



OCT 27 1989

TECHNOLOGY TRANSFER

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New Technology Transfer Publications

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Design Manual: Fine Pore Aeration Systems (625/1-89/023)

This manual presents the best current practices for selecting, designing, operating, maintaining, and controlling fine pore aeration systems used in the treatment of municipal wastewater. It was prepared by the American Society of Civil Engineers Committee on Oxygen Transfer under a cooperative agreement from EPA.

Chapters are included on fine pore diffuser characterization, process water performance, operation and maintenance, design and installation, control systems, economic analysis, and case histories. The case histories chapter presents detailed information on 13 fine pore aeration installations, including: 1) why fine pore aeration was selected, 2) type of plant and wastewater, 3) fine pore diffusion system selected, 4) how the system performed, and 5) benefits from employing fine pore aeration.

Seminar Publication: Transport and Fate of Contaminants in the Subsurface (625/4-89/019)

This publication is based on a series of technology transfer seminars that were conducted in all ten EPA Regions between October 1987 and February 1988. The document provides an overview of many of the issues associated with the physical, chemical and biological processes that control contaminant transport in the subsurface. Additional topics include a summary of modeling approaches used to make predictions about the transport and fate of contaminants and management considerations important to subsurface transport and fate issues. This information will assist decision makers in selecting effective ground-water remedial technologies, which are highly dependent on site-specific knowledge of the influence of transport processes on contaminant levels.

Handbook: Stabilization/Solidification of CERCLA and RCRA Wastes (625/6-89/022)

This Handbook provides U.S. EPA regional staff responsible for reviewing CERCLA remedial action plans and RCRA permit applications with a tool for interpreting information on stabilization/solidification treatment. As a practical day-to-day reference guide, it will also provide technical and professional people working in the stabilization/solidification field, with a quick update on stabilization/solidification.

This Handbook has been written and organized to provide the reader with an informative, yet quick reference-type

document. Section 2 addresses the basis for the stabilization/solidification of hazardous waste. Section 3 presents state-of-the-art stabilization/solidification technologies. Section 4 discusses the physical testing methods used to characterize solid and hazardous wastes before and after stabilization/solidification. Section 5 addresses chemical testing procedures and includes an overview of leaching mechanisms, leach test methods and applications, factors affecting results, and the selection and interpretation of leach tests. Section 6 provides information on technology screening. Finally, Section 7 discusses the proper application of stabilization/solidification processes and the site conditions that can determine if a particular stabilization/solidification process is appropriate.

Summary Report: Biomonitoring for Control of Toxic Effluent Discharges to the Marine Environment (625/8-89/015)

This publication describes the use of biological monitoring as an effective water quality-based approach to controlling toxic discharges to marine waters. It describes the test methods used to determine the effects of whole effluents on survival, growth, and reproduction of several marine test species. In addition, it describes test species and methods for in-situ biomonitoring, case studies to outline procedures, and application of data for NPDES permit requirements.

Summary Report: In-Vessel Composting of Municipal Wastewater Sludge (625/8-89/016)

This publication brings-together and evaluates information on eight representative full-scale in-vessel composting systems and provides guidance for engineers and municipal officials on the parameters important in the procurement, selection, design and operation of a successful in-vessel composting system. The information presented should be of major benefit to those involved in the evaluation, design and/or approval of municipal wastewater systems, and will be especially beneficial to those involved in innovative/alternative technology applications.

Major sections are: Project Planning Considerations, Design Considerations, Operations Considerations, and Presentation of the Case Studies.

Executive Briefing: Experience in Incineration Applicable to Superfund Site Remediation (625/9-88/008)

This resource document provides information on incineration as a treatment option for hazardous waste site remediation. State and local governments and municipalities with hazardous waste disposal problems can use the document

to better understand issues posed by incineration and to develop an appreciation for state-of-the-art incineration technology. Operating experiences from on-site incineration practices and discussions on the utility of on-site incineration versus the problems and expense of transporting hazardous material off-site to commercial incinerators will also be of immediate value.

Included in the document is information on various types of incineration technology, the effect of waste characteristics on technology selection, experience gained in the operation of incinerators, and issues affecting the implementation of incineration. The document presents useful lessons applicable to the evaluation and selection process as it pertains to incineration, guidance for good operating practice, and information useful in the planning and initiation of remedies based on incineration technology.

