period of time are capped or blank-flanged and marked as to their origin.

All pipe supports are designed to minimize abrasion and corrosion and to allow for expansion and contraction. Pipe supports are visually inspected during the monthly inspection of the facility.

Warning signs are posted at appropriate locations throughout the facility to prevent vehicles from damaging aboveground piping and appurtenances.

Part 5: Discharge Response

This section describes the response and cleanup procedures in the event of an oil discharge. The uncontrolled discharge of oil to groundwater, surface water, or soil is prohibited by state and federal laws. Immediate action must be taken to control, contain, and recover discharged product.

In general, the following steps are taken:

- Eliminate potential spark sources;
- If possible and safe to do so, identify and shut down source of the discharge to stop the flow;
- Contain the discharge with sorbents, berms, fences, trenches, sandbags, or other material;
- Contact the Airport Manager or his/her alternate;
- Contact regulatory authorities and the response organization; and
- Collect and dispose of recovered products according to regulation.

For the purpose of establishing appropriate response procedures, this SPCC Plan classifies discharges as either “minor” or “major,” depending on the volume and characteristics of the material released.

A list of Emergency Contacts is provided in Appendix F. A list of discharge response material kept at the facility is included in Appendix H.

5.1 Response to a Minor Discharge

A “minor” discharge is defined as one that poses no significant harm (or threat) to human health and safety or to the environment. Minor discharges are generally those where:

- The quantity of product discharged is small (e.g., may involve less than 10 gallons of oil);
- Discharged material is easily stopped and controlled at the time of the discharge;
- Discharge is localized near the source;
- Discharged material is not likely to reach water;
- There is little risk to human health or safety; and
- There is little risk of fire or explosion.

Minor discharges can usually be cleaned up by ADOT&PF personnel. The following guidelines apply:

- Immediately notify the Airport Manager.
- Under the direction of the Airport Manager, contain the discharge with discharge response materials and equipment. Place discharge debris in properly labeled waste containers.
- The Airport Manager will complete the discharge notification form (Appendix G) and attach a copy to this SPCC Plan.
- If the discharge involves between 1 and 10 gallons of oil, the Airport Manager will notify the ADEC in writing within 10 days.
- If the discharge involves between 10 and 55 gallons of oil, the Airport Manager will notify the ADEC within 48 hours.
- If the discharge involves more than 55 gallons of oil, the Airport Manager will notify the ADEC immediately.

5.2 Response to a Major Discharge

A “major” discharge is defined as one that cannot be safely controlled or cleaned up by facility personnel, such as when:

- The discharge is large enough to spread beyond the immediate discharge area;
- The discharged material enters water;
- The discharge requires special equipment or training to clean up;
- The discharged material poses a hazard to human health or safety; or
- There is a danger of fire or explosion.

In the event of a major discharge, the following guidelines apply:

- All workers must immediately evacuate the discharge site via the designated exit routes and move to the designated staging areas at a safe distance from the discharge. Exit routes are included on the facility diagram and posted in the maintenance building, in the office building, and on the outside wall of the outside shed that contains the spill response equipment.
- If the Airport Manager is not present at the facility, the senior on-site person notifies the Airport Manager of the discharge and has authority to initiate notification and response. Certain notifications are dependent on the circumstances and type of discharge.
- The Facility Manager (or senior on-site person) must call for medical assistance if workers are injured.
- The Airport Manager (or senior on-site person) must notify the Fire Department or Police Department.
- The Airport Manager (or senior on-site person) must call the spill response and cleanup contractors listed in the Emergency Contacts list in Appendix F.

- The Airport Manager (or senior on-site person) must immediately contact the ADEC.
- The Airport Manager (or senior on-site person) must record the call on the Discharge Notification form in Appendix I and attach a copy to this SPCC Plan.
- The Airport Manager (or senior on-site person) coordinates cleanup and obtains assistance from a cleanup contractor or other response organization as necessary.

If the Airport Manager is not available at the time of the discharge, then the next highest person in seniority assumes responsibility for coordinating response activities.

5.3 Waste Disposal

Wastes resulting from a minor discharge response will be containerized in impervious bags, drums, or buckets. The Airport Manager will characterize the waste for proper disposal and ensure that it is removed from the facility by a licensed waste hauler within two weeks.

Wastes resulting from a major discharge response will be removed and disposed of by a cleanup contractor.

5.4 Discharge Notification

Any size discharge (i.e., one that creates a sheen, emulsion, or sludge) that affects or threatens to affect navigable waters or adjoining shorelines must be reported immediately to the National Response Center (1-800-424-8802). The Center is staffed 24 hours a day.

A summary sheet is included in Appendix I to facilitate reporting. The person reporting the discharge must provide the following information:

- Name, location, organization, and telephone number
- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Source and cause of the release or discharge
- Types of material(s) released or discharged
- Quantity of materials released or discharged
- Danger or threat posed by the release or discharge
- Number and types of injuries (if any)
- Media affected or threatened by the discharge (i.e., water, land, air)
- Weather conditions at the incident location
- Any other information that may help emergency personnel respond to the incident

Contact information for reporting a discharge to the appropriate authorities is listed in Appendix F and is also posted in prominent locations throughout the facility (e.g. in the maintenance building and the ARFF building).

In addition to the above reporting, 40 CFR 112.4 requires that information be submitted to the United States Environmental Protection Agency (EPA) Regional Administrator and the appropriate state agency in charge of oil pollution control activities (see contact information in Appendix H) whenever the facility discharges (as defined in 40 CFR 112.1(b)) *more than 1,000 gallons of oil in a single event,* or discharges (as defined in 40 CFR 112.1(b)) *more than 42 gallons of oil in each of two discharge incidents within a 12-month period.* The following information must be submitted to the EPA Regional Administrator and to MADEP within 60 days:

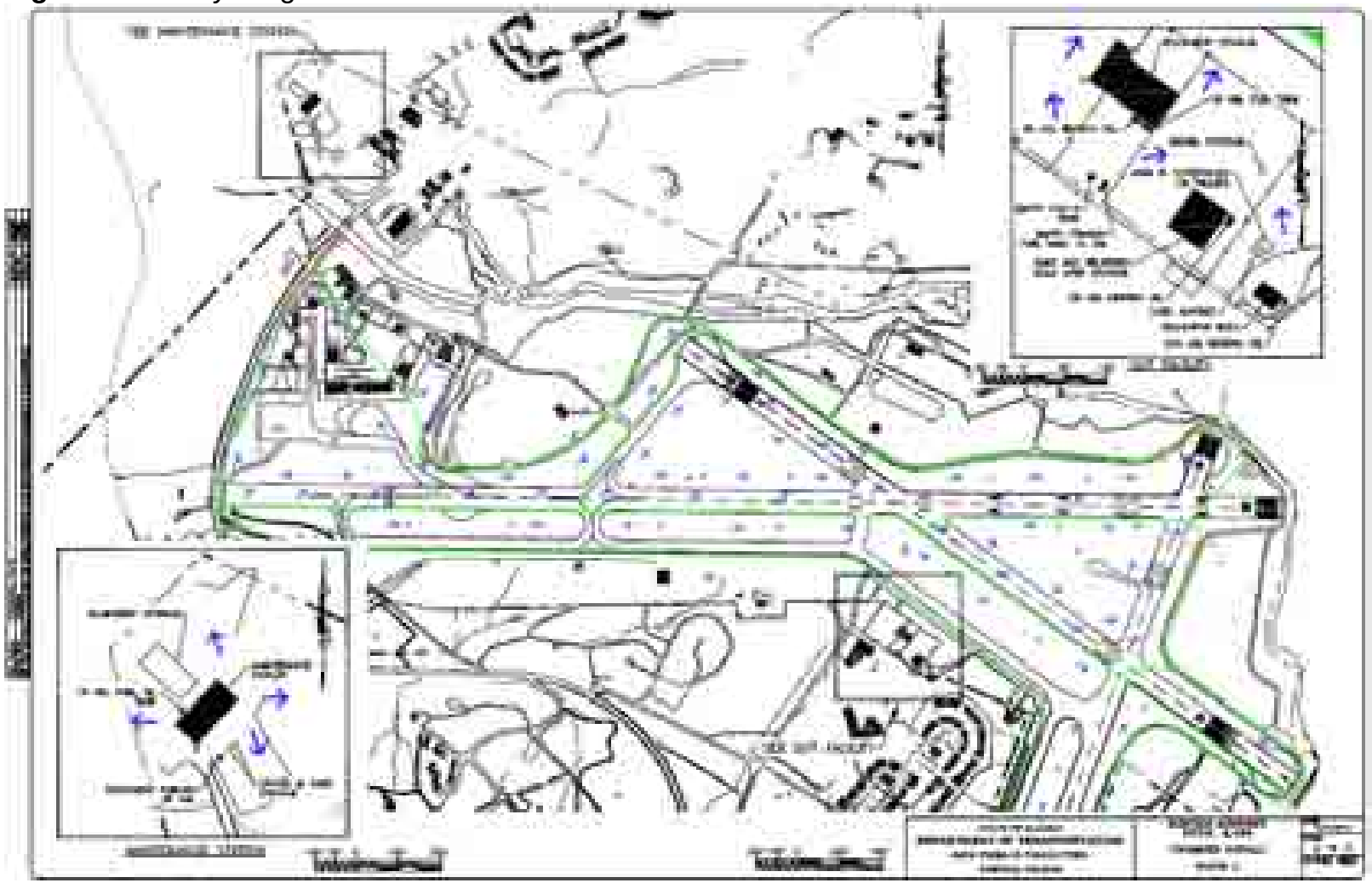
- Name of the facility;
- Name of the owner/operator;
- Location of the facility;
- Maximum storage or handling capacity and normal daily throughput;
- Corrective action and countermeasures taken, including a description of equipment repairs and replacements;
- Description of facility, including maps, flow diagrams, and topographical maps;
- Cause of the discharge(s) to navigable waters and adjoining shorelines, including a failure analysis of the system and subsystem in which the failure occurred;
- Additional preventive measures taken or contemplated to minimize possibility of recurrence; and
- Other pertinent information requested by the Regional Administrator.

A standard report for submitting the information to the EPA Regional Administrator and to ADEC is included in Appendix K of this Plan.

Appendix A
Site Plan and Facility Diagram

Figure 1: Site Plan.

Figure 2: Facility Diagram.



Appendix B
Substantial Harm Determination

Facility Name: Kodiak Airport Maintenance Station
Facility Address: 1500 Anton Larsen Road
Kodiak, Alaska 99615

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
Yes **No**

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground storage tank area?
Yes **No**

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR part 112 Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?
Yes **No**

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR part 112 Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?
Yes **No**

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?
Yes **No**

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature: *Robert Greene* — *Kodiak Airport Manager*
Title

Robert Greene
Name (type or print)

Date 10/19/19

APPENDIX C
Facility Inspection Checklists

The following checklists are to be used for monthly and annual facility-conducted inspections. Completed checklists must be signed by the inspector and maintained at the facility, with this SPCC Plan, for at least three years.

Monthly Inspection Checklist

This inspection record must be completed *each month* except the month in which an annual inspection is performed. Provide further description and comments, if necessary, on a separate sheet of paper and attach to this sheet. *Any item that receives "yes" as an answer must be described and addressed immediately.

	Y*	N	Description & Comments
Storage tanks			
Tank surfaces show signs of leakage			
Tanks are damaged, rusted or deteriorated			
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Secondary containment is damaged or stained			
Water/product in interstice of double-walled tank			
Dike drainage valve is open or is not locked			
Piping			
Valve seals, gaskets, or other appurtenances are leaking			
Pipelines or supports are damaged or deteriorated			
Joints, valves and other appurtenances are leaking			
Buried piping is exposed			
Oil/water separator			
Oil/water separator > 2 inches of accumulated oil			
Oil/water separator effluent has a sheen			
Security			
Fencing, gates, or lighting is non-functional			
Pumps and valves are locked if not in use			
Response Equipment			
Response equipment inventory is complete			

Date: _____ **Signature:** _____

Annual Facility Inspection Checklist

This inspection record must be completed *each year.* If any response requires further elaboration, provide comments in Description & Comments space provided. Further description and comments, if necessary, must be provided on a separate sheet of paper and attached to this sheet. *Any item that receives "yes" as an answer must be described and addressed immediately.

	Y*	N	Description & Comments
Storage tanks			
Tank #1			
Tank surfaces show signs of leakage			
Tank is damaged, rusted or deteriorated			
Bolts, rivets or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Tank #2			
Tank surfaces show signs of leakage			
Tank is damaged, rusted, or deteriorated			
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Tank #3			
Tank surfaces show signs of leakage			
Tank is damaged, rusted, or deteriorated			
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Tank #4			
Tank surfaces show signs of leakage			
Tank is damaged, rusted or deteriorated			
Bolts, rivets or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Oil is present in the interstice			
Tank #5			
Tank surfaces show signs of leakage			
Tank is damaged, rusted, or deteriorated			

	Y*	N	Description & Comments
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Leakage in exhaust from heating coils			
Tank #6			
Tank surfaces show signs of leakage			
Tank is damaged, rusted, or deteriorated			
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Leakage in exhaust from heating coils			
Tank #7			
Tank surfaces show signs of leakage			
Tank is damaged, rusted, or deteriorated			
Bolts, rivets, or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Leakage in exhaust from heating coils			
Piping			
Valve seals or gaskets are leaking			
Pipelines or supports are damaged or deteriorated			
Joints, valves and other appurtenances are leaking			
Buried piping is exposed			
Out-of-service pipes are not capped			
Warning signs are missing or damaged			
Oil/water separator			
Oil/water separator > 2 inches of accumulated oil			
Oil/water separator effluent has a sheen			
Security			
Fencing, gates, or lighting is non-functional			
Pumps and valves are not locked (and not in use)			
Response equipment			
Response equipment inventory is incomplete			

Annual reminders:

< Hold SPCC Briefing for all oil-handling personnel (and update briefing log in the Plan);
< Check contact information for key employees and response/cleanup contractors and update them in the Plan as needed;

Additional Remarks:

Date: _____ Signature: _____

APPENDIX D
Record of Annual Discharge Prevention Briefings and Training

Briefings will be scheduled and conducted by the facility owner or operator for operating personnel at regular intervals to ensure adequate understanding of this SPCC Plan. The briefings will also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices. Personnel will also be instructed in operation and maintenance of equipment to prevent the discharge of oil, and in applicable pollution laws, rules, and regulations. Facility operators and other personnel will have an opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

Date	Subjects Covered	Employees in Attendance	Instructor(s)

APPENDIX E
Records of Tank Integrity and Pressure Tests

Attach copies of official records of tank integrity and pressure tests.

APPENDIX F
Emergency Contacts

Designated person responsible for spill prevention: ***Susan Blake, Airport Manager***
781-555-5550

EMERGENCY TELEPHONE NUMBERS:

Facility	
Robert Greene, Airport Manager	907-487-4952
Local Emergency Response	
Kodiak City Fire Department	911 or 907-486-8040
Providence Medical Center	907-486-9595
Response/Cleanup Contractors	
TC Enterprises	907-486-3755
Notification	
Alaska Department of Environmental Conservation	907-465-5250 or 800-478-9300 (24 hour number)
National Response Center	800-424-8802 (24 hour number)
United States Environmental Protection Agency, Region 10	206-553-1263 (24 hour emergency number)

APPENDIX G
Discharge Notification Form

Part A: Discharge Information	
General information when reporting a spill to outside authorities: Name: Kodiak Airport and Maintenance Facility Address: 1500 Anton Larson Road Kodiak, Alaska 99615 Telephone: (907) 487-4952 Operator: ADOT&PF P.O. Box 196900 Anchorage, Alaska 99516 Owner: US Coast Guard P.O. Box 195025 Kodiak, Alaska 99615 Primary Contact: Robert Greene, Airport Manager Work: (907)487-4952 Cell (24 hrs): (907)539-7072	
Type of oil:	Discharge Date and Time:
Quantity released:	Discovery Date and Time:
Quantity released to a waterbody:	Discharge Duration:
Location/Source:	
Actions taken to stop, remove, and mitigate impacts of the discharge:	
Affected media: G air G water G soil	 G storm water sewer/POTW G dike/berm/oil-water separator G other: _____
Notification person:	Telephone contact: Business: 24-hr:
Nature of discharges, environmental/health effects, and damages: Injuries, fatalities or evacuation required?	

Part B: Notification Checklist		
	Date and time	Name of person receiving call
Discharge in any amount		
Robert Greene, Airport Manager Work: (907)487-4952 Cell (24 hrs): (907)539-7072		
Discharge in amount exceeding 10 gallons and *not affecting a waterbody or groundwater*		
Kodiak City Fire Department (907) 486-8040 or 911		

Alaska Department of Environmental Conservation (907)465-5250 or (800)-478-9300 (24 hour no.)		
Discharge in any amount and affecting (or threatening to affect) a waterbody		
Kodiak City Fire Department (907) 486-8040 or 911		
Alaska Department of Environmental Conservation (907)465-5250 or (800)-478-9300 (24 hour no.)		
National Response Center (800) 424-8802		

APPENDIX H
Discharge Response Equipment Inventory

The discharge response equipment inventory is verified during the monthly inspection and must be replenished as needed.

