



TECHNOLOGY TRANSFER

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Office of Research and Development

New Technology Transfer Publications
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Manual

Ground Water and Leachate Treatment Systems (EPA/625/R-94/005)

Past disposal of hazardous and solid waste has resulted in groundwater contamination. At many of these waste sites, remediation of ground water involves extracting the ground water, then treating it by an *ex situ* treatment process.

Although similar compounds and treatment technologies may be involved, the design considerations for *ex situ* treatment of ground water or leachate differ from those from industrial waste treatment systems because of

- dilute concentrations of multiple contaminants
- variable flow rates
- process-interfering colloids
- contaminant concentrations that vary over time

This manual was developed for remedial design engineers and regulatory personnel who oversee the *ex situ* groundwater or leachate treatment efforts of the regulated community. This manual can serve as an initial technology screening guide. More importantly, this manual addresses technical considerations important in the design evaluation phase. Design considerations include flow and contaminant concentration variability, life cycle design, package plants, materials of construction and compatibility, and residuals management.

Bench, pilot, and full scale treatability information on contaminants frequently found on Superfund sites is provided.

The appendix contains fact sheets on 14 technologies used for treating ground water or leachate. These sheets include information on technology status, limitations, design criteria, residuals generation, and cost.

Seminar Publication

National Conference on Urban Runoff Management (EPA/625/R-95/003)

This document presents the technical information presented at the National Conference on Urban Runoff Management held in Chicago, IL, on March 30–April 2, 1993. This conference was cosponsored by the U.S. Environmental Protection Agency's Center for Environmental Research Information and Region 5; the U.S. Department of Agriculture's Soil Conservation Service; the National Oceanic and Atmospheric Administration; the U.S. Fish and Wildlife Service; and the Northeastern Illinois Planning Commission.

This four-day conference addressed many aspects of urban watershed management including

- urban watershed planning
- monitoring, modeling, and assessment
- riparian and wetland issues
- state, county, and local management programs
- federal regulatory programs
- best management practices

This document includes over 50 peer-reviewed technical papers resulting from this conference. The papers present a wide range of technical information that will assist both the public and private sectors in dealing with many of the existing and developing urban runoff and watershed management programs. Authors represent a group of national experts from federal, state, county, and local governments; academic institutions; environmental consulting firms; and other public and private entities.

This document addresses numerous technical, institutional, and regulatory issues relating to the management of urban runoff. The information presented in this document reflects the successes of many urban watershed management programs around the country. These programs use innovative approaches to preventing and mitigating the adverse



water quality and ecological effects of urban runoff.

Environmental Regulations and Technology Report

Managing Used Oil (EPA/625/R-94/010)

This document presents information on how to properly manage used motor oil. This document addresses the management of used oil generated by changing motor oil from automobile or truck crankcases and collecting used motor oil from do-it-yourselfers (DIYs).

The purpose of this document is to help used motor oil generators properly manage their used oil, by giving detailed information to assist used motor oil generators in meeting the requirements of the Used Oil Management Standards finalized by the U.S. Environmental Protection Agency in September 1992.

This document was developed to assist individuals who own or work at businesses and other facilities that generate used motor oil. These businesses and facilities include

- Service Stations
- Quick-Lube Shops
- Fleet Operations
- DIY Used Oil Collection Centers
- Motor Oil Retailers

This document presents, in each chapter, a different aspect of used oil management. The following chapters are included:

- Chapter 1 *Introduction*
- Chapter 2 *The Used Oil Management System*
- Chapter 3 *The Regulations*
- Chapter 4 *Options for Recycling Used Oil*
- Chapter 5 *Choosing a Used Oil Transporter*
- Chapter 6 *Onsite Management for Used Oil Generators*
- Chapter 7 *Managing and Disposing of Used Oil Filters*

In addition, the document includes several appendices that provide sources for detailed information relating to used oil management and summaries of several applicable federal regulations that address used oil management practices.

A Peak Into the Future

Several technology transfer documents are currently under preparation and will be available by October 1995. They are

- Manual: Land Application of Sewage Sludge and Domestic Septage
- Manual: Surface Disposal of Sewage Sludge and Domestic Septage
- BMP Guide for Pollution Prevention: Slabstock and Molded Flexible Polyurethane Foam Manufacturing
- Summary Report: Controlling Nitrogen Dioxide Emissions from Large Boilers by the "Reburn" Technology

Watch for their availability in the next issue of *Technology Transfer*.

