

Multi- Sector General Permit for Storm Water Discharges Associated with Industrial Activity

MODULE 1

INTRODUCTION TO THE MULTI SECTOR GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

The EPA 1990 storm water regulations established National Pollutant Discharge Elimination System (NPDES) permit requirements for industrial storm water discharges.

EPA issued the first Multi-Sector General Permit (MSGP) for those facilities in 1995. The current MSGP went into effect on June 4, 2015.

Federal regulations at 40 CFR 122.26(b)(14)(i)-(xi) require stormwater discharges associated with specific categories of industrial activity to be covered under NPDES permits (unless otherwise excluded).

State of Alaska, Department of Environmental Conservation (DEC) has Primacy for NPDES in Alaska

DEC issued the 2015 Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (2015 MSGP, AKR060000).

MSGP § 1.1 The Alaska Pollutant Discharge Elimination System (APDES) MSGP covers waters of the United States (U.S.) located in the State of Alaska, except the Indian Reservation of Metlakatla and the Denali National Park and Preserve on February 19, 2015

MSGP Eligibility Requirements

- 1.) the facility discharges to a Municipal Separate Storm Sewer System (MS4) or to Waters of the United States.
- 2.) The facility's SIC code falls within one of the sector/subsectors identified in Appendix D of the 2015-MSGP.; and
- 3.) The listed facility or site does not qualify for the "no exposure" exclusion under the federal regulations at 40 CFR 122.26(g).

Waters of the United States (current definition in Alaska)

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - b. (From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c. Which are used or could be used for industrial purposes by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.
8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

29 APDES MSGP REGULATED SECTORS – CHECK THE SIC CODE!

| | |
|------------|---|
| Sector A: | Timber Products |
| Sector B: | Paper and Allied Products |
| Sector C: | Chemical and Allied Products Manufacturing, and Refining |
| Sector D: | Asphalt Paving and Roofing Materials and Lubricant Mfg. |
| Sector E: | Glass, Clay, Cement, Concrete, and Gypsum Products |
| Sector F: | Primary Metals |
| Sector G: | Metal Mining |
| Sector H: | Coal Mines and Coal Mining-Related Facilities |
| Sector I: | Oil and Gas Extraction |
| Sector J: | Non-Metallic Mineral Mining and Dressing |
| Sector K: | Hazardous Waste Treatment, Storage, or Disposal Facilities |
| Sector L: | Landfills, Land Application Sites, and Open Dumps |
| Sector M: | Automobile Salvage Yards |
| Sector N: | Scrap Recycling and Waste Recycling Facilities |
| Sector O: | Steam Electric Generating Facilities |
| Sector P: | Land Transportation and Warehousing |
| Sector Q: | Water Transportation |
| Sector R: | Ship and Boat Building and Repair Yards |
| Sector S: | Air Transportation |
| Sector T: | Treatment Works |
| Sector U: | Food and Kindred Products |
| Sector V: | Textile Mills, Apparel, and Other Fabric Products |
| Sector W: | Furniture and Fixtures |
| Sector X: | Printing and Publishing |
| Sector Y: | Rubber, Misc. Plastic Products, and Misc. Manufacturing |
| Sector Z: | Leather Tanning and Finishing |
| Sector AA: | Fabricated Metal Products |
| Sector AB: | Transportation Equip., Industrial or Commercial Machinery |
| Sector AC: | Electronic and Electrical Equip. and Components, Photographic and Optical Goods |
| Sector AD: | Discharges Designated by the Director as Requiring Permits |

MODULE 2 OBTAINING COVERAGE UNDER THE MSGP

APDES MSGP Coverage may be obtained in one of two ways. The facility either:

- 1.) Qualifies for a No Exposure Certification; or**
- 2.) Must implement the APDES MSGP fully.**

APDES MSGP APPENDIX A §1.2 Duty to Comply

A permittee shall comply with all conditions of the permittee's APDES permit. Any permit noncompliance constitutes a violation of 33 U.S.C 1251-1387 (Clean Water Act) and state law and is grounds for enforcement action including termination, revocation and reissuance, or modification of a permit, or denial of a permit renewal application. A permittee shall comply with effluent standards or prohibitions established under 33 U.S.C. 1317(a) for toxic pollutants within the time provided in the regulations that establish those effluent standards or prohibitions even if the permit has not yet been modified to incorporate the requirement.

NO EXPOSURE CERTIFICATION

If the permittee is covered by this permit and becomes eligible for a no exposure exclusion from permitting under 40 CFR 122.26(g), the permittee may file a No Exposure Certification.

A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to:

- 1.) material handling equipment or activities;
- 2.) industrial machinery;
- 3.) raw materials, and
- 4.) intermediate products, by-products, final products, or waste products.

STORM RESISTANT SHELTERS

The Term "Storm-Resistant Shelter" includes completely roofed and walled buildings or structures.

Storm-resistant shelters also include structures with only a top cover supported by permanent supports, but with no side coverings, provided material within the structure is not subject to wind dispersion (sawdust, powders, etc.), or track-out, and there is no storm water discharged from within the structure that comes into contact with any materials."

A storm-resistant shelter is not required for the following industrial materials and activities:

- 1.) drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak;

- 2.) Adequately maintained vehicles used in material handling; and
- 3.) Final products, other than products that would be mobilized in storm water discharges (e.g., rock salt).

LIMITATIONS AND CONDITIONS OF THE NO EXPOSURE CERTIFICATION

The No Exposure Certification for Exclusion applies to an entire facility and not individual outfalls or areas located within the facility covered under a single permit

Facilities which have multiple industrial sectors covered under one permit cannot use the No Exposure Certification form to remove those individual sectors from permit coverage.

The No Exposure Certification for Exclusion applies to an entire facility and not individual outfalls or areas located within the facility covered under a single permit.

The permittee must submit a No Exposure Certification to DEC once every five years from the initial date of filing.

