Executives, 4 percent of the airports conducting deicing/anti-icing activities used more than 100,000 gallons of ethylene glycol which represented approximately 76 percent of the total amount of ethylene glycol used by all airports surveyed.

## 3. Special Conditions

a. Prohibition of Non-storm Water Discharges. In addition to the non-storm water prohibitions described under Part III.A.2, today's permit clarifies in Part XI.S.2.a (Prohibition of Non-storm Water Discharges) that non-storm water discharges, including discharges from aircraft, ground vehicle and equipment washwaters, dry weather discharges from airport deicing/anti-icing operations, and dry weather discharges resulting from runway maintenance are not authorized under this permit. Dry weather discharges are generated from processes other than those described in the definition of storm water. The definition of storm water includes storm water runoff, snow melt runoff, and surface runoff and drainage. There is no limit on the time between the snowfall and snow melt for the purpose of including a snow melt discharge in the definition of storm water. All other discharges not included in the definition of storm water constitute nonstorm water discharges. Operators of non-storm water discharges must obtain coverage under a separate NPDES wastewater permit if such discharges are a point source discharge to waters of the U.S. or are discharged through a municipal separate storm sewer system. In a related requirement, the permittee is required to attach a copy of the NPDES permit issued for the discharge of non-storm water runoff or, if an NPDES permit has not yet been issued, a copy of the pending application to the plan. For facilities that discharge the waters mentioned above to a sanitary sewer system, the operator of the sanitary sewer system must be notified. A copy of the notification letter must be attached to the plan. If an industrial user permit has been issued under a pretreatment program, a copy of the permit must be attached to the plan as does any other permit to which the facility's discharge waters are subject. This will help to prevent confusion and help to ensure that non-storm water discharges are not inadvertently authorized by this permit.

b. Releases of Reportable Quantities of Hazardous Substances and Oil. Today's permit clarifies in Part XI.S.2.b (Releases of Reportable Quantities of Hazardous Substances and Oil) that each individual permittee is required to report spills equal to or exceeding the RQ levels specified at 40 CFR 110, 117 and 302. If the 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-icing operators at the airport, such as numerous different airlines, the assessed amount must be the summation of spills by each copermittee. 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.

4. Storm Water Pollution Prevention Plan Requirements

*a. Contents of the Plan.* The pollution prevention plan requirements described below are in addition to those found under Part VI.C.

(1) Description of Potential Pollutant Sources. In addition to the common pollution prevention plan requirements discussed in Part VI.C.2.a. (Drainage), the site map developed for an entire airport shall identify the location of each tenant of the facility describe their activities.

In addition to the pollution prevention requirements discussed in Part VI.C.2. (Description of Potential Pollutant Sources), airport facilities, including areas operated by tenants of the facility that conduct industrial activities, must address the following specific operations and areas where the operations occur:

Aircraft Deicing/Anti-icing-Includes both deicing to remove frost, snow or ice, and anti-icing which prevents the accumulation of frost, snow or ice. Deicing/anti-icing of an airplane is accomplished through the application of a freezing point depressant fluid, commonly ethylene glycol or propylene glycol, to the exterior surface of an aircraft. Both ethylene and propylene glycol have high biochemical oxygen demands (BOD) when discharged to receiving waters. Environmental impacts on surface waters due to glycol discharges includes glycol odors and glycol contaminated surface water and ground water systems, diminished dissolved oxygen levels and fish kills.

The Federal Aviation Administration (FAA) recently conducted a survey which focused on aircraft and runway deicing/anti-icing operations at U.S. airports. Ninety-six airports responded to the survey and results are summarized in a final report dated June 1, 1992. In summary, 65 airports indicated the amounts of ethylene glycol used for aircraft deicing for the winter periods of 1989–90 and 1990–91 and the volumes used by each airport ranged significantly, from a few gallons to 520,000 gallons. The average annual volume of ethylene glycol used by all respondents for the winter periods of 1989–90 and 1990–91 was approximately 2.16 million gallons.

The FAA survey summary reported that the majority of aircraft deicing operations occur on the apron adjacent to the passenger terminal and runoff generally drains to a nearby storm water inlet. In fact, 31 of the respondents to the FAA survey indicated that 75 percent or more of the spent deicing chemicals were discharged to a storm sewer system. In general, the remainder of spent chemical resulting from aircraft deicing operations drained to ditches or open areas.

All aspects of aircraft deicing/antiicing operations, including quantities used and stored, as well as application, handling and storage procedures are required to be addressed under the conditions of this section.

(b) Runway Deicing/Anti-icing-Includes both deicing and anti-icing operations conducted on runways, taxiways and ramps. Runway deicing/ anti-icing commonly involves either the application of chemical fluids such as ethylene glycol or solid constituents such as pelletized urea. Urea has a high nitrogen content, therefore degradation of urea in a receiving water causes an increase in nutrient loadings resulting in an accelerated growth of algae and eutrophic conditions. Under certain ambient conditions, the degradation of urea in receiving waters can also result in ammonia concentrations toxic to aquatic life.

The FAA's storm water survey reported that, of the facilities that indicated using urea for runway deicing/anti-icing for the winter periods of 1989-90 and 1990-91, the amount of urea used during a single winter period ranged from 100 pounds to 1,450,000 pounds (715 tons). With regard to disposal of spent deicing/anti-icing chemicals from runways, taxiways and ramps, 20 airports indicated that they discharged 50 percent or more of runoff from deicing areas directly to a storm sewer system. In response to questions concerning collection and treatment of spent deicing chemicals from runway deicing/anti-icing activities, only five facilities indicated that runoff from runway deicing/anti-icing operations was collected and treated.

All aspects of runway deicing/antiicing operations, including types of deicing/anti-icing chemicals, quantities used and stored, as well as application, handling and storage procedures are required to be addressed under the conditions of this section.