Meetings

On Control of Organic Air Emissions from Tanks, Surface Impoundments, and Containers

A series of three seminars on control of organic air emissions from tanks, surface impoundments, and containers will be held in August in Philadelphia, Chicago, and Dallas. The first seminar will be the week of August 14 in Philadelphia, while the other two seminars will be in Chicago and Dallas. Technical content of the seminars will include applicability, compliance requirements, control technology, measurement and testing requirements for air pollution control equipment, reporting and recordkeeping requirements, and inspection and enforcement. These seminars are being held to disseminate new developments in control technology applicable to the covered source categories. These requirements are as a result of the newly effective (June 6, 1995) regulations under the Resource Conservation and Recovery Act that were promulgated December 6, 1994. These regulations were promulgated because organic air emissions from treatment, storage, and disposal facilities are judged to cause adverse effects to human health and the environment.

Presentations and case studies will be used to relay information concerning the control technology applicable to those sources affected by the most recent set of regulations (Subpart CC). Presenters will include persons assisting in developing the regulations. For more information, contact Helen Genz or Susan Brager, Eastern Research Group, Inc., 110 Hartwell Ave., Lexington, MA 02173-3198; telephone 617-674-7250 or 617-674-7347, respectively. To register (at no cost for the seminar) call 617-674-7374, or fax your registration form to 617-674-2906.

Pollution Prevention (Re)engineering Workshop

The Center for Environmental Research Information is cosponsoring a pollution prevention workshop in conjunction with the Society for Enterprise Engineering, June 19-22, 1995, to be held at the Airport Hyatt in Orlando, FL. Enterprise engineering deals with that body of knowledge, principles, and disciplines having to do with the analysis, design, implementation

EPA is establishing a database of GRITS/STAT users. The database will be used to notify GRITS/STAT users of updates to the software and potential problems and solutions encountered in using the software. If you are a GRITS/STAT user, send your name, organization, address, and phone number to the following address:

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WSTM/RCRA/GEOL
USEPA Region 7
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Kansas City, KS 66101**

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and operation of an enterprise. As a speciality area of consideration, (re)engineering applications will be a focus of this conference. These (re)engineering practices are being conducted in one form or another by both large and small companies and various local, state, and federal government organizations. This conference is an international forum for presenting and discussing enterprise engineering topics pertinent to business leaders, managers, and others engaged in research, analysis, and practices associated with enterprise engineering. As part of this conference, workshops and papers will be presented to acquaint business leaders with opportunities for examining pollution prevention opportunities as part of their (re)engineering applications. Experts involved with industry applications will explain and present case study information on total quality environmental management issues in such areas as industrial ecology, life cycle analysis, design for the environment, environmental cost accounting, product stewardship, and ISO 14000 standards.

For business professional contemplating (re)engineering applications and how pollution prevention measures can be integrated with these endeavors, this is an excellent forum to attend to help you make your decisions and evaluate tools and consultants providing support to this activity. For further information and registration for this workshop and conference contact Mary Ellen Johnson, Society for Enterprise Engineering, 1900 Founders Drive, Kettering, OH, phone 513-259-4702, fax 513-259-4343.

Annual Symposium on Bioremediation of Hazardous Wastes: Research, Development, and Field Evaluations

The Seventh Symposium on Bioremediation of Hazardous Wastes: Research, Development and Field Evaluations will be held August 8–10, 1995, in Rye Brook, NY. This 2 1/2-day symposium is being sponsored by EPA's Biosystems Technology Development Program. The Biosystems Technology Development Program strives to balance

research on degradation processes with engineering activities that contribute to environmental cleanups through assessment of health and ecological impacts.

The purpose of this symposium is to present and discuss the research, development, and field evaluations of bioremediation projects undertaken in 1994 and 1995 by EPA's Biosystems Technology Development Program. Bioremediation projects conducted by EPA's Hazardous Substance Research Centers also will be presented. Topics to be discussed cover the *in situ* treatment of the surface and subsurface and the *ex situ* treatment of aqueous and gaseous phases and soils. Presentations and poster sessions will be beneficial to leading researchers and field personnel in bioremediation from federal, state, and local agencies; industry; vendors; contractors; and academia.

