

## TechDirect, May 1, 2008

Welcome to TechDirect! Since the April 1 message, TechDirect gained 219 new subscribers for a total of 30,671. 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 Planning and Promoting of Ecological Land Reuse of Remediated Sites - May 15.** 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>.

**Management and Interpretation of Data Under a Triad Approach - May 22.** This session will cover the Brownfields and Land Revitalization Technology Support Center (BTSC) bulletin on implementing a data management program for a Triad project. It will include a brief introduction to the Triad approach, answers to frequently asked questions about data management on Triad projects, three examples of data management with state agencies as the primary regulatory body, and sources of additional information for project teams and stakeholders who develop or provide input on data management. For more information and to register, see <http://clu-in.org/studio>.

**Bioavailability - Metals - May 28.** The Superfund Basic Research Program (SBRP), in collaboration with the Environmental Protection Agency (EPA) Technology Innovation Program, presents "Bioavailability - Metals." Dr. Dominic Di Toro, Professor of Civil and Environmental Engineering, University of Delaware, will review available models - the Free Ion Activity Model, the Biotic Ligand Model and Equilibrium Partitioning - and supporting data for water column, sediments and soils and will present example applications to human health in his presentation "Environmental Control of Metal Bioavailability." Dr. Nicholas Basta, Professor, Soil and Environmental Chemistry, Ohio State University, will present data gaps, uncertainties and research needed to apply in vitro gastrointestinal (IVG) methods to contaminated sites in his presentation "Assessing Contaminant Human (Bio)availability in Soil with In Vitro Gastrointestinal: Uncertainties, Data Gaps, and Research Needs." For more information and to register, see <http://clu-in.org/studio>.

**ConSoil 2008 Special Sessions on Green Remediation (June 5) and Brownfields, Bioenergy and Biofeedstocks (June 6).** EPA is collaborating with the European Groundwater and Contaminated Land Information Portal to bring to you live, via Webcast, two 90-minute special sessions on sustainability and contaminated site cleanup. These sessions are being held at the 2008 ConSoil Conference in Milan, Italy. The sessions link two important emerging themes for contaminated land management, both connected with improving its sustainability and reducing its cost. The first theme is the integration of land management of large areas with re-use for non-food crops, ecosystem recovery and revenue generation. The second is what is termed "green remediation," which maximizes the net environmental benefit of contaminated land remediation techniques. For more information and to register, see <http://clu-in.org/studio> .

## > New Documents and Web Resources

**Green Remediation: Incorporating Sustainable Environmental Practices into Remediation of Contaminated Sites (EPA 542-R-08-002).** Green remediation is the practice of considering all environmental effects of remedy implementation and incorporating options to maximize the net environmental benefit of cleanup actions. This primer outlines the principles of green remediation and describes opportunities to reduce the footprint of cleanup activities throughout the life of a project. Best management practices (BMPs) outlined in this document help decision-makers, communities, and other stakeholders (such as project managers, field staff, and engineering contractors) identify new strategies in terms of sustainability. These strategies complement rather than replace the process used to select primary remedies that best meet site-specific cleanup goals. The primer identifies the range of alternatives available to improve sustainability of cleanup activities and to help decision-makers balance the alternatives within existing regulatory frameworks. To date, EPA's sustainability initiatives have addressed a broader scope or focused on individual elements of green remediation such as clean energy (April 2008, 54 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Engineering Forum Issue Paper: Online Hazardous Waste Cleanup Technical Resources (EPA 542-F-08-003).** This issue paper is intended to give the reader examples of some online technical resources that can assist with hazardous waste cleanups in the Superfund, Resource Conservation and Recovery Act (RCRA), and Brownfields programs. Given the dynamics of online resources, this paper provides only a snapshot of the resources available at the time of publication (April 2008, 12 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Technology News and Trends (EPA 542-N-08-002).** This issue contains articles on an adaptive treatment strategy to address extensive DNAPL contamination, sodium persulfate and hydrogen peroxide injections to achieve ground-water cleanup, and an integrated technology approach to remediate a site contaminated by 56 chemicals (April 2008, 6 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Remediation Technologies for Perchlorate Contamination in Water and Soil (PERC-2).** This report was produced by the Interstate Technology and Regulatory Council (ITRC). The purpose of this document is to review technologies applicable to the remediation of perchlorate in water and soil. In addition, the social, political, and regulatory barriers to the deployment of these technologies are examined. The goal of the document is to provide industry, responsible parties, and state and federal environmental regulators with reliable guidance to help streamline the review and approval process for selecting and implementing perchlorate treatment technologies

(March 2008, 109 pages). View or download at <http://www.itrcweb.org/Documents/PERC-2.pdf> .

**EUGRIS Corner.** New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 47 resources, events projects and news items were added to EUGRIS 1 - 24 April, 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:

**Quality in Land Remediation: Indicators and Protocols for Brownfield Land.**

CL:AIRE research bulletins describe specific, practical aspects of research which have direct application to the characterisation, monitoring or remediation of contaminated soil or groundwater. This research bulletin describes a novel technique for manganese removal from mine waters. View or download at

[http://www.claire.co.uk/index.php?option=com\\_docman&task=doc\\_download&qid=168&Itemid=25](http://www.claire.co.uk/index.php?option=com_docman&task=doc_download&qid=168&Itemid=25).

**Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination.** Part A of this document contains explanatory material that discusses the relationship between soil sampling and risk assessment, the importance of the Conceptual Model, uncertainty and data quality, and key design parameters. Part B contains procedures for developing appropriate soil sampling strategies and for reviewing planned or completed work. The document addresses only those matters relevant to the development of sampling strategies for soils and closely allied materials such as solid wastes, ground gases and vapours, the leachable fraction, soil pore waters and nonaqueous phase liquids. View or download at

<http://publications.environment-agency.gov.uk/pdf/SP5-066-TR-e-e.pdf> .

## > Conferences and Symposia

**2008 EPA Science Forum, Washington, DC, May 20-22.** This seventh annual event is designed to showcase EPA's commitment to quality science; highlight high-priority topics and accomplishments; and facilitate dialogue among EPA scientists and their collaborators, clients, customers, stakeholders, and colleagues from across government, the private sector, academia, and the scientific community. This year's Forum will emphasize the theme of innovative technologies and their application to a healthy and prosperous environment. For more information and to register, see

<http://www.epa.gov/scienceforum/> .

**Triad Investigations: New Approaches and Innovative Strategies, Amherst, MA, June 10-13.** The June 2008 National Conference Triad Investigations: New Approaches and Innovative Strategies will feature three full days of conference presentations, Triad training sessions, specialized workshops, an interactive tool room, field equipment demonstrations, exhibitor hall, poster sessions, and an array of networking opportunities. The conference will include training sessions, platform sessions, and specialized workshops focused on implementation of new tools, approaches, and strategies for hazardous waste site characterization, site remediation, and site redevelopment. The conference also will feature new tools and techniques for sampling and monitoring related to real-time information, continuous monitoring, and long-term monitoring for site closure and stewardship. Best practices and lessons learned will be emphasized throughout the training sessions, platform sessions, and workshops. The complete conference program is available at

[http://www.umass.edu/tei/conferences/Triad\\_PDF/Program.pdf](http://www.umass.edu/tei/conferences/Triad_PDF/Program.pdf) . For more information and to register, see <http://www.umass.edu/tei/conferences/triad.html> .

**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 178 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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