OBTAINING COVERAGE UNDER THE MSGP

- 1) Develop the MSGP SWPPP for your facility (MSGP 5.2);
- 2) Select, design, install and implement Non-Numeric Technology Based Effluent Limits;
 - a) All facilities must provide controls in Section 4.2 of MSGP; and
 - b) Sector specific controls are provided in Section 11 of the MSGP.
- 3) Submit Notice of Intent to the Alaska Department of Environmental Conservation (MSGP 2.2);
 - a) Authorization to discharge begins 7 days following NOI submission.
- 5) Pay permit authorization fee.
 - a) Initial permit authorization fee is paid with NOI; and
 - b) The permit authorization fee (\$735) is paid annually.

MODULE 3 STORM WATER POLLUTION PREVENTION PLAN

APDES MSGP § 5.0

The Permittee **MUST** prepare the Facility SWPPP Prior to submission of the NOI

The MSGP SWPPP Template Should be used by all permittees

- 1) Ensures that the SWPPP meets APDES MSGP Requirements;
- 2) Ensures that compliance personnel are familiar with your SWPPP prior to inspection (DEC inspectors are trained to be intimately familiar with the template!)

Getting Started

The Template is designed for use by all facilities eligible for coverage under the 2015 MSGP. The Template is NOT tailored to your individual industrial sector. Depending on which industrial sector you fall under (see Appendix D of the 2015 MSGP), you will need to address additional SWPPP requirements outlined in Part 11 of the 2015 MSGP, respectively.

Each section includes “instructions” and space for your facility’s specific information. You should read the instructions for each section before you complete that section.

The Template was developed in Microsoft Word so that you can easily add tables and additional text. Some sections may require only a brief description while others may require several pages of explanation.

To make it easier to complete, the Template generally uses blue text where the operator is expected to enter information.

Describe the Industrial Activities and Associated Pollutants

- Material storage;
- Fueling and equipment maintenance;
- Processing areas and infrastructure;
- Intermediate products;
- Final products; and
- Wastes.

Describe Authorized Non-Storm Water Discharges:

Non-storm water discharges not authorized by an APDES permit must be eliminated!

The presence or absence of unauthorized non-storm water discharges must be verified by inspection!

The following non-storm water discharges are authorized by the MSGP

- Discharges from fire-fighting activities;
- Fire hydrant flushings;
- Potable water, including water line flushings;

- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- Pavement wash waters where no detergents or hazardous cleaning products are used;
- Wheel wash water that does not use detergents;
- Routine external building wash down / power wash water that does not use detergents or hazardous cleaning products;
- Uncontaminated ground water or spring water;
- Foundation or footing drains where flows are not contaminated with process materials;
- Incidental windblown mist from cooling towers; and
- Discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage (applicable only to Sector A facilities).

Describe Required Non-Numeric Technology-Based Effluent Limits

Two types of control measures required by the permit:

- General controls that apply to all facilities (MSGP 4.2); and
- Sector Specific controls that apply only to specific sectors (MSGP 11).

General Controls Required at all facilities

- Minimize Exposure;
- Good Housekeeping;
- Maintenance;
- Spill Prevention and Response Procedure;
- Erosion and Sediment Controls;
- Management of Runoff;
- Salt Storage Piles or Piles Containing Salt;
- Employee Training;
- Non-Storm Water Discharges;
- Waste, Garbage, Floatable debris; and
- Dust Generation and Vehicle Track-Out

MSGP Water Quality Monitoring

Types of Monitoring

- Quarterly Visual Assessment (MSGP 6.2)
- Bench Mark Monitoring (MSGP 7.2.1)
- Annual Effluent Guideline Monitoring (MSGP 7.2.2)
- Impaired Water Monitoring (MSGP 7.2.3)

Quarterly Visual Assessment

The visual assessment of Storm Water must be made for each outfall:

- Sample must collected in a clean, clear glass, or plastic container, and examined in a well-lit area;

- On samples collected within the first 30 minutes of an actual discharge from a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and the permittee must document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the permittee's site; and
- For storm events, on discharges that occur at least 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if the permittee documents that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period.

Visual Assessment Documentation

- Sample location(s);
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the storm water discharge;
- Probable sources of any observed storm water contamination, and
- If applicable, why it was not possible to take samples within the first 30 minutes.

Quarterly Visual Assessment Documentation must be signed and certified in accordance with the permit.

MSGP Bench Mark Monitoring

THE MSGP stipulates pollutant benchmark concentrations that may be applicable to certain sectors / subsectors.

Benchmark monitoring data are primarily for the permittee's use to determine the overall effectiveness of the permittee's control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations in MSGP Part 4.

The benchmark concentrations are not effluent limitations!

A benchmark exceedance, therefore, is not a permit violation.

However, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

At the permittee's discretion, more than four samples may be taken during separate runoff events and used to determine the average benchmark parameter concentration for facility discharges.

These extra samples may be taken in any quarter of the permittee's choice.

Annual Effluent Guideline Monitoring

Sectors Requiring Monitoring for Effluent Limits Based on Effluent Limitations Guidelines

| <i>Regulated Activity</i> | | <i>Monitoring Frequency</i> | <i>Sample Type</i> |
|---------------------------|---|-----------------------------|--------------------|
| Sector A | Wetted log decks | 1/year | Grab |
| Sector C | Phosphate fertilizers | 1/year | Grab |
| Sector D | Asphalt emulsion facilities | 1/year | Grab |
| Sector E | Storage piles at cement facilities | 1/year | Grab |
| Sector J | Mine dewatering discharges | 1/year | Grab |
| Sector K | Runoff from hazardous waste landfills | 1/year | Grab |
| Sector L | Runoff from landfills | 1/year | Grab |
| Sector O | Coal storage piles | 1/year | Grab |
| Sector S | Airports with 1,000 or more annual jet departures that discharge wastewater associated with airfield pavement deicing that contains urea commingled with storm water. | 1/year | Grab |

MSGP Impaired Water Body Monitoring

ALL Discharges to a Section 303(d) Listed Water body must be monitored

If a permittee discharges to an impaired water, the permittee must monitor for all pollutants for which the waterbody is impaired and for which a standard analytical method exists.

MSGP Inspections

All Facilities are required to perform inspections!

Three types of Inspections are required by the MSGP:

- Routine Inspections (MSGP 6.1);
- Comprehensive Inspections (MSGP 6.3); and
- Sectors Requiring Additional Inspections.

Inspections must be performed by qualified personnel:

Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at your facility, and who can also evaluate the effectiveness of control measures.