To register for this symposium please call Eastern Research Group, Inc. (ERG), at 617-674-7374.

1995 AWWA Annual Conference

The EPA Offices of Research and Development (ORD) and Groundwater and Drinking Water (OGWDW) will again cooperate in an exhibit at the June 18–22, 1995, AWWA Annual Conference and Exposition in Anaheim, CA. Approximately 11,000 state and utility personnel along with consultants, manufacturers, and academicians regularly attend this meeting. This is the tenth successive year in which ORD and OGWDW have collaborated to provide a joint EPA exhibit.

As part of the exhibit, ORD and OGWDW display and make available to participants many publications that are pertinent to the Agency's Drinking Water Program. At last year's meeting almost 3,500 ORD publications were requested by visitors to the booth.

Several EPA research scientists are participating in the conference's technical program by presenting papers.

1995 AWMA Annual Conference

EPA is sponsoring a booth at the Air and Waste and Management Association (AWMA) Annual Meeting in San Antonio, TX, the week of June 18, 1995. As part of the Annual Meeting, AWMA always has an exhibition. EPA has participated in the exhibit for many years, displaying graphics of the various research projects underway in the Office of Research and Development, disseminating literature on the technology and regulations, and providing information on the person to contact for additional, detailed information. In recent years we have added demonstrations of various software available both on disk and through downloading from electronic bulletin board systems. More recently, some of the databases are available on CD, as well as floppy disk. In recent years, attendance has topped 5,000. Come see what we have in store this year! The EPA exhibit is to be in Booth 1106 in the San Antonio Convention Center exhibition hall on June 20–22, 1995.

1995 WEF Annual Conference/ Exposition

For the past 18 years EPA has sponsored a technology transfer/outreach exhibit at the annual WEF Conference/Exposition. The WEF Conference is the largest international environmental conference in existence. Registration at last year's conference in Chicago, IL, exceeded 15,000. This year's conference/exposition will be held in Miami Beach, FL, at the Miami Beach Convention Center from October 22–27, 1995.

The WEF Conference/Exposition encompasses all aspects of the water environment. This includes water quality management, wet weather flow, groundwater and nonpoint source control, wetland and ocean issues, and topics related to pollution prevention. Additionally, the majority of the attendees at the WEF Conference/Exposition are also involved in the management and control of hazardous and solid waste activities.

The EPA exhibit is Booth 3401, and many types of information will be available for the taking or by ordering.

Ground Water Protection

Rural America is 95% dependent on groundwater sources. Fifty percent of the nation's water supply is dependent on ground water. Contaminated ground water means costly treatment facilities or alternative sources that may or may not be available. EPA's Wellhead Protection Program is voluntary and works with the National Rural Water Association in local land use control with unanimous local government and citizen support.

As a direct consequence of workshops and publications developed and presented by the Center for Environmental Research Information, the Office of Ground Water and Drinking Water, and the National Rural Water Association since the beginning of the program in 1991, over 1,340 wellhead protection plans, providing protection for

the drinking water supply of 2,681,400 people were able to put in place by the end of December 1994. The number of systems presently active in the Ground Water Program are 2,053, representing a population of 3,985,510. The publications compile and supplement the material presented during the past few years in over 70 workshops. These workshops have to date taken place in 27 states with more than 2,500 attendees.

While the first publication, EPA/625/R-93/002, presents the technical information given at the workshops, the second, EPA/625/R-94/001, is potentially useful to anyone responsible for delineating the boundaries of a wellhead protection area, identifying and evaluating potential contaminants, and identifying wellhead management options. It is divided into two parts: (1) Wellhead

Protection Area Delineation, and (2) Implementation of Wellhead Protection Areas.

Information acquired through these groundwater program field activities has been used to better educate water systems, local decision makers, State Primacy Agencies, and Regional EPA staff. These workshops and publications facilitated the adoption of state groundwater protection plans as well as allowing the communities themselves to put wellhead protection programs in place. Significant cost savings resulted.

For a schedule of future workshop activities, contact David Streeter, National Rural Water Association, PO Box 1428, 2915 South 13th Street, Duncan, OK 73534, phone 405-252-0629; or Jim Smith, EPA-CERI, Cincinnati, OH 45268, phone 513-569-7355.