Environmental Regulations and Technology Report: Control of Pathogens in Municipal Wastewater Sludge (625/10-89/006)

This document describes the Federal requirements promulgated in 1979 for reducing pathogens in wastewater sludge and provides guidance in determining whether individual sludge treatment systems provide the level of pathogen and vector control mandated for particular land application settings. It should be noted that while 40 CFR Part 257 was promulgated in 1979, it was not until the Agency's 1984 Municipal Sludge Policy was developed and the Water Quality Act of 1987 was passed with its 405 (d) (4) program, requiring interim permitting of sludge management programs, that enforcement via the NPDES Permit System occurred.

This publication is intended for owners/operators of municipal wastewater treatment works, developers/marketers of sludge treatment processes, groups that distribute and market sludge products, individuals involved in applying sludge to land, and government officials responsible for implementing and enforcing the land application regulations.

Major sections of the document are: pathogen reduction; processes to significantly reduce pathogens (PSRP); processes to further reduce pathogens (PFRP), determining equivalency of sludge treatment processes to PSRPs and PFRPs (including how one applies for equivalency) and relationship between the proposed 503 sludge land application regulations and the PEC's Criteria for Equivalency.

Future Technology Transfer Meetings

Workshop Series: Health Considerations, Treatment Technologies and Risk Communication/Perception (Drinking Water)

This series is a modified version of 14 previously conducted workshops entitled, "Assessment and Management of Drinking Water Contamination."

It is typically sponsored by a local section of the American Water Works Association (AWWA) in cooperation with the local environmental health association, a local university and the U.S. EPA Regional Office and Offices of Drinking Water and Research and Development. It is designed to provide uniform and consistent approaches and processes nationwide for those officials involved in determining, communicating about and managing drinking water contamination incidents. Lecture topics include information on health effects of

contaminants, an approach to risk assessment, risk communication, and abatement of lead, biological contaminations, particulates, organics, and radon as well as corrosion control. Current regulatory initiatives are discussed, as well as an update of the Office of Drinking Water's Health Advisory Program. Each workshop attendee participates in a hands-on case study designed to illustrate the elements of risk assessment, communication and management.

Other topics that will be included are health effects and risk assessment of munitions chemicals, cleanup issues at munitions contaminated sites and bioremediation.

Participants who can benefit from attending this program include regional, state and local drinking water regulatory personnel who work in the health and technology areas related to the construction of new or the upgrading of existing drinking water treatment facilities, or who must respond to contamination incidents. The program should also be of interest to consultants and drinking water utility staff actively engaged in the design, operation and/or upgrading of their treatment systems.

Two workshops have been held this year: May 1-2, 1989 in Eugene, Oregon, and August 16-17, 1989 in Framingham, Massachusetts. The next scheduled workshop is November 6-8, 1989 in New Orleans, Louisiana. Additional workshops are contemplated during 1990.

There is a small registration fee for these workshops. Additional information can be obtained by contacting: Jim Smith, USEPA-CERI, 26 W. Martin Luther King Drive, Cincinnati, OH 45268.

Seminar Series: Wastewater Treatment Plant Toxicity Evaluation, Reduction and Control

These two-day seminars will present methods for identifying toxic pollutants in waste streams and technology available for toxicity reduction and control. Case studies will be presented on toxicity reduction evaluations performed at municipal and industrial wastewater treatment plants. It is intended for regulatory personnel, laboratory personnel, permit holders and consultants to gain knowledge on performing evaluations and controlling toxicants.

The seminars will be held at the following locations:

Cincinnati, OH	November 16-17, 1989
Chicago, IL	December 7-8, 1989
San Francisco, CA	January 18-19, 1990
Jacksonville, FL	March 1-2, 1990
Dallas, TX	March 15-16, 1990
Boston, MA	May 24-25, 1990
Charlotte, NC	June 7-8, 1990
Trenton, NJ	June 21-22, 1990
Baltimore, MD	July 19-20, 1990

For further information, contact Orville Macomber, USEPA, CERL, 26 W Martin Luther King Dr. Cincinnati, OH 45268

Seminar Series: Design and Construction of Final Covers for Landfills and Surface Impoundments.