Inspection Schedule

- Routine Inspections - monthly or quarterly(MSGP 6.1.1)
- Comprehensive Inspections – annually (MSGP 6.3.1)
- Sectors Requiring Additional Inspections
 - Daily;
 - Every 7 calendar days;
 - Once every 14 days and after a storm event resulting in discharge from the site; and/or
 - Monthly.

What Must Be Inspected during Routine Facility Inspections?

- Areas where industrial materials or activities are exposed to storm water;
- Areas identified in the SWPPP and those that are potential pollutant sources;
- Areas where spills and leaks have occurred in the past 3 years;
- Discharge points; and
- Control measures used to comply with the effluent limits contained in this permit.

What Must Be Inspected during Comprehensive Facility Inspections?

- 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, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas;
- Control measures needing replacement, maintenance, or repair;
- Storm water control measures required by this permit must be observed to ensure that they are functioning correctly. If discharge locations are inaccessible, nearby downstream locations must be inspected; and
- Review of Visual Quarterly Assessment Data for the year.

What Documentation Must be Completed?

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- All observations relating to the implementation of control measures at the facility, including:
 - A description of any discharges occurring at the time of the inspection;
 - Any previously unidentified discharges of pollutants from the site;
 - Any evidence of, or the potential for, pollutants entering the drainage system;
- Observations regarding the physical condition of and around all outfalls including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;
- Any control measures needing maintenance, repairs; or replacement;
- Any additional control measures needed to comply with the permit requirements; and
- Any incidents of noncompliance observed.

Exceptions to Inspection: Inactive and Unstaffed Sites

The requirement to conduct routine facility inspections on a quarterly basis does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water.

MSGP Corrective Actions

Corrective action is required when:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this or another APDES permit) occurs at the permittee's facility;
- A discharge violates a numeric effluent limit;
- The permittee becomes aware, or DEC determines, that the permittee's control measures are not stringent enough for the discharge to meet a WQS in the receiving water;
- An inspection or evaluation of the permittee's facility by an DEC or EPA official determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit; or
- The permittee finds in their routine facility inspection, quarterly visual assessment, or comprehensive site inspection that their control measures are not being properly operated and maintained.

As part of any corrective action, the permittee must review the selection, design, installation, and implementation of their control measures to determine if:

- Construction or a change in design, operation, or maintenance at a permittee's facility significantly changes the nature of pollutants discharged in storm water from their facility, or significantly increases the quantity of pollutants discharged; or
- The average of four quarterly sampling results exceeds an applicable benchmark.

If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedance, triggering this review.

MSGP Annual Report

A permittee must submit an annual report to DEC that includes:

- The findings from facility comprehensive inspections;
- Corrective actions performed at the facility;
- The status of any uncompleted corrective actions;
- Facility name;
 - APDES Tracking Number;
 - Facility physical address; and
 - Contact person name, title, and phone number.

MSGP Recordkeeping

For a period of at least 3 years from the date that the permittee's coverage under this permit expires or is terminated:

A permittee must retain copies of their SWPPP (including any modifications made during the term of this permit), additional documentation requirements pursuant to MSGP Part 5.8 (including documentation related to corrective actions taken pursuant to MSGP Part 5), all reports and certifications required by this permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit.

Terminating Coverage

A permittee must submit a notice of termination (NOT) within 30 calendar days after one or more of the following conditions have been met:

- 1) A new owner or operator has taken over responsibility for the facility;
- 2) The permittee has ceased operations at the facility, there are not or no longer will be discharges of storm water associated with industrial activity from the facility, and has already implemented necessary sediment and erosion controls as required by MSGP 4.2.5;
- 3) The permittee is a Sector G, H, or J facility and has met the applicable termination requirements; or
- 4) The permittee has obtained coverage under an individual or alternative general permit for all discharges required to be covered by an APDES permit, unless DEC has required that they obtain such coverage under authority of MSGP 2.8.1, in which case coverage under this permit will terminate automatically.



MODULE 4

MSGP MINING SECTORS G, H, & J

Definitions – Mining Operations

Mining Operations - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

Active Phase - Activities including the extraction, removal or recovery of minerals. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun.

Reclamation Phase - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the “active phase”, intended to return the land to an appropriate post-mining land use. The reclamation phase is considered part of "mining operations".

Definitions - Non-Mining Activities

Exploration Phase - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of “mining operations.”

Construction Phase - Includes the building of site access roads, facilities, and removal of overburden and waste rock to expose mineable minerals. The construction phase is not considered part of “mining operations”.

ADDITIONAL TECHNOLOGY-BASED EFFLUENT LIMITS SECTORS G, H, & J (MINING OPERATIONS)

Dewatering [MSGP 11.(G, H, J).4.3]

If a construction activity includes excavation dewatering and has a discharge that could adversely impact a local drinking water well, an DEC-identified contaminated site, or a waters of the U.S., the permittee must review the DEC Excavation Dewatering General Permit (AKG002000, or most current version) for specific requirements the permittee may have to comply with in addition to the conditions of this permit.

A discharge from eligible dewatering activities, including discharges from dewatering of trenches and excavations are prohibited unless treated by appropriate control measures. Appropriate control measures include, but are not limited to, sediment basins or traps, dewatering tanks, weir tanks, or filtration systems designed to remove sediment.

Soil Stabilization [MSGP 11.(G, H, J).4.4]

A permittee must stabilize all disturbed areas of the site to minimize on-site erosion and sedimentation and the resulting discharge of pollutants according to the requirements of this Part. A permittee must ensure that existing vegetation is preserved wherever possible and that disturbed portions of the site are stabilized.

Treatment Chemicals [MSGP 11.(G, H, J).4.5]

Documentation of treatment chemicals selected for use at a site must include the information outlined in MSGP 11.(G, H, J).4.5.1.

A permittee must train employees who handle treatment chemicals to comply with the information required

A permittee must handle, store and dispose of treatment chemicals, waste chemicals, or flocculants in appropriate leak proof containers under a storm resistant cover or surrounded by secondary containment structures so as to prevent their discharge to the waters of the U.S.

