

Message #100: June 2005

Welcome to TechDirect (Issue 100)! Since the May 1 message, TechDirect gained 196 new subscribers for a total of 21,973. 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.

Special Announcements

DoD Broad Agency Announcement. The U.S. Army Environmental Quality Technology (EQT) Program has issued a Broad Agency Announcement (BAA) in support of EQT User Requirement A (1.6.a) UXO Screening, Detection, and Discrimination. The BAA is requesting private industry, academia, and government organizations that have technologies that can detect and or discriminate UXO on the surface or under water to apply for funding to demonstrate their technology. Four sites are available for demonstration purposes. Descriptions of all four sites are available on the web at <http://www.uxotestsites.org/>. The BAA is posted at <http://aec.army.mil/usaec/technology/baa0411.pdf>. To discuss this opportunity please contact Mr. Larry Overbay at larry.overbay@atc.army.mil for ground based systems and Mr. Gary Rowe at gary.rowe@atc.army.mil for water based systems.

Upcoming Internet Seminars

ITRC Triad Approach: A New Paradigm for Environmental Project Management - June 7. This seminar introduces the Triad concept and highlights how this process can increase the effectiveness and quality of environmental investigations. This training explains the relationship of the Triad to previous regulatory

guidance, and offers a discussion of issues that may affect stakeholders. The ITRC guidance document, Technical and Regulatory Guidance for the Triad Approach: A New Paradigm for Environmental Project Management (SCM-1, 2003), serves as the basis for this training course. To register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

ITRC Guidance for Characterization, Design Construction and Monitoring of Mitigation Wetlands - June 14. This seminar is the second in a series of wetland trainings beginning with the ITRC Technical and Regulatory Guidance Document for Constructed Treatment Wetlands (December 2003, WTLND-1). To improve the success of wetland mitigation projects, this training presents comprehensive guidance for regulators, environmental professionals, or owners to use to understand, characterize, design, construct, and monitor mitigation wetlands. To register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

Environmental Management Planning on Active Small Arms Firing Ranges - June 28. The training uses a logic diagram to describe the appropriate steps an environmental professional or range manager should use to establish an operational understanding of a range and the impact it can have on the environment if left unattended. It assists the user to define the environmental characteristics at a range that, left unattended, could potentially impact the environment and lists the appropriate questions that range operators should ask when evaluating the potential for environmental impact. The training briefly describes a variety of new and conventional technologies and techniques (i.e., 'best management practices') available to prevent environmental impact on the range. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

New Documents and Online Resources

Monitored Natural Attenuation of MTBE as a Risk Management Option at Leaking Underground Storage Tank Sites (EPA 600-R-04-179). This report reviews the current state of knowledge on the transport and fate of MTBE in ground water, with emphasis on the natural processes that can be used to manage the risk associated with MTBE in ground water or that contribute to natural attenuation of MTBE as a remedy. It provides recommendations on the site characterization data necessary to manage risk or to evaluate monitored natural attenuation (MNA) of MTBE, and it illustrates procedures that can be used to work up data to evaluate risk or assess MNA at a specific site. The information is intended to

allow state regulators to determine whether they have adequate information to evaluate MNA of fuel oxygenates at a site and to allow the regulators to separate sites where MNA of fuel oxygenates may be an appropriate risk management alternative from sites where MNA is not appropriate (January 2005, 89 pages). View or download at <http://www.epa.gov/ada/download/reports/600R04179/600R04179.pdf> .

The Impact of Ground-Water/Surface-Water Interactions on Contaminant Transport with Application to an Arsenic Contaminated Site (EPA 600-S-05-002). This document provides a brief overview of the dynamics of chemical processes that govern contaminant transport and speciation during water exchange across the ground-water/surface-water transition zone and presents results from a field study examining the fate of arsenic during ground-water discharge into a shallow lake at a contaminated site (January 2005, 22 pages). View or download at http://www.epa.gov/ada/download/briefs/epa_600_s05_002.pdf .

SITE Reports on Monitoring and Measurement Technologies for Dioxin and Dioxin-Like Compounds. Five innovative technology verification reports (ITVRs) were published by the SITE Monitoring and Measurement Technologies Program. The reports describe the assessment of five screening technologies for dioxin and dioxin-like compounds which include immunoassay techniques and aryl hydrocarbon receptor based assays. The five specific reports are:

- Xenobiotic Detection Systems, Inc., CALUX® by XDS, EPA/540/R-05/001 (March 2005, 62 pages)
- Wako Pure Chemical Industries, Ltd., Dioxin ELISA Kit, EPA/540/R-05/002 (March 2005, 61 pages)
- Abraxis LLC, Coplanar PCB ELISA Kit, EPA/540/R-05/003 (March 2005, 60 pages)
- CAPE Technologies LLC, DF1 Dioxin/Furan Immunoassay Kit and PCB TEQ Immunoassay Kit, EPA/540/R-05/004 (March 2005, 65 pages)
- Hybrizyme Corporation, AhRC PCR™ Kit, EPA/540/R-05/005 (March 2005, 58 pages)

View or download these reports at <http://www.epa.gov/ORD/SITE/>.

