

Message #91: September 2004

Welcome to TechDirect. Since the August 1 message, TechDirect gained 225 new subscribers for a total of 19,917. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing may do so on CLU-IN at <http://clu-in.org/techdirect> . All previous issues of TechDirect are archived there. The TechDirect messages of the past can be searched by keyword or can be viewed as individual issues.

The purpose of TechDirect is to identify new technical, policy and guidance resources related to the assessment and remediation of contaminated soil and ground water.

Mention of non-EPA documents or presentations does not constitute a U.S. EPA endorsement of their contents, only an acknowledgment that they exist and may be relevant to the TechDirect audience.

Upcoming Internet Seminars

ITRC Phytotechnologies - September 14. This seminar focuses on the ITRC Phytotechnologies Technical and Regulatory Guidance and Phytoremediation Decision Tree. It provides technical and regulatory information to help you understand, evaluate and make informed decisions on phytotechnology proposals. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

EPA Operation and Maintenance in Superfund Part I - September 20. This seminar focuses on a critical phase of the Superfund process to maintain the protectiveness of the Superfund remedy. Part 1 examines key regulatory and policy provisions and definitions for O&M, O&M planning activities that should occur during the various phases of the Superfund process, and ways to ensure a smooth transition from remedial action to O&M. The suggested audience includes EPA project managers; State and Tribal project managers; responsible parties, and contractors who work with the Superfund program. To register, see <http://clu-in.org/studio> .

EPA Operation and Maintenance in Superfund Part II - September 21. This seminar focuses on a critical phase of the Superfund process to maintain the protectiveness of the Superfund remedy. Part 2 covers methods to effectively and efficiently oversee O&M activities, a systematic process for identifying and addressing operational problems with remedies, and elements of remedial

actions that may present opportunities for optimization. The suggested audience includes EPA project managers; State and Tribal project managers; responsible parties, and contractors who work with the Superfund program. To register, see <http://clu-in.org/studio>

ITRC What is Remediation Process Optimization And How Can It Help Me Identify Opportunities for Enhanced and More Efficient Site Remediation? - September 28. Through this training, the ITRC RPO team intends to inform interested and affected parties about the value of optimization in efficiently and objectively setting and attaining remediation goals. Key elements of RPO that will be discussed in the training include: Appropriate use of up-to-date conceptual site models (CSM), Flexible Remedial Actions (RAs) operations considering technology limitations and risk assessments; use of treatment trains for each target zone, and developing performance objectives for each element; development of an exit strategy for each remedy component considering life-cycle factors; and life-cycle cost analysis as a decision-making tool with the requirement that protectiveness must be maintained or improved. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio>

ITRC Surfactant/Cosolvent Flushing of DNAPL Source Zones - September 30. The purpose of this training is to familiarize participants with the ITRC Technical and Regulatory Guidance for Surfactant/Cosolvent Flushing of DNAPL Source Zones (DNAPL-3). This document provides technical and regulatory information to help practitioners understand, evaluate and make informed decisions regarding potential surfactant/cosolvent flushing projects. Register to participate at <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

ITRC In Situ Chemical Oxidation - October 7. This seminar provides technical and regulatory information to help practitioners understand, evaluate and make informed decisions on In Situ Chemical Oxidation proposals. Included is a description of the various chemical oxidants, regulatory considerations, stakeholder concerns, case studies, and technical references. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio>.

New Documents and Websites

Triad Resource Center. This website was developed by the member agencies of the Federal Remediation Technologies Roundtable to provide one-stop-shopping for Triad information, case studies, training opportunities, and news. The site provides information describing how the Triad approach restructures projects

from technical and project management perspectives. It includes overview information, project management, Triad case studies, detailed reference resources and frequently asked questions. See

<http://www.triadcentral.org> .

REACHIT Streamlined! In August of 2004, the new EPA Remediation and Characterization Innovative Technology (REACH IT) database web site was released with major upgrades to the search options such that finding characterization or remediation technologies for a particular problem set is now much more streamlined. Additionally, there has been a thorough effort to update the information associated with the more than 450 technology vendors and 700 plus technologies in REACHIT. New features, in addition to the streamlined navigation, include the following: One-click access to searches on topics of interest to the remediation community (the Spotlight section), the most commonly searched technologies and contaminants, and customized user-created queries; faster searches for specific vendors, technology trade names, and sites with alphabetical indexes; one-click downloading of search results in a spreadsheet format; and, summary of EPA REACH IT data in the Information Snapshots section. See <http://www.epareachit.org> .

Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Sites (OSWER No. 9345.4-05). This guidance was issued by the EPA Office of Superfund Remediation and Technology Innovation. Its purpose is to clarify that EPA Regions should develop risk-based, site-specific action levels to determine if response actions should be taken when materials containing less than 1 percent asbestos (including chrysotile and amphibole asbestos) are found at a site. The second purpose is to outline some activities underway to assist in the evaluation of asbestos risks at Superfund sites (August 2004, 4 pages). View or download at <http://www.epa.gov/superfund/programs/risk/pdf/memo722b.pdf> .

Risk Assessment Guidance for Superfund (RAGS), Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) (OSWER No. 9285.7-02 EP). This guidance is the fifth annex of the Risk Assessment Guidance for Superfund (RAGS), Volume I, addressing human health risk at Superfund sites. This dermal risk guidance was developed by a workgroup composed primarily of toxicologists and risk assessors from Regional Superfund programs, with additional participation from the Office of Research and Development (ORD) and the Office of Solid Waste and Emergency Response (OSWER). Part E contains methods for conducting dermal risk assessments.

