Stormwater Update

The Clean Water Act Amendments

Christopher Kane, P.E., Esq.

The public has become increasingly aware of water quality problems over the past several decades. In 1972, Congress passed significant amendments to the Federal Water Pollution Control Act (FWPCA), also known as the Clean Water Act (CWA), to prohibit the discharge of any pollutant to U.S. waters from a "point" source. The exception is the case of a "point" source discharge that has been permitted by the National Pollution Discharge Elimination Systems (NPDES). NPDES permits specify monitoring, reporting and control requirements, including allowable levels of pollutants in discharges. In addition, such permits provide a mechanism for enforcement for any violations of the permit requirements.

Efforts under the NPDES program until recently have focused on wastewater from industrial processes and municipal sewage. Traditionally, the runoff from urban and other areas subjected to development was considered to be "clean" water by most environmental lawmakers and the public. However, as pollution control measures were installed for these "point" discharges, it became evident that more diffuse sources of water pollution were also major causes of water quality problems.

It is now recognized that rainwater picks up many pollutants from falling on and draining off of streets and parking lots, construction and industrial sites, and mining, logging and agricultural areas. The runoff is channeled into and transported through a wide variety of natural and man-made drainage facilities. Once in these facilities, the runoff may scour accumulated pollutants out of gutters, catchbasins, storm sewers, and drainage channels, eventually ending up in bodies of water such as creeks, rivers, bays and oceans.

According to the Environmental Protection Agency (EPA), many recent studies have shown that runoff from urban and industrial areas typically contains significant quantities of the same general types of pollutants that are found in wastewater and industrial discharges and cause similar water quality problems. These include such pollutants as petroleum products and asbestos from automobile brakes.

National assessments of water quality have traditionally considered runoff from urban and industrial areas as a diffuse source or "non-point" source of pollution. Legally, however, most urban runoff is discharged through conveyances such as separate storm sewers or other conveyances which are "point" sources under the CWA and are subject to the NPDES program. While over 70 percent of water streams now meet EPA standards, the remaining 30 percent present continuing water quality problems largely attributed to "non-point" sources.

Studies have also shown that storm sewers frequently contain illegal discharges of non-stormwater, and that wastes, particularly used oils, are improperly disposed of in storm sewers. The EPA claims the removal of non-stormwater discharges from storm

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sewers presents opportunities for dramatic improvements in the quality of stormwater discharges. The CWA Amendments will correct these oversights, leading to compliance in the remaining 30 percent of our water quality problems.

The Federal Stormwater Program

In 1987 the CWA was revised by adding § 402 (p) to address stormwater. Section 402 of the CWA requires the EPA to establish NPDES permit application requirements for stormwater discharges associated with industrial activity; discharges from large and medium municipal separate stormwater systems. In response to this requirement, the EPA published permit application requirements on Nov. 16, 1990 (55 FR 47990).

The stormwater regulations present three permit application options for stormwater discharge associated with industrial activity. The first option is to submit an individual application consisting of Forms 1 and 2F. The second option is to participate in a group application. The third is to file a notice of intent (NOI) to be covered under a general permit in accordance with the requirements of an issued general permit.

Operators of facilities with stormwater discharge associated with industrial activity that do not participate in a group application or under the general permit must file Forms 1 and 2F. Form 2F requires a site drainage map, a narrative description of the site identifying potential pollution sources, and

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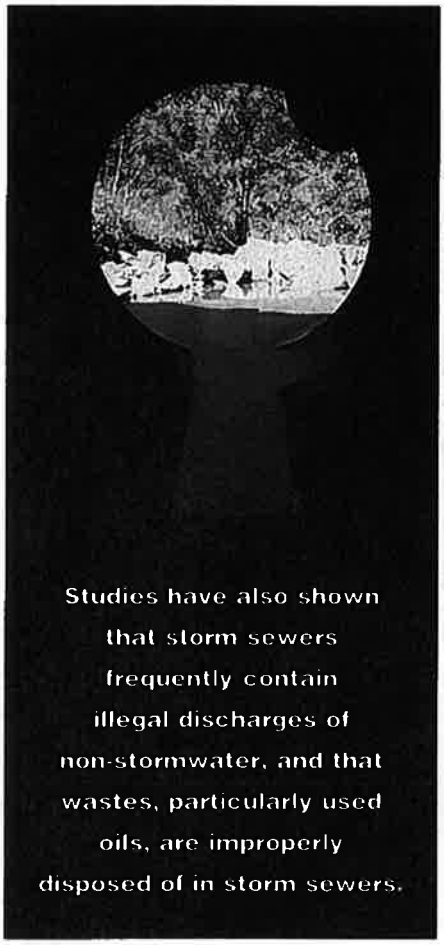
quantitative testing data. There are specific requirements for construction activities, oil and gas operations, and mining operations.

