

## TechDirect, July 1, 2008

Welcome to TechDirect! Since the June 1 message, TechDirect gained 199 new subscribers for a total of 31,068. 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.

### > Upcoming Live Internet Seminars

**ITRC Risk Assessment and Risk Management: Determination and Application of Risk-Based Values - July 15.** 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> .

**A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems - July 21.** 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> .

**Demystifying the DMA (Demonstration of Method Applicability) - July 28.** The DMA is critical in evaluating and understanding the utility of any real time measurement technology or novel approach at a site. In accordance with Triad's goal of managing decision uncertainty, a DMA provides an initial look at any technology or strategy performance in terms of its ability to meet project decision criteria and guide dynamic work strategies. This presentation will include an overview of the DMA process and provide examples of how DMAs have been structured under Triad projects. Examples are expected to highlight the multitude of activities that can be considered for a DMA

while demystifying the process and providing a platform to design a DMA for your next Triad project. For more information and to register, see <http://clu-in.org/studio> .

**ITRC Vapor Intrusion Pathway: A Practical Guideline - July 29.** The ITRC Vapor Intrusion Team developed the ITRC Technical and Regulatory Guidance document Vapor Intrusion Pathway: A Practical Guideline (VI-1, 2007), companion document Vapor Intrusion Pathway: Investigative Approaches for Typical Scenarios (VI-1A, 2007), and this Internet-based training course to be used by regulatory agencies and practitioners alike. This training course provides an overview of the vapor intrusion pathway and information on the framework (evaluation process), investigative tools, and mitigation approaches. The training course uses typical scenarios to illustrate the process. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

**ITRC Decontamination and Decommissioning of Radiologically-Contaminated Facilities - August 5.** This training introduces ITRC's Technical/Regulatory Guidance, Decontamination and Decommissioning of Radiologically-Contaminated Facilities (RAD-5, 2008), created by ITRC's Radionuclides Team. The curriculum is composed of four modules: Introduction and Regulatory Basis for Decontamination and Decommissioning (D&D), Factors for Implementing D&D, Preliminary Remediation Goal (PRG) Calculators, and Case Studies and Lessons Learned. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

## > New Documents and Web Resources

**2nd International Workshop on Remote Sensing of Emissions: New Technologies and Recent Work.** This workshop was held April 1-3, 2008, and was sponsored by EPA's Office of Air Quality Planning and Standards, Office of Research and Development, and Office of Solid Waste and Emergency Response. At the workshop, studies involving the use of differential absorption light detection and ranging systems (DIAL), solar occultation flux (SOF), and Fourier transform infrared spectroscopy (FTIR) techniques at petroleum related facilities in the Houston, TX area and open path techniques for use at other types of facilities were discussed (May 2008, 523 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Technical Protocol for Enhanced Anaerobic Bioremediation Using Permeable Mulch Biowalls and Bioreactors.** Biowall substrates are typically low-cost materials (e.g., mulch, compost). The substrates are mixed with common construction materials (e.g., sand, gravel) to prevent compaction and maintain permeability. Amendments can be added to stimulate both biotic and abiotic degradation processes, based on the type of contaminant(s) present and the desired degradation pathway(s) to be stimulated. The technology can be applied in source areas or use groundwater recirculation to capture deeper plumes in an in situ bioreactor configuration (May 2008, 302 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Reduce, Reuse, and Recycle Construction and Demolition Materials at Land Revitalization Projects.** Sustainable reuse of brownfield properties includes efforts to reduce the environmental impact by reusing and recycling materials generated during building construction, demolition, or renovation. Typical construction and demolition (C&D) materials include wood, drywall, cardboard, brick, concrete, metal, insulation and glass. There are numerous opportunities to recover and use C&D materials at brownfields and land revitalization sites (June 2008, 8 pages). View or download at <http://www.epa.gov/epaoswer/non-hw/debris-new/pubs/brochure.pdf> .

**June 2008 State Coalition for Remediation of Drycleaners Newsletter.** The State

Coalition for Remediation of Drycleaners (SCRD) produces a newsletter to announce recent events and undertakings. The June 2008 issue discusses state and national updates, presentations by SCRDR members at national conferences, state progress on remediation of drycleaning sites, remedial technologies employed at SCRDR drycleaning sites, and upcoming events. View or download at

<http://www.drycleancoalition.org/download/news0608.pdf> .

**Updated Soil Remediation, Revitalization, and Reuse: Technical Performance Measures Internet based tool.** This tool is designed for site managers and their technical support teams to help assess whether soil amendments or other in situ technologies used for remediation, revitalization, or reuse of metal contaminated sites are functioning as designed. The TPM website is built on a searchable database containing availability, cost and level of standardization for the analytical tests. View at <http://www.clu-in.org/products/tpm/> .

