

6.S. Sector S. Air Transportation**6.S.1 Covered Storm Water Discharges**

The requirements in 6.S apply to storm water discharges associated with industrial activity from Air Transportation Facilities as identified by the SIC Codes specified in Table 1 of Part 1 of this MSGP for Sector S facilities. You must comply with the Part 6 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities as defined in Part 12. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur.

6.S.2 Industrial Activities Covered by Sector S

The SIC codes covered under Sector S are:

4512-4581

The types of activities that permittees under Sector S are primarily engaged in are:

6.S.2.1 Air Transportation, Scheduled, and Air Courier;

6.S.2.2 Air Transportation, Nonscheduled;

6.S.2.3 Airports, Flying Fields (except those maintained by aviation clubs), and Airport Terminal Services including: air traffic control, except government; aircraft storage at airports; aircraft upholstery repair; airfreight handling at airports; airport hangar rental; airport leasing, if operating airport; airport terminal services; and hangar operation

6.S.2.4 Airport and aircraft service and maintenance including: aircraft cleaning and janitorial service; aircraft servicing/repairing, except on a factory basis; vehicle maintenance shops; material handling facilities; equipment clearing operations; and airport and aircraft deicing/anti-icing.

Note: “deicing” will generally be used to imply both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made regarding anti-icing and/or deicing activities.

NOTE: To determine the “average annual usage rate” for glycol and urea, average the total amounts of deicing/anti-icing chemicals used (pre-dilution volumes) for the three previous calendar years by the airport authority plus all tenants.

6.S.3 Coverage Under This Permit

Table S.1 – SECTOR-SPECIFIC COVERAGE UNDER THIS PERMIT	
Part of Permit Affected	Supplemental Requirements <i>Note: In addition to the following requirements, you must also comply with the requirements listed in Part 1 of the MSGP.</i>
1.2.2.1	6.S.3.1 Limitations of Coverage. The permit authorizes storm water 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.
1.2.3.1	6.S.3.2 Prohibition of Non-Storm Water Discharges. (See also Part 1.2.3) This permit does not authorize the discharges of aircraft, ground vehicle, runway and equipment washwaters; nor does it authorize the dry weather discharge of deicing chemicals. Such discharges must be covered by separate LPDES permit(s). Note that a discharge resulting from snowmelt is not a dry weather discharge.
1.2.3.3	6.S.3.3 Vehicle and Equipment Washwater Requirements. Attach to or reference in your SWPPP, a copy of the LPDES permit issued for vehicle/equipment washwater or, if an LPDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, include a copy in your SWPPP. In any case, if you are subject to another permit, describe your control measures for implementing all non-storm water discharge permit conditions or pretreatment requirements in your SWPPP. If washwater is handled in another manner (e.g., hauled offsite, retained onsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in your SWPPP.

6.S.4 Special Conditions

Table S.2 – SPECIAL CONDITIONS UNDER THIS PERMIT	
Part of Permit Affected	Supplemental Requirements <i>Note: In addition to the following requirements, you must also comply with the requirements listed in Part 3 of the MSGP.</i>
3.1	6.S.4.1 Hazardous Substances or Oil. Each individual permittee is required to report spills equal to or exceeding the reportable quantity (RQ) levels specified at 40 CFR 110, 117, and 302 as described at Part 3.2. If an airport authority is the sole permittee, then the sum total of all spills at the airport must be assessed against the RQ. If the airport authority is a co-permittee with other deicing/anti-deicing operators at the airport, such as numerous different airlines, the assessed amount must be the summation of spills by each copermitee. If separate, distinct individual permittees exist at the airport, then the amount spilled by each separate permittee must be the assessed amount for the RQ determination.

6.S.5 Storm Water Pollution Prevention Plan Requirements

Table S.3 – SECTOR SPECIFIC SWPPP REQUIREMENTS	
Part of Permit Affected	Supplemental Requirements <i>Note: In addition to the following requirements, you must also comply with the requirements listed in Part 4 of the MSGP.</i>
4.1	6.S.5.1 Storm Water Pollution Prevention Plan Requirements. An airport authority and tenants of the airport are encouraged to work in partnership in the development of a SWPPP. If an airport tenant obtains authorization under this permit and develops a SWPPP for discharges from his own areas of the airport, prior to authorization, that SWPPP must be coordinated and integrated with the SWPPP for the entire airport. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties who have contracts with the airport authority to conduct business operations on airport property and whose operations result in storm water discharges associated with industrial activity.
4.2.2	6.S.5.2 Drainage Area Site Map. Document in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance and/or cleaning areas; storage areas for aircraft, ground vehicles and equipment awaiting maintenance.
4.2.3	6.S.5.3 Potential Pollutant Sources. In your inventory of exposed materials a description of the potential pollutant sources from the following activities: aircraft, runway, ground vehicle and equipment maintenance and cleaning; aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps). If you use deicing chemicals, you must maintain a record of the types (including the Material Safety Data Sheets (MSDS)) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of your knowledge. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate), because large quantities of these other chemicals can still have an adverse impact on receiving waters. Tenants or other fixed-base operations that conduct deicing operations must provide the above information to the airport authority for inclusion with any comprehensive airport SWPPPs.