Treatment chemicals are typically developed, tested, and approved in regions of the country that may have soils, soil and water temperatures, and other site conditions significantly different from Alaska. These differences must be considered in the selection of the treatment chemicals for use at the Alaskan site.

The application of treatment chemicals shall be in combination with appropriate physical control measures to ensure effectiveness of the treatment chemical.

Prohibited Discharges

Wastewater from concrete washout, unless managed by an appropriate control measure;

Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
Soaps or solvents used in vehicle and equipment washing.

Good Housekeeping Measures [MSGP 11.(G, H, J).4.7]

A permittee must design, install, implement, and maintain effective good housekeeping measures to prevent and/or minimize the discharge of pollutants.

A permittee must include appropriate measures for any of the following activities that are used at the site:

- Washing of equipment and vehicles and wheel wash-down; and
- Fueling and maintenance areas.

Staging and Material Storage Areas [MSGP 11.(G, H, J).4.8]

If a permittee maintains staging and material storage areas at the site the permittee must comply with the following requirements:

- Designate areas to be used for staging and material storage areas;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S; and
- Minimize the exposure to precipitation and storm water and vandalism for all chemicals, treatment chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment.

If a permittee conducts washing of applicators and/or containers used for paint, concrete, and other materials at the site, the permittee must comply with the following requirements:

- Designate areas to be used for washout;
- Locate such activities, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Direct all concrete, paint, and other material washout activities into a lined, watertight container or pit to ensure there is no discharge into the underlying soil and onto the surrounding areas;
- Dispose of liquid wastes in accordance with Part 11.(G, H, J).4.11; and
- For concrete washout areas, remove hardened concrete waste when it has reached one-half (½) the height of the container or pit and dispose of in accordance with Part 11.(G, H, J).4.11.

Fertilizer or Pesticide Use

If a permittee uses fertilizers or pesticides the permittee must comply with the following requirements:

- Application of fertilizers and pesticides in a manner and at application rates that will minimize the loss of chemical to storm water runoff. Manufacturers' label requirements for application rates and disposal requirements must be followed; and
- Use pesticides in compliance with federal, state and local requirements.

Storage, Handling, and Disposal of Construction Waste

If a permittee stores, handles and/or disposes of construction waste at the site, the permittee must comply with the following requirements:

- Locate areas dedicated for management or disposal of construction waste, to the extent practicable, away from storm water conveyance channels, storm drain inlets, and waters of the U.S.;
- Dispose of all collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other domestic wastes according to federal, state and local requirements;
- Store hazardous or toxic waste in appropriate sealed containers and dispose of these wastes in accordance with manufactures recommended method of disposal or federal, state or local requirements; and
- Provide containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the storm water drainage system or receiving water. Clean or replace sanitation facilities and inspect them regularly for leaks and spills.

Winter Considerations

A permittee who temporarily ceases construction for the winter and plans to resume construction the next summer must plan for winter shutdown.

Permit coverage is not required for the construction of ice roads or the placement of sand or gravel on frozen tundra with no excavation or potential to pollute waters of the U.S. This permit does address those construction activities that have the potential for erosion or sediment runoff during spring thaw and summer rainfall.

Cutting of trees and brush while the ground is frozen, without disturbing the vegetative mat, for the purpose of clearing in accordance with the U.S. Fish & Wildlife Service “Recommended Time Periods for Avoiding Vegetation Clearing” is allowed prior to the submittal of a project NOI.

Maintaining Control Measures

A permittee must maintain all control measures, good housekeeping measures, and other protective measures in effective operating condition.

If existing control measures need to be modified or if additional control measures are necessary for any reason, the permittee must complete any corrective action.

A permittee must remove sediment from silt fences, check dams, berms or other controls before the accumulated sediment reaches one-half ($\frac{1}{2}$) the distance up the above-ground height (or it reaches a lower height based on manufacturer’s specifications) of the control measure. For sediment traps or sediment ponds, the permittee must remove accumulated sediment when the design capacity has been reduced by fifty (50%) percent.

Site Stabilization

Stabilization measures should be initiated immediately in portions of the site where mining, exploration, and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased.

Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area, or until the commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining.

Until temporary vegetative stabilization is achieved, interim measures (e.g., surface roughening or a surface cover, including but not limited to, establishment of ground vegetation, application of mulch, or surface tackifiers with an appropriate seed base) must be employed.

Final Stabilization

Until final stabilization is achieved, temporary stabilization measures must be used.

Final vegetative stabilization measures must be initiated as soon as possible.

Training [MSGP 11.(G, H, J).5.1]

Conduct employee training at least annually.

Good Housekeeping Measures [MSGP 11.(G, H, J).5.2]

Use sweepers and covered storage;

Watering haul roads to minimize dust generation; and

Conserving vegetation (where possible) to minimize erosion.

Preventative Maintenance [MSGP 11.(G, H, J).5.3]

Inspect storage tanks and pressure lines of fuels, lubricants, hydraulic fluid, and slurry to prevent leaks due to deterioration or faulty connections.

Storm Water Controls

Storm Water Diversions [MSGP 11. (G, H, J).5.4.1]

Divert storm water away from potential pollutant sources!

Velocity Dissipation Devices [MSGP 11. (G, H, J).5.4.2]

Placed along the length of any conveyance channel to provide a non-erosive flow velocity; and

Placed at the outfalls of all channels and conveyances.

Capping [MSGP 11.(G, H, J).5.4.5]

If capping is required, identify the source being capped and the material used to construct the cap.

Overburden, Waste Rock, and Raw Material Piles Overburden

Stockpiles of topsoil, and waste rock, as well as raw material and intermediate and final product stockpiles, shall be located a minimum of 25 feet away from:

- Waters of the United States;
- Wetlands;
- Conveyances and other water features; and
- Outside of geologically unstable areas (if possible).

Inspections

Inspections Non Mining Phase Activities

Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a measurable storm event.

A storm event is 0.5 inches of rain in 24 hours

For each inspection required above, the permittee must complete an inspection report.

If the exploration and construction phase is undergoing winter shutdown the permittee may stop inspections fourteen (14) calendar days after the anticipated fall freeze-up and must resume inspections at least twenty-one (21) calendar days prior to the anticipated spring thaw.