These two-day seminars are intended to present information on federal requirements for design and construction of final covers for landfills and surface impoundments. Emphasis will be on specific design considerations for covers that will assure performance to meet future environmental conditions. Alternative cap designs will

be presented, along with QA/QC and post-closure care considerations. Design differences between Subtitle C and D landfills will be discussed.

These seminars will be held in all ten EPA regions beginning in January, 1990. For further information, contact Orville Macomber, USEPA/CERI, 26 W. Martin Luther King Dr., Cincinnati, OH 45268

Seminar Series: Site Characterization For Ground-Water Remediation

These two-day seminars will address the level of detail in site characterization that is necessary to control the certainty and specificity of ground-water remediations. Presentations will cover transport and fate issues and the state-of-the-art techniques that can be used to address them. Included in these discussions will be costs, benefits, operational details and limitations of site characterization techniques, as well as ramifications of their use in terms of associated issues, such as the allocation of liability, cost recovery and compliance monitoring.

Topics will include: characterization of water movement in the subsurface, determining the extent and magnitude of contamination in the subsurface, characterization of subsurface physiochemical and degradation processes; characterization of spatial and temporal variability of subsurface processes; use of models in site characterization, applications and limitations of in-situ soils remediation, and aquifer restoration - applications and limitations.

There is no registration fee for these seminars. A seminar will be offered in each EPA Region, October 1989 through February 1990. For further information, contact Carol Grove, USEPA-CERI, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268. Locations and dates for the seminars are:

Chicago, IL	October 3-4, 1989
Kansas City, MO	October 5-6, 1989
Denver, CO	October 17-18, 1989
Dallas, TX	October 19-20, 1989
Boston, MA	November 27-28, 1989
New York, NY	November 29-30, 1989
Atlanta, GA	January 16-17, 1990
Philadelphia, PA	January 18-19, 1990
Seattle, WA	February 5-6, 1990
San Francisco, CA	February 7-8, 1990

Seminar Series: Fine Pore Aeration Systems

Three two-day seminars addressing fine pore aeration systems for municipal wastewater treatment are scheduled. They will be held in the following locations.

Chicago, IL	November 13-14, 1989
San Francisco, CA	November 15-16, 1989

The seminars will cover material developed for a new Technology Transfer manual on Fine Pore Aeration Systems, which will be made available at this year's Water Pollution Control Federation Convention in San Francisco, CA, in October. The manual addresses all aspects of designing and operating fine pore aeration systems. In addition, chapters are included on automated control, another includes extensive case histories of fine pore installations, and another presents methodologies for cost evaluations.

There is no registration fee for these seminars. For further information, contact Denis Lussier, USEPA-CERI, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268

Workshop Series: Medical and Institutional Waste Incineration

Three two-day workshops address the advantages, disadvantages, and limitations of the various on-site treatment technologies and off-site disposal options for medical waste. Material presented will provide in-depth coverage of medical and special waste incineration, technology, emissions, operations, and regulatory issues. They will be held in the following locations. The goal is to provide hospitals and other institutions a foundation for selecting and implementing the best, most cost-effective waste treatment or incineration program.

Providence, RI	October 17-18, 1989
Baton Rouge, LA	December 7-8, 1989
Kansas City, MO	December 13-14, 1989
San Francisco, CA	January 25-26, 1990
Tallahassee, FL	February 15-16, 1990

There is no registration fee for these seminars. For further information, contact Justice Manning, USEPA-CERI, 26 W. Martin Luther King Drive, Cincinnati, Ohio 45268.

The Superfund Innovative Technology Evaluation Program, Progress and Accomplishments FY1988 - A Report to Congress

EPA is required to submit a report to Congress annually on the progress and results of the SITE program. This second report presents the accomplishments during FY 1988 and covers October 1987-December 1988. During this period 5 field demonstrations were completed, 11 additional technology developers were accepted into the Demonstration Program, and the first seven technologies were selected for the Emerging Technologies Program. This Report EPA/540/5-89-009 is available from:

ORD Publications
26 W. MLK Drive
Cincinnati, OH 45268

The Federal Technology Transfer Act of 1986 and Executive Order 12591

Until recently, information and inventions developed by Federal agencies were largely in the public domain, and while Federal agencies could patent inventions, there was no provision of Federal employees to personally benefit from their inventions. Also, because Federally funded technology remained in the public domain, any commercialization occurred without an exclusive license provision for the manufacturer. Without incentive for the Federal employee and protection for industry very little innovation moved from the laboratory bench to commerce.

