

Message #90: August 2004

Welcome to TechDirect. Since the July 1 message, TechDirect gained 258 new subscribers for a total of 19,733. 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 Radiation Risk Assessment: Updates and Tools, August 5.

This training clarifies the variations between the dose approach used at some sites and EPA's risk-based approach. It also elaborates on the methodology used to develop risk-based remediation goals. For more information and to register, see or <http://clu-in.org/studio> Or <http://www.itrcweb.org> .

ITRC Characterization and Remediation of Soils at Small Arms Firing Ranges, August 10. This seminar introduces the participants to the various physical (including hydraulic), chemical, and biochemical mechanisms available to treat or stabilize SAFRs after some unique characterization challenges are overcome. This training is based on the ITRC document entitled: Technical & Regulatory Guidance Document for Small Arms Firing Range Remediation Technologies. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio>.

ITRC Systematic Approach to In Situ Bioremediation: Nitrates, Carbon Tetrachloride, and Perchlorate, September 2. This training presents a decision tree for reviewing, planning, evaluating, and approving in situ bioremediation (ISB) systems in the saturated subsurface. It defines site parameters and appropriate ranges of criteria necessary for characterization, testing, design, and monitoring of ISB technologies. For more information and to register, see <http://clu-in.org/studio> Or <http://www.itrcweb.org> .

New Documents and Web Content

Guidance for Obtaining Representative Laboratory Analytical Subsamples from Particulate Laboratory Samples (EPA 600-R-03-027). This guidance was published by the EPA National Risk Management Research Laboratory. It provides education and instruction for managing a potential weakness in environmental data quality for solid materials. Representative data are the foundation of correct decisions and effective remedial designs. This document shows how analytical subsampling is a crucial link for representative samples. It defines "sample representativeness" in terms of the population of interest to the decision, which may or may not be based on a bulk average. Examples show how careless subsampling can severely bias analytical results (November 2003, 156 pages). View or download at <http://clu-in.org/techpubs.htm> .

Performance Monitoring of MNA Remedies for VOCs in Ground Water (EPA 600-R-04-027). This document provides technical recommendations regarding the types of monitoring parameters and analyses useful for evaluating the effectiveness of the natural attenuation component of ground-water remedial actions. The information will be helpful during the design of the performance monitoring plan as well as during its implementation (April 2004, 92 pages). View or download at <http://www.epa.gov/ada/download/reports/600R04027/600R04027.pdf> .

Center for Subsurface Modeling Support (CSMoS). This website is operated by the U.S. EPA National Risk Management Research Laboratory. The Center for Subsurface Modeling Support (CSMoS) provides public domain ground-water and vadose zone modeling software and services to public agencies and private companies throughout the nation. The primary aims of CSMoS are to provide direct technical support to EPA and State decision makers in subsurface model applications and to manage and support the ground-water models and databases resulting from the research at NRMRL. This research encompasses the transport and fate of contaminants in the subsurface, the development of methodologies for protection and restoration of ground-water quality, and the evaluation of subsurface remedial technologies. As a result, a major focus of CSMoS entails coordinating the use of models for risk assessment, site characterization, remedial activities, wellhead protection, and Geographic Information Systems (GIS) application. For more information, see <http://www.epa.gov/ada/csmos.html> .

New and Improved FRTR Remediation Optimization Information. The Federal Remediation Technologies Roundtable (FRTR) Remediation Optimization web site was recently improved. A compilation of 73 FRTR Optimization case studies are available for the first time. The reports contain information on the optimization of

remedial systems and/or long-term monitoring programs. Visitors can search these reports by remedial technology, optimization method, and other criteria. New additions to the site also include a list of commonly-used acronyms and terms and a Meetings and Conferences page. Proceedings of the Site Optimization Conference held June 15-17 in Dallas, TX will be posted here later this month. The FRTR Remediation Optimization page was also enhanced with file format and size information as well as a site navigation pathway that will guide visitors as they browse the site. To access the FRTR Remediation Optimization website, see <http://www.frtr.gov/optimization> .

Cost and Performance Information on Cleanup Technologies Available. The Federal Remediation Technologies Roundtable (FRTR) recently compiled 117 new remediation case study and technology assessment reports documenting the cost, performance, and lessons learned in implementing a wide range of hazardous waste cleanup technologies in the field, ranging from large-scale demonstrations to full-scale applications. With this addition, a total of 632 reports are now available in four areas - 361 cost and performance case study reports describing the use of remediation technologies; 144 reports describing the use of site characterization and monitoring technologies; 73 case studies describing long-term monitoring/optimization of remediation technologies; and 54 reports describing the assessments of remediation technologies at hazardous waste sites. These reports and other related FRTR information can be accessed at <http://www.frtr.gov> .