EPA has found these methods generally to be appropriate. However, for each dermal risk assessment, Regions must decide whether these methods, or others, are appropriate, depending on the facts (July 2004, 181 pages). View or download (by section) at

<http://www.epa.gov/superfund/programs/risk/ragse/index.htm> .

Nanoscience and Nanotechnologies: Opportunities and

Uncertainties. This document was published by the Royal Society and the Royal Academy of Engineering in the United Kingdom. The report considers current and future developments in

nanotechnology. It identifies a range of potential benefits to be gained from nanoscience and nanotechnologies including new materials, more powerful computers and revolutionary medical techniques. The report recommends steps to realize these while minimizing possible future uncertainties and risks (July 2004, Many pages). The report may be downloaded by section at

<http://www.nanotec.org.uk/finalReport.htm> . If you would like to receive a pdf of the main report (3,511 KB) or a hard copy of either the main or summary reports, please send an email to nano@royalsoc.ac.uk or phone +44 (0)20 74512585.

Principles and Practices of Enhanced Anaerobic

Bioremediation of Chlorinated Solvents. This document was published by the Air Force, Navy and the DoD Environmental Security Technology Certification Program (ESTCP). The objective of this Principles and Practices document is to describe the state of the practice of enhanced anaerobic bioremediation. The scientific basis of enhanced anaerobic bioremediation is explained, and relevant site selection, design, and performance criteria for various engineered approaches in current practice are discussed (August 2004, 457 pages). View or download at

<http://www.afcee.brooks.af.mil/products/techtrans/bioremediation/downloads/PrinciplesandPractices.pdf> . **[Updated**

URL from that featured in the September 2004 issue of TechDirect]

Innovative Remediation and Site Characterization Technologies Resources CD-ROM (EPA 542-C-04-002).

This CD-ROM, produced by the EPA Office of Superfund Remediation and Technology Innovation, contains more than 120 documents and other electronic resources. To order a free copy, submit a request at <http://www.epa.gov/hcepi> or email the request to ncepiwo@one.net . You may also contact (800) 490-9198 or (513) 489-8190 or fax your request to (513) 489-8695.

Conferences and Symposia

Reminder! 2004 Fractured Rock Conference: State of the Science and Measuring Success in Remediation, Portland ME, September 13-15. This conference is sponsored by the U.S. EPA and National Ground Water Association. The purpose of the conference is to identify the current state of remediating contaminated ground water in fractured rock settings and make future remediation efforts more effective. Invited plenary lectures will serve as reviews of our existing understanding as well as looking at directions for the future. More than 100 papers will be presented from scientists and engineers from 10 nations. For agenda and registration information, see <http://www.ngwa.org/e/conf/0409135017.shtml> .

ITRC Accelerated Bioremediation of Chlorinated Solvents, Denver, September 28-29. International experts present the latest developments in bioremediation of chlorinated solvents. A logical follow-on to the highly acclaimed training series "Natural Attenuation of Chlorinated Solvents in Groundwater," this new course examines the roles of site characterization, modeling, design, monitoring, and regulatory interaction in applying in-situ engineered bioremediation. Lectures, case studies, hands-on exercises, and structured discussion sessions give students knowledge and information that can immediately put to use. For registration and additional information, see <http://www.itrcweb.org> or contact Paul Hadley at (916)324-3823.

ITRC Phytotechnologies - Mechanisms and Applications, New Orleans, September 28-29. The Phytotechnologies curriculum focuses on application and teaches systems design using hands-on team problem solving, case studies, and evening homework. All lecture topics are based on a series of case studies. The instructors, all with abundant field experience, describe advantages of using phytotechnologies plus the technical and regulatory shortcomings of the current understanding. Each day includes a session designed to discuss issues the regulated and regulatory communities have experienced or would anticipate in the future. For registration and additional information, see <https://weborcl8.wpi.biz/itrc/phyto200409/regform.htm> or contact Steve Rock (rock.steven@epa.gov, 513-569-7149) or Kris Geller (kris.geller@dep.state.nj.us, 609-633-2318).

RTDF Permeable Reactive Barriers (PRB) Meeting, Albuquerque, October 26-27. The Remediation Technologies Development Forum (RTDF) PRB Action Team will host a two-day meeting to explore:
Source zone treatment for DNAPLs and nano-scale iron applications.
Session chair: John Vidumsky (John.E.Vidumsky@USA.dupont.com)
Alternative media and innovative applications.

Session chair: Tom Krug (TKrug@GeoSyntec.com)

Other laboratory and field studies.

Session chair: Bob Puls (puls.robert@epa.gov)

Some speakers have already been identified for the oral presentations. If you are interested in delivering a presentation under one of the aforementioned topical areas, please send an abstract to the appropriate session chair. Please also note that the PRB Action Team leaders are considering holding a poster session during the evening of October 26. If you are interested in presenting a poster, please send an abstract to Bob Puls (puls.robert@epa.gov) as soon as possible. An official meeting invitation will be posted on the RTDF Web site, <http://www.rtdf.org/public/permbarr/> in the near future to obtain additional logistical information about the meeting.

NOTE: For TechDirect, we prefer to concentrate mainly on new documents and the Internet live events. However, we do support an area on CLU-IN where announcement of conferences and courses can be regularly posted. We invite sponsors to input information on their events at <http://clu-in.org/courses> . Likewise, readers may visit this area for news of upcoming events that might be of interest. It allows users to search events by location, topic, time period, etc.

If you have any questions regarding TechDirect, contact Jeff Heimerman at (703) 603-7191 or heimerman.jeff@epa.gov. Remember, you may subscribe, unsubscribe or change your subscription address at <http://clu-in.org/techdrct> at any time night or day.