What's New About the Federal Technology Transfer Act?

The FTTA encourages collaboration among Federal agencies, state and local governments, universities, and private industry to improve American competitiveness in the world marketplace. It provides for the rapid transfer of new technologies developed by Federal researchers into commercial products and processes. In a reversal of previous Federal practices, Federal laboratories are authorized to enter into exclusive and non-competitive "cooperative research and development agreements" with private firms or consortia. Under such agreements, the government may share technical expertise, facilities, equipment, staff or services. The government may not provide direct funding to the outside cooperator, although the cooperator may provide funds to the government and EPA.

Cooperative Agreements and Licensing Agreements

EPA has been entering into "cooperative agreements" with other agencies and organizations for years. However, the FTTA authorizes a new class of cooperative agreement exempted from the Federal Acquisition Regulations and rules governing grants and conventional cooperative agreements. These "FTTA Cooperative Agreements" permit EPA facility directors to pool resources with state and local governments, universities, private firms, or consortia in order to develop or extend Federally funded technologies to the commercial marketplace. The cooperative agreements may provide for exclusive, non-competitive licenses and dispositions of rights to inventions made under them. In addition, we may even enter into licensing agreements for the commercial marketing of EPA-owned technologies regardless of whether the invention was made within a FTTA cooperative agreement.

Royalties

One of the most exciting aspects of the new law permits Federal agencies to receive and retain royalties acquired under the cooperative or licensing agreements. Moreover, if the royalties are for the use of an invention made by a present or former EPA employee, he or she will get 35% of the gross annual amount (in case of co-inventors, each will receive an equal subshare). These arrangements provide strong incentives for EPA researchers and facility directors to promote the commercial transfer of any new marketable technology they develop. After deducting any expenses associated with patenting or licensing the invention, the rest of the Agency's share will go to the facility where the invention was made. The FTTA limits royalty distributions to \$100,000 per person per year, unless the President grants a waiver. If no EPA employee is due royalties, the entire EPA share will go to the originating facility. Additional provisions apply if the

total Agency share of royalties exceeds 5% of the combined budgets of all participating EPA facilities.

Who's Involved?

Unlike most legal and financial transactions that EPA may enter into, the authority to negotiate and sign FTTA cooperative and licensing agreements must be delegated to the facility director. This decentralization of authority is subject to EPA's requirements for coordination with the Office of Research and Development, the Office of the General Counsel and with the Grants Administration Division of the Office of Administration, who will maintain official Agency files on all agreements and offer assistance and advice on the wording of each agreement.

What's the Process?

EPA has specific procedures and steps to follow in implementing a cooperative agreement or licensing agreement under FTTA. Consistent with the intent of the law and executive order, the procedures are streamlined and aim towards a signable agreement as quickly as possible but with reasonable consultation by management and legal experts. This review process is designed to protect not only the Agency's interests, but to assist EPA employees in negotiating the most equitable arrangements with the outside cooperators. If you're considering the creation of an FTTA cooperative agreement for licensing agreement, you should immediately contact OTTRS' FTTA Coordinator, who will provide liaison to the Consulting and Review Team (see below for names). They will work with you to help draft a cooperative agreement or custody letter, and advise you on assembling the associated documents.

What's Happened?

Former Administrator Leo Thomas signed the first FTTA cooperative agreement in December, 1988. Since that time, an additional four agreements have been approved to bring the total to five with incoming resources of \$2M. Activities associated with research range from bioremediation of the Alaskan oil spill to evaluation of environmental damage to metal coatings. Two additional documents have been approved by the Agency and now are being reviewed by the extra Agency cooperators. We have approximately 10 more actions in various stages of development. One of the most prominent of these will hopefully be the privatization of the quality assurance-quality control programs.

