Compliance Advisor: Think Small for Water Management

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EPA hosts conference on decentralized wastewater treatment systems.

The U.S. Environmental Protection Agency (EPA) sponsors more than 70 partnerships with a variety of stakeholders on a wide range of topics. An interesting partnership, included within the Water Partnerships, is Decentralized Wastewater Treatment Systems (http://cfpub.epa.gov/owm/septic/index.cfm). The Web site includes links to: guidance, manuals and policies, partners and EPA contacts, tools and resources, education and outreach, demonstration projects and technical information.

"Decentralized wastewater treatment systems play a critically important role in wastewater management."

This partnership program provides national direction and support to improve the performance of decentralized wastewater systems by promoting the concept of continuous management and facilitating professional standards of practice. Following is a summary of a recent conference in Chicago on decentralized wastewater treatment systems, sponsored by EPA Region 5 as part of the Decentralized Wastewater Systems Partnership.

Decentralized Wastewater Management

Decentralized wastewater treatment uses individual or clustered onsite systems to treat and dispose of waste near the source of the waste's generation. For businesses or homes, this typically means that there is a septic tank and a soil leaching field in a small business' or homeowner's lot. A cluster system serves several businesses, homes or an entire neighborhood. Such a system contrasts with a more traditional centralized sewer system that transfers wastewater from multiple businesses and homes to a single location for treatment. Treated wastewater is then discharged to a water body pursuant to a Clean Water Act discharge permit.

Small communities' wastewater needs are currently 10% of total wastewater demands and decentralized systems serve approximately 25% of the U.S. population, and approximately 37% of new development, according to a report to Congress prepared in 1997 by EPA's then Office of Wastewater Management. The information in the report is the most current available from the U.S. government. Adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals, particularly in less densely populated areas, says the same report. Onsite and clustered water systems are believed protect public health, drinking water supplies, and water resources when properly planned, implemented, and managed.

EPA's Commitment

In recognition of these facts, EPA convened a June 10-11 conference in Chicago, titled "Decentralized Wastewater Treatment Systems Conference" (http://www.epa.gov/r5water/npdestek/agenda.htm). The Web site link will take you to 21 PowerPoint presentations prepared in connection with the conference. The presentations provide useful, current and detailed information on a wide range of subjects pertinent to decentralized wastewater systems.

The conference was intended to ensure that onsite wastewater systems are properly installed and operated in a manner that protects public health, minimizes environmental impacts, and complies with the law. The conference also reflects EPA's acknowledgement that decentralized wastewater treatment systems play a critically important role in wastewater management and are every bit as important as centralized wastewater management systems that are typically more in the limelight than their smaller counterparts.

Among the topics considered at the conference were: statutes and regulations covering small discharging wastewater systems; National Pollutant Discharge Elimination System (NPDES) general permits covering small discharging wastewater systems; advanced soil-based disposal options; successful programs that have minimized or obviated surface-discharging onsite treatment systems; system costs and management needs; soil-based technologies and performance; and a useful summary of current state challenges regarding discharging treatment systems (including Illinois, Ohio, Indiana, Wisconsin, Minnesota and Michigan).

Chemical Processing readers may wish to review the presentations using the Web link. For example, one of the available presentations provides an overview of state and federal requirements for discharging systems. Another presentation details risk-based management approaches that consider treatment technologies, environmental setting and performance requirements. Readers can take advantage of the excellent display of useful and timely information on this important component of the U.S. wastewater treatment system.

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