Inspections Operation Phase (mining and reclamation)

Quarterly (at a minimum)

Inactive/unstaffed exemption applies

MONITORING

Quarterly Visual Assessment

The visual assessment of Storm Water must be made for each outfall:

- Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;

- On samples collected within the first 30 minutes of an actual discharge from a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and the permittee must document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the permittee's site; and
- For storm events, on discharges that occur at least 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if the permittee documents that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period.

Water Quality Characteristics

- Color;
- Odor;
- Clarity (diminished);
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;
- Oil sheen; and
- Other obvious indicators of storm water pollution.

Quarterly Visual Assessment

Visual Assessment Documentation

Sample location(s)

Sample collection date and time, and visual assessment date and time for each sample;

Personnel collecting the sample and performing visual assessment, and their signatures;

Nature of the discharge (i.e., runoff or snowmelt);

Results of observations of the storm water discharge;

Probable sources of any observed storm water contamination, and

If applicable, why it was not possible to take samples within the first 30 minutes.

Quarterly Visual Assessment Documentation must be signed and certified in accordance with the permit.

Bench Mark Monitoring

This MSGP stipulates pollutant benchmark concentrations that may be applicable to certain sectors / subsectors. Benchmark monitoring data are primarily for the permittee's use to determine the overall effectiveness of the permittee's control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations in MSGP Part 4.

The benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation. However, if corrective action is required as a result of a benchmark exceedance, failure to conduct required corrective action is a permit violation.

At the permittee's discretion, more than four samples may be taken during separate runoff events and used to determine the average benchmark parameter concentration for facility discharges.

These extra samples may be taken in any quarter of the permittee's choice.

SECTOR G - METAL MINING BENCHMARK PARAMETERS

| Supplemental Requirements | | | |
|-----------------------------------|------------------------------|----|--|
| Type of Ore Mined | Pollutants of Concern | | |
| | Total Suspended Solids (TSS) | pH | Metals, Total |
| Tungsten Ore | X | X | Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H) |
| Nickel Ore | X | X | Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H) |
| Aluminum Ore | X | X | Iron |
| Mercury Ore | X | X | Nickel (H) |
| Iron Ore | X | X | Iron (Dissolved) |
| Platinum Ore | | | Cadmium (H), Copper (H), Mercury, Lead (H), Zinc (H) |
| Titanium Ore | X | X | Iron, Nickel (H), Zinc (H) |
| Vanadium Ore | X | X | Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H) |
| Molybdenum | X | X | Arsenic, Cadmium (H), Copper (H), Lead (H), Mercury, Zinc (H) |
| Uranium, Radium, and Vanadium Ore | X | X | Chemical Oxygen Demand, Arsenic, Radium (Dissolved and Total), Uranium, Zinc (H) |

Note: An "X" indicated for TSS and/or pH means that permittees are required to monitor for those parameters. (H) indicates that hardness must also be measured when this pollutant is measured.

SECTOR H – COAL MINING BENCHMARK PARAMETERS

| Subsector (Permittees may be subject to requirements for more than one sector/subsector) | Parameter | Benchmark Monitoring Concentration |
|---|------------------------------|------------------------------------|
| Subsector H1. Coal Mines and Related Areas (SIC 1221-1241) | Total Aluminum | 0.75 mg/L |
| | Total Iron | 1.0 mg/L |
| | Total Suspended Solids (TSS) | 100 mg/L |

SECTOR J – NON METALLIC MINERAL MINING AND DRESSING BENCHMARK PARAMETERS

| Subsector (Permittees may be subject to requirements for more than one sector/subsector) | Parameter | Benchmark Monitoring Concentration |
|---|-------------------------------|------------------------------------|
| Subsector J1. Sand and Gravel Mining (SIC 1442, 1446) | Nitrate plus Nitrite Nitrogen | 0.68 mg/L |
| | Total Suspended Solids (TSS) | 100 mg/L |
| Subsector J2. Dimension and Crushed Stone and Nonmetallic Minerals (except fuels) (SIC 1411, 1422-1429, 1481, 1499) | Total Suspended Solids (TSS) | 100 mg/L |

MSGP Water Quality Monitoring

All monitoring data collected must be submitted to DEC no later than 30 days (email date or postmark date) after the permittee has received the complete laboratory results for all monitored outfalls for the reporting period.

**DEC requires the use of the MSGP discharge monitoring report (MDMR) available at:
<http://www.dec.alaska.gov>**



MODULE 5 MSGP TRANSPORTATION SECTORS P, R, & S

Sector P – Land Transportation Additional Technology-Based Effluent Limits

Vehicle and Equipment Storage Areas

Minimize the potential for storm water exposure to leaky or leak-prone vehicles/ equipment awaiting maintenance.

Implement the following (or other equivalent measures), as practicable:

- use of drip pans under vehicles/equipment;
- indoor storage of vehicles and equipment;
- installation of berms or dikes;
- use of absorbents, roofing or covering storage areas; and
- cleaning pavement surfaces to remove oil and grease.

Fueling Areas

Minimize contamination of storm water runoff from fueling areas.

Implement the following (or other equivalent measures), as practicable:

Covering the fueling area;

- using spill/overflow protection and cleanup equipment;
- minimizing storm water run-on/runoff to the fueling area;
- using dry cleanup methods; and
- treating and/or recycling collected storm water runoff.

Material Storage Areas

Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of storm water and plainly label them (e.g., “Used Oil,” “Spent Solvents,” etc.).

Implement the following or other equivalent measures, as practicable:

- storing the materials indoors;
- installing berms/dikes around the areas;
- minimizing runoff of storm water to the areas;
- using dry cleanup methods; and
- treating and/or recycling collected storm water runoff.

Vehicle and Equipment Cleaning Areas

Minimize contamination of storm water runoff from all areas used for vehicle/equipment cleaning.

Implement the following or other equivalent measures, as practicable:

- performing all cleaning operations indoors;
- covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the storm water drainage system);

- treating and/or recycling collected washwater, or
- other equivalent measures.

Vehicle and Equipment Maintenance Areas

Minimize contamination of storm water runoff from all areas used for vehicle/equipment maintenance.