U. S. EPA's Internet Access: [HTTP://WWW.EPA.GOV](http://www.epa.gov)

The EPA World Wide Web Server (WWW) is run as a prototype system to provide public access to EPA information. If you have any questions or problems with the WWW server, please feel free to use our on-line feedback form or send e-mail to internet-Support@unixmail.rtpnc.epa.gov. Information is available on the following subjects:

- Press releases, calendars, announcements, speeches
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- Consumer information
- EPA initiatives, policy, and strategy documents
- Rules, regulations, and legislation
- EPA standards
- Science, research, and technology
- Information about grants, contracts (RFPs), and job vacancies
- Newsletters and journals
- Software and databases

The following programs have links to this EPA home page:

- Environmental Monitoring and Assessment Program (EMAP)
- Gulf of Mexico Program
- National Estuaries Program
- Great Lakes Information Network
- Government Information Servers

Coming soon to the this home page:

- EPA's Office of Research and Development

EPA's Office of Research and Development Reorganized

EPA's ORD has begun a major reorganization, the result of a comprehensive review and assessment of EPA's scientific and technical support mission and organization. This study was called for in EPA's fiscal year 1994 Congressional Appropriation Report and was consistent with the National Performance Review and the Administration's goals of reinventing government. The study was conducted under the oversight of the Deputy Administrator by an EPA Laboratory Study Steering Committee consisting of senior officials from across the Agency. The National Academy of Public Administration, EPA's Science Advisory Board, and the MITRE Corporation were engaged to assist in the review. This effort resulted in a report from the committee to the Administrator, entitled "Research, Development, and Technical Services at EPA: A New Beginning," EPA/600/R-94/122. Subsequently, the Administrator directed the Assistant Administrator for ORD to propose a reorganization plan responsive to the recommendations of the study.

The Administrator's decisions called for the realignment of ORD's 12 laboratories and seven field stations into three National Laboratories and one National Center focusing on a redefined EPA science mission based on the risk assessment/risk management model of the National Academy of Science. A complementary decision called for enlarging ORD's partnership with the extramural scientific community through an expanded program of research grants, fellowships, and other related activities resulting in the formation of a second National Center. The underlying factor of the Agency's redefined science mission is the reduction of uncertainty through increased scientific research and the reduction of risk through new technology. As the Agency's lead office for integrating technical knowledge that will aid in forming policy for environmental protection, ORD has the principal responsibility for achieving the Agency's redefined science role. The comprehensive course of action approved by the Administrator, which requires this reorganization effort, will strengthen ORD research activities and enhance the application of science in environmental decision making.

The figure on page 6 depicts ORD's new organizational structure. The resulting structure has two field components. The first, supporting the intramural research program, involves the merging of all 12 laboratories and seven field stations into three National Laboratories (the National Exposure Research Laboratory, RTP, NC, the National Health and Environmental Effects Research Laboratory, RTP, NC, and the National Risk Management Research Laboratory, Cincinnati, OH) and a National Center for Environmental Assessment, Washington, DC, organized around the National Academy of Science's Risk Assessment/Risk Management paradigm. This structure organizes research around principles for presenting and developing risk information, a common language for addressing a variety of issues and concepts, and a flexible analytical system that accommodates the diversity of scientific information and policy perspectives that characterize the risk assessment process. It also fosters integration among human and ecosystem protection by avoiding institutional separation of these research areas, as has been the case under the present structure, while recognizing important distinctions between risk assessment and risk management processes.

The new structure is better suited to dealing with multimedia pathways and risks than an organizational scheme focused on individual media or program offices.

The second field component, the National Center for Extramural Research and Quality Assurance, Washington, DC, is proposed to implement the strengthened partnership with the extramural scientific community primarily through grants for research projects, fellowships, and the Environmental Research Centers program. In addition, the center will provide support to technical programs that require cross-agency coordination, such as the Quality Assurance Management Program, implementation of peer review policies, technology development, and the Environmental Monitoring Management Council. While these functions support ORD's research mission, ORD believes that the overall program will be more successfully administered by a separate center than by the three national laboratories and the Risk Assessment Center.

