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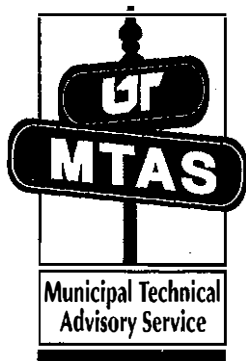
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Technical Bulletin

December 2000

NPDES PHASE II STORMWATER PERMITTING

By Andrew J. Reese and R. Scott Taylor
Ogden Environmental and Energy Services

In December 1999, the new National Pollutant Discharge Elimination System (NPDES) Phase II regulations were published. These regulations, which regulate stormwater discharges to U.S. waters, are mandated by the Environmental Protection Agency (EPA) and implemented in the state by the Tennessee Department of Environment and Conservation (TDEC). The regulations, which may affect more than 4,000 municipal entities across the country and about 70 municipalities in Tennessee, require implementation of stormwater management controls to prevent discharge of pollutants into receiving waters. **Civil penalties for non-compliance with the regulations could be as high as \$10,000 per day. Noncompliance with a TDEC Director's Order could also result in spot fines of \$1,000 or \$2,000 and an order to complete the program anyway.**

While the overall requirements have eased from the original proposed rules, they are still substantial for the small city or county. However, there may be ways to avoid the regulations or to minimize their impact through investigation, preparation, communication, and instigation of program assessments and changes ahead of time. This bulletin gives an overview of the Phase II program and provides vital information for the local government entity that is trying to plan ahead for the new regulatory requirements. For more information on permit requirements and specific details of the Phase II regulations, go to the EPA website at www.epa.gov/owm/sw/phase2.

Who is covered and when must they apply?

NPDES Phase II automatically covers stormwater discharges from two categories:

- 1) certain municipal separate storm sewer systems (MS4s), and
- 2) construction activity generally disturbing between one and five acres. MS4s can include systems operated by municipal and local sewer districts, state and federal transportation departments, universities, hospitals, correctional facilities, military bases, or tribal organizations. Additional MS4s and construction sites that disturb areas less than one acre may be brought under the regulation if the local NPDES permitting authority determines that they contribute significant pollution to U.S. waters. (In Tennessee the local NPDES authority is TDEC.)

There are several levels of coverage under this permit depending upon the location of the MS4 or construction site with respect to a recognized "urbanized area" (UA) and upon individual circumstances. (There are a total of 405 urbanized areas in the United States that cover 2 percent of total U.S. land area and contain approximately 63 percent of the nation's population. You can find a definition of urbanized areas and a map of their locations at the Census Bureau web site: www.census.gov/80/geo/www/cob/ua.html.)

Levels of Coverage

Automatic Nationwide Designation as a Regulated Small MS4

Owners or operators of small MS4s located in any incorporated place, county, or place under the jurisdiction of a governmental entity within a Census-designated UA will be required to develop a local stormwater program. (A "small" MS4 is one not covered under Phase I of the NPDES stormwater program.) A regulated small MS4 must apply for coverage by March

10, 2003. Only the portion of a small MS4 that is located within a UA would automatically be regulated.

Potential Designation/Mandatory Evaluation by the State of Tennessee

Owners or operators of small MS4s located outside a UA may be required to file for a permit if, as a result of mandatory evaluation, they are designated as having existing or potential significant water quality impacts, as determined by criteria set by the state. This category includes all small MS4s located outside an UA with a population of at least 10,000 and a population density of at least 1,000 per square mile. EPA recommends balanced consideration of the impact of the following criteria on a watershed or other local basis:

- discharge to sensitive waters,
- high population density,
- high growth or growth potential,
- contiguity to an urbanized area,
- significant contributor of pollutants to the waters of the United States,
- ineffective control of water quality concerns by other programs, and
- contribution to an exceedance of water quality standard (including impairment of designated uses).

These designated MS4s must apply for a permit within 60 days of notice, unless the State of Tennessee grants a later date. Permit writers have until December 9, 2002, to make designations.

Potential Designation by the State of Tennessee

The state must designate any MS4 located outside a UA that contributes substantially to the stormwater pollutant loading of a physically interconnected MS4 that is regulated by the NPDES stormwater program. State and federal facilities (including TDOT, military installations, universities, large hospitals, and correctional facilities) are covered as regulated small MS4s.

Waivers

The state of Tennessee may waive the otherwise applicable requirements of a regulated small MS4 located in a UA by one of the following two waiver options.

Less than 1,000 Population in an UA

An MS4 may be waived from applicable requirements if it:

- serves a jurisdiction of less than 1,000 people,
- is not contributing substantially to the pollutant loadings of a physically interconnected, regulated MS4, and
- is already part of an EPA approved "Total Maximum

Daily Load" (TMDL) that addresses the pollutant of concern in the receiving stream.

Less than 10,000 Population in an UA

An MS4 that serves a jurisdiction of less than 10,000 people may also be waived. However, it must first:

- evaluate all waters of the U.S. that receive a discharge from the system and show that stormwater controls are not necessary based on wasteload allocations that are inclusive as part of an approved EPA or established TMDL that addresses the pollutant(s) of concern, and
- determine that future discharges from the MS4 do not have the potential to result in violations of water quality standards.

