

TechDirect, September 1, 2008

Welcome to TechDirect! We apologize for this month's garbled message. We experienced technical difficulties with the ListServ software used to send TechDirect this month that have been resolved, and you can expect to receive next month's message in the correct format on October

1. Since the August 1 message, TechDirect gained 337 new subscribers for a total of 31,643. 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>. 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.

TechDirect's purpose is to identify new technical, policy and guidance resources related to the assessment and remediation of contaminated soil, sediments 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.

> Open Solicitation and Services

FY09 Brownfields Assessment, Revolving Loan Fund, and Cleanup Grants. These grants may be used to address sites contaminated by petroleum and hazardous substances, pollutants, or contaminants (including hazardous substances co-mingled with petroleum). Opportunities for funding are as follows: Brownfields Assessment Grants (each funded up to \$200,000 over three years), Brownfields Revolving Loan Fund (RLF) Grants (each funded up to \$1,000,000 over five years) and Brownfields Cleanup Grants (each funded up to \$200,000 over three years). The proposal deadline is November 14, 2008. Proposal guidelines are available at <http://www.epa.gov/brownfields/applicat.htm>.

EcoTools Technical Assistance Service. This is an exclusive resource for Remedial Project Managers (RPM) at Superfund sites. Through this service, RPMs can connect with experts in the ecological land reuse field and get answers to related questions in a variety of subjects, including: Ecological reuse of contaminated sites, Soil amendments, Native plants, invasive species, and revegetation. RPMs can learn more about this service and submit questions at <http://www.cluin.org/ecotools/sf.cfm>.

> Upcoming Live Internet Seminars

ITRC In Situ Bioremediation of Chlorinated Ethene - DNAPL Source Zones - September 9. Treatment of dissolved-phase chlorinated ethenes in groundwater using in situ bioremediation (ISB) is an established technology; however, its use for DNAPL source zones is an emerging application. This training course supports the ITRC Technical and Regulatory Guidance document In Situ Bioremediation of Chlorinated Ethene: DNAPL Source Zones (BioDNAPL-3, 2008). This document provides the regulatory community, stakeholders, and practitioners with the general steps

practitioners and regulators can use to objectively assess, design, monitor, and optimize ISB treatment of DNAPL source zones. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio>.

A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems - September 11 and October 8. This seminar presents a systematic approach for the evaluation of capture zones at pump and treat systems, and provides an overview of a recently published USEPA document on the topic (EPA 600/R-08/003, January 2008). The target audience is project managers who review those analyses and/or make decisions based on these types of analyses. This course will highlight: the importance of capture zone analysis during ground water remediation, particularly for sites requiring containment; key concepts of capture, such as "target capture zones" and "converging lines of evidence;" and typical errors made in capture zone analysis. Examples will be used to demonstrate key aspects of capture zone analysis. For more information and to register, see <http://clu-in.org/studio>.

ITRC Enhanced Attenuation of Chlorinated Organics: A Site Management Tool - September 11. This training on the ITRC Technical and Regulatory Guidance for Enhanced Attenuation: Chlorinated Organics (EACO-1, 2008) describes the transition (the bridge) between aggressive remedial actions and MNA and vice versa. Enhanced attenuation (EA) is the application of technologies that minimize energy input and are sustainable in order to reduce contaminant loading and/or increase the attenuation capacity of a contaminated plume to progress sites towards established remedial objectives. Contaminant loading and attenuation capacity are fundamental to sound decisions for remediation of groundwater contamination. This training explains how a decision framework which, when followed, allows for a smooth transition between more aggressive remedial technologies to sustainable remedial alternatives and eventually to Monitored Natural Attenuation. This training will demonstrate how this decision framework allows regulators and practitioners to integrate Enhanced Attenuation into the remedial decision process. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio>.