The reorganization also includes abolishing eight of the current nine Headquarters Offices and establishing three new offices: the Office of Resources Management and Administration (ORMA), the Office of Research and Science Integration (ORSI), and the Office of Science Policy (OSP), and modifying the Immediate Office of the Assistant Administrator (IOAA).

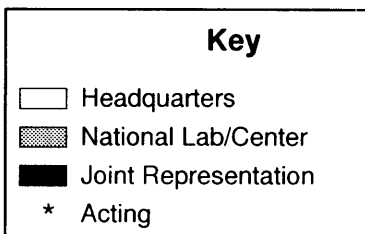
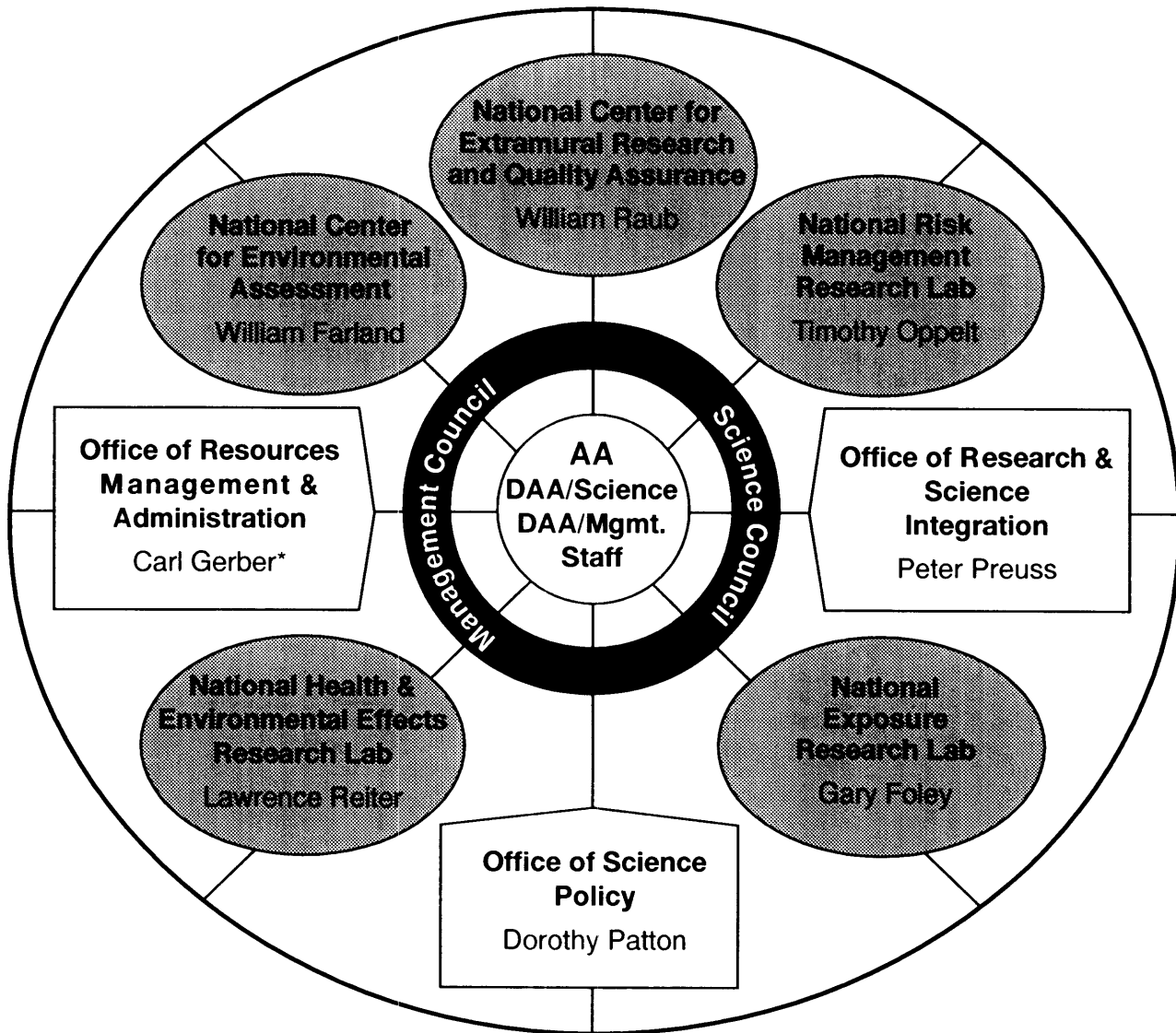
The Phase I establishment of the National Laboratory/Center structure will strengthen ORD's customer focus by

- concentrating on the science and technology needs of program and regional offices,
- supporting the agency's mission through short- and long-term research,
- enhancing responsiveness to OMB, OSTP and Congressional requests at the National Laboratory/Center level, and
- building improved partnerships in science and technology among Agency program and regional offices, academia, the private sector, and environmental programs of federal, state, local, and tribal governments.