Maintenance and Equipment Storage Buildings

- Empty 55-gallons drums to hold contaminated material
- Loose absorbent material
- Absorbent pads
- Nitrile gloves
- Neoprene gloves
- Vinyl/PVC pull-on overboots
- Non-sparking shovels
- Brooms
- Drain seals or mats
- Sand bags

APPENDIX I
Agency Notification Standard Report

Information contained in this report, and any supporting documentation, must be submitted to the EPA Region 1 Regional Administrator, and to MADEP, within 60 days of the qualifying discharge incident.

Facility:	*Kodiak Airport and Maintenance Station*
Operator:	ADOT&PF P.O. Box 196900 Anchorage, Alaska 99516
Name of person filing report:	
Location:	*1500 Anton Larson Road* *Kodiak, Alaska 99615*
Maximum storage capacity:	*9,500 gallons*

Nature of qualifying incident(s):

Discharge to navigable waters or adjoining shorelines exceeding 1,000 gallons
Second discharge exceeding 42 gallons within a 12-month period.

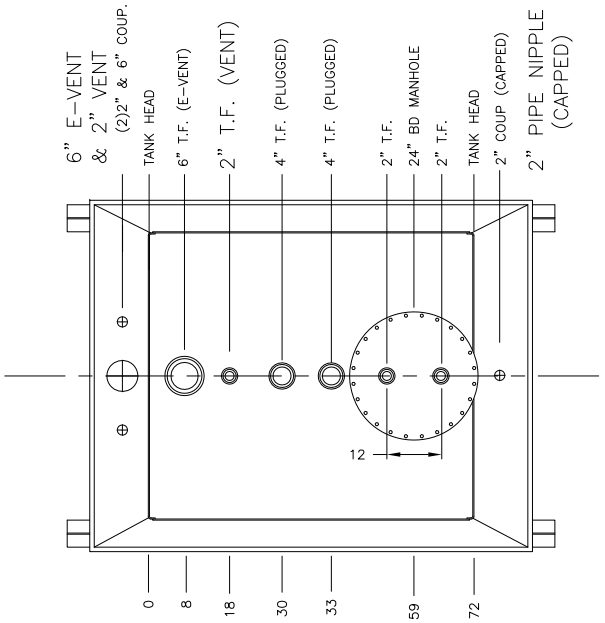
Description of facility (attach maps, flow diagrams, and topographical maps):

The Kodiak State Airport is located near Kodiak, AK at MP 5 Rezanof Drive (see attached maps). The facility consists of three asphalt-surfaced runways (7/25, 11/29, and 18/36). Five paved taxiways connect the runways with the terminal apron, and the U.S Coast Guard (USCG) Base – Integrated Support Command (ISC) Kodiak. Leased areas are located along the three commercial aprons, and several adjacent lease lots on the field. The USCG maintains a Helicopter and C-130 operation south of runway 18/36 at the USCG Base. Alaska DOT&PF houses airport equipment in the Snow Removal Equipment Building (SREB) located adjacent to taxiway C. The DOT&PF Maintenance and Operations (M&O) facility is located approximately one third of a mile northwest of the main airport apron, on the north side of Anton Larsen Road. Industrial activities conducted by the ADOT&PF at the airport proper include primarily deicing related activities themselves, whereas equipment maintenance is handled at the M&O facility on Anton Larsen Road.

Drainage patterns for the Kodiak State Airport are shown on the attached maps. In general, stormwater runoff from the runways, and taxiways, generally flow eastward from swales between the runways and taxiways into storm water catch basins, through piping and exiting into Chiniak Bay.

Agency Notification Standard Report (cont'd)
Cause of the discharge(s), including a failure analysis of the system and subsystems in which the failure occurred:
Corrective actions and countermeasures taken, including a description of equipment repairs and replacements:
Additional preventive measures taken or contemplated to minimize possibility of recurrence:
Other pertinent information:

APPENDIX J
Tank Specifications



TOP VIEW/FITTING LAYOUT

UNDERWRITERS LABORATORIES, INC. ®

LISTED
CLOSED TOP DIKED ABOVEGROUND TANK
FOR FLAMMABLE LIQUIDS
NO. _____

ANCHORAGE TANK & WELDING, INC.

THIS TANK REQUIRES EMERGENCY RELIEF VENTING CAPACITY NOT LESS THAN THE FOLLOWING:

PRIMARY TANK/COMPARTMENT A 1,017 GALLONS 114,450 CUBIC FT/HR
PRIMARY TANK/COMPARTMENT B _____ GALLONS _____ CUBIC FT/HR
ANNULAR SPACE CAPACITY 1,149 GALLONS 124,950 CUBIC FT/HR

SLOPE INSTALLATION WITH MONITORING PORT ACCESS AT LOW END

FIELD TESTING: INTERIOR TANK MUST BE PRESSURIZED TO 5 PSIG. MAXIMUM WHILE PRESSURE TESTING EXTERIOR TANK TO 5 PSIG. MAXIMUM.

THIS TANK MAY BE PROVIDED WITH AN INTEGRAL STEEL FOUNDATION AND IS INTENTED FOR STATIONARY INSTALLATION ONLY.

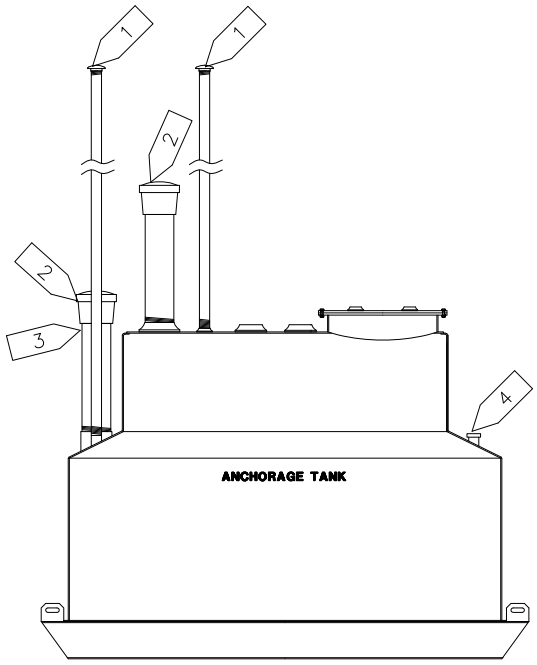
KEEP ANNULAR SPACE VENTED TO ATMOSPHERE.

SANDBLAST AND COAT EXTERIOR W/ WHITE POLYURETHANE, PRIMARY TANK INTERIOR W/ MADISON CORROCOTE PW

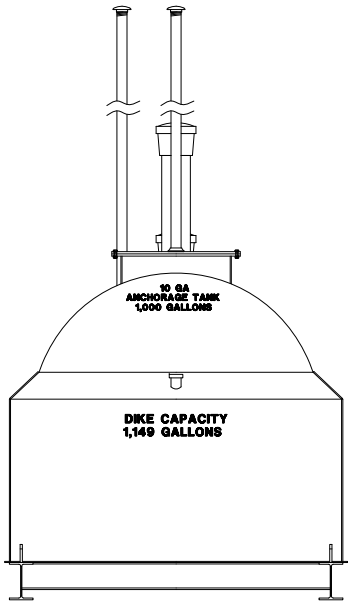
INSTALL STRIKER PLATES UNDER ALL PRIMARY TANK OPENINGS

NOMINAL TANK SIZE 1,000

DIMENSIONS	
DIAMETER	64"
LENGTH INNER TANK	73"
LENGTH DIKE TANK	96"
WIDTH DIKE TANK	76"
HEIGHT DIKE TANK	36"
LENGTH OVERALL	108"
SADDLE SPACING	2 @ 72"
CAPACITIES	
INNER TANK (GALLONS)	1,017
OUTER TANK (GALLONS)	1,149
% CONTAINMENT	113%
MATERIALS	
INNER TANK	10 Ga.
DIKE TANK WALLS	10 Ga.
DIKE TANK BOTTOM	1/4" PL
DIKE WALL STIFFENER	2x2x1/4 ANGLE
SKID BEAMS	W6 X 15#
SADDLES	PL 3/16" X 12"
TOWBAR	N/A
DIKE TANK WALL BRACE	C 3x4.1#
OTHER DATA	
VENT SIZE	2"
EMERGENCY VENT SIZE	6"



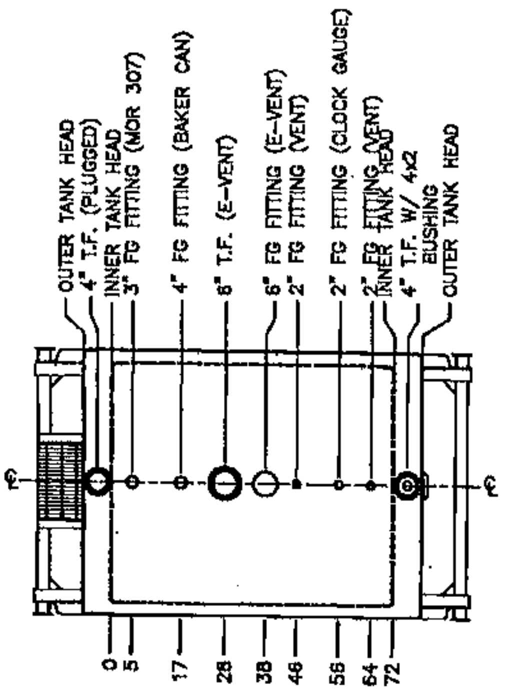
SIDE VIEW



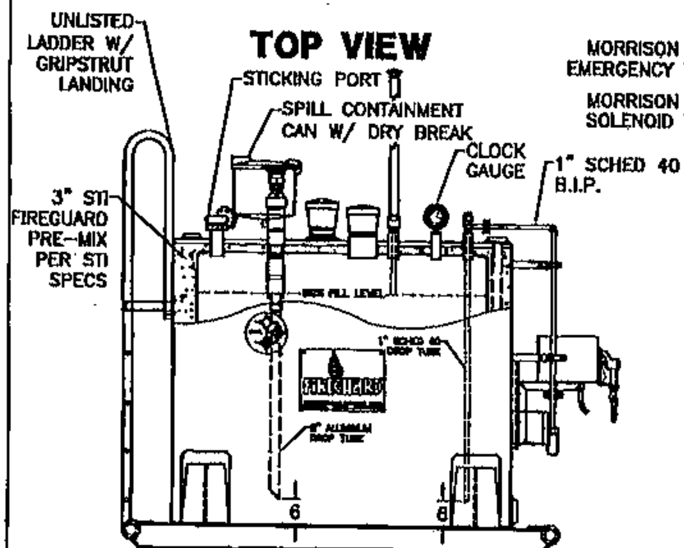
END VIEW

REFERENCE NOTES:

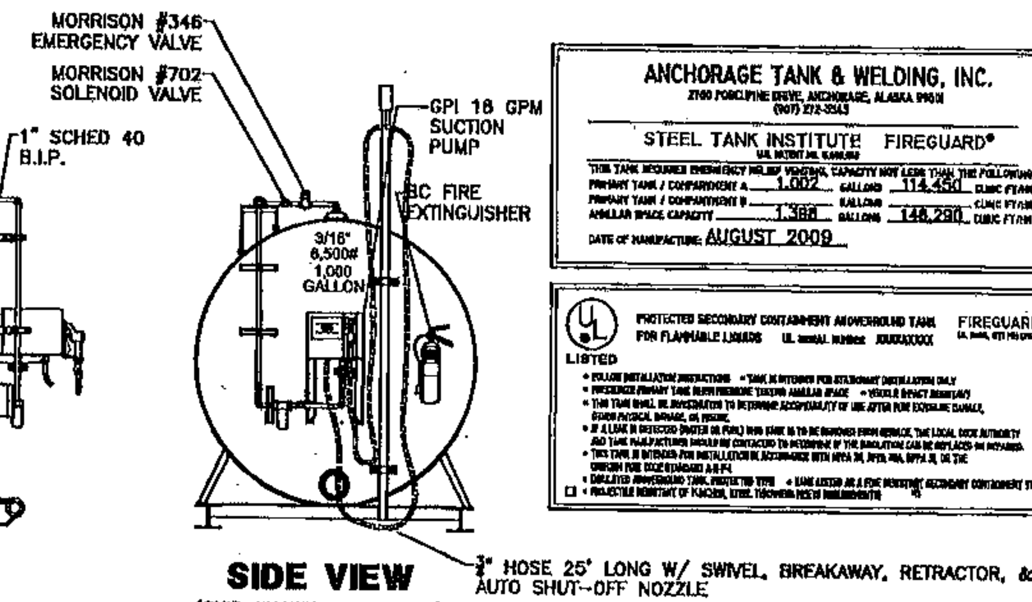
1. 2" SCREENED MUSHROOM VENT
2. 4" EMERGENCY VENT
3. 2" PIPE W/ (4) 1/2"ø HOLES NEAR TOP W/ 4" PIPE CAP. WELD ASSEMBLY AS TO PREVENT REMOVAL
4. 2" CAPPED DIKE MONITOR PORT



TOP VIEW



FRONT VIEW



SIDE VIEW
(SKID SHOWN AS SECTION)

FIREGUARD™
LIGHTWEIGHT DOUBLE WALL
STI STEEL TANK INSTITUTE

SANDBLAST AND COAT EXTERIOR SURFACES W/ WHITE POLYURETHANE.

PROVIDE SPILL RESPONSE KIT & BC FIRE EXTINGUISHER.

NOMINAL TANK SIZE	1,000
DIMENSIONS	
DIAMETER INNER TANK	64"
DIAMETER OUTER TANK	70"
LENGTH INNER TANK	72"
LENGTH OUTER TANK	84"
LENGTH OVERALL	108"
SADDLE SPACING	2 @ 67"
CAPACITIES	
INNER TANK (GALLONS)	1,002
OUTER TANK (GALLONS)	1,649
% CONTAINMENT	164%
MATERIALS	
INNER TANK	10 GA
OUTER TANK	10 GA
OUTER TANK HEAD	5/16"
SKID BEAMS	W6 X 15#
SADDLES	PL 3/16" X 12"
MISC SKID PARTS	PL 3/16"
TOWBAR	3" SCHED 80
HEAD BRACE	N/A
OTHER DATA	
VENT SIZE	2"
Cu Ft/Hr INNER TANK	114,450
Cu Ft/Hr OUTER TANK	136,500
E. VENT INNER TANK	6"
E. VENT OUTER TANK	6"

ANCHORAGE TANK & WELDING, INC.
2700 PORCUPINE DRIVE, ANCHORAGE, ALASKA 99501
(907) 272-3543

STEEL TANK INSTITUTE FIREGUARD®

PRIMARY TANK / COMPARTMENT A 1,002 GALLONS 114,450 CUBIC FT/HR
ANNULAR SPACE CAPACITY 1,388 GALLONS 148,290 CUBIC FT/HR
DATE OF MANUFACTURE AUGUST 2009

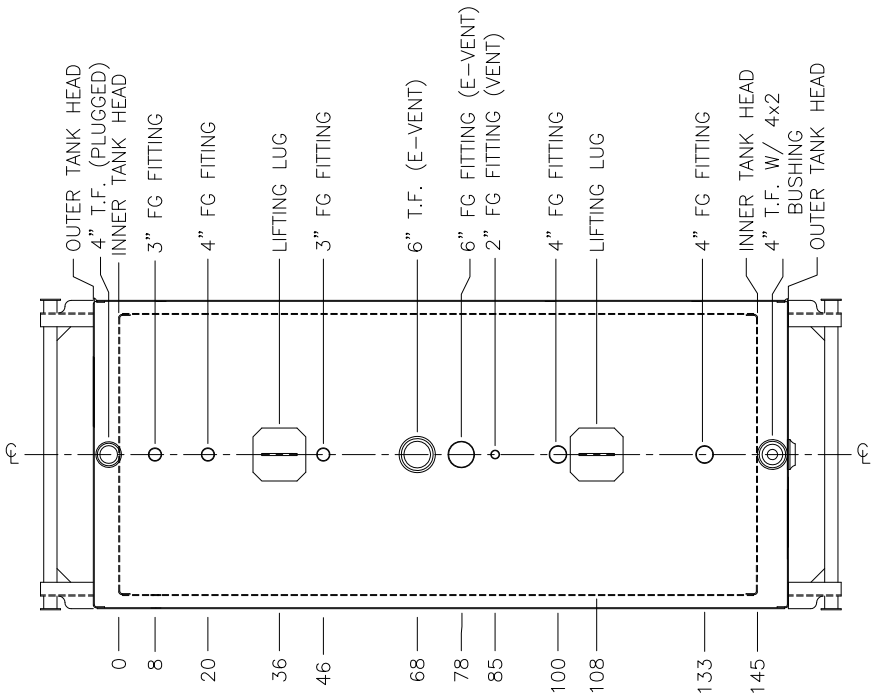
PROTECTED SECONDARY CONTAINMENT ABOVEGROUND TANK FOR FLAMMABLE LIQUIDS FIREGUARD®
LISTED