Triad: Beyond Characterization to Long-term Management of Groundwater Contaminant Plumes - September 12. This workshop is similar to one presented at the June 2008 Triad Conference. It will cover field analytical approaches, followed by LTM network design and implementation, then integration of sensors and logistics into the development of the CSM, and will finally wrap up with examples of automated monitoring (which includes contouring and model update). This workshop will cover best-of-class approaches for CSM development with an emphasis on direct-push technologies, then integrate new approaches to update this in the most time/cost-effective manner. While the models are conceptual, the workshop will discuss analytical components to the model to make quantification possible. For more information and to register, see <http://clu-in.org/studio>.

Understanding the EPA Brownfields Proposal Guidelines - September 15. The EPA Region 8 Grant Writing Workshop is designed to assist local governments, tribes and nonprofit organizations to better understand the proposal criteria and selection process for EPA's Brownfields Assessment, Cleanup and Revolving Loan Fund grants. EPA Region 8 is comprised of communities in Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming, and 27 tribal nations. Major workshop agenda topics will include: What are the different grant types EPA provides for brownfields?; Who is eligible to apply?; What is the grant application process?; What are threshold and ranking criteria and how have they changed this year?; What makes a good application?; and grant writing tips. For more information and to register, see <http://clu-in.org/studio>.

ITRC Risk Assessment and Risk Management: Determination and Application of

Risk-Based Values - September 16. This training course describes the development and application of risk-based screening values. The first module provides a review of key risk assessment concepts related to risk management. The second module focuses on the process by which risk-based levels are derived in different states. The third module examines the application of risk assessment to remediation operations in two case studies providing examples of how risk assessment has actually been implemented, based upon research and case studies conducted by the ITRC Risk Assessment Resources team. This training course describes a number of the reasons behind variations in risk-based screening values and their use in risk management. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

Understanding the EPA Brownfields Proposal Guidelines - September 17. The EPA Region 9 Grant Writing Workshop is designed to assist local governments, tribes and nonprofit organizations to better understand the proposal criteria and selection process for EPA's Brownfields Assessment, Cleanup and Revolving Loan Fund grants. EPA Region 9 is comprised of communities in Arizona, California, Hawaii, Nevada, Pacific Islands and over 140 Tribal Nations. Major workshop agenda topics will include: What are the different EPA brownfields grant types offered?; Who is eligible to apply?; What is the grant application process?; What are the threshold and ranking criteria?; What changes have been made since last year?; What comprises a competitive application?; and grant writing tips. For more information and to register, see <http://clu-in.org/studio> .

ITRC Survey of Munitions Response Technologies - September 18. This training introduces Survey of Munitions Response Technologies (UXO-4, 2006), created by the ITRC's Unexploded Ordinance Team in partnership with the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP). The document provides an overview of the current status of commercially-available technologies in common usage for munitions response actions, and, where possible, assess and quantify their performance capabilities. This training course is intended for an intermediate to advanced audience and assumes an understanding of technologies and phases of munitions response. This training course focuses on the major take-home conclusions of the Survey of Munitions Response Technologies (UXO-4, 2006) and provides an understanding of the performance capabilities of available technologies under real-world site conditions. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

ITRC Planning and Promoting of Ecological Land Reuse of Remediated Sites - September 23. This training is based on the ITRC Technical and Regulatory Guideline: Planning and Promoting Ecological Land Reuse of Remediated Sites (ECO-2, 2006). The document presents a process to promote ecological land reuse activities considering natural or green technologies instead of more traditional remedies. The guidance demonstrates that natural or ecological end-uses are valuable alternatives to conventional property development or redevelopment. Ecological benefits and a process for calculating their value are included in the guidance and reviewed in this training. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