Implement the following (or other equivalent measures), as practicable:

- performing maintenance activities indoors;
- using drip pans;

Locomotive Sanding (Loading Sand for Traction) Areas

Implement the following or other equivalent measures, as practicable:

- covering sanding areas;
- minimizing storm water run on/runoff; or
- appropriate sediment removal practices to minimize the offsite transport of sanding material by storm water.

Additional Technology-Based Effluent Limits

Train personnel at least once a year and address the following activities, as applicable:

- used oil and spent solvent management;
- fueling procedures;
- general good housekeeping practices;
- proper painting procedures; and
- used battery management.

Sector Q – Water Transportation Additional Technology-Based Effluent Limits

Pressure Washing Area

If pressure washing is used to remove marine growth from vessels, the discharge water must be permitted by a separate APDES permit.

Collect or contain the discharges from the pressure washing areas so that they are not co-mingled with storm water discharges authorized by this permit.

Blasting and Painting Area

Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems.

Contain all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris).

When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips.

Material Storage Areas

Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains.

Minimize the contamination of precipitation or surface runoff from the storage areas.

Specify which materials are stored indoors, and consider containment or enclosure for those stored outdoors.

If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Implement an inventory control plan to limit the presence of potentially hazardous materials on site.

Engine Maintenance and Repair Areas

Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair.

- Implement the following or their equivalents:
- performing all maintenance activities indoors,
- Maintain an organized inventory of materials used in the shop;
- drain all parts of fluid prior to disposal;
- prohibit the practice of hosing down the shop floor;
- use dry cleanup methods; and
- treating and/or recycling storm water runoff collected from the maintenance area.

Material Handling Area

Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels).

Implement the following or their equivalents:

- covering fueling areas, using spill and overflow protection;
- mixing paints and solvents in a designated area (preferably indoors or under a shed); and
- minimizing runoff of storm water to material handling areas.

Drydock Activities

Routinely maintain and clean the drydock to minimize pollutants in storm water runoff.

Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock.

Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock.

Implement the following or their equivalents:

- sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding; and

- making absorbent materials and oil containment booms readily available to clean up or contain any spills.

Divert storm water away from potential pollutant sources.

Implement the following options, as practicable:

interceptor or diversion controls (e.g., dikes, swales, curbs, or berms);

- pipe slope drains;
- subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars);
- rolling dips and road sloping;
- roadway surface water deflector and culverts); or
- their equivalents.

Place velocity dissipation devices(e.g., check dams, sediment traps, or riprap), as practicable, along the length of any conveyance channel to provide a non-erosive flow velocity.

Place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters .

Training

As part of the employee training program, address, at a minimum, the following activities (as required):

- used oil management;
- spent solvent management;
- disposal of spent abrasives;
- disposal of vessel wastewaters;
- spill prevention and control;
- fueling procedures;
- general good housekeeping practices;
- painting and blasting procedures; and
- used battery management.

Preventative Maintenance

As part of the preventive maintenance program, perform timely inspection and maintenance of storm water management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

Sector S – Air Transportation Additional Technology-Based Effluent Limits

Aircraft, Ground Vehicle and Equipment Maintenance Areas

Minimize the contamination of storm water runoff from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangers).

Implement the following practices or their equivalents:

- performing maintenance activities indoors;
- maintaining an organized inventory of material used in the maintenance areas;
- draining all parts of fluids prior to disposal;
- prohibiting the practice of hosing down the apron or hanger floor;
- using dry cleanup methods; and
- collecting the storm water runoff from the maintenance area and providing treatment or recycling.

Aircraft, Ground Vehicle, and Equipment Cleaning Areas

Clearly demarcate these areas on the ground using signage or other appropriate means.

Minimize the contamination of storm water runoff from cleaning areas.

Aircraft, Ground Vehicle and Equipment Storage Areas

Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and minimize the contamination of storm water runoff from these storage areas.

Implement the following control measures or their equivalents:

- store aircraft and ground vehicles indoors;
- use drip pans for the collection of fluid leaks; and
- perimeter drains, dikes or berms surrounding the storage areas

Material Storage Areas

Maintain the vessels of stored materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) in good condition, to prevent or minimize contamination of storm water.

Plainly label the storage vessels (e.g., “used oil,” “Contaminated Jet A,” etc.).

Minimize contamination of precipitation/runoff from these areas. Implement the following control measures or their equivalents:

- store materials indoors;
- store waste materials in a centralized location; and
- install berms/dikes around storage areas.

Airport Fuel System and Fueling Areas

Minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system.

Implement the following control measures or their equivalents:

- implement spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations);
- use only dry cleanup methods; and
- collect storm water runoff.

Source Reduction

Minimize and where feasible, eliminate the use of urea and glycol-based deicing chemicals, to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact.

Chemical options to replace ethylene glycol, propylene glycol, and urea include:

- potassium acetate;
- magnesium acetate;
- calcium acetate; and
- anhydrous sodium acetate.

Additional Technology-Based Effluent Limits

Runway Deicing Operations

Minimize contamination of storm water runoff from runways as a result of deicing operations. Evaluate whether over-application of deicing chemicals occurs by analyzing application rates, and adjust as necessary, consistent with considerations of flight safety.

Minimize contamination of storm water runoff from aircraft deicing operations.

Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. Evaluate using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals.

Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems. The evaluations and determinations required by this Part should be carried out by the personnel most familiar with the particular aircraft and flight operations and related systems in question (versus an outside entity such as the airport authority).

Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site.

Use these control measure or their equivalentsL

- a dedicated deicing facility with a runoff collection/recovery system;
- using vacuum/collection trucks;
- storing contaminated storm water/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works;
- collecting contaminated runoff in a wet pond for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations); and
- directing runoff into vegetative swales or other infiltration measures.

The permittee must determine the seasonal timeframe (e.g., December- February, October - March, etc.) during which deicing activities typically occur at the facility.

Implementation of control measures, including any BMPs, facility inspections and monitoring must be conducted with emphasis throughout the defined deicing season. \

If the permittee meets the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the deicing season they identified is the timeframe during which the permittee must obtain the four required benchmark monitoring event results for deicing-related parameters(i.e., BOD, COD, ammonia, and pH).

