

Message #92: October 2004

Welcome to TechDirect. Since the September 1 message, TechDirect gained 297 new subscribers for a total of 20,185. 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

U.S. EPA Product Expo - October 6. The U.S. EPA Research and Development Product Expo Series is an effort to showcase specific "ready to use" and "nearly ready to use" science products, and how EPA Regions and States might use them to address environmental issues. On October 6, Region V will host the first Regional exposition at their Chicago EPA office. The Product Expo features four recent products, including: new guidance for choosing ecological risk assessment endpoints; Optimal Well Locator (OWL) software for optimizing monitoring well locations; using Quantitative Polymerase Chain Reaction (QPCR) as a rapid beach closings tool; and, new technologies for Mercury removal from power plant flue gas. If you are unable to make it to Chicago, consider participating via live webcast. You must register in advance to participate via the internet. For more information and to register, see <http://clu-in.org/studio/r5productexpo> .

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> .

ITRC Triad Approach: A New Paradigm for Environmental

Project Management - October 12. This ITRC training course introduces the Triad concept and highlights how this process can increase the effectiveness and quality of environmental investigations. The Triad approach relies on technological, scientific, and process advances that offer the potential for improvements in both quality and cost savings. The cost-saving potential is considered to be significant but is only now being documented in case studies. Some case studies are discussed, including the savings of time and money attributed to using the Triad approach. This training explains the relationship of the Triad to previous regulatory guidance, and offers a discussion of issues that may affect stakeholders. An example is given of a state's efforts to formally adopt the Triad approach into their existing regulatory program. The training concludes by directing trainees to additional resources for further study. The ITRC guidance document, Technical and Regulatory Guidance for the Triad Approach: A New Paradigm for Environmental Project Management (SCM-1, 2003) developed by the ITRC Sampling, Monitoring and Characterization Team serves as the basis for this training course. To register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

TARP Evaluating Stormwater Technology Performance - 2 modules October 13 and 20. The Technology Acceptance and Reciprocity Partnership (TARP), an eight-state consortium, developed this training. The goal is to encourage collaboration, data sharing and reciprocal review among states and practitioners, while providing a uniform method for demonstrating stormwater technologies and developing Test Quality Assurance (QA) Plans. October 13th Module 1: Evaluating Stormwater Technology Performance: Planning for a Stormwater Best Management Practice Demonstration Oct. 20th Module 2: Evaluating Stormwater Technology Performance: Collecting and Analyzing Stormwater Best Management Practice Data. For more information and to register see <http://clu-in.org/studio> .

ITRC Munitions Response Historical Record Review (MRHRR) - October 19. This training introduces participants to the ITRC Technical and Regulatory Guidance Document: Munitions Response Historical Record Review (UXO-2). It assists reviewers in assessing the adequacy of an MRHRR review of property potentially impacted by the use of military munitions. The course teaches the purpose, content, and terminology of munitions historical research; provides a uniform technical approach and useful tools for reviewing an MRHRR document independent of regulatory framework or authorities; and communicates state regulator expectations to those initiating, planning, and executing an MRHRR document. To register,

see <http://www.itrcweb.org> OR <http://clu-in.org/studio> .

ITRC Strategies for Monitoring the Performance of DNAPL Source Zone Remedies - October 21. This training discusses issues surrounding the assessment of remediation performance at DNAPL sites where the source zone is being targeted for treatment. It is based on the ITRC document titled Strategies for Monitoring the Performance of DNAPL Source Zone Remedies. Specific issues dealing with monitoring the performance of various DNAPL source zone remediation technologies are discussed. Performance is discussed in terms of effective and efficient progress toward the project goals. Elements of a robust performance monitoring program are described including the need to establish appropriate performance goals and metrics well in advance. The applicability and limitations of various performance metrics, including the concept of mass flux, are discussed. Because of these limitations, converging lines of evidence approach to performance assessment is stressed. To register, see <http://www.itrcweb.org> OR <http://clu-in.org/studio> . While some issues pertaining to DNAPL fate and transport are covered in the document, participants are encouraged to review the material presented in the UK Environment Agency's An illustrated handbook of DNAPL fate and transport in the subsurface prior to taking the course. The handbook is available for download at

http://www.environment-agency.gov.uk/commondata/105385/dnapl_565627.pdf .

EPA Operation and Maintenance in Superfund Part I - October 25. 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 - October 26. 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>

New Documents and Websites

CLU-IN Optimization Information Center. The EPA Technology Innovation Program has created a new website for information on EPA optimization efforts related to improving the design, long-term management, and closeout of remediation systems. The focus of the website is on optimization evaluations, technical fact sheets, demonstrations, and outreach efforts with which EPA has direct involvement but the website also provides links to other state and federal agency optimization resources. A sample of the information accessible on the new website includes: more than 35 third-party optimization evaluations reports (called Remediation System Evaluations) that were conducted at Superfund, Resource Conservation and Recovery Act, and Leaking Underground Storage Tank sites across the United States; summary and lessons learned documents from the conducting the optimization evaluations; technical fact sheets and guidance documents for operating remediation systems; reports from EPA- sponsored demonstration projects of innovative optimization strategies such as mathematical tools for optimizing well placement and statistical tools for optimizing long-term groundwater monitoring programs; and training courses, workshops, and seminars on optimization methods. For more information see <http://clu-in.org/optimization> .