ANCHORAGE TANK & WELDING, INC.
2700 PORCUPINE DRIVE
ANCHORAGE, ALASKA
(907) 272-3543

1,000 GALLON FIREGUARD 2 HOUR FIRE RATED TANK

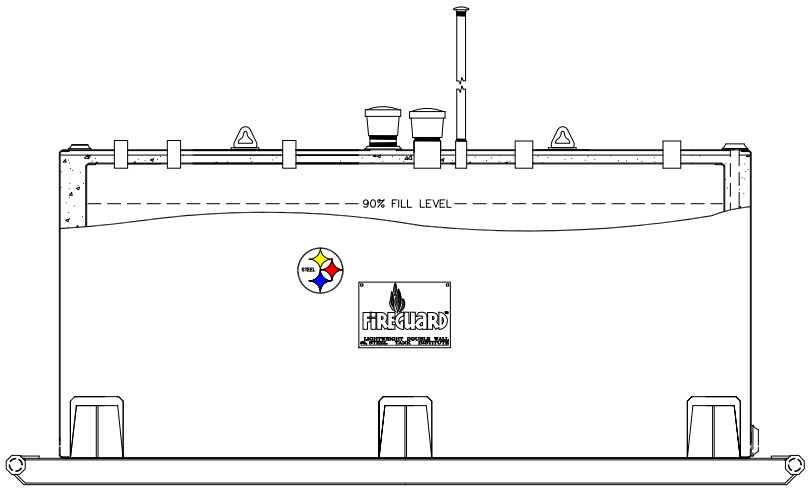
DOT

DRAWN:	TOM
DATE:	07/28/09
REVISED:	10/16/09
FILE NAME:	PPH9F1M
JOB NO:	12112
SCALE:	NTS
SHEET No. OF	1 1

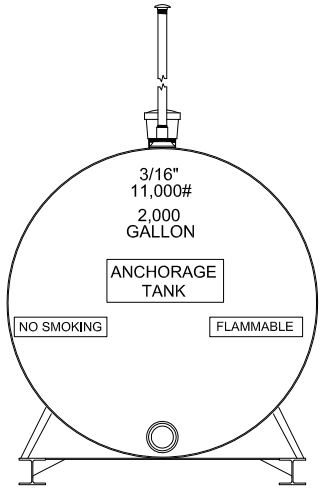


TOP VIEW

NOMINAL TANK SIZE	2,000
DIMENSIONS	
DIAMETER INNER TANK	64"
DIAMETER OUTER TANK	70"
LENGTH INNER TANK	145"
LENGTH OUTER TANK	157"
LENGTH OVERALL	181"
SADDLE SPACING	3 @ 70"
CAPACITIES	
INNER TANK (GALLONS)	2,019
OUTER TANK (GALLONS)	2,614
% CONTAINMENT	129%
MATERIALS	
INNER TANK	3/16"
OUTER TANK	3/16"
OUTER TANK HEAD	3/16"
SKID BEAMS	W6 X 15#
SADDLES	PL 3/16" X 12"
MISC SKID PARTS	PL 3/16"
TOWBAR	3" SCHED 80
HEAD BRACE	N/A
OTHER DATA	
VENT SIZE	1-1/4"
Cu Ft/Hr INNER TANK	195,250
Cu Ft/Hr OUTER TANK	242,640
E. VENT INNER TANK	6"
E. VENT OUTER TANK	6"



FRONT VIEW



SIDE VIEW
(SKID SHOWN AS SECTION)

ANCHORAGE TANK & WELDING, INC.
2700 PORCUPINE DRIVE, ANCHORAGE, ALASKA 99501
(907) 272-3543

STEEL TANK INSTITUTE FIREGUARD®
U.S. PATENT NO. 5,695,059

THIS TANK REQUIRES EMERGENCY RELIEF VENTING, CAPACITY NOT LESS THAN THE FOLLOWING:
PRIMARY TANK / COMPARTMENT A _____ GALLONS _____ CUBIC FT/HR
PRIMARY TANK / COMPARTMENT B _____ GALLONS _____ CUBIC FT/HR
ANNULAR SPACE CAPACITY _____ GALLONS _____ CUBIC FT/HR

DATE OF MANUFACTURE: _____

UL LISTED

PROTECTED SECONDARY CONTAINMENT ABOVEGROUND TANK FOR FLAMMABLE LIQUIDS UL SERIAL NUMBER XXXXXXXX

FIREGUARD® UL 2085, STI MH 17883

- FOLLOW INSTALLATION INSTRUCTIONS • TANK IS INTENDED FOR STATIONARY INSTALLATION ONLY
- PRESSURIZE PRIMARY TANK WHEN PRESSURE TESTING ANNULAR SPACE • VEHICLE IMPACT RESISTANT
- THIS TANK SHALL BE INVESTIGATED TO DETERMINE ACCEPTABILITY OF USE AFTER FIRE EXPOSURE DAMAGE, OTHER PHYSICAL DAMAGE, OR MISUSE
- IF A LEAK IS DETECTED (WATER OR FUEL) THIS TANK IS TO BE REMOVED FROM SERVICE. THE LOCAL CODE AUTHORITY AND TANK MANUFACTURER SHOULD BE CONTACTED TO DETERMINE IF THE INSULATION CAN BE REPLACED OR REPAIRED.
- THIS TANK IS INTENDED FOR INSTALLATION IN ACCORDANCE WITH NFPA 30, NFPA 30A, NFPA 31, OR THE UNIFORM FIRE CODE STANDARD A-II-F-1
- INSULATED ABOVEGROUND TANK, PROTECTED TYPE • TANK LISTED AS A FIRE RESISTANT SECONDARY CONTAINMENT TANK
- ☐ PROJECTILE RESISTANT (IF PUNCHED, STEEL THICKNESS MEETS REQUIREMENTS)

FIREGUARD™
LIGHTWEIGHT DOUBLE WALL
STI STEEL TANK INSTITUTE

Best Management Practices – Summary Table

Best Management Practice (BMP)	
Salt Storage	1. Salt is stored indoors or securely covered 2. Maintain the integrity of storage containers
Minimizing Exposure – Vehicle and Equipment Maintenance Areas	1. Perform all cleaning operations indoors or under covering when possible. Conduct the cleaning operations in an area with a concrete floor with no floor other than those to approved disposal methods (including sanitary sewers or treatment facilities, oil/water separators, etc.) 2. Park vehicles and equipment indoor or under a roof whenever possible and maintain proper control of oil leaks/spills. 3. Check vehicles closely for leaks and use pans to collect fluid when leaks occur. 4. Use berms, curbs, grassed swales, or other diversion measures to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area. 5. Inspect the maintenance area regularly to ensure BMPs are implemented. 6. Train employees on waste control and disposal procedures. 7. Train employees on proper washing procedures. 8. Use phosphate-free biodegradable detergents. 9. Inspect the maintenance area regularly for proper implementation of control measures.
Minimizing Exposure – Vehicle and Equipment Storage Areas	1. Store vehicles and equipment awaiting maintenance in designated areas only. 2. Use absorbents to cleanup spills and leaks. 3. Use drip pans under all vehicles and equipment for the collection of fluids. 4. Regularly seep area to minimize debris on the ground. 5. Provide dust control if necessary. When controlling dust, sweep and/or apply water or materials that will not impact surface or ground water. 6. Inspect the storage yard for filling drip pans to ensure BMPs are implemented. 7. Train employees on procedures for storage and inspection items.
Minimizing Exposure –Materials Storage Areas	1. Maintain good integrity of all storage containers (e.g., used oil, hydraulic fluids, solvents, waste aircraft fuel). 2. Create a centralized storage area for waste

Appendix L –Best Management Practices and Typicals

Best Management Practices – Summary Table

Example Typicals for Stormwater Pollution Prevention

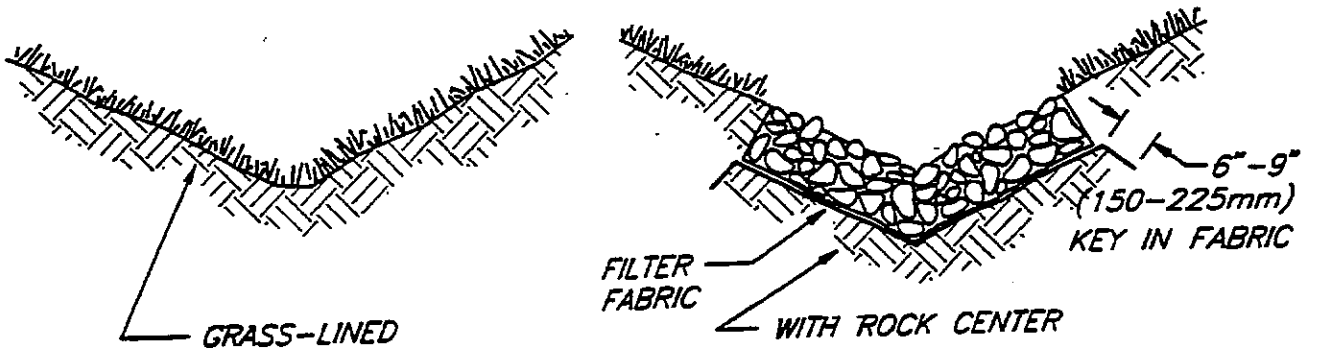
Best Management Practices – Summary Table

Best Management Practice (BMP)	
Salt Storage	1. Salt is stored indoors or securely covered 2. Maintain the integrity of storage containers
Minimizing Exposure – Vehicle and Equipment Maintenance Areas	1. Perform all cleaning operations indoors or under covering when possible. Conduct the cleaning operations in an area with a concrete floor with no floor other than those to approved disposal methods (including sanitary sewers or treatment facilities, oil/water separators, etc.) 2. Park vehicles and equipment indoor or under a roof whenever possible and maintain proper control of oil leaks/spills. 3. Check vehicles closely for leaks and use pans to collect fluid when leaks occur. 4. Use berms, curbs, grassed swales, or other diversion measures to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area. 5. Inspect the maintenance area regularly to ensure BMPs are implemented. 6. Train employees on waste control and disposal procedures. 7. Train employees on proper washing procedures. 8. Use phosphate-free biodegradable detergents. 9. Inspect the maintenance area regularly for proper implementation of control measures.
Minimizing Exposure – Vehicle and Equipment Storage Areas	1. Store vehicles and equipment awaiting maintenance in designated areas only. 2. Use absorbents to cleanup spills and leaks. 3. Use drip pans under all vehicles and equipment for the collection of fluids. 4. Regularly seep area to minimize debris on the ground. 5. Provide dust control if necessary. When controlling dust, sweep and/or apply water or materials that will not impact surface or ground water. 6. Inspect the storage yard for filling drip pans to ensure BMPs are implemented. 7. Train employees on procedures for storage and inspection items.
Minimizing Exposure –Materials Storage Areas	1. Maintain good integrity of all storage containers (e.g., used oil, hydraulic fluids, solvents, waste aircraft fuel). 2. Create a centralized storage area for waste

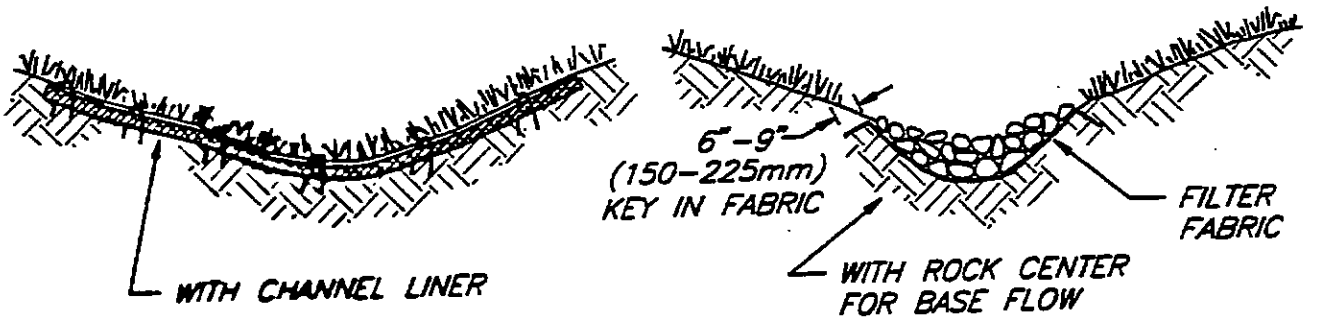
	materials. 3. Provide secondary containment around chemical storage areas. 4. Locate storage areas away from high traffic area and surface waters. 5. Inspect storage tanks and piping systems (pipes, pumps, flanges, couplings, hoses, and valves) for failures or leaks and perform preventative maintenance. 6. Plainly label containers. 7. Maintain an inventory of fluids to identify leakage. 8. Provide fluid level indicators. 9. Properly dispose of chemicals that are no longer in use. 10. Store and handle reactive, ignitable, or flammable liquids in compliance with applicable local fire codes, local zoning codes, and the National Electric Code. 11. Develop and implement spill plans or spill prevention, containment and countermeasure (SPCC plans). 12. Train employees in spill prevention and proper materials management.
Minimizing Exposure – Fuel System and Fueling Areas	1. Develop and implement a system to report any spill exceeding 5 feet in any direction or which has entered the storm drainage system. 2. Use fueling hoses with check valves to prevent hose draining after filling. 3. Provide spill kits on all fuel trucks, at fueling stations, in each hangar and at strategic locations. Each kit should be properly stocked and maintained. Store used materials in individual sealed container and labeled to ensure proper handling and disposal as a hazardous material. 4. Keep spills cleanup materials readily available. 5. Clean up spills and leaks immediately. 6. Use dry cleanup methods for fuel areas rather than hosing down the fuel area. Sweep up absorbents as soon as spilled substances have been absorbed. 7. Use spill and overflow protection devices. 8. Provide curbing or posts around fuel pumps to prevent collisions from vehicles. 9. Regularly inspect and perform preventative maintenance on fuel storage tanks to detect potential leaks before they occur. 10. Inspect the fueling area for leaks and spills. 11. Do not allow “topping off” of the fuel in the receiving equipment. 12. Train personnel on vehicle fueling BMPs.

Minimizing Exposure – Storing Liquid Fuels	1. Develop and implement spill plans. 2. Train employees in spill prevention and control. 3. For ASTs – use double walled tanks with overflow protection. 4. For ASTs – Keep liquid transfer nozzle/hoses in secondary containment area. 5. Store drums indoors when possible. 6. Clearly label drums with contents.
Good Housekeeping – Vehicle and Equipment Maintenance Areas	1. Prevent and contain spills and drips 2. Perform all cleaning at a centralized station so the solvents stay in one area. 3. Remove any parts that are dipped in liquid slowly to avoid spills. 4. Darin all parts of fluids prior to disposal. Oil filters can be crushed and recycled. 5. Transfer used fluids to the proper container promptly; do not leave full drip pans or other containers around the shop. Empty and clean drip pans and containers. 6. Clean up leaks, drips, and other spills without using large amounts of water. Use absorbents to for dry cleanup whenever possible. 7. Prohibit the practice of hosing down an area where the practice would result in the discharge of pollutants to a stormwater system. 8. Prohibit pouring liquid waste into floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections. 9. Maintain and organized inventory of materials. 10. Eliminate or reduce the number and amount of hazardous materials and waste by substituting nonhazardous or less hazardous waste materials. 11. Label and track the recycling of waste material. 12. Store batteries and other significant materials inside. 13. Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers in compliance with environmental regulations.
Maintenance – Vehicle and Equipment Monitoring and Repairs	1. Regularly inspect vehicles for leaks and maintenance 2. Vehicles are kept in good working condition and monitored for leaks to prevent discharges 3. Leaking equipment is kept indoors until repairs can be made with drip pans and absorbents in place as necessary. 4. Equipments maintenance is conducted indoors 5. All storage containers are monitored for leaks and stored indoors when possible. 6. Fuel tanks are inspected regularly for leaks and integrity.