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4.2.9.2	6.S.5.4 Good Housekeeping Measures
4.2.8	<p>6.S.5.4.1 Source Reduction. Minimize, and where feasible eliminate, the use of urea and glycol-based deicing chemicals in order 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; anhydrous sodium acetate.</p> <p>1) <u>Runway Deicing Operation</u>: 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. Also consider these control measure options (or their equivalents): metered application of chemicals; pre-wetting dry chemical constituents prior to application; installing a runway ice detection system; implementing anti-icing operations as a preventive measure against ice buildup.</p> <p>2) <u>Aircraft Deicing Operations</u>: 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. This evaluation should be carried out by the personnel most familiar with the particular aircraft and flight operations in question (versus an outside entity such as the airport authority). Consider using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals. Also consider these control measure options (or their equivalents) for reducing deicing fluid use: 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, and thermal blankets for MD-80s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.</p>

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4.2.8 4.2.9.1	6.S.5.4.2 Management of Runoff. (See also Part 4.2.9.6) Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site. Consider these control measure options (or their equivalents): 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. Also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of storm water contamination. Used deicing fluid should be recycled whenever possible.
N/A	6.S.5.4.3 Deicing Season. You 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 particular emphasis throughout the defined deicing season. If you meet the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons or urea, the deicing season you identified is the timeframe during which you must obtain the four required benchmark monitoring event results for deicing-related parameters, i.e., BOD, COD, ammonia and pH. (See also Part 6.S.6)
4.2.8 4.2.9.1	6.S.5.4.4 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. Consider the following control measures, including any BMPs (or their equivalents): storing aircraft and ground vehicles indoors; using drip pans for the collection of fluid leaks; and perimeter drains, dikes or berms surrounding the storage areas.
4.2.8 4.2.9.1	6.S.5.4.5 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. Also plainly label the vessels (e.g., “used oil,” “Contaminated Jet A,” etc.). Minimize contamination of precipitation/runoff from these areas. Consider the following control measures (or their equivalents): storing materials indoors; storing waste materials in a centralized location; and installing berms/dikes around storage areas.

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4.2.8 4.2.9.1	6.S.5.4.6 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). Consider 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.
4.2.8 4.2.9.1	6.S.5.4.7 Airport Fuel System and Fueling Areas. Minimize the discharge of fuels to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Consider the following control measures (or their equivalents): implementing spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations); using only dry cleanup methods; and collecting storm water runoff.
4.2.8 4.2.9.1	6.S.5.4.8 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.
4.2.6	6.S.5.5 Additional Inspection Requirements. (See also 4.10) At a minimum conduct routine facility inspections at least monthly during the deicing season (e.g., October through April for most mid-latitude airports). If your 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 Director may specifically require you to increase inspection frequencies.
4.9	6.S.5.6 Comprehensive Site Compliance Evaluation. (See also 4.10) Using only qualified personnel, conduct your annual site inspection during periods of actual deicing operations, if possible. If not practicable during active deicing because of weather, conduct inspection during the season when deicing operations occur and the materials and equipment for deicing are in place.

6.S.6 Monitoring and Reporting Requirements

Table S.4 - SECTOR-SPECIFIC NUMERIC EFFLUENT LIMITATIONS and BENCHMARK MONITORING			
Part of Permit Affected/Supplemental Requirements			
<i>Note: In addition to the following requirements, you must also comply with the requirements listed in Part 5 of the MSGP.</i>			
Subsector (You may be subject to requirements for more than one sector/subsector.)	Parameter	Benchmark Monitoring Concentration¹	Numeric Limitation²
For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea 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) ³	30 mg/L	---
	Chemical Oxygen Demand (COD) ³	120 mg/L	---
	Ammonia ³	2.14 mg/L	---
	pH ³	6.0 – 9.0 s.u.	---
	Total Organic Carbon (TOC)	---	50 mg/L daily max
	Oil & Grease	---	15 mg/L daily max

¹ Monitor once/quarter for the year 2 and year 4 monitoring years (see 5.4.2 for possible year 4 waiver).

² The discharge from this permitted outfall shall not exceed a Daily Maximum of 50 mg/L Total Organic Carbon (TOC) or 15 mg/L Oil and Grease. **Unless required by Part 5.10 of this permit, analytical sampling and analysis of these parameters on a regular basis are not required.**

³ These are deicing-related parameters. Collect the four benchmark samples, and any required follow-up benchmark samples, during the timeframe defined in Part 6.S.5.4.3 when deicing activities are occurring.