Copies of conference abstracts and presentation slides for the Federal Remediation Technology Roundtable conference entitled, Accelerating Site Closeout, Improving Performance, and Reducing Costs through Optimization in Dallas, June 15-17 2004 are now available online. Presentations covered a wide array of optimization topics including case studies of pilot and full-scale applications of remediation and long-term monitoring optimization methods across the federal government, states, and the private sector, new methods for data management and data evaluation, and new technical and policy guidance related to optimization. Please visit <http://www.frttr.gov/optimization/meetings.htm> to download presentation material from over 70 platform presentations, 35 poster presentations, and 4 in-depth workshops.

Site Characterization Technologies for DNAPL Investigations (EPA 542-R-04-017) . This report was produced by the EPA Office of Superfund Remediation and Technology Innovation. It is a summary of information on the current state of technologies available for locating and characterizing dense non-aqueous phase liquid (DNAPL) contaminated sites. This document is intended to help managers at sites with potential or confirmed DNAPL contamination

identify suitable characterization technologies, screen the technologies for potential application, learn about applications at similar sites, and locate additional information on these technologies (August 2004, 165 pages). View or download at <http://clu-in.org/techpubs.htm> . For hard copies, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Strategies for Monitoring the Performance of DNAPL Source Zone Remedies (DNAPLs-5). This report was produced by the Interstate Technology and Regulatory Council (ITRC). It is intended for regulators and others interested in learning about approaches to performance monitoring while implementing various in situ technologies for the treatment of DNAPLs. In this document, we present a number of ways in which the success or failure in treating a DNAPL source zone has been measured. Because the vast majority of experience in DNAPL source zone remediation has been in unconsolidated geologies, such as sands and silts, many of the conclusions, recommendations, and lessons learned presented in this document do not necessarily transfer to performance assessment in fractured bedrock, karst, or other consolidated geologies (August 2004, 206 pages). View or download at <http://www.itrcweb.org/DNAPLs-5.pdf> .

Facilitating Brownfields Transactions Using Triad and Environmental Insurance. This paper appeared in the journal Remediation and is posted on CLU-IN with permission. It explores an approach to managing environmental risk through a combination of risk quantification, environmental insurance and the Triad Approach to site sampling and data interpretation. Insurance premiums are often linked to site delineation deficiencies, such as the magnitude of impacted soil or the size of a groundwater plume. The real-time data produced through the Triad Approach allow for in-field resolution of uncertainty about sample location, which in turn provides more representative delineation of contaminant distribution. The trade-off of using slightly less accurate but substantially lower cost analytics, is an increase in sampling frequency or density thereby reducing the risk of incomplete detection or delineation while yielding a data set that is more powerful than fewer individual data points analyzed through traditional methods. Employing the Triad approach to analyze the critical uncertainties identified in the Peer Review Process can impact insurance premiums and allow for better terms of coverage. The combination of using the Triad Approach and environmental insurance products can lead to more predictable and profitable Brownfield transactions (Spring 2003, 19 pages). View or download at <http://clu-in.org/techpubs.htm> .

Conferences and Symposia

Addressing Uncertainty and Managing Risk at Contaminated Sediment Sites, St. Louis, October 26 - 28. This conference is jointly sponsored by the US EPA, US Navy, USACE, NOAA the South/Southwest Hazardous Substance Research Center and the Sediment Management Work Group. This 3-day event focuses on the use of risk-based approaches to manage contaminated sediment. Emphasis will be given to the usability of approaches for decision-making and addressing uncertainties through facilitated discussions with panels of recognized experts and practitioners on various aspects of contaminated sediments. For agenda and registration information, see <http://www.smwg.org/> .

Reminder! 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)

Most 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. For agenda and logistics information, see <http://www.rtdf.org/public/permbarr/minutes/default.htm> .

Call for Papers! International Phytotechnologies Conference, Atlanta, Georgia, April 20-22. Organized by the U.S. EPA, topics of particular interest include: measurement technologies or techniques for assessing a project's progress; projects which decrease costs for existing conventional remediation or containment; phytotechnologies for use in developing economies; eco-restoration or habitat creation with remediation; fate or transport of contaminants through plants and associated eco-risk; case studies of successful applications; and case studies that illustrate regulatory process for evaluating phytoremediation projects. You are invited to submit a one page abstract by November 30, 2004 to conference organizers Ellen Rubin, rubin.ellen@epa.gov, 703-603-0141, or Steve Rock rock.steven@epa.gov,

513-569-7149.

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.