**EUGRIS Corner.** New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 33 resources, events projects and news items were added to EUGRIS 1 - 24 June, 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:

**CIEH & CL:AIRE (2008) Guidance on Comparing Soil Contamination Data with a Critical Concentration.** The 67 page document, entitled Guidance on Comparing Soil Contamination Data with a Critical Concentration is the first of a long list of new and revised guidance promised by Defra.s 2006 .Way Forward. discussion paper. The overall aim of this guidance is to increase the understanding of practitioners of the role that statistics play in quantifying the uncertainty around estimates of average contaminant concentrations. View or download at [http://www.claire.co.uk/index.php?option=com\\_content&task=view&id=164&Itemid=28](http://www.claire.co.uk/index.php?option=com_content&task=view&id=164&Itemid=28) .

**Report of the NICOLE / SAGTA Workshop: Sustainable Remediation 3rd March 2008, London, UK.** The SAGTA / NICOLE Workshop on 3rd March drew together current thinking and approaches, issues of both benefits and costs as well as the perceived gaps and uncertainties that may act as specific challenges to achieving sustainable remediation. Presentations were divided into two themes: defining sustainable remediation and how sustainable development might be better implemented in remediation. Several speakers from NICOLE, SAGTA and English Partnerships provided scene setting viewpoints, with papers from the UK, Austria and Switzerland exploring industry and regulatory in more detail. A series of case studies of decision support approaches and examples of sustainable remediation provided examples of implementation. These two themes of defining and implementing .sustainable remediation. were then explored further in two parallel syndicate sessions to provide conclusions for the meeting. View or download at [http://www.nicole.org/documents/stream.aspx?o=2&fn=NICOLE\\_Docs\\_203.pdf](http://www.nicole.org/documents/stream.aspx?o=2&fn=NICOLE_Docs_203.pdf) .

**Research Bulletin 07 - Field Portable X-ray Fluorescence (FPXRF): A rapid and low cost alternative for measuring metals and metalloids in soils.** The Field Portable X-Ray Fluorescence (FPXRF) analyser is a portable analytical instrument for determining metal and metalloid concentrations in soils and other media (e.g. paint, alloys); producing a display of the .total. metal and metalloid concentrations. View or download at [http://www.claire.co.uk/index.php?option=com\\_content&task=view&id=167&Itemid=28](http://www.claire.co.uk/index.php?option=com_content&task=view&id=167&Itemid=28) .

## > Conferences and Symposia

**Long-Term Monitoring Optimization (LTMO) Training, San Francisco, CA July 30-31, 2008.** EPA is partnering with the U.S. Army Corps of Engineers to provide state, tribal, and federal regulators with information about new methods of optimizing groundwater monitoring programs. The training will be held at the EPA Region 9 Office in San Francisco, CA on July 30 and 31, 2008. Responsible parties, federal facility cleanup managers, 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 are used to support decision making regarding optimal location and frequency of groundwater monitoring and to support changes to existing monitoring networks. The training includes 1-day of lectures on a variety of qualitative and quantitative methods, including: the Monitoring and Remediation Optimization System (MAROS); the Geostatistical Temporal-Spatial (GTS) algorithm; and the Three-Tiered Monitoring Network Optimization (MNO) approach. A 4-hour hands-on training session with the MAROS software program will be offered on the second day for a limited number of attendees. While the training is designed primarily for state, tribal, and federal regulators, federal facilities cleanup managers, potentially responsible parties (PRPs), and contractors are welcome to participate at no cost. State and federal regulators will receive registration priority. For more information and to register, see <http://www.trainex.org/ltno> .

**Call for Poster Abstracts!! Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, December 2-4, 2008.** This event is sponsored by the Strategic Environmental Research & Development Program (SERDP), DoD's environmental science and technology program, and the Environmental Security Technology Certification Program (ESTCP), DoD's environmental technology demonstration and validation program. This year's Symposium & Workshop has been expanded to a full three-day format that will offer a more comprehensive technical program featuring 13 technical sessions and five short courses. Technical sessions will highlight research and innovative technologies that assist the Department of Defense (DoD) in addressing increasingly complex environmental and mission sustainability challenges. Over the course of the three days, short courses on select technologies in the environmental restoration and munitions management areas will offer unique training opportunities on recent advancements in science and technology. All poster abstracts are due July 31, 2008. For more information and to submit a poster abstract, see <http://www.serdp-estcp.org/symposium2008/> .

**Vapor Intrusion Pathway: A Practical Guideline: ITRC 2-day Classroom Training, Portland, OR, October 7-8, 2008.** 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> .

**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 167 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](mailto: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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