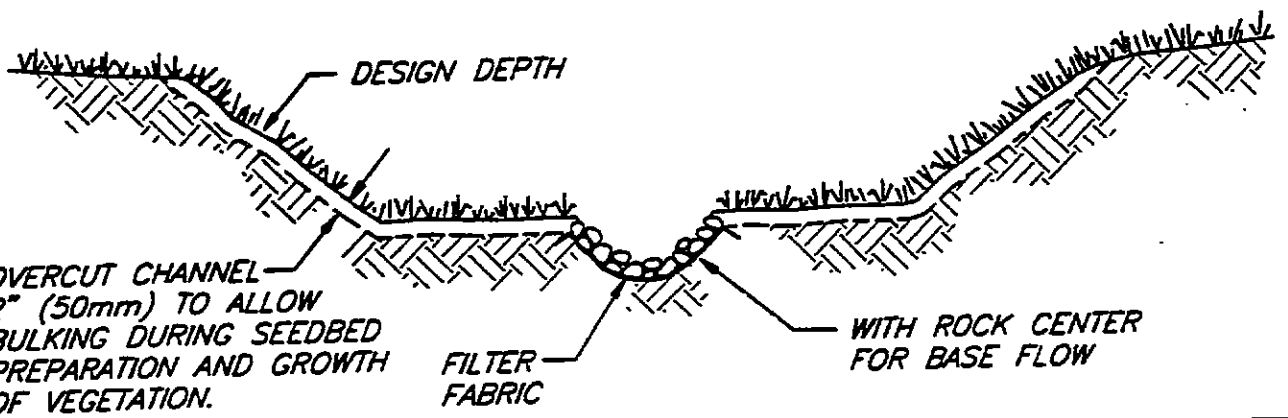
Management of Runoff	1. Maintain as much vegetation as possible in maintenance areas and areas where stormwater leaves impermeable surfaces. 2. Utilize velocity dissipaters such as; vegetation, rock outfalls, and check dams. 3. Create opportunities for filtration and settling such as gently sloped vegetated ditches.
Waste, Garbage, and Floatable Debris	1. Waste and debris are stored in cover containers or indoors and removed regularly. 2. Maintenance and airport areas are kept clear of debris and clutter. 3. The oil water separator is cleaned out annually. 4. Human waste and all water is treated through a waste water facility.



TYPICAL V-SHAPED CHANNEL CROSS-SECTION



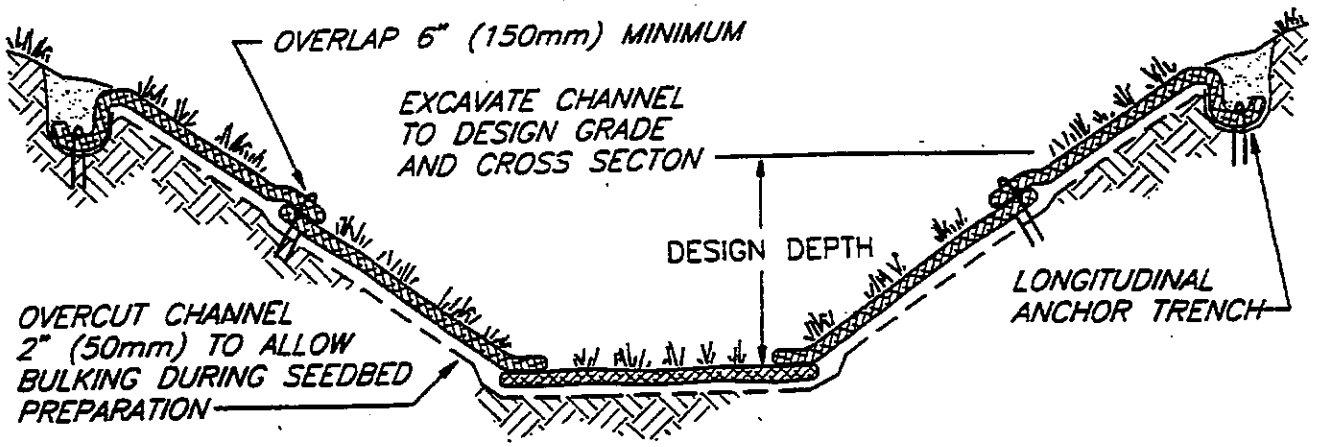
TYPICAL PARABOLIC CHANNEL CROSS-SECTION

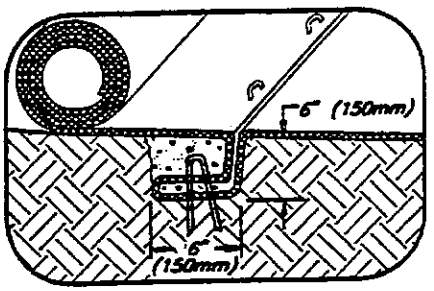


TYPICAL TRAPEZOIDAL CHANNEL CROSS-SECTION

GRASS-LINED CHANNEL TYPICAL CROSS SECTIONS

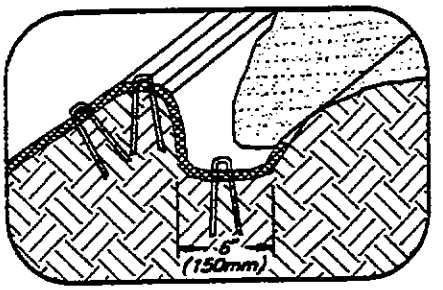
FILE: GRASS-XS



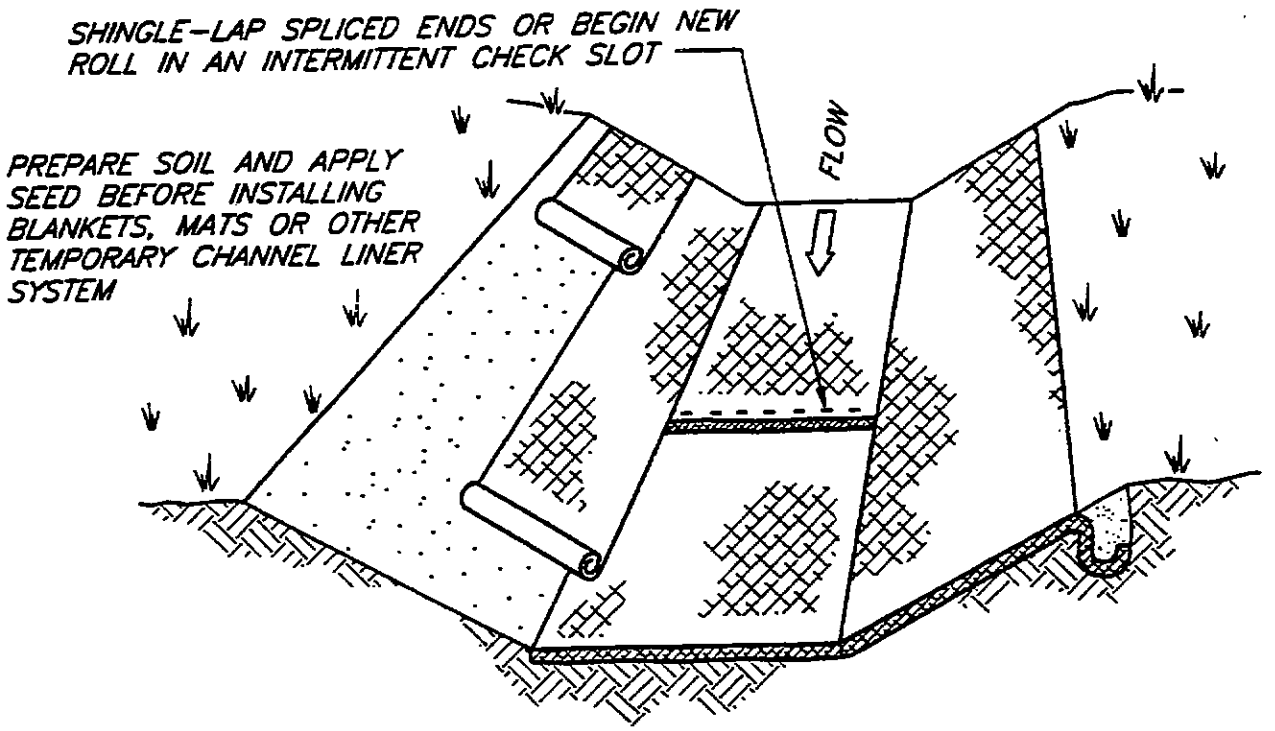


INTERMITTENT CHECK SLOT

TYPICAL INSTALLATION WITH EROSION CONTROL BLANKETS OR TURF REINFORCEMENT MATS



LONGITUDINAL ANCHOR TRENCH



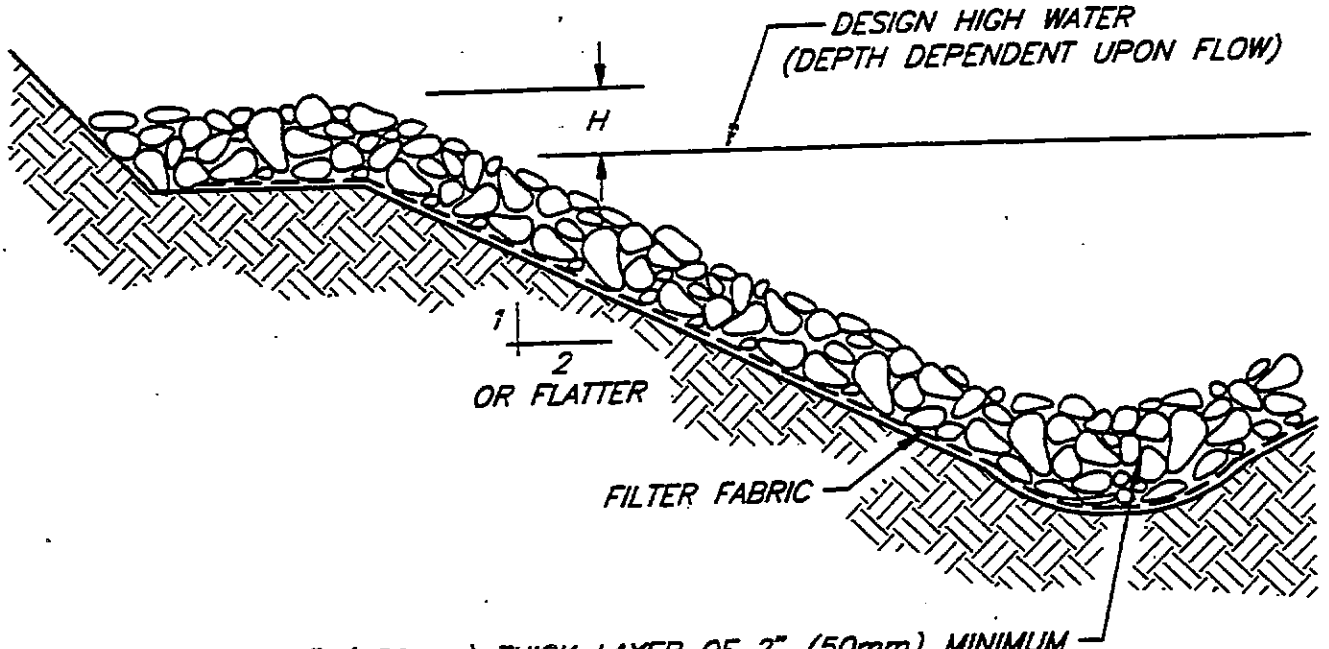
NOTES:
1. DESIGN VELOCITIES EXCEEDING 2 FT/SEC (0.5m/sec) REQUIRE TEMPORARY BLANKETS, MATS OR SIMILAR LINERS TO PROTECT SEED AND SOIL UNTIL VEGETATION BECOMES ESTABLISHED.
2. GRASS-LINED CHANNELS WITH DESIGN VELOCITIES EXCEEDING 6 FT/SEC (2m/sec) SHOULD INCLUDE TURF REINFORCEMENT MATS.

NOT TO SCALE

GRASS-LINED CHANNEL TYPICAL INSTALLATION

FILE: GRSSINST

DESIGN HEIGHT (H), WIDTH AND STONE SIZE SHALL BE DETERMINED BY THE ENGINEER

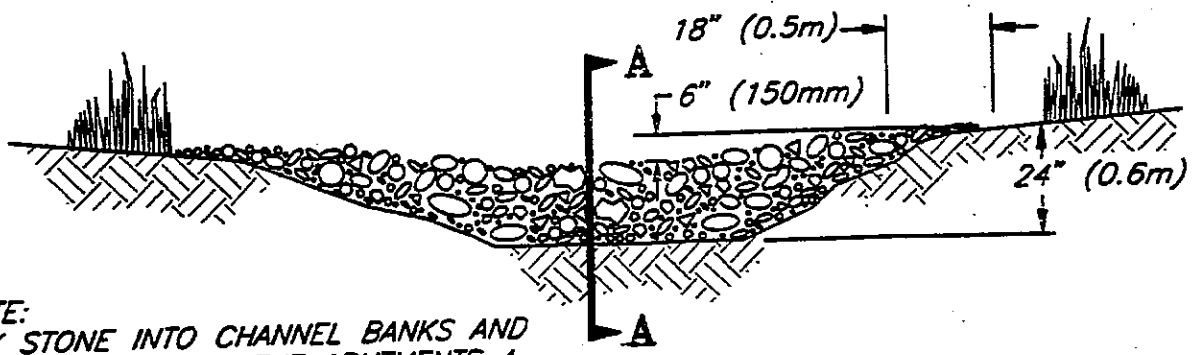


MINIMUM 6" (150mm) THICK LAYER OF 2" (50mm) MINIMUM DIAMETER DRAIN ROCK. LARGER STONE SHALL BE USED DEPENDENT UPON GRADIENT, SOIL TYPE, AND DESIGN FLOW.

TYPICAL SECTION

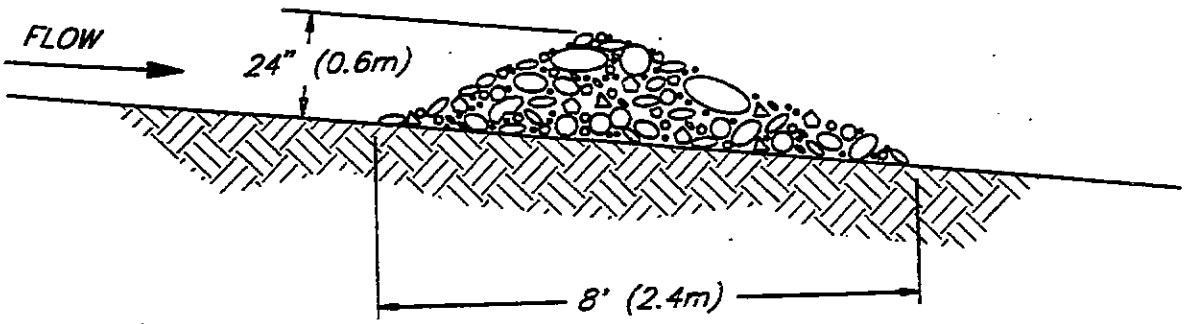
ROCK LINED CHANNEL

FILE: RCKCHNEL



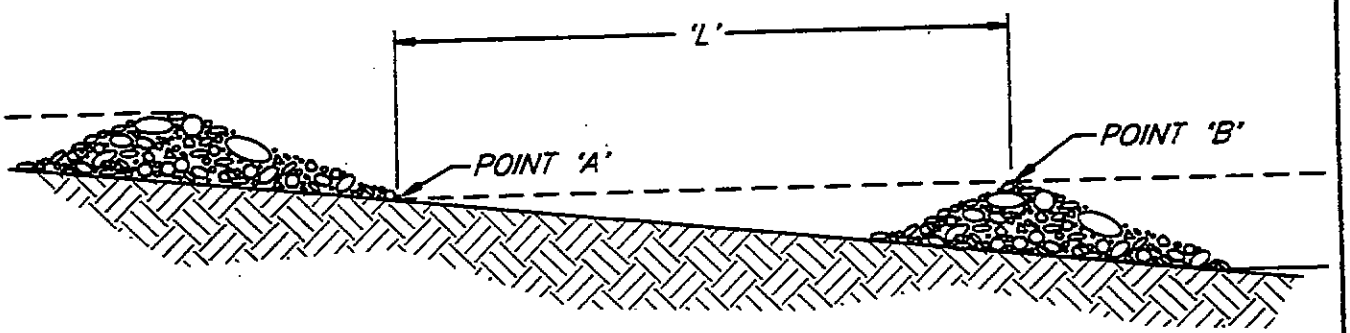
NOTE:
KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" (0.5m) TO PREVENT FLOW AROUND DAM.

VIEW LOOKING UPSTREAM



SECTION A – A

'L' = THE DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATION.

