

been authorized by EPA to administer the part 503 program, and 15 additional States are at various points in the authorization process. National coordination of State, regional and Headquarters biosolids programs are achieved via an annual national meeting.

EPA continues to meet its statutory obligations under the Clean Water Act (CWA) pertaining to sewage sludge. The Agency continues to believe that land application of biosolids is an appropriate choice for communities, when conducted in compliance with EPA regulations. Given present scientific knowledge, EPA has based the allocation of resources to biosolids compliance and enforcement on its assessment of the relative risks to public health and the environment that are posed by biosolids.

Regions and States have the flexibility and responsibility to address situations where compliance assistance and enforcement actions to address biosolids are appropriate and necessary. EPA has taken enforcement actions and/or appropriate administrative remedies to address biosolids violations of 40 CFR part 503 and will continue to take actions to address instances where biosolids pose an imminent and substantial endangerment to human health or the environment. EPA will reconsider resources devoted to biosolids if additional research and science demonstrate greater risk.

To assist the States and Regions in their oversight of the biosolids program, EPA has, either in place or in development, tools to assist and promote compliance with biosolids regulatory requirements. The National Pollutant Discharge Elimination System (NPDES) Compliance Inspection Manual, which is used by EPA and State inspectors to perform inspections in the field, includes a "Sludge (Biosolids)" chapter (Chapter 10). This manual has just undergone major revisions and updating by a Headquarters and regional workgroup; the Manual is being distributed as a final draft for regional and program office review. Electronic training modules, including a module for biosolids inspections, are planned to be available shortly after the release of the revised manual, in Summer 2003.

Additionally, there are two compliance assistance web sites, which are available for biosolids compliance studies, information and tools, and for links to other sites with pertinent biosolids compliance information. One is the National Environmental Compliance Assistance Clearinghouse at: <http://cfpub.epa.gov/clearinghouse/>. This site is a searchable clearinghouse

of compliance assistance materials. The second Web site is the Local Government Environmental Assistance Network (LGEAN) at <http://www.lgean.net>. This on-line compliance assistance center, which focuses on local government environmental requirements, is operated by the International City/County Management Association (ICMA), and has six other partners representing local government.

In the area of data systems, EPA is continuing to work with States as it modernizes the Permit Compliance System (PCS) to allow for more effective program oversight. While PCS is the national data system for the NPDES permit program, it currently requires only limited biosolids data. As part of the PCS modernization, a separate workgroup (including States and EPA) was devoted to the data needed to manage the biosolids program. This workgroup examined data in State systems, Biosolids Data Management System (BDMS) and PCS, and considered incorporating BDMS into PCS. The recommendations of this workgroup, endorsed by the PCS Executive Council, was not to incorporate or link BDMS, but rather to add data elements to PCS to improve tracking and oversight of the biosolids program.

The BDMS is another source of biosolids data. It was developed in the late 1990s by Region VIII to track biosolids quantity, quality, use, and disposal practices in the Region VIII states. While not the national system of record for biosolids, BDMS is a tool for municipalities in which they can enter data themselves and use the BDMS to develop reports for states, EPA and for citizen review. The BDMS is also a valuable management tool and can be used to record information about reported incidences associated with biosolids land application. The BDMS is available at: <http://www.treeo.uf.edu/water/bdmsQuestionnaire.asp>. Current BDMS users include some EPA Regional offices, States, users of biosolids, contract land appliers, and POTWs throughout the U.S. and Canada. EPA is continuing to assess the potential of upgrading BDMS as a management tool that can link with established states and the Federal PCS system.

Research by the Water Environment Research Foundation (WERF) is described in the Pathogen and the Human Health Studies categories. WERF also supported a study by the New England Biosolids and Residuals Association (NEBRA) looking at the importance of establishing relationships among researchers, federal government and concerned citizens. This research

included a survey on public perceptions and what people know about biosolids, what their concerns are and whether their concerns are being addressed adequately. The study's aim is to suggest ways that regulators and people can work together. A report is due out by mid 2003.

This and other projects will help the Agency gain a better understanding of public perception issues, values, and expectations. EPA can then identify the most effective communication approaches to ensure understanding of the importance of, and need for, proper biosolids management.

*Science and Public Outreach:* Because of varying resources and diverse local circumstances, risk communication practices vary widely throughout the United States. The Agency's risk communication programs are aimed at improving public awareness of the issues and to achieve exposure reductions where needed. Embodied in all of the priorities for action described in this biosolids strategy is a need to foster public awareness of the issues surrounding biosolids use and exposure. Through the activities and organizations mentioned below, EPA is committed to improving the effectiveness of risk communication methods at national, regional, and local levels.

An Information-Sharing Group (ISG) has been established based upon the concepts developed in WERF studies concerning joint fact-finding research. The ISG is comprised of concerned citizens, health scientists, municipal operators, a farmer, biosolids managers, and input from State and Federal regulatory agencies. The ISG has been established to work jointly with about 25 scientific experts in a large cooperative study of odor, particulates, pathogens, and endotoxins in the air around biosolids and animal manure land application sites. Currently the researchers are from EPA, USDA, the State of PA, and several other organizations. WERF has efforts underway to expand the use of such information-sharing in other research projects.

The National Biosolids Partnership (NBP) is a 48 member alliance formed in 1997 with AMSA (Association of Metropolitan Sewerage Agencies), WEF (Water Environment Federation, and EPA (U.S. Environmental Protection Agency). Through partnering with producers, service contractors, users, regulatory agencies, universities, the farming community, and environmental organization, the goal of the NBP is to advance environmentally sound and accepted biosolids management practices.