The group application procedure is an option available for facilities that have similar operations, waste streams and other characteristics. Group applications reduce the burden on the regulated community by requiring the submission of quantitative data from only selected members of the group. The application is submitted in two parts. Part 1 identifies all participants, provides facility specific information and proposes a representative sampling subgroup. The EPA will approve or deny members of the group based on the information provided in Part 1. Part 2 consists of sampling data from each member of the subgroup identified in Part 1.

Industrial stormwater dischargers that submit an NOI to be covered by general permit are not required to submit an individual permit application or participate in a group application, provided the discharger is eligible for the permit and an individual permit is not required by the EPA or delegated state. It is significantly less burdensome than submitting an individual or group application. The NOI requirements for general permits usually address only general information and typically do not require the collection of monitoring data. NOIs may only be submitted where applicable general permits have been issued by the permitting authority.

The rules regarding monitoring and reporting provide for establishing monitoring conditions in NPDES permits on a case by case basis. At a minimum, a permit must require the discharger to conduct an annual inspection of the facility site to identify areas contributing to a stormwater discharge associated with industrial activity and evaluate whether measures to reduce pollutant loadings identified in a stormwater pollution prevention plan are adequate and properly implemented in accordance with the terms of the permit and the plan or whether additional control measures are needed.

The EPA has defined the term "stormwater discharge associated with industrial activity" in a comprehensive manner to address over 100,000 facilities. To date, only 65,000 facilities have submitted permit applications. All stormwater discharges associated with industrial activity that discharge through municipal separate storm sewer systems are required to obtain NPDES permit coverage, including those which discharge through systems located in municipalities with populations of less than 100,000. Discharges of stormwater to a combined sewer system or to a Publicly Owned Treatment Works (POTW) are excluded. Facilities with stormwater discharges associated with industrial activity include: manufacturing/industrial facilities; construction operations disturbing five or more acres; hazardous waste treatment, storage or disposal facilities; landfills; certain sewage treatment plants; recycling facilities; power plants; mining operations; some oil and gas operations; airports; and certain other transportation facilities. Operators of industrial facilities that are federally, state or municipally owned or operated that meet the description of the facilities listed in the regulations must also submit applications.



There are some exceptions, under the Transportation Act of 1991, to the permitting requirements for certain industrial activities owned or operated by municipalities with populations of less than 100,000. Such municipalities must submit stormwater discharge permit applications for only airports, powerplants, and uncontrolled sanitary landfills that they own or operate, unless a permit is otherwise required by the permitting authority.

"Municipal separate storm sewer" is defined as any conveyance or system of conveyances that is owned or operated by a state or local government entity designed for collecting and conveying stormwater which is not part of a POTW. The application requirements do not apply to discharges from combined sewers (systems designed as both a sanitary sewer and a storm sewer).

The CWA requires NPDES permits for discharges from municipal separate storm sewer systems for municipalities with populations of 100,000 or more, with a distinction between large municipalities (populations over 250,000), and medium municipalities (populations between 100,000 and 250,000) and systems that are designated by the EPA. The operator of a designated conveyance system will be notified by the Director.

There are 173 cities and 47 counties identified by the EPA as meeting the population criterion of 100,000 or more. In Florida, the cities include Jacksonville, Miami, Tampa (large); and Ft. Lauderdale, Hialeah, Hollywood, Orlando, and St. Petersburg (medium). The counties include Dade (large); and Broward, Escambia, Hillsborough, Orange, Palm Beach, Pinellas, Polk and Sarasota (medium).

The November 1990 stormwater final rule established requirements for a two part permit application designed to facilitate development of site specific permit conditions. The permit application requirements provide municipal applicants an opportunity to propose appropriate management programs to control pollutants in discharges from their municipal systems. The first part requires information regarding existing programs and the means available to the municipality to control pollutants. In addition, Part 1 requires a field screening analysis of major outfalls to detect illicit connections. Building on this information, the second part requires a limited amount of representative quantitative data, testing for many more pollutants, and a description of proposed stormwater management plans.

Individual Permits

As of the date of this writing, the deadline for submitting applications for individual permits is Oct. 1, 1992. However, a municipality that has participated in a timely Part 1 group application and that is denied participation in the group application shall not be required to submit an individual application until the 180th day following the date on which the denial is made.