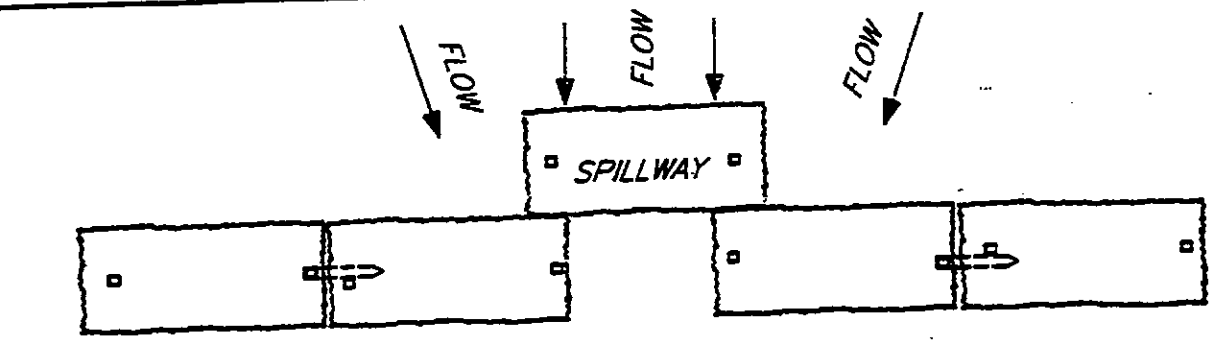


SPACING BETWEEN CHECK DAMS

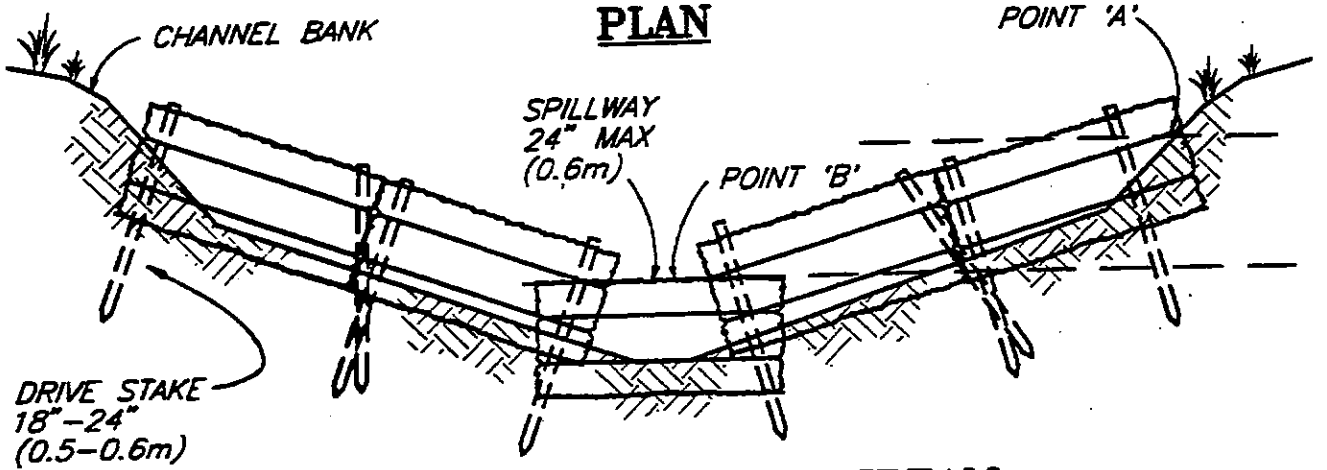
NOT TO SCALE

ROCK CHECK DAM

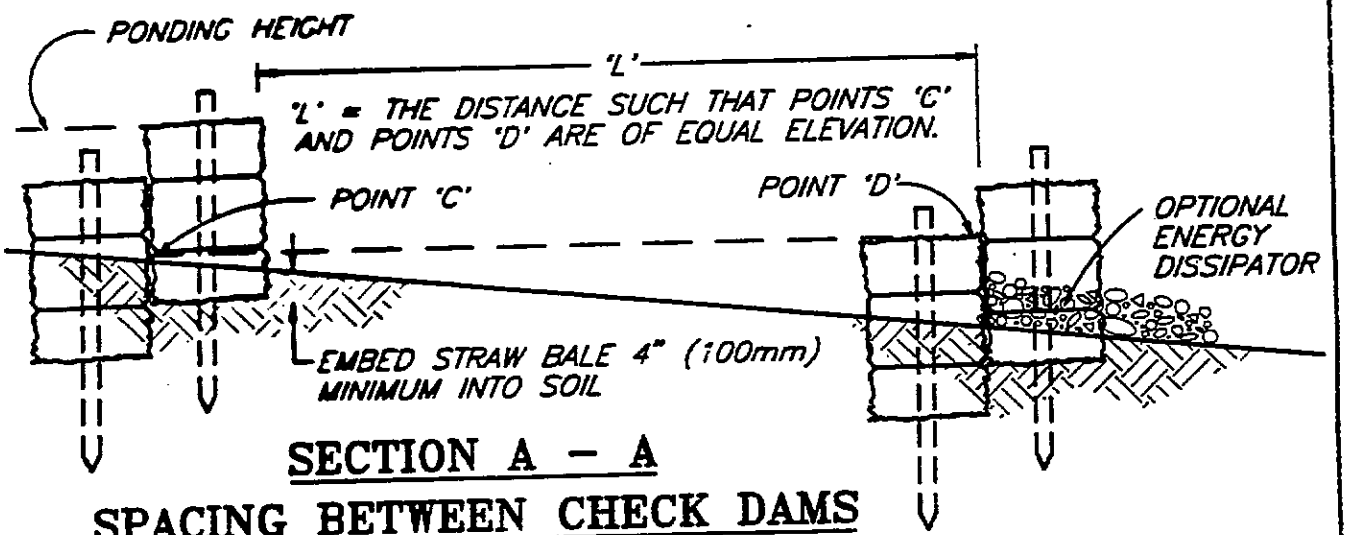
FILE: RCKCHKDM



PLAN



VIEW LOOKING UPSTREAM



SECTION A – A

SPACING BETWEEN CHECK DAMS

NOTES:

1. EMBED BALES 4" (100mm) INTO THE SOIL AND "KEY" BALES INTO THE CHANNEL BANKS.
2. POINT 'A' MUST BE HIGHER THAN POINT 'B'. (SPILLWAY HEIGHT)
3. PLACE BALES PERPENDICULAR TO THE FLOW WITH ENDS TIGHTLY ABUTTING.
4. SPILLWAY HEIGHT SHALL NOT EXCEED 24" (0.6m).
5. INSPECT AFTER EACH SIGNIFICANT STORM, MAINTAIN AND REPAIR PROMPTLY.

NOT TO SCALE

STRAW BALE CHECK DAM

FILE: STRCHKDM

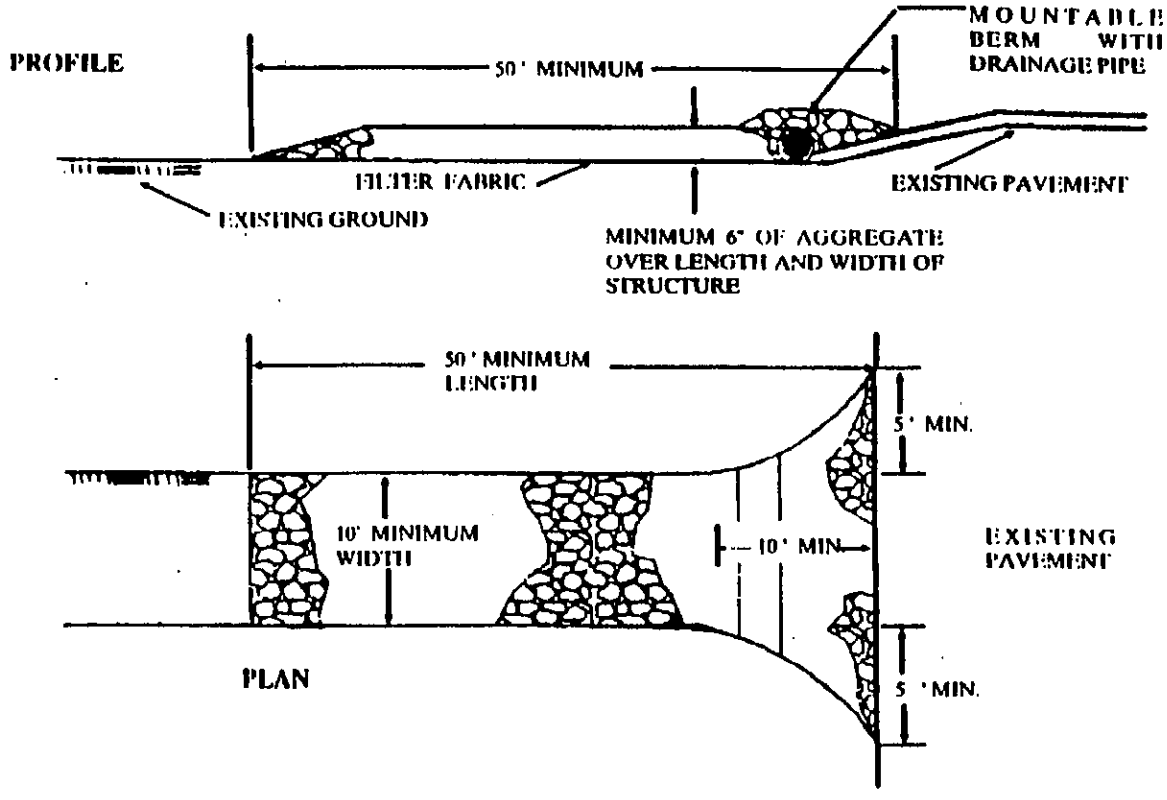
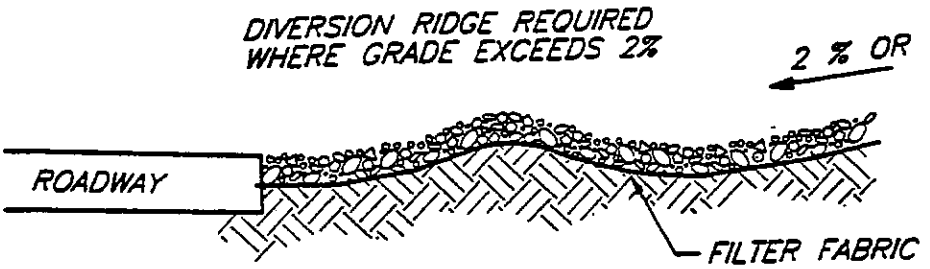
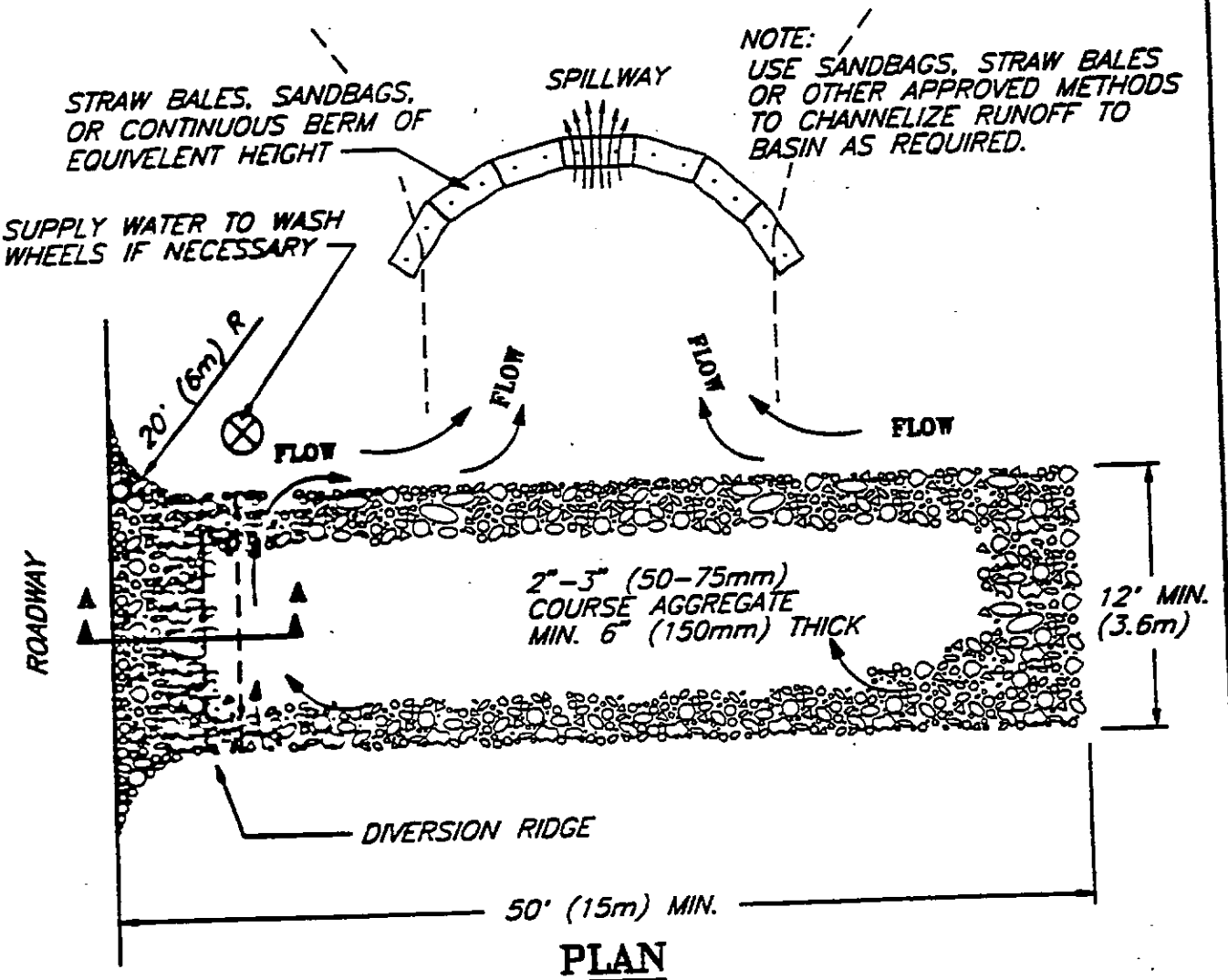