EPA, through the Agency-wide Research Leadership and Focus Subcommittee, is currently redesigning the research planning process with specific emphasis on supporting the Agency's mission and customer satisfaction. The results of this effort will be incorporated into ORD's operations.

With this reorganization, ORD will increase customer focus in two ways. First, reducing the number of field components to five and placing responsibility and accountability for research planning with the National Laboratory/Centers reduces the probability of customer dissatisfaction resulting when all of the necessary parties are not involved in the negotiations. Second, the formal commitment to a goal of \$100 million in investigator-initiated grants and the graduate fellowships program makes ORD's commitment clear to its extramural customers in the academic research community with respect to its commitments to fostering extramural environmental research. The reorganization will improve the opportunities for EPA/ORD and the academic/scientific communities to build strong working partnerships across a broad front of environmental science and technology areas and also to work closely with other federal scientific agencies to ensure coherent and integrated research programs.

ORD Reorganization



TECHNOLOGY TRANSFER MATERIAL

MANUALS

Phosphorus Removal (Sept. 1987)	625/1-87/001
Land Treatment of Municipal Wastewater (Oct. 1981)	625/1-81/013
Supplement for Land Treatment of Municipal Wastewater (Oct. 1984)	625/1-81/013a
Dewatering Municipal Wastewater Sludges (Sept. 1987)	625/1-87/014
Land Application of Municipal Sludge (Oct. 1983)	625/1-83/016
Odor and Corrosion Control in Sanitary Sewerage Systems and Treatment Plants (Oct. 1985)	625/1-85/018
Municipal Wastewater Disinfection (Oct. 1986)	625/1-86/021
Constructed Wetlands and Aquatic Plant Systems for Municipal Wastewater Treatment (Oct. 1988)	625/1-88/022
Fine Pore Aeration Systems (Oct. 1989)	625/1-89/023
Alternative Collection Systems for Small Communities (Oct. 1991)	625/1-91/024
Guidelines for Water Reuse (Sept. 1992)	625/R-92/004
Wastewater Treatment/Disposal for Small Communities (Sept. 1992)	625/R-92/005
Control of CSO Discharges (Sept. 1993)	625/R-93/007
Nitrogen Control (Sept. 1993)	625/R-93/010
Alternative Methods for Delivery and Recover (Oct. 1994)	625/R-94/003
Recycling and Reuse of Materials Found on Superfund Sites (Oct. 1994)	625/R-94/004
◆ Ground Water and Leachate Treatment Systems (Jan. 1995)	625/R-94/005

TECHNICAL CAPSULE REPORT

Radon-Resistant Construction Techniques for New Residential Construction: Technical Guidance	625/2-91/032
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SEMINAR PUBLICATIONS

Permitting Hazardous Waste Incinerators	625/4-87/017
Meeting Hazardous Waste Requirements for Metal Finishers	625/4-87/018
Transport and Fate of Contaminants in the Subsurface	625/4-89/019
Corrective Actions - Technologies and Applications	625/4-89/020
Solvent Waste Reduction Alternatives	625/4-89/021
Requirements for Hazardous Waste Landfill Design, Construction and Closure	625/4-89/022
Technologies for Upgrading Existing or Designing New Drinking Water Treatment Facilities	625/4-89/023
Risk Assessment, Management and Communication of Drinking Water Contamination	625/4-89/024
Design and Construction of RCRA/CERCLA Final Covers	625/4-91/025
Site Characterization for Subsurface Remediation	625/4-91/026
Nonpoint Source Watershed Workshop	625/4-91/027
Medical and Institutional Waste Incineration: Regulations, Management, Technology, Emissions, and Operation ...	625/4-91/030
Control of Biofilm Growth in Drinking Water Distribution Systems	625/R-92/001
Organic Air Emissions from Waste Management Facilities	625/R-92/003
The National Rural Clean Water Program Symposium	625/R-92/006
RCRA Corrective Action Stabilization Technologies	625/R-92/014
Control of Lead and Copper in Drinking Water	625/R-93/001
Wellhead Protection: A Guide for Small Communities	625/R-93/002
Operational Parameters for Hazardous Waste Combustion Devices	625/R-93/008
Design, Operation, and Closure of Municipal Solid Waste Landfills	625/R-94/008
◆ National Conference on Urban Runoff Management	625/R-95/003

