

# **NPDES PERMIT REQUIREMENTS FOR MUNICIPAL SANITARY SEWER COLLECTION SYSTEMS AND SSOs**

EPA estimates that between 23,000 and 75,000 sanitary sewer overflow (SSO) events occur per year in the United States (excluding basement backups). Overflows of untreated wastewater may present serious risks of human exposure when released to certain areas, such as streets, private property, basements, and receiving waters used for drinking water, fishing and shellfishing, or contact recreation. Untreated sewage contains pathogens and other pollutants, which are toxic. A description of the extent of human health and environmental impacts caused by discharges of untreated sewage, along with other information, is provided in "Report to Congress on the Impacts and Control of CSOs and SSOs," EPA, 2004.

The Report to Congress found that numerous NPDES authorities were making progress identifying SSO occurrences and their causes, and that NPDES permit requirements establishing clear reporting, record keeping and third party notification of overflows from municipal sewage collection systems, as well as clear requirements to properly operate and maintain the collection system, are critical to effective program implementation. NPDES authorities should be improving implementation of NPDES permit requirements for SSOs and sanitary sewer collection systems to improve the performance of municipal sanitary sewer collection systems and improve public notice for SSO events, which would:

- Reduce health and environmental risks by reducing SSO occurrences and improving treatment facility performance; and
- Protect the nation's collection system infrastructure by enhancing and maintaining system capacity, reducing equipment and operational failures and extending the life of its components.

## **Clarifying Permit Conditions**

To assure proper implementation, the NPDES regulations provide standard conditions that are to be in NPDES permits for POTWs (see 40 CFR 122.41 and 122.42). Standard conditions in a permit for a POTW apply to portions of the collection system for which the permittee has ownership or has operational control. Standard permit conditions that have particular application to SSOs and municipal sanitary sewer collection systems are discussed below. When reissued, permits for POTW discharges should clarify how key standard permit conditions apply to SSOs and sanitary sewer collection systems. Clarifications should address:

**Immediate Reporting** - Permits should clarify that the permittee is required to notify the NPDES authority of an overflow which may endanger health or the environment from portions of the collection system over which the permittee has ownership or operational control as soon as practicable but within 24 hours of the time the permittee becomes aware of the overflow. (See 40 CFR 122.41(1)(6))

**Written Reports** - Permits should clarify that the permittee is required to provide the NPDES authority a written report within five days of the time it became aware of any overflow that is subject to the immediate reporting provision. (See 40 CFR 122.41(l)(6)(i)). In addition, permits should clarify that any overflow that is not immediately reported as indicated above, should be reported in the discharge monitoring report. (See 40 CFR 122.41(l)(7)).

**Third Party Notice** - Permits should establish a process for requiring the permittee or the NPDES authority to notify specified third parties of overflows that may endanger health due to a likelihood of human exposure; or unanticipated bypass and upset that exceeds any effluent limitation in the permit or that may endanger health due to a likelihood of human exposure. Permits should clarify that the permittee is required to develop, in consultation with appropriate authorities at the local, county, and/or state level, a plan that describes how, under various overflow (and unanticipated bypass and upset) scenarios, the public, as well as other entities, would be notified of overflows that may endanger health. The plan should identify all overflows that would be reported and to whom, and the specific information that would be reported. The plan should include a description of lines of communication and the identities of responsible officials. (See 40 CFR 122.41(l)(6)).

**Record Keeping** -Permits should clarify that the permittee is required to keep records of overflows. Clarified permit language for record keeping should require the permittee to retain the reports submitted to the NPDES authority and other appropriate reports that could include work orders associated with investigation of system problems related to an overflow, that describes the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow. (See 40 CFR 122.41(j)).

**Capacity, Management, Operation and Maintenance Programs** -Permits should clarify requirements for proper operation and maintenance of the collection system. (See 40 CFR 122.41(d) and (e)). This may include requiring the development and implementation of capacity, management, operation and maintenance (CMOM) programs. EPA's Region 4 (in Atlanta) has developed materials and guidance that can help a municipality with its CMOM program. A list of resources can be found at [www.epa.gov/region4/water/wpeb/momproject/momlinks.htm](http://www.epa.gov/region4/water/wpeb/momproject/momlinks.htm). The CMOM program may use a process for self-assessment and information management techniques for ongoing program improvement. The CMOM program may develop and implement emergency response procedures to overflows. In addition, the CMOM permit condition may specify appropriate documentation requirements, including:

CMOM Program Summary - Permittees may be required to develop a written summary of their CMOM programs, which would be available to the NPDES authority and public upon request. The program summary would give an overview of the management program and summarize major implementation activities.

Program Audit Report - Permittees may be required to conduct comprehensive audits of their programs during the permit cycle, and submit a copy of the audit report to the NPDES authority with the application for permit renewal. EPA's Office of Wastewater Management provides information on CMOM, see [http://cpub.gov/npdes/sso/toolbox.cfm?program\\_id=4](http://cpub.gov/npdes/sso/toolbox.cfm?program_id=4). The Region 4 guide for MOM audits and self-audits is found at [www.epa.gov/region04/water/wpeb/pdfs/self-audit\\_review2-3.pdf](http://www.epa.gov/region04/water/wpeb/pdfs/self-audit_review2-3.pdf).

System Evaluation and Capacity Assurance Plan - Capacity assurance refers to a process to identify, characterize and address hydraulic deficiencies in a sanitary sewer collection system. The permit may require the permittee to implement a program to assess the current capacity of the collection system and treatment facilities that they own or over which they have operational control in order to assure that discharges from unauthorized locations do not occur. Where peak flow conditions contribute to an SSO discharge or to noncompliance at a treatment plant, the permittee may be required to prepare and implement a system evaluation and capacity assurance plan. In some instances the permittee may already be under an enforceable obligation and schedule to do so, in which case this permit provision would be redundant, thus unnecessary.

Model permit conditions for clarifying reporting, recordkeeping, third party notification and CMOM programs for sanitary sewer collection systems are available from Jennifer Molloy, who may be contacted at [molloy.jennifer@epa.gov](mailto:molloy.jennifer@epa.gov) or (202) 564-0734.

### **Permit Coverage for Municipal Satellite Collection Systems**

Under 40 CFR 122.1(b)(1) the NPDES program requires permits for the discharge of pollutants from any point source into waters of the United States. Under 40 CFR 122.21(a)(1) the NPDES regulations provide that any person who discharges or proposes to discharge pollutants and who does not have an effective permit, must submit a complete application to the NPDES authority. Where there is a potential for an overflow from a collection system that discharges to waters of the United States, NPDES authorities would issue a NPDES permit to the owner or operator of the municipal satellite collection system consistent with the CWA. NPDES permits issued for municipal satellite collection systems should include the same requirements, as applicable, as a permit issued to any other publicly owned treatment works with a municipal sanitary sewer collection system, e.g. capacity, management, operation and maintenance (CMOM), reporting, third party notification and record-keeping. Any discharge from a municipal satellite collection system without a permit would be a violation of the CWA and would be subject to potential enforcement.