Figure 4-7
Stabilized Construction Exit



SECTION A – A



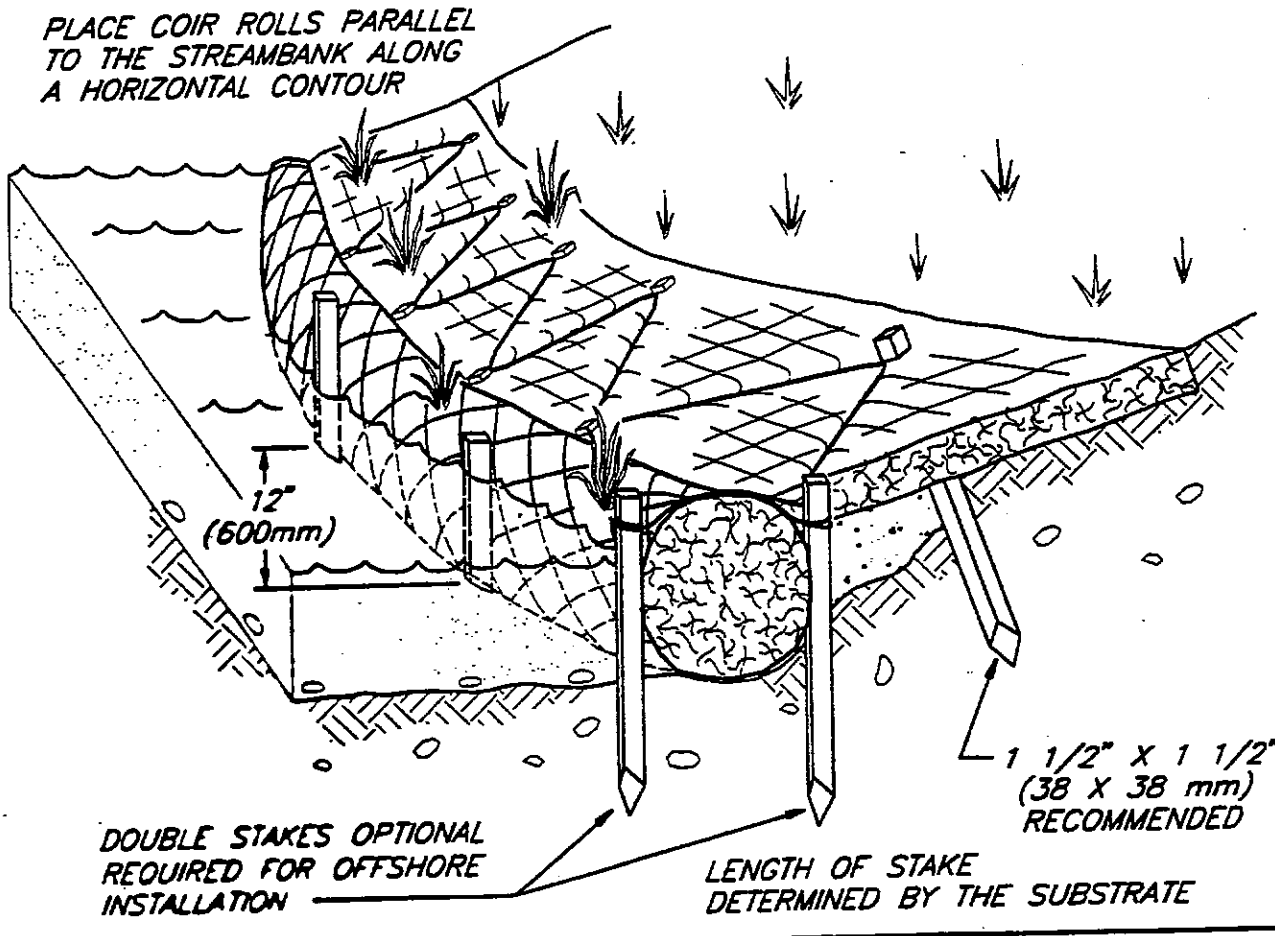
PLAN

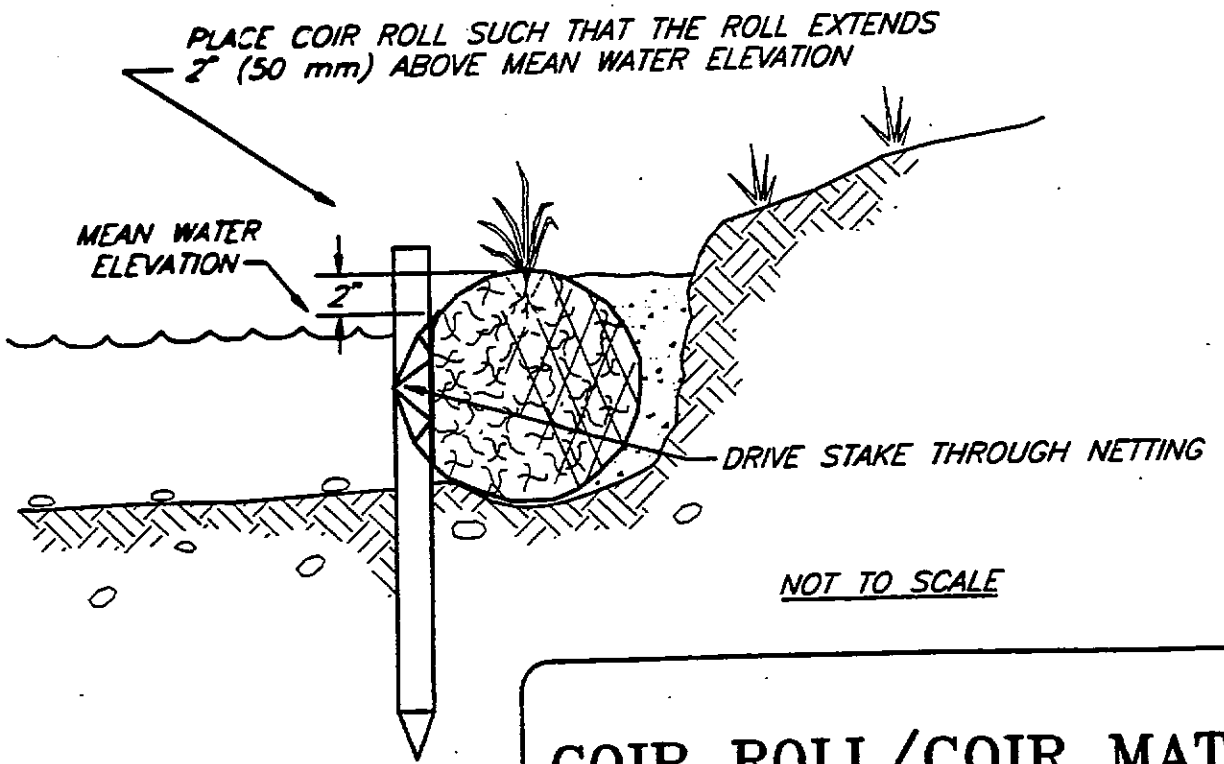
NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

FILE: ENTRANCE

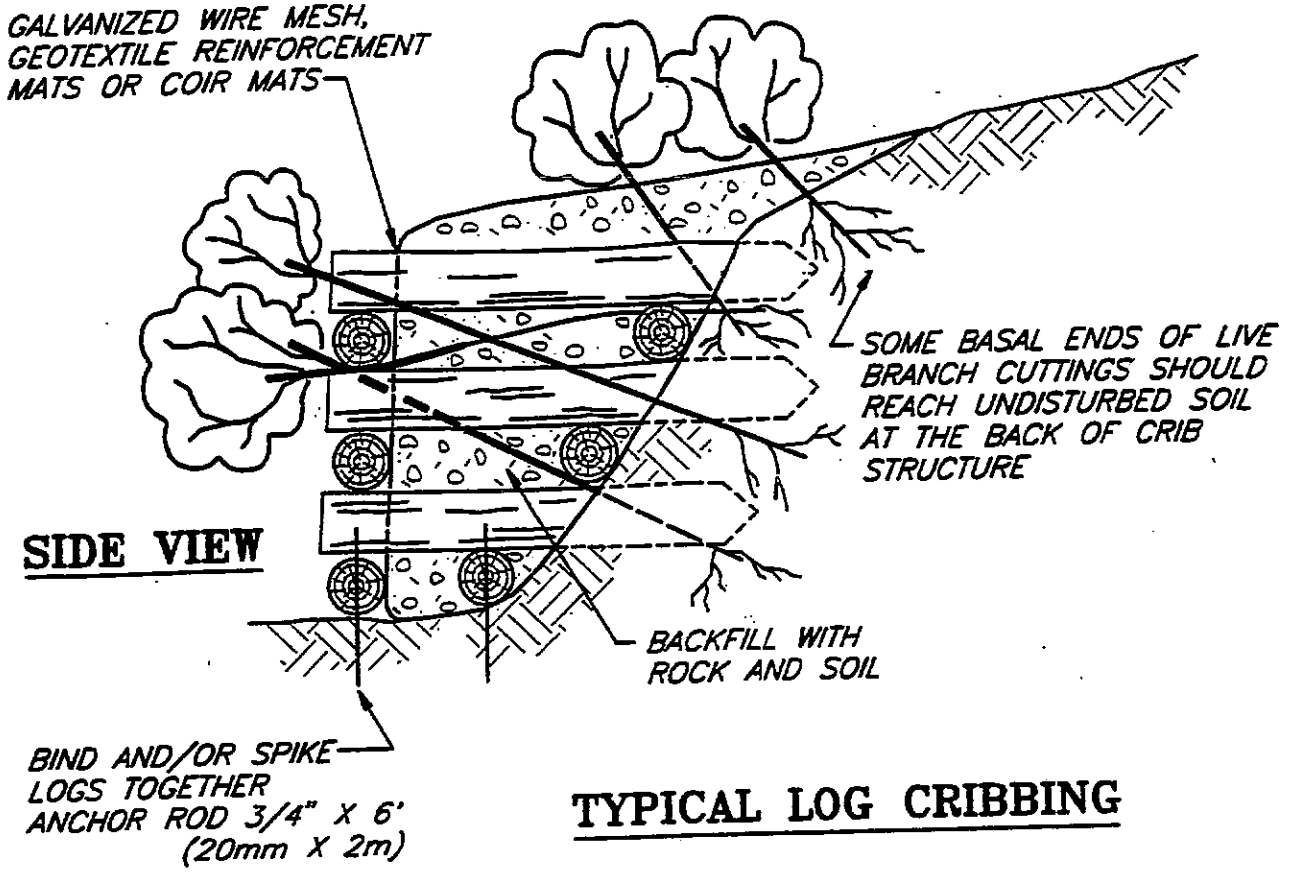




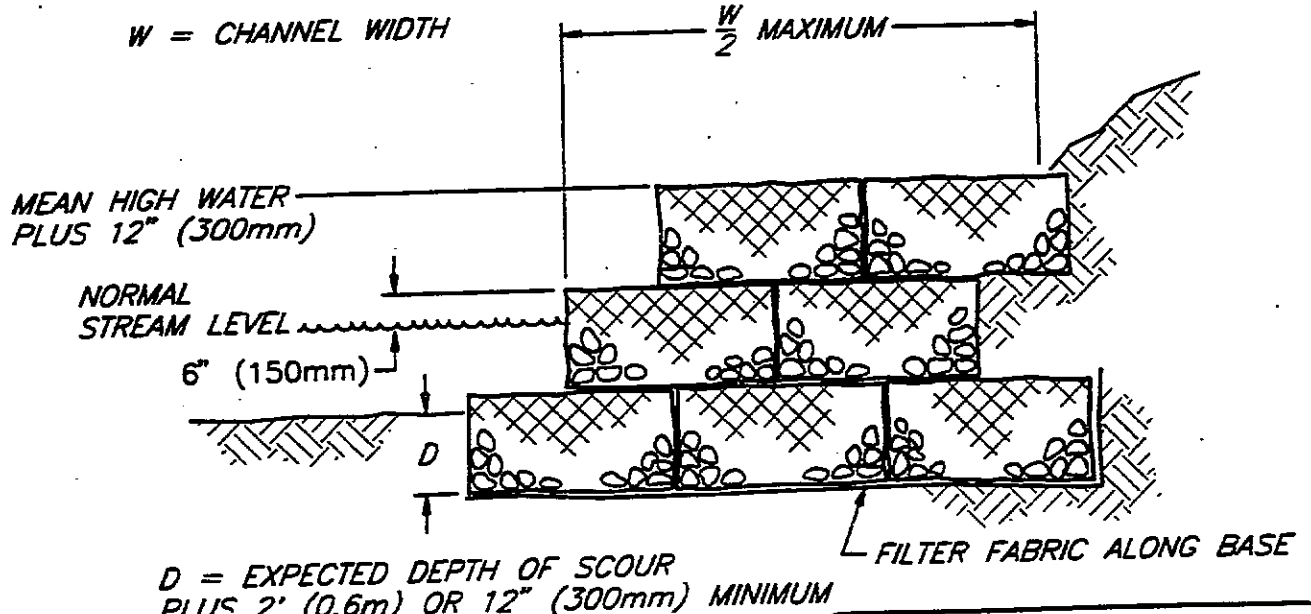
NOT TO SCALE

COIR ROLL/COIR MATS

FILE: COIRRM



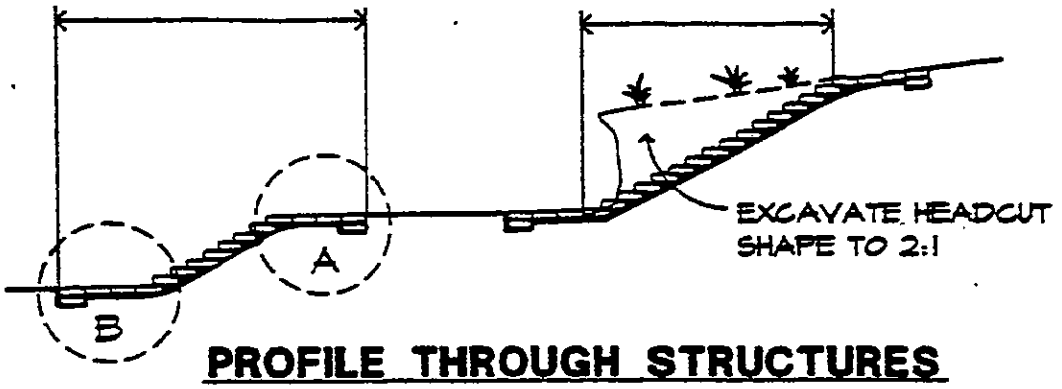
TYPICAL LOG CRIBBING



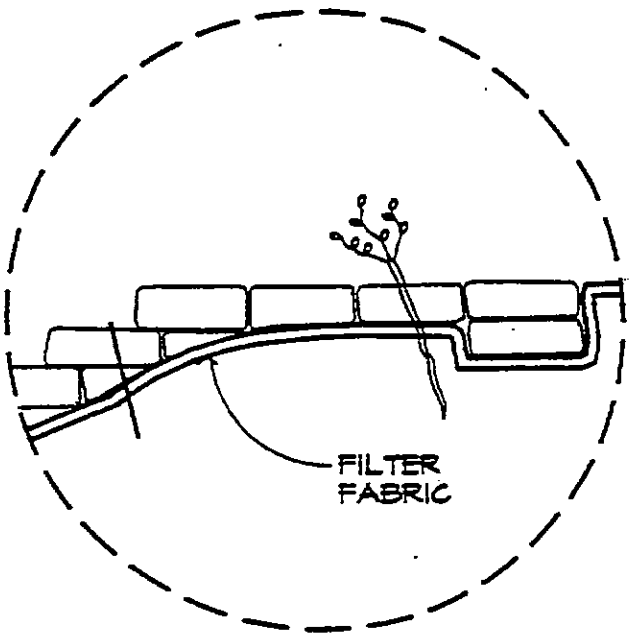
TYPICAL GABION DEFLECTOR

STREAMBANK STABILIZATION

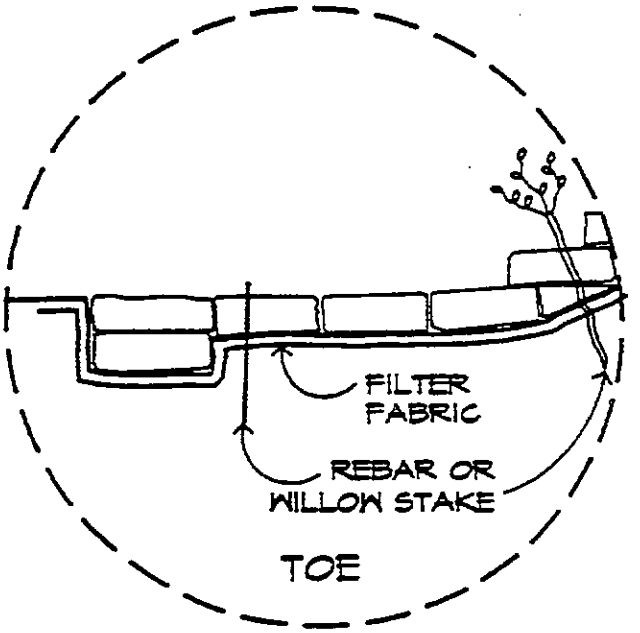
FILE: STREAMBK



PROFILE THROUGH STRUCTURES

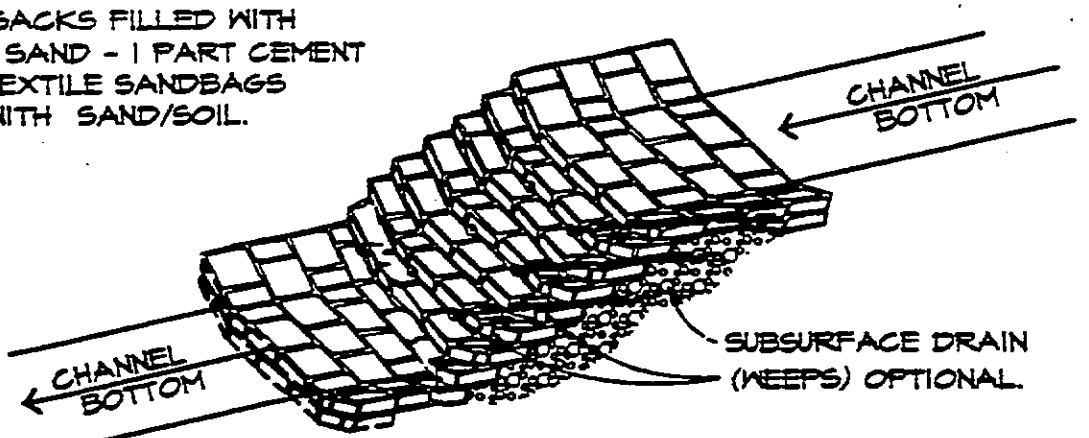


DETAIL - 'A'



DETAIL - 'B'

BURLAP SACKS FILLED WITH
4 PARTS SAND - 1 PART CEMENT
OR GEOTEXTILE SANDBAGS
FILLED WITH SAND/SOIL.



ISOMETRIC VIEW

SANDBAG HEADCUT STRUCTURE

ES:

1. GEOTEXTILE SANDBAGS MAY BE STAKED WITH LIVE WILLOW STAKES, REBAR OR 'SNAP TIE' STAKES SHOULD BE USED WITH CEMENT SANDBAGS.
2. ROCK RIPRAP MAY BE USED IN PLACE OF SANDBAGS.