BROCHURES

Environmental Pollution Control Alternatives: Drinking Water Treatment for Small Communities	625/5-90/025
Regional Environmental Monitoring and Assessment Program (R-EMAP)	625/R-93/012

TECHNOLOGY TRANSFER MATERIAL (continued)

HANDBOOKS

Septage Treatment and Disposal (Oct. 1984)	625/6-84/009
Control Technologies for Hazardous Air Pollutants (July 1991)	625/6-91/014
Ground Water - Volume I (Sept. 1990)	625/6-90/016a
Ground Water - Volume II: Methodology (July 1991)	625/6-90/016b
Retrofitting POTWs for Phosphorus Removal in the Chesapeake Bay Drainage Area (Sept. 1987)	625/6-87/017
Guide to Technical Resources for the Design of Land Disposal Facilities (Dec. 1988)	625/6-88/018
Guidance on Setting Permit Conditions and Reporting Trial Burn Results (Jan. 1989)	625/6-89/019
Retrofitting POTWs (July 1989)	625/6-89/020
Hazardous Waste Incineration Measurement Guidance (June 1989)	625/6-89/021
Stabilization/Solidification of CERCLA and RCRA Wastes (July 1989)	625/6-89/022
Quality Assurance/Quality Control (QA/QC) Procedures for Hazardous Waste Incineration (Jan. 1990)	625/6-89/023
Operation and Maintenance of Hospital Waste Incinerators (Jan. 1990)	625/6-89/024
Assessing the Geochemical Fate of Deep-Well Injected Hazardous Waste (June 1990)	
Reference Guide	625/6-89/025a
Summaries of Recent Research	625/6-89/025b
Stabilization Technologies for RCRA Corrective Actions (Aug. 1991)	625/6-91/026
Optimizing Water Treatment Plant Performance Using the Composite Correction Program Approach (Feb. 1991) ..	625/6-91/027
Remediation of Contaminated Sediments (Apr. 1991)	625/6-91/028
Sub-Slab Depressurization for Low-Permeability Fill Material	
Sewer System Infrastructure Analysis and Rehabilitation (Oct. 1991)	625/6-91/030
Materials Recovery Facilities for Municipal Solid Waste (Sept. 1991)	625/6-91/031
Vitrification Technologies for Treatment of Hazardous and Radioactive Waste (May 1992)	625/R-92/002
Control of Air Emissions from Superfund Sites	625/R-92/012
Subsurface Field Screening, Characterization and Monitoring	
Techniques: A Desk Reference Guide (Sept. 1993)	625/R-93/003
Urban Runoff Pollution Prevention and Control Planning (Sept. 1993)	625/R-93/004
Use of Airborne, Surface and Borehole Geophysical Techniques at Contaminated Sites:	
A Reference Guide (Sept. 1993)	625/R-92/007
Control Techniques for Fugitive VOC Emissions from Chemical Process Facilities (March 1994)	625/R-93/005
Approaches for the Remediation of Federal Facility Sites Contaminated with Explosive or	
Radioactive Waste (Sept. 1993)	625/R-93/013
Ground Water and Wellhead Protection (May 1994)	625/R-94/001
Guide To Septage Treatment And Disposal (Oct. 1994)	625/R-94/002