Where Can I Get More Information?

There are many details not covered here, and you are encouraged to contact your Laboratory or Division Director if you want more information. In addition, you can contact the following for specific advice or answers.

Charles Brunot, Office of Technology Transfer and Regulatory Support, FTTA Coordinator (H-8105), FTS 382-7671.

William Hedling, Grants Administration Division (PM-216F), FTS 475-8260.

Benjamin Bochenek, Office of General Counsel (LE-132G), FTS 382-5460.

William Garetz, Office of Cooperative Environmental Management (A-101F6), FTS 475-9741.

These individuals are all at EPA, 401 M Street, S.W., Washington, D.C. 20460.

REQUEST FOR TECHNOLOGY TRANSFER MATERIAL

PROCESS DESIGN MANUALS

Phosphorus Removal (Sept. 1987)	625/1-87/001	<input type="checkbox"/>
Onsite Wastewater Treatment and Disposal Systems (Oct. 1980)	625/1-80/012	<input type="checkbox"/>
Land Treatment of Municipal Wastewater (Oct. 1981)	625/1-81/013	<input type="checkbox"/>
Supplement for Land Treatment of Municipal Wastewater (Oct. 1984)	625/1-81/013a	<input type="checkbox"/>
Dewatering Municipal Wastewater Sludges (Sept. 1987)	625/1-87/014	<input type="checkbox"/>
Municipal Wastewater Stabilization Ponds (Oct. 1983)	625/1-83/015	<input type="checkbox"/>
Land Application of Municipal Sludge (Oct. 1983)	625/1-83/016	<input type="checkbox"/>
Electrostatic Precipitator Operation and Maintenance (Sept. 1985)	625/1-85/017	<input type="checkbox"/>
Odor and Corrosion Control in Sanitary Sewerage Systems and Treatment Plants (Oct. 1985)	625/1-85/018	<input type="checkbox"/>
Lime/Limestone FGD Inspection and Performance Evaluation Manual (Oct. 1985)	625/1-85/019	<input type="checkbox"/>
Fabric Filter Operation and Maintenance (June 1986)	625/1-86/020	<input type="checkbox"/>
Municipal Wastewater Disinfection (Oct. 1986)	625/1-86/021	<input type="checkbox"/>
Constructed Wetlands and Aquatic Plant Systems for Municipal Wastewater Treatment (Oct. 1988)	625/1-88/022	<input type="checkbox"/>
• Fine Pore Aeration Systems (Oct. 1989)	625/1-89/023	<input type="checkbox"/>

TECHNICAL CAPSULE REPORTS

First Progress Report. Wellman-Lord SO ₂ Recovery Process - Flue Gas Desulfurization Plant	625/2-77/011	<input type="checkbox"/>
Recovery of Spent Sulfuric Acid from Steel Pickling Operations	625/2-78/017	<input type="checkbox"/>
Fourth Progress Report: Forced-Oxidation Test Results at the EPA Alkali Scrubbing Test Facility	625/2-78/018	<input type="checkbox"/>
Particulate Control by Fabric Filtration on Coal-Fired Industrial Boilers	625/2-79/021	<input type="checkbox"/>
Bahco Flue Gas Desulfurization and Particulate Removal System	625/2-79/022	<input type="checkbox"/>
First Progress Report: Physical Coal Cleaning Demonstration at Homer City, PA	625/2-79/023	<input type="checkbox"/>
Acoustic Monitoring to Determine the Integrity of Hazardous Waste Dams	625/2-79/024	<input type="checkbox"/>
Disposal of Flue Gas Desulfurization Wastes: Shawnee Field Evaluation	625/2-80/028	<input type="checkbox"/>
Adipic Acid-Enhanced Lime/Limestone Test Results at the EPA Alkali Scrubbing Test Facility	625/2-82/029	<input type="checkbox"/>
Benefits of Microprocessor Control of Curing Ovens for Solvent Based Coatings	625/2-84/031	<input type="checkbox"/>