Long-Term Monitoring Optimization (LTMO) Training - September 24. EPA is partnering with the U.S. Army Corps of Engineers to offer a live Internet seminar focusing on new methods of optimizing groundwater monitoring. State, tribal, and federal regulators, federal facilities cleanup managers, potentially responsible parties (PRPs), and contractors are invited to participate. Responsible parties, federal facilities, and EPA have used LTMO methods at more than 100 sites nationwide and are likely to use them at more sites in the future. These methods support decision-making regarding optimal location and frequency of groundwater monitoring and support changes to existing monitoring networks. The seminar will define and describe long-term monitoring optimization and how it can be used to demonstrate progress

toward remedial goals and will include a case study illustrating LTMO topics presented. This seminar is presented jointly by the U.S. EPA Office of Superfund Remediation and Technology Innovation (OSRTI) and the U.S. Army Corps of Engineers. For more information and to register, see <http://clu-in.org/studio> .

Tree Coring to Assess Subsurface Volatile Organic Compounds - September 25.

Analysis of the volatile organic compound content of tree cores is an inexpensive, rapid, simple approach to examining the distribution of subsurface volatile organic compound contaminants. The method has been shown to detect several volatile petroleum hydrocarbons and chlorinated aliphatic compounds associated with vapor intrusion and ground-water contamination. Tree cores are obtained by using an increment borer. The cores are placed in vials and sealed. After a period of equilibration, the cores can be analyzed by headspace analysis gas chromatography. Don Vroblesky of the United States Geological Survey will discuss the recently published "User's Guide to the Collection and Analysis of Tree Cores to Assess the Distribution of Subsurface Volatile Organic Compounds" that describes the method. The guide helps environmental professionals unfamiliar with the tools and methods of tree coring and contributes understanding to the relevant underlying tree physiology. For more information and to register, see <http://clu-in.org/studio> .

ITRC Evaluating, Optimizing, or Ending Post-Closure Care at Municipal Solid Waste Landfills - September 25. This training, based on ITRC's Technical and Regulatory Guidance: Evaluating, Optimizing, or Ending Post-Closure Care at Municipal Solid Waste Landfills Based on Site-Specific Data Evaluations (ALT-4, 2006), describes a method to evaluate the performance of Post Closure Care at a landfill and determine when leachate recovery, landfill gas management, groundwater monitoring, and cap maintenance can be reduced or even ended based on threats (to human health and the environment) posed by the closed landfill. The training and document describe custodial care as those requirements the property owner must follow after post closure care has been ended. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/studio> .

> New Documents and Web Resources

New Cost and Performance Information on Cleanup Technologies. The Federal Remediation Technologies Roundtable (FRTR) recently announced the release of over 30 new case study and technology assessment reports. These reports document the cost, performance, and lessons learned in implementing a wide range of hazardous waste site cleanup technologies in the field, ranging from large-scale demonstrations to full-scale applications. With these new additions, close to 800 reports are now available in four areas - over 400 cost and performance case study reports describing the use of remediation technologies; over 175 reports describing the use of site characterization and monitoring technologies; more than 125 case studies describing long-term monitoring/optimization of remediation technologies; and more than 80 reports describing the assessments of remediation technologies at hazardous waste sites. View at <http://www.frtr.gov/costperf.htm> .

Annual Summary of Activities: August 2008 (EPA 542-F-08-005). This fact sheet produced by the FRTR summarizes activities of member agencies and describes the status of cost and performance activities, including recent additions of completed case studies and reports. Close to 800 reports are now available. These reports represent a wide spectrum of technology deployment in the field, ranging from pilot-scale demonstrations to full-scale applications at single and multiple sites (August 2008, 6 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.

Linking Girls to the Land: Working Together to Conserve Natural Resources. The "Linking Girls to the Land" initiative gives Girl Scouts a deeper personal connection with the outdoors and the environment in an increasingly urbanized society. When girls gain outdoor experiences in conservation education, they build the foundation for important life skills, a lifetime appreciation for nature, and the start of potential careers in natural resource conservation. View or download the 11-minute video at

http://www.clu-in.org/studio/linking_girls_full.cfm .

