retained for a period of at least 3 years following the date of evaluation.

Based on the results of each evaluation, the description of potential pollution sources, and measures and controls, the plan must be revised as appropriate within 2 weeks after each inspection. Changes in the measures and controls must be implemented on the site in a timely manner, and no later than 12 weeks after completion of the inspection.

5. Numeric Effluent Limitation

There are no additional numerical limitations beyond those in Part V.B. of this permit.

6. Monitoring and Reporting Requirements

In general, the quantitative data submitted with part 2 of the group application was inadequate to clearly identify particular areas of concern with respect to discharges of pollutants resulting from vehicle maintenance and/ or deicing/anti-icing operations conducted at airport facilities. EPA believes that the part 2 sampling data does not provide justification that discharges resulting from deicing/antiicing operations are not a significant source of pollutants. The sampling requirements for part 2 of the group application did not specify that facilities must sample storm water discharges from areas where deicing/anti-icing activities occur and/or during times when such operations were being conducted. As a result, only one facility indicated that the sampling data submitted was collected from areas where deicing/anti-icing activities were being conducted. After reviewing recent case studies on the effects of glycol discharges to receiving waters, EPA reports, and the results of FAA surveys, EPA believes that additional information on the impacts of discharges of deicing/anti-icing chemicals to receiving waters resulting from aircraft and runway deicing/antiicing operations is warranted and necessary.

Both ethylene and propylene glycols exert high oxygen demands when released into receiving waters. As such, this section requires that facilities report both the Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) of discharges sampled at facilities that use at least 100,000 gallons or more of glycol-based deicing/anti-icing chemicals. The concentration of nitrogen and possibly ammonia are the concern with respect to deicing/anti-icing operations where urea is used. Therefore, this section requires that facilities subject to the monitoring

requirements in Part XI.S.5. of the permit also report the concentration of Total Kjeldahl Nitrogen (TKN) in discharges sampled.

The results of the storm water survey conducted by FAA (June 1992) showed that 10 percent of the respondents who conduct deicing activities used more than 100,000 gallons of glycol-based deicing chemicals during winter seasons. In addition, those facilities using more than 100,000 gallons of glycol-based deicing chemicals accounted for 71 percent of the total amount of glycol-based deiced chemicals reported by all respondents in the survey. In a similar survey conducted by the American Association of Airport Executives, 4 percent of the airports conducting deicing 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.

a. Annual Loading Estimates. All facilities that use more than 100,000 gallons of glycol-based deicing/antiicing chemicals and/or 100 tons or more of urea on an average annual basis shall prepare estimates of annual pollutant loadings resulting from discharges of spent deicing/anti-icing chemicals from the facility. The loading estimates shall reflect the amounts of deicing/anti-icing chemicals discharged to separate storm sewer systems or surface waters, prior to and after implementation of the facility's storm water pollution prevention plan. The purpose of these estimates is to calculate the net reduction in deicing/anti-icing chemical loadings to receiving streams. Such estimates shall be reviewed and certified by an environmental professional (engineer, scientist, etc.) with experience in storm water pollution prevention. The environmental professional need not be certified or registered, however, experience with development of storm water pollution prevention plans and with airport operations is critical to prepare accurate estimates. By means of the certification, the environmental professional, having examined the facility's deicing/anti-icing procedures and proposed control measures described in the storm water pollution prevention plan, shall attest that the loading estimates have been accurately prepared.

b. Analytical Monitoring
Requirements. EPA believes that
airports may reduce the level of
pollutants in storm water runoff from
their sites through the development and
proper implementation of the storm
water pollution prevention plan

requirements discussed in today's permit. In order to provide a tool for evaluating the effectiveness of the pollution prevention plan and to characterize the discharge for potential environmental impacts, the permit requires airport facilities that use 100,000 gallons or more of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis to collect and analyze samples of their storm water discharges from areas where deicing/anti-icing activities occur for the pollutants listed in Table S-1. Airport facilities which use less than 100,000 gallons of glycolbased deicing/anti-icing chemicals and/ or less than 100 tons of urea on an average annual basis are not required to monitor discharges resulting from deicing/anti-icing activities.

In determining if an airport is subject to the monitoring requirements, airport authorities must determine the "average annual usage rate" of deicing/anti-icing chemicals at their particular facility. The "average annual usage rate" is determined by averaging the total amounts of deicing/anti-icing chemicals used at the facility for the three previous calendar years. The total amount of deicing/anti-icing chemicals used at an airport facility is the cumulative amount used by the airport authority and each tenant of the airport facility. EPA recognizes that glycol-based deicing/ anti-icing chemicals are often diluted with water prior to deicing aircraft. In some cases, deicing/anti-icing chemicals may constitute only 50 percent of the applied volume of liquid to aircraft. Therefore, in determining the fluid amounts of deicing/anti-icing chemicals used at a facility, operators should use the pre-dilution volume.

At a minimum, storm water discharges from airport facilities that use 100,000 gallons or more of glycolbased deicing/anti-icing chemicals and/ or 100 tons or more of urea on an average basis must be monitored four times during the second year of permit coverage when deicing/anti-icing activities are occurring and from outfalls that receive storm water runoff from those areas. At the end of the second year of permit coverage, a facility must calculate the average concentration for all grab samples analyzed for each parameter listed in Table S-1 on an outfall-by-outfall basis. If more than four different events are sampled during a monitoring period, then the average concentration for each parameter shall be determined using all grab samples analyzed.