SEMINAR PUBLICATIONS

Composting of Municipal Wastewater Sludges	625/4-85/014	<input type="checkbox"/>
Municipal Wastewater Sludge Combustion Technology	625/4-85/015	<input type="checkbox"/>
Permitting Hazardous Waste Incinerators	625/4-87/017	<input type="checkbox"/>
Meeting Hazardous Waste Requirements for Metal Finishers	625/4-87/018	<input type="checkbox"/>
• Transport and Fate of Contaminants in the Subsurface	625/4-89/019	<input type="checkbox"/>
Corrective Actions - Technologies and Applications	625/4-89/020	<input type="checkbox"/>
Solvent Waste Reduction Alternatives	625/4-89/021	<input type="checkbox"/>
Requirements for Hazardous Waste Landfill Design, Construction and Closure	625/4-89/022	<input type="checkbox"/>

BROCHURES

Environmental Pollution Control Alternatives: Reducing Water Pollution Control Costs - Electroplating	625/5-85/016	<input type="checkbox"/>
Environmental Pollution Control Alternatives: Centralized Waste Treatment Alternatives - Electroplating	625/5-81/017	<input type="checkbox"/>
Nitrogen Oxide Control for Stationary Combustion Sources	625/5-86/020	<input type="checkbox"/>
User's Guide: Emission Control Technologies/Emission Factors for Unpaved Road Fugitive Emissions	625/5-87/022	<input type="checkbox"/>

HANDBOOKS

Remedial Action at Waste Disposal Sites (Oct. 1985)	625/6-85/006	<input type="checkbox"/>
Identification/Correction of Typ. Design Deficiencies at Municipal Wastewater Treatment Facilities (Oct. 1982)	625/6-82/007	<input type="checkbox"/>
Septage Treatment and Disposal (Oct. 1984)	625/6-84/009	<input type="checkbox"/>
Estimating Sludge Management Costs at Municipal Wastewater Treatment Facilities (Oct. 1985)	625/6-85/010	<input type="checkbox"/>
Permit Writers Guide to Test Burn Data: Hazardous Waste Incineration (Sept. 1986)	625/6-86/012	<input type="checkbox"/>
Stream Sampling for Waste Load Allocation Appl. (Sept. 1986)	625/6-86/013	<input type="checkbox"/>
Control Technologies for Hazardous Air Pollutants (Sept. 1986)	625/6-86/014	<input type="checkbox"/>
Ground Water (March 1987)	625/6-87/016	<input type="checkbox"/>
Retrofitting POTWs for Phosphorus Removal in the Chesapeake Bay Drainage Area (Sept. 1987)	625/6-87/017	<input type="checkbox"/>
Guide to Technical Resources for the Design of Land Disposal Facilities (Dec. 1988)	625/6-88/018	<input type="checkbox"/>
Guidance on Setting Permit Conditions and Reporting Trial Burn Results (Jan. 1989)	625/6-89/019	<input type="checkbox"/>
Retrofitting POTWs (July 1989)	625/6-89/020	<input type="checkbox"/>
• Stabilization/Solidification of CERCLA and RCRA Wastes (July 1989)	625/6-89/022	<input type="checkbox"/>

INDUSTRIAL ENVIRONMENTAL POLLUTION CONTROL MANUAL

Waste Minimization Opportunity Assessment (July 1988)	625/7-88/003	<input type="checkbox"/>
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SUMMARY REPORTS

Control and Treatment Technology for the Metal Finishing Industry Series: Sulfide Precipitation	625/8-80/003	<input type="checkbox"/>
Sulfur Oxides Control Technology Series: FGD Dual Alkali Process	625/8-80/004	<input type="checkbox"/>
Sulfur Oxides Control Tech. Series: FGD Lime/Limestone Processes	625/8-81/006	<input type="checkbox"/>
Control and Treatment Technology for the Metal Finishing Industry Series: Ion Exchange	625/8-81/007	<input type="checkbox"/>
Control and Treatment Technology for the Metal Finishing Industry Series: In-Plant Changes	625/8-82/008	<input type="checkbox"/>
Sulfur Oxides Control Technology Series: FGD Spray Dryer Process	625/8-82/009	<input type="checkbox"/>
Fine Pore (Fine Bubble) Aeration Systems	625/8-85/010	<input type="checkbox"/>
Technology Assessment of Sequencing Batch Reactors	625/8-86/011	<input type="checkbox"/>
Causes and Control of Activated Sludge Bulking and Foaming	625/8-87/012	<input type="checkbox"/>
Biomonitoring to Achieve Control of Toxic Effluents	625/8-87/013	<input type="checkbox"/>
Compendium of Technologies Used in Treatment of Hazardous Wastes	625/8-87/014	<input type="checkbox"/>
• Biomonitoring for Control of Toxic Effluent Discharges to the Marine Environment	625/8-89/015	<input type="checkbox"/>
• In-Vessel Composting of Municipal Wastewater Sludge	625/8-89/016	<input type="checkbox"/>