GUIDES TO POLLUTION PREVENTION

The Pesticide Formulating Industry (Feb. 1990)	625/7-90/004
The Paint Manufacturing Industry (June 1990)	625/7-90/005
The Fabricated Metal Industry (July 1990)	625/7-90/006
The Printed Circuit Board Manufacturing Industry (June 1990)	625/7-90/007
The Commercial Printing Industry (Aug. 1990)	625/7-90/008
Selected Hospital Waste Streams (June 1990)	625/7-90/009
Research And Educational Institutions (June 1990)	625/7-90/010
Approaches For Remediation Of Uncontrolled Wood Preserving Sites (Nov. 1990)	625/7-90/011
The Photoprocessing Industry (Oct. 1991)	625/7-91/012
The Automotive Repair Industry (Oct. 1991)	625/7-91/013
The Fiberglass-Reinforced And Composite Plastics Industry (Oct. 1991)	625/7-91/014
The Marine Maintenance And Repair Industry (Oct. 1991)	625/7-91/015

TECHNOLOGY TRANSFER MATERIAL (continued)

The Automotive Refinishing Industry (Oct. 1991)	625/7-91/016
The Pharmaceutical Industry (Oct. 1991)	625/7-91/017
The Mechanical Equipment Repair Industry (Sept. 1992)	625/R-92/008
Metal Casting And Heat Treating Industry (Sept. 1992)	625/R-92/009
Municipal Pretreatment Programs (Sept. 1993)	625/R-93/006
Non-Agricultural Pesticide Users (Sept. 1993)	625/R-93/009
Organic Coating Removal (Feb. 1994)	625/R-93/015
Alternatives To Chlorinated Solvents For Cleaning and Degreasing (Feb. 1994)	625/R-93/016
Cleaning and Degreasing Process Changes (Feb. 1994)	625/R-93/017
Organic Coating Replacements (Oct. 1994)	625/R-94/006
Alternative Metal Finishes (Oct. 1994)	625/R-94/007

SUMMARY REPORTS

In-Vessel Composting of Municipal Wastewater Sludge	625/8-89/016
Optimizing Water Treatment Plant Performance with the Composite Correction Program	625/8-90/017
Small Community Water and Wastewater Treatment	625/R-92/010

EXECUTIVE BRIEFINGS

Injection Well Mechanical Integrity	625/9-89/007
Experiences in Incineration Applicable to Superfund Site Remediation	625/9-88/008
Volumetric Tank Testing: An Overview	625/9-89/009

ENVIRONMENTAL REGULATIONS AND TECHNOLOGY PUBLICATIONS

The Electroplating Industry	625/10-85/001
Fugitive VOC Emissions in the Synthetic Organic Chemicals Manufacturing Industry	625/10-84/004
Autothermal Thermophilic Aerobic Digestion of Municipal Wastewater Sludge	625/10-90/007
Control of Pathogens and Vectors in Sewage Sludge	625/R-92/013
◆ Managing Used Oil	625/R-94/010

SOFTWARE

POTW Expert	625/11-90/001
Strategic WASTE Minimization Initiative (SWAMI) Version 2.0	625/11-91/004
GROundwater Information Tracking System with STATistical Analysis Capability (GRITS/STAT)	625/11-91/002

OTHER

ORD BBS User's Manual (V 2.0)	600/M-91/050
Description and Sampling of Contaminated Soils: A Field Pocket Guide	625/12-91/002

◆ Listed for first time.

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Future Meetings

Meeting	Title	Date(s)	Location	Contact	Phone No.
Seminar	On Control of Organic Air Emissions from Tanks, Surface Impoundments, and Containers	Aug. 14, 1995 Dates of two others will be announced.	Philadelphia, PA Chicago, IL Dallas, TX	ERG (registration) Justice Manning (content)	617-674-7374 617-674-2906 (fax) 513-569-7349
Workshop	Pollution Prevention (Re)engineering Workshop	June 19–22, 1995	Orlando, FL	Society for Enterprise Engineering (registration) Doug Williams (content)	513-259-4702 513-259-4343 (fax) 513-569-7361
Symposium	Annual Symposium on Bioremediation of Hazardous Wastes: Research, Development, and Field Evaluations	Aug. 8–10, 1995	Rye Brook, NY	ERG (registration) Fran Kremer (content)	617-674-7374 617-674-2906 (fax) 513-569-7346

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625/1-87/001	625/2-91/032	625/R-92/014	625/6-89/021	625/R-93/013	625/R-92/009
625/1-81/013		625/R-93/001	625/6-89/022	625/R-94/001	625/R-93/006
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