Group Permits

As of the date of this writing, the deadline for group permit applications for industrial activities owned or operated by a municipality with a population of less than 250,000 was May 18, 1992, for Part 1, and May 17, 1993, for Part 2. The deadline for group permit applications for all industrial activities except those owned or operated by a municipality with a population of less than 250,000 was September 30, 1991, for Part 1, and is October 1, 1992, for Part 2.

General Permit Notices of Intent

The deadline for general permit NOIs is established in the general permit. Regulations on general permits have not been finalized and the EPA has scheduled them to be issued this summer. Note that NOIs may only be submitted where applicable general permits have already been issued by the permitting authority.

In addition to the application deadlines, the EPA intends to use a four-tier system for establishing priority in issuing permits. This is necessary due to the significant amount of additional permitting required under this Act and in order to implement the highest impact permits first, the four-tier system is generally outlined below.

Tier I—Baseline Permitting

One or more general permits will be developed initially to cover the majority of stormwater discharges associated with industrial activity. The EPA believes that consolidating many sources under a general permit greatly reduces the administrative burden of issuing permits. Under this approach the EPA will begin to collect data on stormwater discharges from priority industries, which will facilitate subsequent permitting activities. Initially the coverage of the baseline permits will be broad. However, it is anticipated that coverage will become more specific as other permits are issued pursuant to Tier II through Tier IV activities.

Tier II—Watershed Permitting

Facilities within watersheds shown to be adversely impacted by stormwater discharges associated with industrial activity will be targeted for individual or watershed-specific general permits.

Tier III—Industry Specific Permitting

Specific industry categories will be targeted for individual or industry specific general permits.

Tier IV—Facility Specific Permitting

A variety of factors will be used to target specific facilities for individual permits. It appears unlikely that the EPA will meet its own October 1, 1992 deadline for issuing further regulations which designate additional stormwater discharges to be regulated to protect water quality and establish a comprehensive program to regulate such discharges under Phase II of the 1987 Amendments to CWA.

Point/Nonpoint Source Pollutant Trading

On January 28, 1992, President Bush requested the Administrator of EPA, along with other federal agencies, to identify and accelerate action on initiatives that will eliminate any unnecessary regulatory burden or otherwise promote economic growth. The EPA, in the interim, is seeking ways to accelerate uses of innovative cost-minimizing regulatory approaches

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and to speed pro-growth activities. One such activity is point/non-point source (PS/NPS) pollutant trading, which is a market-based approach to water quality improvement.

In most PS/NPS trading scenarios, regulated "point" sources avoid costly treatment upgrades by paying for reductions in "non-point" source discharges in the same watershed or waterbody. Certain analyses suggest that this innovative approach could be applied more widely across the U.S. The major factors that appear to inhibit trading are a variety of legal, technical and administrative barriers. A meeting was conducted in April of this year by the EPA and other participants in Durham, NC, to provide a forum for discussion of using pollutant trading in general, state and local water programs.

The recent enactments of the Clean Air Act amendments have provided the first legislative effort to establish some flexibility for a free market-based/least cost approach to pollution abatement by use of an allowance issuance and trading system for sulfur dioxide. That allowance trading system has recently seen the first purchase of sulfur dioxide allowances and should be solidly in place within the next two years prior to Phase I, January 1, 1995. The Title IV system will likely form the basis for trading of other major air pollutants as well as water pollutants in the future. Such a system is bound to foster innovation and least cost abatement investments. Theoretically, this can make our pollution control dollars go much further than they do under the old "command and control" framework of the past 20 years.

Conclusion

The permitting process will enable the EPA and the states to better understand the nature and the sources of the pollutants involved in stormwater runoff and should lead to a significant reduction in the volume of these pollutants that reach our creeks, rivers, bays and oceans. The full extent of the impact of these regulations will only be realized after the permitting process deadlines pass and enforcement of violations begins.

Some stormwater permitting rules have been in place since November 1990, but we are still largely involved in the permitting application phase of the program. By 1993, industries and municipalities will be further on their way to implementing pollution prevention and abatement plans for their stormwater "non-point" discharges. The opportunities for Florida's engineering, environmental and construction firms should continue to grow in these areas of national concern.

While Florida is not an NPDES authorized state, Florida has its own stormwater discharge regulations. which are, at present, unrelated to the EPA NPDES permits. Any questions regarding the EPA NPDES permit process in Florida should be directed to the EPA's Region IV office in Atlanta, Georgia.

Christopher Kane, P.E. is a partner in the law firm of Lyon and McManus. The firm has offices in Washington, D.C., Atlanta, Georgia and Orlando, Florida. Stuart Smith of the firm also contributed to this report.