EXECUTIVE BRIEFINGS

Protecting Health and Safety at Hazardous Waste Sites	625/9-85/006	<input type="checkbox"/>
Injection Well Mechanical Integrity	625/9-89/007	<input type="checkbox"/>
Experiences in Incineration Applicable to Superfund Site Remediation	625/9-88/008	<input type="checkbox"/>
Volumetric Tank Testing: An Overview	625/9-89/009	<input type="checkbox"/>

ENVIRONMENTAL REGULATIONS AND TECHNOLOGY PUBLICATIONS

The Electroplating Industry	625/10-85/001	<input type="checkbox"/>
Fugitive VOC Emissions in the Synthetic Organic Chemicals Manufacturing Industry	625/10-84/004	<input type="checkbox"/>
The National Pretreatment Program	625/10-86/005	<input type="checkbox"/>
• Control of Pathogens in Municipal Wastewater Sludge	625/10-89/006	<input type="checkbox"/>

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Future Technology Transfer Meetings

Meeting	Title	Date(s)	Location	Contact	Phone No.
Seminar	Site Characterization for Ground-Water Remediation	October 3-4, 1989 October 5-6, 1989 October 17-18, 1989 October 19-20, 1989 November 27-28, 1989 November 29-30, 1989 January 16-17, 1990 January 18-19, 1990 February 5-6, 1990 February 7-8, 1990	Chicago, IL Kansas City, MO Denver, CO Dallas, TX Lowell, MA New York, NY Atlanta, GA Philadelphia, PA Seattle, WA San Francisco, CA	Trisha Hasch (registration) Carol Grove (content)	617-648-7811 513-569-7362 FTS 684-7362
Seminar	Fine Pore Aeration Systems	November 13-14, 1989 November 16-17, 1989	Chicago, IL San Francisco, CA	Karen Natsios (registration) Denis Lussier (content)	617-648-7810 513-569-7354 FTS 684-7354
Seminar	Wastewater Treatment Plant Toxicity Evaluation, Reduction and Control	November 16-17, 1989 December 7-8, 1989 January 18-19, 1990 March 1-2, 1990 March 15-16, 1990 May 24-25, 1990 June 7-8, 1990 June 21-22, 1990 July 19-20, 1990	Cincinnati, OH Chicago, IL San Francisco, CA Jacksonville, FL Dallas, TX Boston, MA Charlotte, NC Trenton, NJ Baltimore/DC	Trisha Hasch (registration) Orville Macomber (content)	617-648-7811 513-569-7347 FTS 684-7347
Seminar	Medical and Institutional Waste Incineration	October 17-18, 1989 December 7-8, 1989 December 13-14, 1989 January 25-26, 1990 February 15-16, 1990	Providence, RI Baton Rouge, LA Kansas City, MO San Francisco, CA Tallahassee, FL	Karen Natsios (registration) Justice Manning (content)	617-648-7810 513-569-7349 FTS 684-7349
Seminar	Immobilization Technologies at Hazardous Waste Sites	October 16-17, 1989 October 18-19, 1989 October 30-31, 1989 November 1-2, 1989 November 13-14, 1989 November 15-16, 1989 December 4-5, 1989 December 6-7, 1989 January 8-9, 1990 January 10-11, 1990	Chicago, IL Kansas City, MO Atlanta, GA New York, NY Boston, MA Philadelphia, PA Seattle, WA San Francisco, CA Dallas, TX Denver, CO	Peer Consultants (registration) Clarence Clemons (content)	513-252-1222 513-569-7358 FTS 684-7358