What permitting options will be available?

Three permit options are available under the NPDES regulations: general permits, individual permits, and modification of Phase I individual permit. The provisions for the general permit establish one set of requirements for all applicable permittees. A Notice of Intent (NOI) serves as the application for this permit. An individual permit, which modifies rules for a particular permittee, may be issued by the local permitting authority. To apply, operators must submit an individual permit application that is more comprehensive than the NOI. It is also possible to participate as a co-permittee with a Phase I permitted MS4 on a modification of a Phase I individual permit. Operators would need to modify existing Phase I permit to account for Phase II MS4 and submit the modifications to the NPDES permitting authority.

How will the permit be implemented?

EPA and the state of Tennessee will issue individual permits containing most of the details for each municipal program element. Regulated small MS4s may, however, seek to be co-permittees on individual municipal stormwater permits.

Apart from obtaining their own permit, an MS4's program requirements may also possibly be fully or partially satisfied in any combination of four alternative ways:

- through inclusion in an adjoining municipality's existing Phase I stormwater program by way of an NPDES permit modification, (There are four Phase I cities in Tennessee: Memphis, Nashville, Knoxville, and Chattanooga.)
- through an agreement with another governmental or other entity that is already implementing one of the minimum control measures in the same jurisdiction,
- if, in the permit, the state recognizes existing responsibilities among governmental entities for the

minimum control measures, or

- if, in the permit, the state incorporates by reference a qualifying local, state, or tribal stormwater management program that address one or more of the minimum control measures.

What are the performance requirements?

An owner/operator of an MS4 is required to apply for NPDES permit coverage and to develop a stormwater management program that addresses each of six minimum controls listed below. The stormwater management program must implement best management practices (BMP). However, operators have a great deal of flexibility in determining BMPs and measurable goals for each measure as appropriate for their MS4 service area. This flexibility exists as long as the chosen BMPs result in effective control of pollutants in stormwater runoff. Otherwise, the state may require changes in the chosen mix of BMPs to result in a more effective program. The operator must also develop measurable controls for the program and periodically evaluate its effectiveness.

Minimum Control Measures

The EPA expects that these six minimum control measures, when implemented together, will result in significant reduction of pollutants being discharged into receiving waters.

- **Public Education and Outreach.** Operators are required to inform citizens about the impact of polluted stormwater on water quality through educational materials and other outreach programs.
- **Public Participation/Involvement.** Operators should provide opportunities for citizens to be involved in developing and implementing the stormwater management program. This should include well publicized public hearings, as well as encouraging citizen involvement on a stormwater management panel.
- **Illicit Discharge Detection and Elimination.** Operators should develop and put into action plans to detect and eliminate illicit discharges to sewer systems. This effort should include developing a system map and informing citizens of hazards associated with illegal discharge and improper wastewater disposal.
- **Construction Site Runoff Control.** Operators should develop and enforce erosion and sediment control programs for construction sites.
- **Post-Construction Runoff Control.** Operators should develop and implement programs to address discharge of post-construction stormwater runoff from new construction and redevelopment.
- **Pollution Prevention/Good Housekeeping.** Operators should develop programs to prevent or reduce runoff from municipal operations.

How do I apply for and maintain my permit?

The permit application or submission of an NOI to comply with a general permit (if one is available for your area) must contain program planning and assessment information for each of the minimum control measures including:

- best management practices to be implemented,
- the measurable goals for each of the stormwater minimum control measures,
- the schedule (month and year) for beginning and completing each of the measures or indication of the frequency of the action,
- the person or persons responsible for implementing or coordinating the stormwater management program, and
- other information on compliance with other provisions that may be in the general permit, if appropriate.

The general permit, if available, will explain the steps necessary to comply.

In addition to the above requirements for a general permit, an operator applying for an individual permit must also supply the following:

- size of the area served, in square miles;
- topographic map showing all discharge points, hazardous waste facilities, water bodies and drinking water wells;
- other minor requirements; and
- any additional information the NPDES authority deems necessary.

Municipalities must evaluate their stormwater management program and submit annual reports for the first permit term and in years 2 and 4 of subsequent permit terms. Reports include:

- the status of compliance with permit conditions;
- an assessment of the appropriateness of identified best management practices;
- progress towards achievement of identified measurable goals for each of the minimum control measures;
- results of information collected and analyzed, including monitoring data, if any, during the reporting period;
- summary of what stormwater activities to be undertaken during the next reporting cycle; and
- a change in any identified measurable goals that apply to the program elements.

For more information about Phase II permitting, contact John Chlarson, MTAS Public Works Consultant, at (901) 423-3710.

The Municipal Technical Advisory Service (MTAS) is a statewide agency of The University of Tennessee's Institute for Public Service. MTAS operates in cooperation with the Tennessee Municipal League in providing technical assistance services to officials of Tennessee's incorporated municipalities. Assistance is offered in areas such as accounting, administration, finance, public works, communications, ordinance codification, and wastewater management.

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