Demonstration of Aquafix and SAPS Passive Mine Water Treatment technologies at the Summitville Mine Site (EPA 600-R-04-501). The report details the Superfund Innovative Technology Evaluation (SITE) Program evaluation of passive water treatments (PWT) technologies for metals removal from acid mine drainage at the Summitville Mine Superfund Site in Southern Colorado. Two technologies were evaluated: the Successive Alkalinity Producing System (SAPS) and the Aquafix technology.

The results of the PWT technology evaluation demonstrated that the treatment systems removed metals from AMD. Removal efficiencies ranged from 11 to 97 percent for SAPS and as much as 97 to 99 percent for the Aquafix system. The cost for both systems is \$0.005 per gallon for the 25 gpm systems (June 2004, 59 pages). View or download at <http://www.epa.gov/ORD/NRMRL/pubs/540r04501/540r04501.pdf> .

Characterization, Design, Construction, and Monitoring of Mitigation Wetlands (WTLND-2). This report was published by the Interstate technology and Regulatory Council (ITRC). To promote the long-term sustainability of mitigation wetlands, this guidance provides developers, consultants, regulators, and communities with example checklists for evaluating and documenting habitat health and measuring other performance criteria of mitigation wetlands. This guidance is intended to identify and simplify the technical elements of sound characterizations, design, construction, and monitoring of wetlands mitigation projects (February 2005, 197 pages). View or download at <http://www.itrcweb.org/Documents/WTLND-2.pdf> . To receive a hard-copy ITRC document in the mail, e-mail your request to itrc@wpi.biz.

Institutional Controls: A Citizen's Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups (EPA 540-R-04-004).

This guide was published by the EPA Office of Superfund Remediation and Technology Innovation. It provides community members with general information about the role of institutional controls (ICs) in Superfund, Brownfields, Federal Facilities, Underground Storage Tanks (UST) and Resource Conservation and Recovery Act (RCRA) cleanups occurring in their neighborhoods. It also discusses the community's role in providing input for the selection of ICs and helping to monitor them to ensure that human health and the environment remain protected in the future (February 2005, 6 pages). View or download at <http://www.epa.gov/superfund/action/ic/guide/citguide.pdf> .

Technology News and Trends-current issue (EPA 542-N-05-003).

Technology News and Trends is published by the EPA Office of Superfund Remediation and Technology Innovation. This issue highlights innovative approaches for addressing issues arising at sites with contaminated sediment. An estimated 12-25% of all National Priorities List sites contain contaminated sediment due to inadequate treatment and inappropriate discharge of industrial and municipal wastewaters in the past. Particular problems are posed by heavy metals and hydrophobic organic chemicals that have settled in bottom sediment (May 2005, 6 pages). View or download at

<http://clu-in.org/download/newsletters/tnandt0505.pdf> . For hard copies, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Conferences and Symposia

EPA 2005 Community Involvement and Training Conference, Buffalo, July 12-15. This annual conference is designed for EPA and its federal, state, local and tribal partners who plan and implement EPA's community involvement, partnership, outreach and education programs. Conference speakers, representing a wide variety of stakeholders, will share how they are involving communities in the protection of our air, water, and land. For agenda and registration information, see <http://www.epancic.org/2005/information.cfm> .

MTBE & TBA: - Comprehensive Site Assessment and Successful Groundwater Remediation, San Francisco, August 10-12. This comprehensive two-day ITRC course introduces students to a variety of MTBE and TBA contaminated groundwater topics including: chemical, physical and biological characteristics; characterization; site assessment; remediation technologies; and case studies. The MTBE team has assembled a top-notch group of instructors offering both theoretical and practical information about MTBE and TBA in groundwater. Students can expect to increase their understanding of groundwater related site characterization and remediation issues, especially as it relates to regulator acceptance and successful application of innovative technology. To register, see <https://weborcl8.wpi.biz/itrc/mtbe200508/reqform.htm> .

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. Currently there are 192 conferences and courses featured. 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.