Reining in the Storm - One Building at a Time. This video describes Low Impact Development (LID) in Virginia and is funded through the Virginia Department of Conservation and Recreation and the Chesapeake Bay Program and administered by the Northern Virginia Regional Commission. View or download the 30-minute video at

<http://www.clu-in.org/studio/reining.cfm> .

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 12 resources, events projects and news items were added to EUGRIS 1 - 24 August, 2008. These can be viewed at <http://www.eugris.info/whatsnew.asp> . Then select the appropriate month and year for the updates in which you are interested. The following reports were featured on EUGRIS:

Guidance on the Legal Definition of Contaminated Land (2008) Department for the Environment, Food and Rural Affairs. This non-statutory guidance discusses Part 2A's definition of the term contaminated land. The term is defined according to whether contamination poses a significant level of risk, and local authorities are given considerable discretion to decide whether such risks exist having studied the details of each specific case. View or download at

<http://www.defra.gov.uk/environment/land/contaminated/pdf/legal-definition.pdf> .

> Conferences and Symposia

Alternative Covers for Landfills: Theory, Design, and Practice. These 2 1/2 day workshops are intended to teach consultants and engineers how to design and submit quality proposals for alternative covers, and to teach regulators how to evaluate those proposals. Participants will learn the hydraulic properties of these covers, how to optimize designs with models, and how to ensure that the final installation is environmentally protective. The most current research on field performance, monitoring, economics and construction techniques will be presented. The workshop dates and locations are September 16-18 in Trenton, NJ; November 18-20 in Kansas City, KS; and December 1-3 in Raleigh, NC. For more information and to register, see <http://www.phytosociety.org>. For questions, to submit poster ideas or abstracts, contact Steve Rock 513-569-7149, rock.steven@epa.gov .

2008 NGWA/US EPA Remediation of Abandoned Mine Lands Conference, Denver, CO, October 2-3, 2008. The National Ground Water Association and U.S. EPA Technology Innovation and Field Services Division's national conference on the assessment and remediation of abandoned mine lands showcases alternative and innovative remediation technologies. The venue is designed to foster communication between the mining community, stakeholders, policymakers, regulators, ground water scientists, and engineers to advance the cleanup of abandoned mine wastes in the United States. For more information and to register, see

<http://www.ngwa.org/DEVELOPMENT/conferences/details/0810025019.aspx> .

Vapor Intrusion Pathway: A Practical Guideline: ITRC 2-day Classroom Training, Portland, OR, October 7-8, 2008. Don't miss your opportunity to join more than 100 state, local, and federal personnel already registered from 11 states, EPA Regional personnel from 6 regions and headquarters, as well as numerous private sector participants already registered for this valuable training opportunity. Led by internationally recognized experts, this 2-day ITRC classroom training will enable you to learn the latest strategies to conduct site screening and investigations; determine what tools are appropriate to collect quality data and evaluate the results; apply multiple lines of evidence to ensure quality decision-making; build solutions for VI issues through understanding of mitigation options; and network with environmental professionals dealing with this interdisciplinary and complex pathway. Interactive learning with hands-on exhibits, classroom exercises, and frequent Q&A sessions will reinforce these course objectives and contribute to a practical understanding of this difficult pathway. For more information and to register, see <http://www.itrcweb.org/crt.asp> or <http://www.regonline.com/ITRC-VI-OR>.

ITRC 2008 Fall Meeting, Phoenix, AZ, October 20-24, 2008. This week-long, conference-style meeting features plenary and breakout sessions, as well as ITRC Technical Team meetings. The meeting will highlight the connection between ITRC and emerging environmental issues, as well as how ITRC products will be used in the future. Attendance is open to ITRC members and nonmembers and networking opportunities will be provided at breaks, meals, and during the reception. Sponsorship and exhibitor opportunities are available. For more information and to register, see <http://www.itrcweb.org/2008FallMeeting>.

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 213 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.

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