SANDBAG HEADCUT STRUCTURE

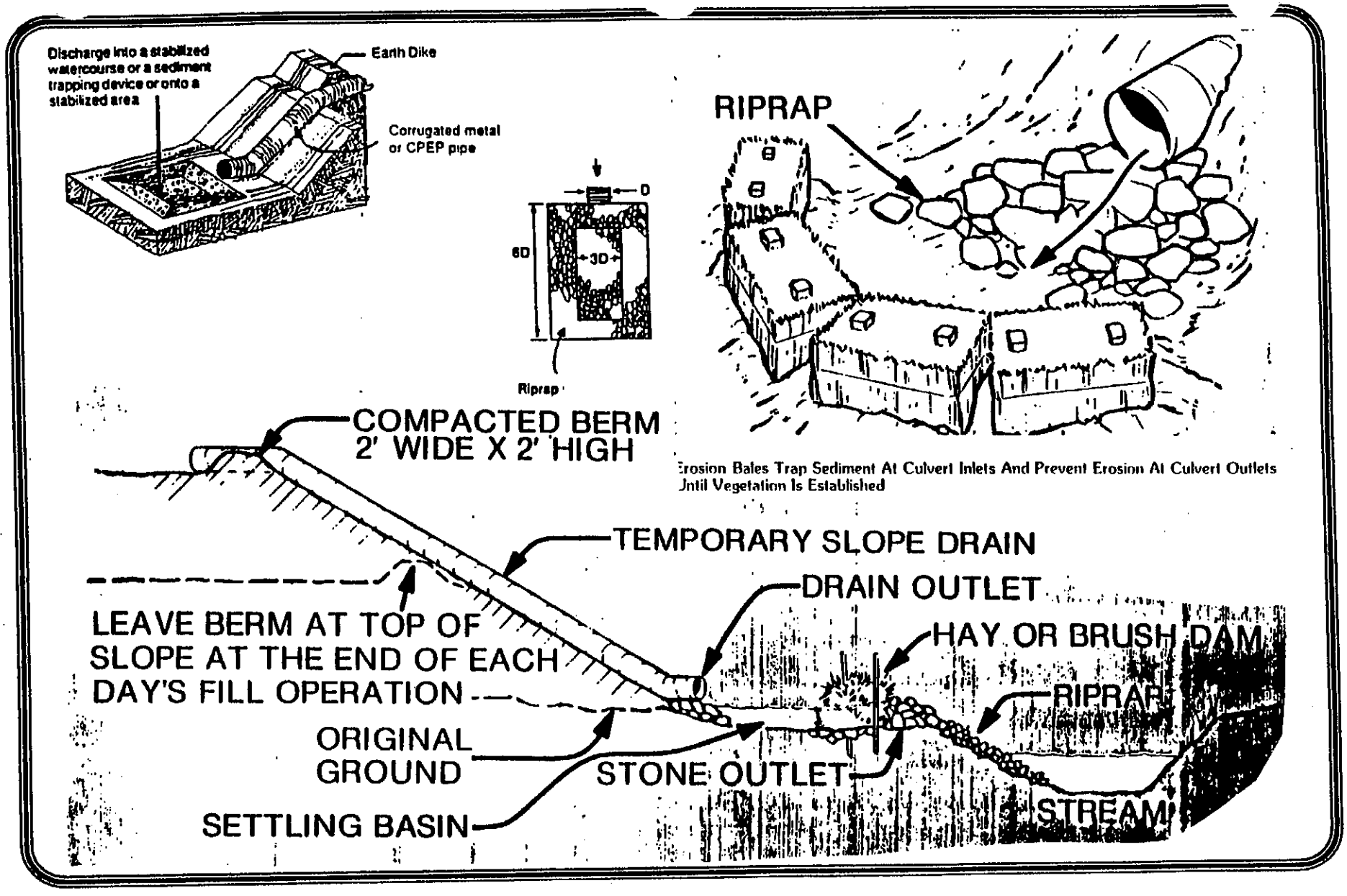
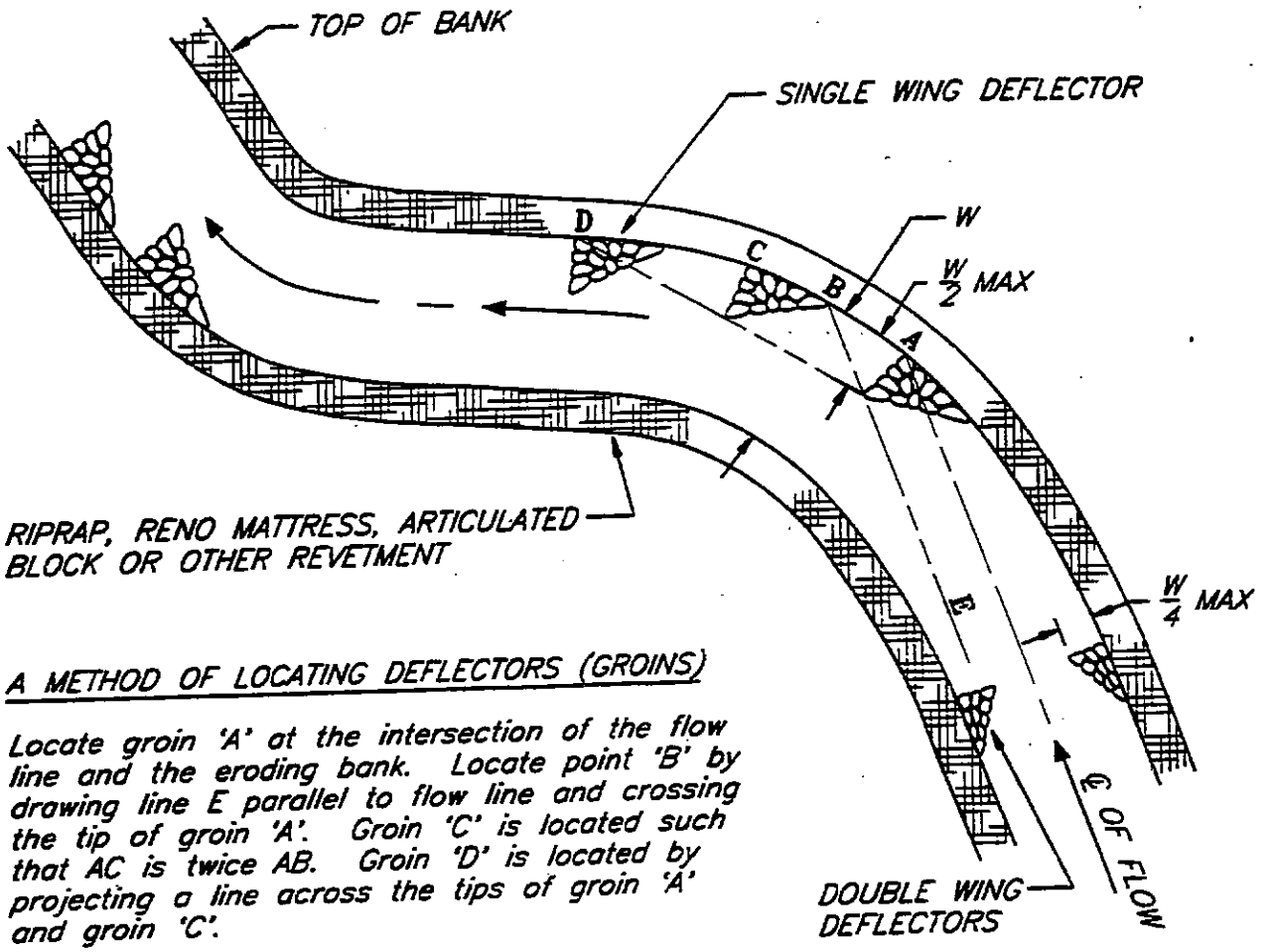
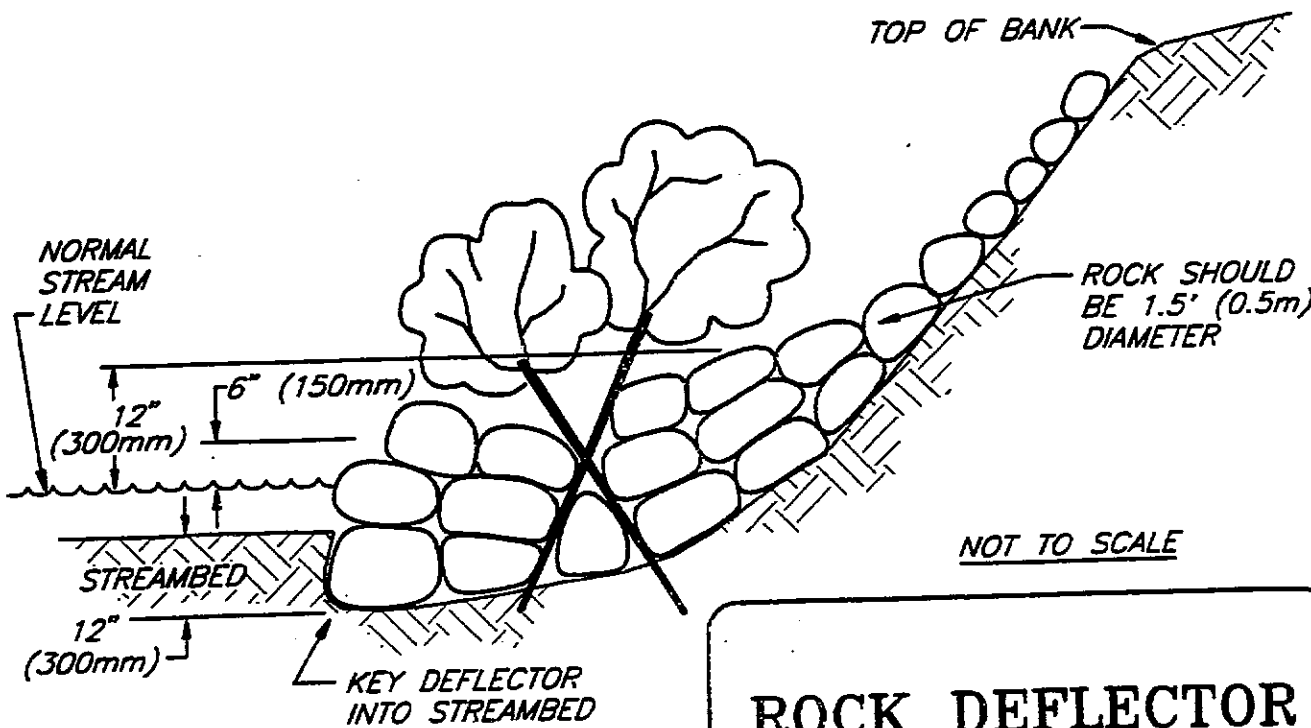


Figure 4-11
Outlet Protection



A METHOD OF LOCATING DEFLECTORS (GROINS)

Locate groin 'A' at the intersection of the flow line and the eroding bank. Locate point 'B' by drawing line E parallel to flow line and crossing the tip of groin 'A'. Groin 'C' is located such that AC is twice AB. Groin 'D' is located by projecting a line across the tips of groin 'A' and groin 'C'.

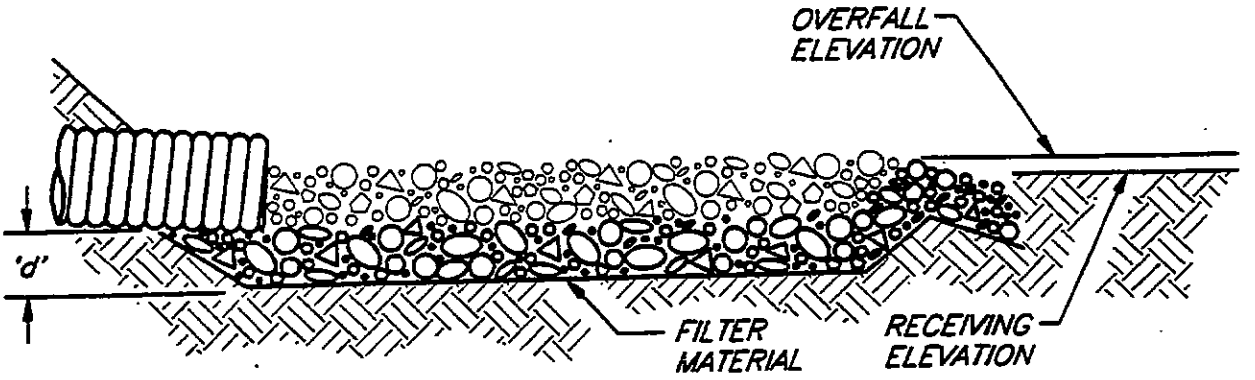


NOT TO SCALE

CROSS SECTION

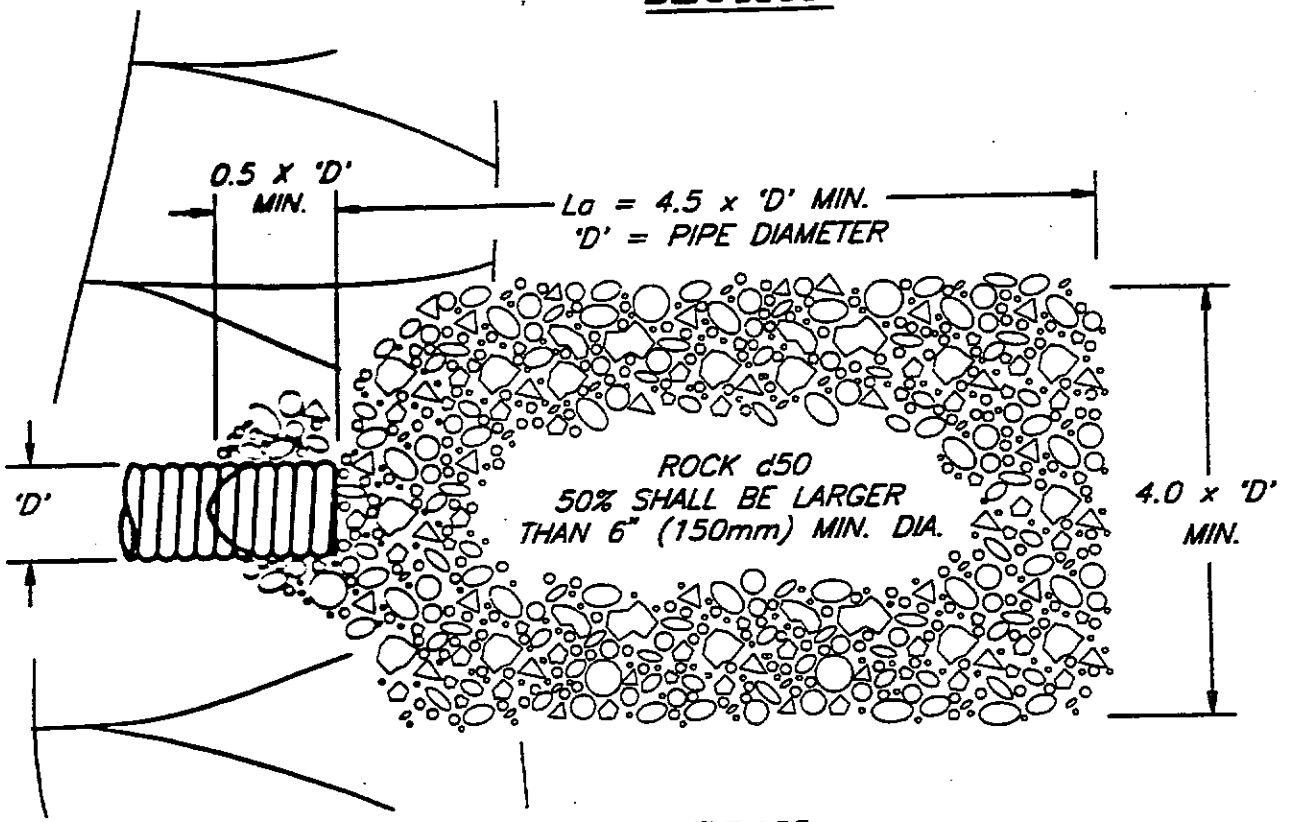
ROCK DEFLECTOR

FILE: ROCKDEFL



THICKNESS ('d') = 1.5 x MAX. ROCK DIAMETER – 6" (150mm) MIN.

SECTION



PLAN

NOTES:

1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

ENERGY DISSIPATOR

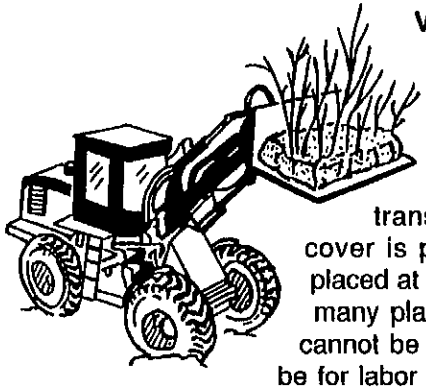
FILE: ENRGYDIS

PLUGS ; SPRIGS

TRANSPLANTING

Transplanting is a revegetation technique that removes a plant, or plants containing roots and shoots from one site to be replanted at another. Transplanting can take several forms generally distinguished by size: vegetation mats, plugs, sprigs and transplants (single plants). All forms require careful selection and handling in order for the transplanting effort to be successful. Refer to *Streambank Revegetation Plant Species Selection List* for plant material suggestions.

