

CMOM —

The Next Major Step For Wastewater Utilities

Jim Peters, P.E., DEE

Principal Consultant, EMA, Inc., Longwood, Florida

Former General Manager of Tallahassee Water Utilities

CMOM is not a reminder to visit your mother but rather an initiative by the Environmental Protection Agency (EPA) as well as other interested parties to stop sanitary sewer overflows (SSOs). Two Florida utilities are already deeply involved in CMOM while others may become involved soon. Interest in CMOM is increasing rapidly as indicated by the overflow crowds that attended the CMOM workshops in St. Petersburg in early June and in Seattle, Washington, in early July. In general, most wastewater utility officials believe CMOM will be progressive and a major step forward for sewer systems.

CMOM — What Is It?

So, what is CMOM? An acronym for Capacity, Operations, and Maintenance, it is a comprehensive program aimed at eliminating SSOs during wet and dry weather. Currently, CMOM is a voluntary EPA program within Region 4, which is made up of eight southeastern states of the U.S. including Florida. However, a published national SSO Rule is expected for public comment in the near future. If enacted, the rule will embody the CMOM program or by way of the rule will experience significant changes in how they operate and care for their wastewater assets, particularly their sewer collection systems. No longer will underground infrastructure be "out of sight, out of mind." The general public's and public officials' awareness of sanitary sewer systems will increase significantly with greater attention paid to this often but ignored but large and important public asset.

A diverse committee that includes the EPA, utility trade groups, and environmental groups has struggled with the issue of SSOs since 1994. The EPA and other environmentally responsible groups are concerned about the public health and environmental impact of 40,000 reported SSOs each year. At times, discussions among the groups reached a stalemate; to keep the initiative alive, the EPA's Region 4 developed the voluntary CMOM program in 1998. Since then, EPA created the proposed SSO Rule, which was nearly published for public comment in the first half of 2001, near the end of the Clinton Administration. Alternatively, President Bush withdrew the rule so his administration could review it thoroughly. During this interim period, the EPA has received many comments from concerned interests, including the wastewater utility industry.

EPA Region 4 Voluntary Program

To understand the EPA Region 4 voluntary program is to understand most of the rule because the rule is expected to closely follow this initiative. For a utility in the Southeast who has the opportunity to be invited into the "voluntary" program, their involvement begins with an *Invitation to Participate* from the EPA. This invitation is based on water quality factors within a particular watershed. No established formula for the invitations exists, but water quality, including sanitary sewer overflows, vulnerability of the watershed to contamination, and consultation with state regulators all impact the (collection systems with no treatment plants) within the watershed to explain the CMOM program. Invitees are given a few days to decide if they want to participate voluntarily; months to complete a CMOM audit of their programs and submit the audit and disclosure to report seven months after the initial meeting. The EPA reviews the report and corresponds with the utility while the utility develops a plan to preserve its strong programs and address its deficiencies. Utilities participating in the voluntary program say the seven-month time frame is very challenging.

CMOM For Your Utility

What constitutes a comprehensive CMOM program within a wastewater utility? The EPA suggests the utility audit 152 program elements that are fundamental to wastewater utility operations. These elements include design standards and construction methods for new sewers, legal authority over industrial pretreatment and grease traps, safety and training programs, complaint tracking and information management, inspection and maintenance of pump stations and plants, manhole inspection and rehabilitation, gravity lines, and force mains. The utility must provide six items of information: purpose, goal, method of documentation, implementation by trained personnel, performance measures, and periodic evaluation for each program element. EPA does not set a rigid standard for each program but instead allows each utility to customize its CMOM program to fit its situation.

Infrastructure Rehabilitation — The Big Bucks

Some of the CMOM elements may significantly impact utilities financially. These ele-

ments are the rehabilitation of manholes, gravity lines, and force mains, and addressing capacity problems with mains, pump stations, and plants. In fact, if a utility is experiencing SSOs, a Sanitary Sewer Evaluation Study is likely to be required. The study could include flow monitoring, smoke testing, dye testing, and televising to understand the condition of the underground piping and determine overflow causes. Rehabilitation may be very expensive depending on the condition of the system. Rehabilitation measures could include point repairs, pipe lining or bursting, and complete pipe replacement. Many large U.S. cities have spent millions, even billions, of dollars on sewer rehabilitation to prevent SSOs. The decrepit conditions are due to years of neglect or poorly funded asset management practices. In fact, the EPA states that sanitary sewer collection systems are the most neglected infrastructure in the U.S. CMOM is engineered to correct that situation.

No SSOs by 2011

EPA's Region 4 has a goal of zero SSOs by 2011, although many utilities doubt the practicality of this objective. Despite this lack of confidence, EPA has remained adamant about the goal. One criticism of the proposed rule is a lack of "affirmative defense." That is, utilities feel they should be exempt from EPA prosecution if they have a quality CMOM program in place but still have overflows. EPA has indicated more leniency with violators who have a good CMOM program, but utilities want to see this promise in writing. How this issue will finally be addressed in the rule remains to be seen.

EPA Rule

If the SSO Rule is published for public comment, it is likely to contain CMOM requirements closely following the Region 4 voluntary program. The program requires utilities to convey all dry and wet weather flow to the treatment plant without overflows. Utilities should take steps to stop and mitigate the impact of SSOs, including notification of impacted parties of imminent public health dangers. Notifications will depend on the small overflow to television coverage of an overflow that impacts a beach area. Written summaries of each utility's CMOM program must be made available to the public. Much like current
(Continued on page 33)

CMOM...

(continued from page 32) —————

Florida standards, National Pollutant Discharge Elimination System (NPDES) authorities must be notified within 24 hours of overflows with written reports due within five days. Overflow records must be maintained for three years.

The rule is also expected to require satellite systems to either meet CMOM requirements through a formal agreement with the regional wastewater utility to which they send sewage for treatment or obtain their own NPDES permit. The EPA believes satellite systems are a significant cause of overflows — especially wet weather overflow — because these systems currently are not required to have permits, which means little incentive to maintain their infrastructure.

The rule is likely to mandate that CMOM requirements become a part of the NPDES permit renewal process, but CMOM requirements may be enacted earlier if a utility is experiencing SSOs. For some utilities with

early renewals, CMOM will be upon them quickly, while for others it may be several years into the future.

What To Do Now?

What should a wastewater utility do right now? The EPA recommends, and utilities within the voluntary program concur, utilities should begin preparing for CMOM now. Perform an audit of your program. Compare yourself to the CMOM program elements. Use the audit to identify strong and weak points of your utility and make plans to preserve the strong programs and improve the weaknesses. Like preparing for a hurricane, take advantage of this “lull before the storm” to prepare for CMOM. Even before the rule is officially enacted, your utility will be greatly improved and its assets preserved for future generations if CMOM is implemented. ■