Inspections

Sector P Additional Inspection Requirements

Inspect all the following areas/activities:

- storage areas for vehicles/equipment awaiting maintenance;
- Fueling areas;
- indoor and outdoor vehicle/equipment maintenance areas;
- material storage areas;
- vehicle/equipment cleaning areas, loading/unloading areas; and
- any petroleum bulk fuel storage areas.

Quarterly visual assessment of the bulk fuel storage areas should focus on identifying any potential leaks in tanks, pipelines, valves, etc. and implementing temporary spill containment measures until permanent corrective actions can be made.

Sector Q Additional Inspection Requirements

Include the following in all quarterly routine facility inspections:

- pressure washing area;
- blasting, sanding, and painting areas;
- material storage areas;
- engine maintenance and repair areas;
- material handling areas;
- drydock area; and
- general yard area.

Sector S Additional Inspection Requirements

At a minimum, conduct routine facility inspections at least monthly during the deicing season (e.g., October through April for most airports).

If a permittees facility needs to deice before or after this period, expand the monthly inspections to include all months during which deicing chemicals may be used. The Department may specifically require the permittee to increase inspection frequencies.

Comprehensive Site Inspections

Using only qualified personnel, conduct the annual site inspection during periods of actual deicing operations, if possible.

If not practicable during active deicing because of weather, conduct the inspection during the season when deicing operations occur and the materials and equipment for deicing are in place.

Sector Q Water Transportation Sector Specific Benchmark Parameters

| Subsector (Permittees may be subject to requirements for more than one sector/subsector) | Parameter | Benchmark Monitoring Concentration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------------------------|------------------------------------|----------------------|-------------|-------------|---------------|-------|------|----------------|-------|------|----------------|-------|------|-----------------|-------|------|------------------|-------|------|------------------|-------|------|------------------|-------|------|------------------|-------|------|------------------|-------|------|------------------|-------|------|-----------|-------|------|
| Subsector Q1. Water Transportation Facilities (SIC 4412-4499) | Total Aluminum | 0.75 mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total Iron | 1.0 mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total Lead (saltwater) ¹ | 0.21 mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total Lead (freshwater) ² | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Total Zinc (saltwater) ¹ | 0.09 mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Zinc (freshwater) ² | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Note:</p> <p>1. Saltwater benchmark values apply to storm water discharges into saline waters where indicated.</p> <p>2. The freshwater benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix E, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 7.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:</p> <table border="1"> <thead> <tr> <th>Water Hardness Range</th> <th>Lead (mg/L)</th> <th>Zinc (mg/L)</th> </tr> </thead> <tbody> <tr> <td>0 - < 25 mg/L</td> <td>0.014</td> <td>0.04</td> </tr> <tr> <td>25 - < 50 mg/L</td> <td>0.023</td> <td>0.05</td> </tr> <tr> <td>50 - < 75 mg/L</td> <td>0.045</td> <td>0.08</td> </tr> <tr> <td>75 - < 100 mg/L</td> <td>0.069</td> <td>0.11</td> </tr> <tr> <td>100 - < 125 mg/L</td> <td>0.095</td> <td>0.13</td> </tr> <tr> <td>125 - < 150 mg/L</td> <td>0.122</td> <td>0.16</td> </tr> <tr> <td>150 - < 175 mg/L</td> <td>0.151</td> <td>0.18</td> </tr> <tr> <td>175 - < 200 mg/L</td> <td>0.182</td> <td>0.20</td> </tr> <tr> <td>200 - < 225 mg/L</td> <td>0.213</td> <td>0.23</td> </tr> <tr> <td>225 - < 250 mg/L</td> <td>0.246</td> <td>0.25</td> </tr> <tr> <td>250+ mg/L</td> <td>0.262</td> <td>0.26</td> </tr> </tbody> </table> | | | Water Hardness Range | Lead (mg/L) | Zinc (mg/L) | 0 - < 25 mg/L | 0.014 | 0.04 | 25 - < 50 mg/L | 0.023 | 0.05 | 50 - < 75 mg/L | 0.045 | 0.08 | 75 - < 100 mg/L | 0.069 | 0.11 | 100 - < 125 mg/L | 0.095 | 0.13 | 125 - < 150 mg/L | 0.122 | 0.16 | 150 - < 175 mg/L | 0.151 | 0.18 | 175 - < 200 mg/L | 0.182 | 0.20 | 200 - < 225 mg/L | 0.213 | 0.23 | 225 - < 250 mg/L | 0.246 | 0.25 | 250+ mg/L | 0.262 | 0.26 |
| Water Hardness Range | Lead (mg/L) | Zinc (mg/L) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 - < 25 mg/L | 0.014 | 0.04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 - < 50 mg/L | 0.023 | 0.05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 - < 75 mg/L | 0.045 | 0.08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 75 - < 100 mg/L | 0.069 | 0.11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 - < 125 mg/L | 0.095 | 0.13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125 - < 150 mg/L | 0.122 | 0.16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 - < 175 mg/L | 0.151 | 0.18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 175 - < 200 mg/L | 0.182 | 0.20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 - < 225 mg/L | 0.213 | 0.23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 225 - < 250 mg/L | 0.246 | 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 250+ mg/L | 0.262 | 0.26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Sector S - Air Transportation Sector Specific Benchmark Parameters

| Subsector (Permittees may be subject to requirements for more than one sector/subsector) | Parameter | Benchmark Monitoring Concentration |
|---|--|------------------------------------|
| For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals on an average annual basis, monitor the first four parameters in ONLY those outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581). | Biochemical Oxygen Demand (BOD ₅) ¹ | 30 mg/L |
| | Chemical Oxygen Demand (COD) ¹ | 120 mg/L |
| | Ammonia ^{1,2} | 2.14 mg/L |
| | pH ¹ | 6.5 - 8.5 s.u. |
| <p>Note:</p> <p>1. These are deicing-related parameters. Collect the four benchmark samples, and any required follow-up benchmark samples, during the timeframe defined in Part 11.S.3.2 when deicing activities are occurring.</p> <p>2. If a permittee certifies annually that it does not use airfield deicing products that contain urea, then the permittee does not need to sample for ammonia.</p> | | |