Locate a donor site and obtain permission to harvest plants. In cases where plants are going to be destroyed by construction, consider salvaging the plants that would otherwise be lost. The conditions of the donor site need to be relatively similar to those at the transplanting site. The best time to transplant is when plants are dormant. It is essential that the plant materials do not dry out while in transport and after planting. Transplanting efforts can be mechanized.

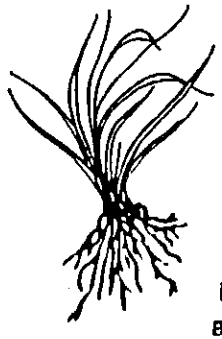


VEGETATIVE MAT

A vegetative mat is the largest transplant. Dimensions of the mats vary from one to several feet square and may contain woody and/or herbaceous vegetation. The greatest benefit of this transplanting technique is that vegetative cover is provided immediately after the mat is placed at the new location. The mats often contain many plant species, especially native plants that cannot be obtained elsewhere. Often, the cost will be for labor and machinery for moving and installing the mat.

Harvest a vegetative mat by cutting the shoots and root/soil mass into a block. The root/soil mass is cut as deeply as possible. The mat is then lifted from the ground by hand or with mechanized equipment and transported to the planting site.

Prepare the planting site by creating a depression in the soil that will accommodate the dimensions of the mat. The sides of the mat should be covered by soil. If the mat is placed directly on the surface with other mats immediately adjacent to each other, make sure that the edges of the mat are not left exposed to the air which would cause damage to the roots. If needed, soil should be placed in the spaces between mats to cover the roots.



PLUGS

Plugs are smaller than vegetative mats an not necessarily, contain only one plant spe can be harvested from a donor community tools and transported easily to the planting site particularly well suited for planting in wetlands, ing grass rolls or being divided into sprigs.

Dig a plug with a shovel. A plug may range fr inches in diameter. It is important to include as many roots and as much soil as possible with each plug.

Plant plugs so that the new soil level matches the soil level of the donor site. If the planting site is dry, the plug should be planted in the center of a small depression that will catch and retain water. The soil around the plug should be pressed firmly into place.

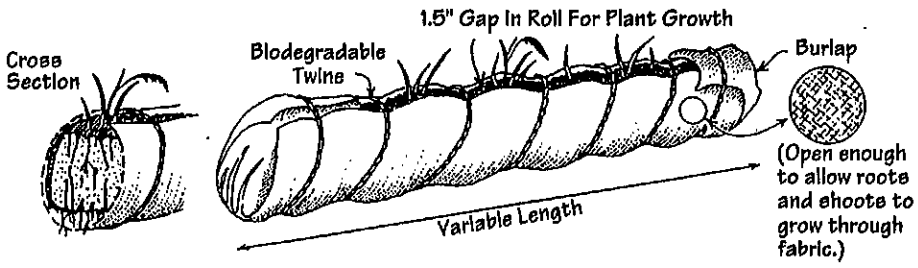
SPRIGS

A sprig is the smallest transplant unit, consisting of a single shoot and roots. Grasses and sedges are often transplanted as sprigs. Species with a rhizomatous (underground stem) growth form are most suited for sprigging. Sprigs are often planted in wetlands or into coir logs.

Prepare a sprig from a small plug that contains one plant species. The plug can be separated into sprigs either at the donor site or the planting site. The important point is to keep the plant material moist, removed from direct sunlight and wind while preparing the sprigs and transporting them to the planting site. Harvest only the number of sprigs that can be planted the same day.

Plant a sprig by sticking a shovel in the ground perpendicularly; push it forward to create a small opening; place the sprig in the opening, remove the shovel and then firm the ground around the sprig. Care should be taken to ensure that the entire root system is covered by soil. A more extensive discussion of the sprigging is found in *Beach Wildrye: Planting Guide for Alaska* (Wright, 1994).

GRASS ROLLS



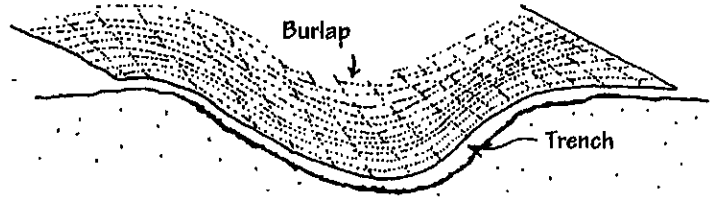
Grass rolls are often used to revegetate shorelines and streambanks where grasses and grass-like plants have been the primary vegetation type and where seeding is impractical due to fluctuating water levels or other site conditions. Clumps of grass sod are placed tightly together, side by side with shoots pointing up, in a sausage like structure and held together with burlap and twine. The roll is then anchored in place. This technique reintroduces herbaceous vegetation to a site while simultaneously providing some structural stability. Ultimately, the sod will form a dense root system along the streambank and provide structural protection to the site. When the grasses die back at the end of each growing season, their leaves hang over the streambank and provide rearing habitat for fish.

Construct a grass roll by laying out a length of burlap; place clumps of sod tightly together in the middle of the burlap. Bluejoint reedgrass, *Calamagrostis canadensis*, is the primary grass used for this technique and should be collected from sites away from streambanks. Beach wildrye, *Leymus mollis*, has also been used for streambank plantings, and although it produces a strong rhizome it does not form the dense sod characteristic of Bluejoint.

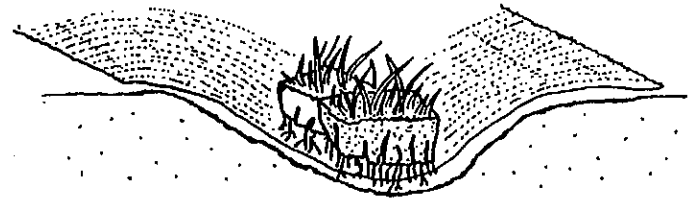
Wrap the sides of the burlap over the sod clumps to make a sausage-like roll. Tie the roll every few inches with twine. Cut holes in the burlap wrap to expose the sod shoots. Try to create the grass roll onsite so that the length of the roll or rolls match the length of the area being planted.

Constructing Grass Rolls

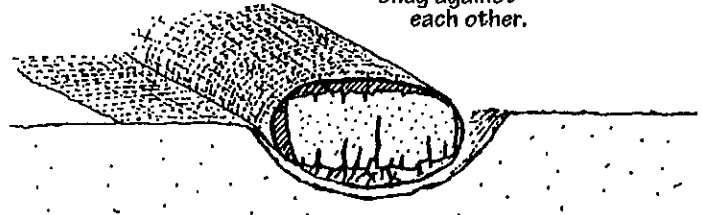
① Line trench with burlap.



② Fill with grass clumps.

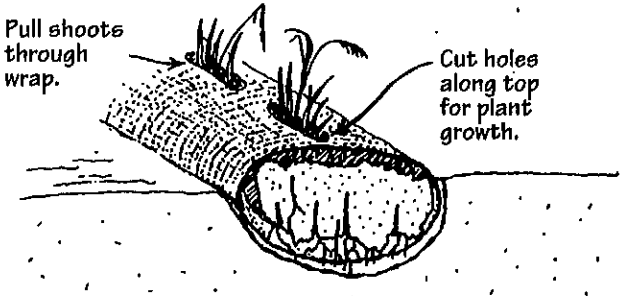


③ Fold burlap over grass clumps so clumps are snug against each other.

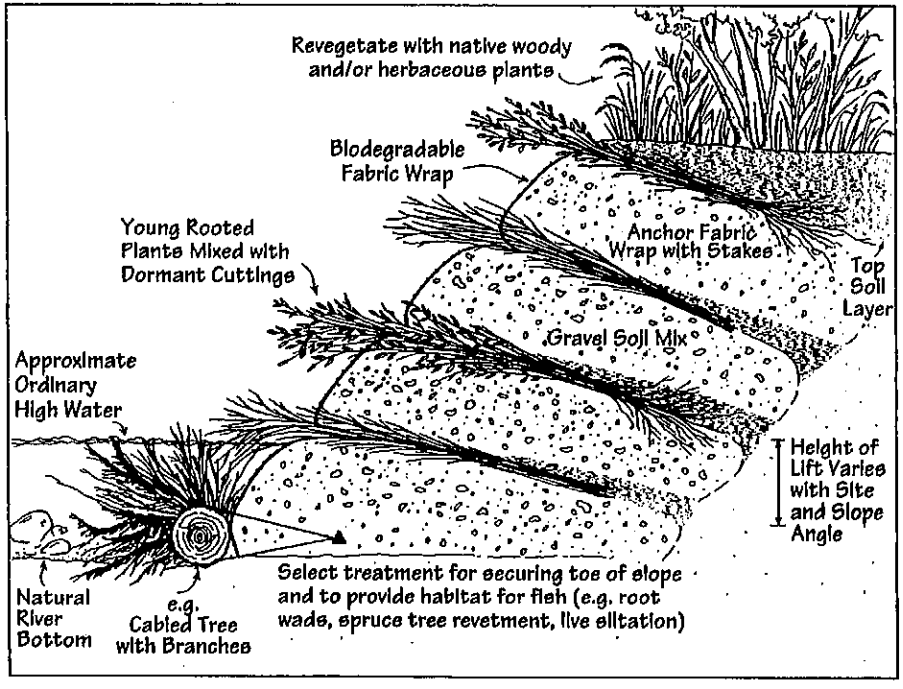


④ Pull shoots through wrap.

Cut holes along top for plant growth.



HEDGE BRUSH LAYERING



Hedge brush layering is a revegetation technique which combines layers of plant material, both dormant cuttings and rooted plants, with soil to revegetate and stabilize a streambank. Greater plant diversity can be provided with a hedge brush layer than with a simple brush layer. Rooted plants of species that do not root readily, such as alder, scouler and bebb willow, can be included in the plant layer. A mixture of species may allow the revegetation project to blend with existing vegetation.

Branches and transplants are placed on horizontal benches that follow the contour of the slope and provide reinforcement to the soil. The transplants will add stability quickly as their roots become anchored. Relatively steep slopes can be stabilized with this technique if a biodegradable revegetation fabric is used to hold the soil in place between the plant layers. The front of the wrapped soil layer can be lightly seeded with grasses to increase soil stability while the woody plants become established. Overhanging branches provide fish habitat.

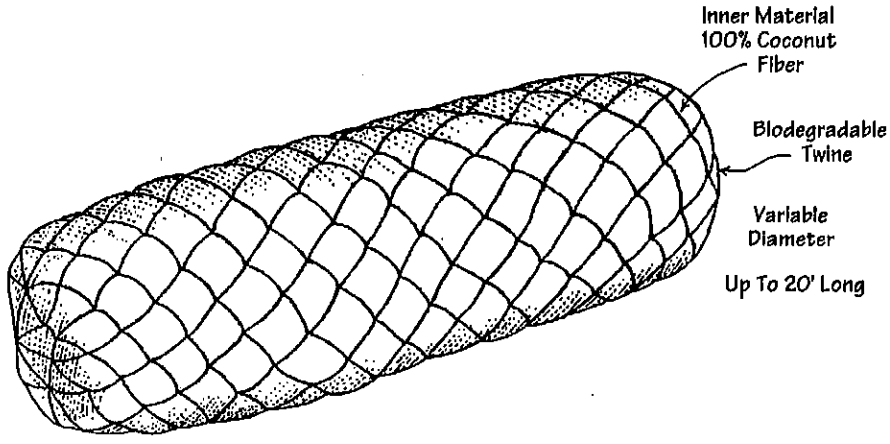
Select plant species suitable for site conditions (see *St Revegetation Plant Species Selection List, Shrubs and Trees*). F results dig transplants in spring or late summer and plant them day. If possible root prune the plants several weeks prior to tra Select plants less than 5 to 6 feet tall and root prune the plant b the shovel into the soil slightly outside of the drip line. Skip e shovel width. After the plant has been dug for transplanting, trim branches to compensate for root loss.

Collection, storage and planting information is described in the *Dormant Cuttings* and *Transplanting* sections. A hedge layer, which uses all rooted plants can be planted throughout the growing season from spring through early fall.

Choose a technique to secure the toe of the slope. Begin layering at the bottom of the slope. Along a water body, the first layer is typically installed at the ordinary high water (OHW) level. Brush layers may be installed below OHW to provide cover and fish habitat. These plants probably will not root and become established.

Excavate the first bench two to three feet deep so that it angles slightly down and into the slope (see *Hedge Brush Layering/Brush Layering, Step by Step*). Lay branches and transplants on the bench, slightly crisscrossing them. Place the cut ends of the branches and the roots of the transplants into the slope with the tips or shoots extending beyond the edge of the bench **no more than ¼ the total branch length**. Plant 20 to 25 stems per yard. Higher density plantings are needed for more erosive sites and if the diameter of the plant material is small. Fill the newly planted bench with 2 to 4 inches of soil and tamp into place. Continue building layers until the desired bank height is reached. The spacing between layers will vary with the erosion potential of the site. Sites with a shallow slope and low erosion potential can have wider spacing than sites with a steep slope and higher erosion potential. This technique can be easily mechanized, layer by layer, if it is installed during construction of a fill slope. On cut slopes and existing banks each layer must be excavated.

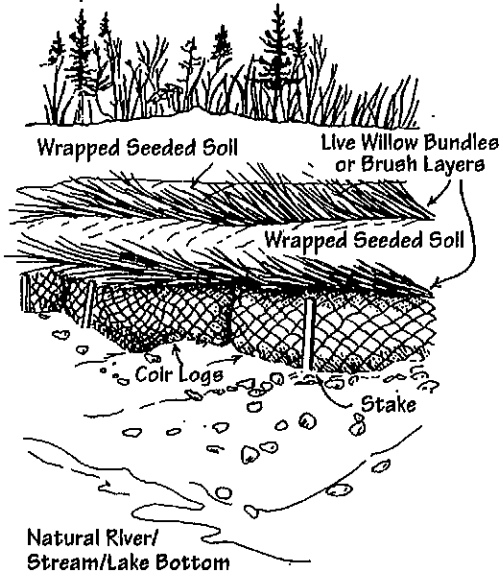
Hedge brush layering is a variation of brush layering (see *Brush Layering*).



Coir logs are constructed of interwoven coconut fibers that are bound together with biodegradable netting. Commercially produced coir logs come in various lengths and diameters. The product needs to be selected specifically for the site. Fiber logs composed of other sturdy biodegradable materials may function equally as well.

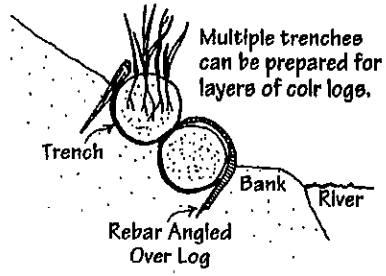
Applications for coir logs occur in many streambank, wetland and upland environments. The log provides temporary physical protection to a site while vegetation becomes established and biological protection takes over. The logs can provide a substrate for plant growth, protect plants growing adjacent to the log, can be used as a transition from one revegetation technique to another, and used to secure the toe of a slope. Both the upstream and downstream ends of the coir log(s) need to transition smoothly into a stable streambank to reduce the potential to wash out.

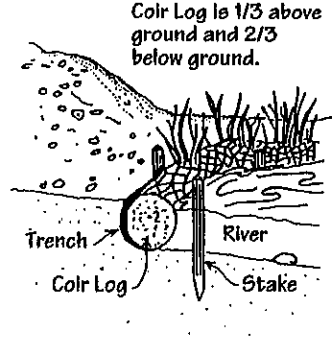
Example 1.



Install the logs to ensure contact with soil along the entire length. In most cases, excavate a shallow trench to partially bury the log. At no time should the coir log span any open space that may occur between rocks, logs or uneven ground. Tie logs together that have been placed end to end and stake into place. Flowing streams, particularly those carrying ice during breakup, could rip the log out of the streambank, if it is not adequately anchored. Wooden stakes, curved rebar and earth anchors have all been used to securely anchor these logs.

Example 2.
Logs biodegrade as plant roots develop.





Sod or **sprig** coir logs when they are placed in locations that will provide adequate moisture for plant growth. Small holes can be created in the surface of the logs and sprigs, or small plugs of suitable plant species can be transplanted into the log (see *Streambank Revegetation Plant Species Selection List, Grasses and Sedges*). These plantings should be fertilized (see *Fertilizer* section).

Partially buried coir log with live siltation immediately behind.