Abstracts of Remediation Case Studies, Volume 8 (EPA 542-R-04-012). This new report, published by the Federal Remediation Technologies Roundtable (FRTR), is a collection of abstracts summarizing 19 cost and performance case study reports on the use of remediation technologies at contaminated sites. This collection of case studies include 7 projects addressing cleanup of soil and groundwater using in situ bioremediation technologies, 4 case studies focusing on soil vapor extraction for treatment of halogenated volatile compounds, and 3 reports covering in situ soil and groundwater treatment using chemical oxidation/reduction technologies (June 2004, 109 pages). View or download at <http://clu-in.org/techpubs.htm> . For hard copies, contact (800) 490-9198 or fax to (513) 489-8695.

Technology News and Trends - Issue 13 (EPA 542-N-04-004). This quarterly update is published by the EPA Office of Superfund Remediation and Technology Innovation. This issue focuses on Triad applications, reference resources and available training (July 2004, 8 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.

Assessing Ground-Water Vulnerability to Contamination: Providing Scientifically Defensible Information for Decision Makers (USGS Circular 1224). This report, published by the U.S. Geological Survey, provides an overview of some of the common approaches used to scientifically determine the important factors controlling the vulnerability of ground-water resources to contamination. It also discusses the strengths and weaknesses of the various approaches as sources of scientifically defensible information for the water-resource management decision-making process. Descriptions of scientifically defensible methods are supported by example studies that have been conducted by the U. S. Geological Survey (USGS) often in cooperation with local, state, and regional water-resources agencies (Fall 2003, 33 pages). View or download at http://water.usgs.gov/pubs/circ/2002/circ1224/pdf/circ1224_ver1.01.pdf .

ESTCP Cost and Performance Report: Applications of Synthetic Aperture Radar to UXO Delineation (UXO-0126). This report was published by the Department of Defense Environmental Security Technology Certification Program (ESTCP). The demonstration was conducted to determine the feasibility of using the foliage penetration (FOPEN) synthetic aperture radar (SAR) to delineate UXO ranges. The targets were 155-mm projectiles and objects representing 500- and 2,000-lb bombs. Each type of target was arranged in grids of sparse, moderate, and dense arrays in an open field with low ground cover. Some targets were placed under trees (May 2004, 39 pages). View or download at <http://www.estcp.org/documents/techdocs/UX-0126.pdf> .

Conferences and Symposia

Oxygenate, LNAPL and Vapor Intrusion Workshops Set For The 21st Annual NGWA /API Groundwater Conference, Baltimore, August 16-18. This National Ground Water Association - American Petroleum Institute sponsored event will be held at the Wyndham Baltimore Inner Harbor. Workshop participants will have the opportunity to interact with nationally-recognized experts in the most active areas of petroleum site research, cleanup and corrective action. Conference keynote speakers include: Cliff Rothenstein, Director of the EPA Office of Underground Storage Tanks; Ellen Manges (EPA OSWER); and Horacio Tablada, (Maryland Dept. of Environment). For agenda and registration information, see <http://www.ngwa.org/e/conf/0408165040.shtml> or the "Conferences and Workshops" link at <http://www.api.org/groundwater> .

Call for Abstracts! Partners in Environmental Technology Technical Symposium & Workshop, Meeting DoD's Environmental Challenges, Washington DC, November 30-December 2.

Abstracts are being accepted through August 23 for poster space, and both federal and non-federal submissions will be considered. This annual technical Symposium & Workshop, sponsored by the Strategic Environmental Research & Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP), will feature comprehensive sessions that illustrate how SERDP and ESTCP research & development and demonstration & validation efforts are assisting the Department of Defense to address increasingly complex environmental challenges. For details about how to submit a poster abstract, as well as the latest conference information, see <http://www.serdp.org/symposiums/symposiums.html> Or call (703)736-4548.

Reminder! Midwestern States Risk Assessment Symposium, Indianapolis, August 25-27. The symposium, sponsored by Indiana Department of Environmental Management and others, will feature the leading experts in the United States as speakers on urban metals, urban PAHs, methods for evaluating vapor intrusion, and characterizing Brownfields Sites. For registration and agenda information, see <http://www.spea.indiana.edu/msras/> .

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> .

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.

Chemical Science and Commercialization Conference, Moscow, September 27-29. The U.S. Department of State Bio-Chem Redirect Program is sponsoring a first-ever conference. Its goal is to introduce select chemical research and production institutes in Russia and Eurasia to potential Western industrial partners, investors and collaborators. Russian and Eurasian participants will include key institutes specializing in organic and inorganic chemistry, polymer chemistry and catalysis, synthetic chemistry, analytical chemistry, chemical production, toxicology testing, occupational risk assessment, and environmental testing. The organizers are seeking broad participation from industry, academia, national laboratories, and other potential collaborators and investors from the U.S., Europe, Canada and elsewhere. For more information, see <http://biistate.net/chemconference/> .

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.