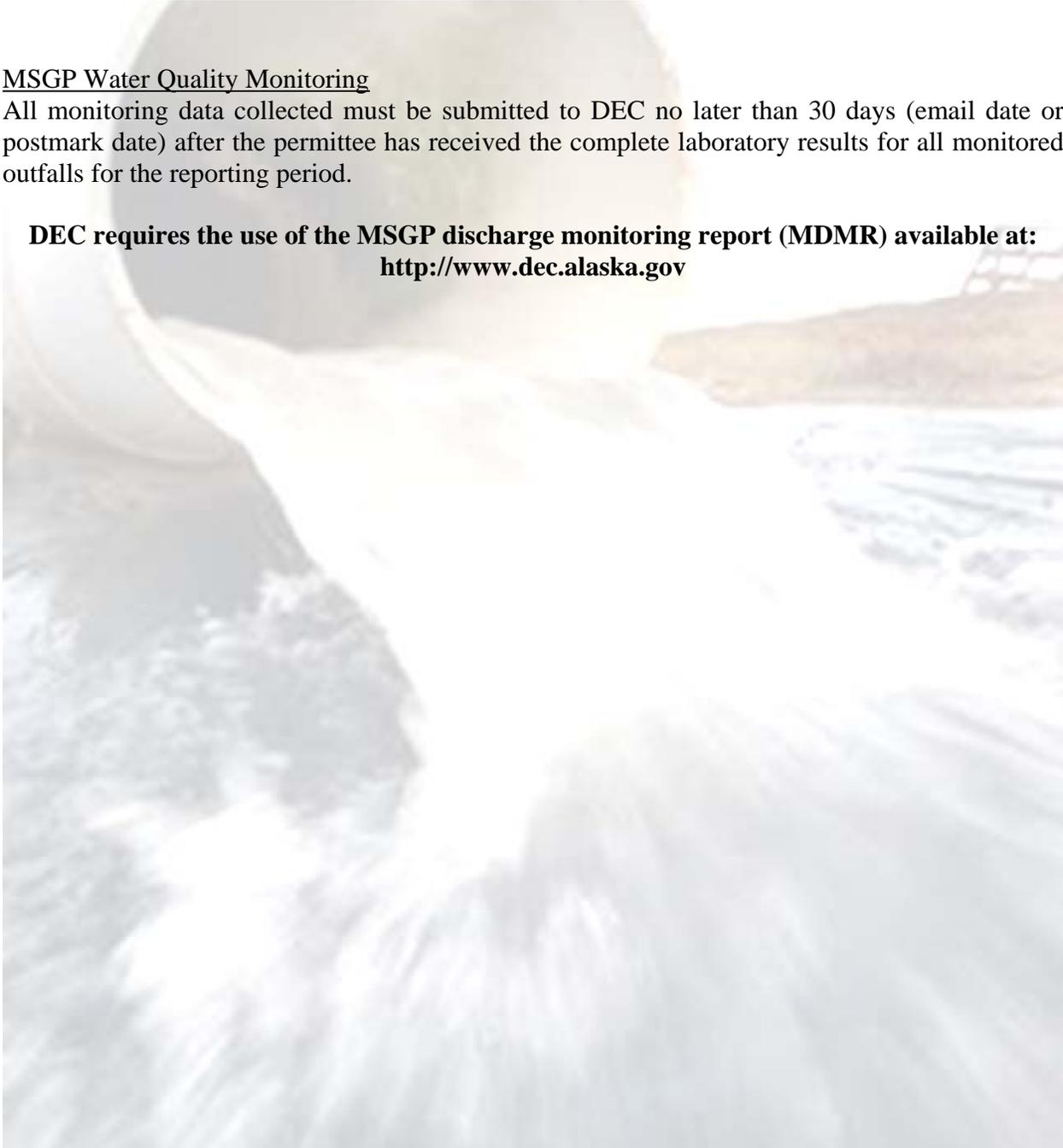
Sector S Air Transportation Effluent Limitations

| Wastestream | Parameter | Daily Maximum |
|--|----------------------------------|---------------|
| Airfield pavement deicing discharges from airports with at least 1,000 annual non-propeller aircraft ¹ departures. | Ammonia as Nitrogen ² | 14.7 mg/l |
| Note: 1. Annual non-propeller aircraft is the average annual aircraft departures of commercial turbine-engine aircraft that are propelled by jet, i.e., turbojet or turbofan as tabulated by the Federal Aviation Administration. 2. Monitor twice a deicing season during the timeframe defined in Part 11.S.3.2 when deicing activities are occurring. | | |

MSGP Water Quality Monitoring

All monitoring data collected must be submitted to DEC no later than 30 days (email date or postmark date) after the permittee has received the complete laboratory results for all monitored outfalls for the reporting period.

**DEC requires the use of the MSGP discharge monitoring report (MDMR) available at:
<http://www.dec.alaska.gov>**



MODULE 6
MSGP CONSTRUCTION RELATED SECTORS D & E

Sector D - Asphalt Paving and Roofing Materials, Sector Specific Benchmark Parameters

| Subsector | Parameter | Benchmark Monitoring Concentration |
|---|------------------------------|------------------------------------|
| Subsector D1. Asphalt Paving and Roofing Materials (SIC 2951, 2952) | Total Suspended Solids (TSS) | 100 mg/L |

Sector D -Asphalt Paving and Roofing Materials Effluent Limits

| Industrial Activity | Parameter | Effluent Limit |
|--|------------------------------|--|
| Discharges from asphalt emulsion facilities. | Total Suspended Solids (TSS) | 23.0 mg/L, daily maximum 15.0 mg/L, 30-day avg. |
| | pH | 6.5 - 8.5 s.u. |
| | Oil and Grease | 15.0 mg/L, daily maximum 10 mg/L, 30-day avg. |
| 1. Monitor annually. | | |

Sector E- Glass, Clay, Cement, Concrete and Gypsum Products Effluent Limits

| Industrial Activity | Parameter | Effluent Limit |
|---|------------------------------|------------------------|
| Discharges from material storage piles at cement manufacturing facilities | Total Suspended Solids (TSS) | 50 mg/L, daily maximum |
| | pH | 6.5 - 8.5 s.u. |
| 1. Monitor annually. | | |

MSGP Water Quality Monitoring

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MSGP PERMIT

