

## Message #118: December 2006

Welcome to TechDirect! Since the November 1 message, TechDirect gained 280 new subscribers for a total of 26,605. 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 Solicitations***

**NIEHS.** The National Institute of Environmental Health Sciences (NIEHS) is announcing a new funding opportunity as part of the Superfund Basic Research and Training Program (SBRP). The title is "Innovative Approaches to Remediation of Recalcitrant Hazardous Substances in Sediments" and will be awarded under the Individual Research Project Program (R01) mechanism of the SBRP. The objective is to encourage research to develop innovative approaches to address the remediation of contaminated sediments, with particular emphasis on in situ remedies. All accredited domestic institutions of higher education are eligible to apply. The application receipt date is January 11th, 2007 - letters of intent are requested by December 11, 2006. If interested in applying, please contact Heather Henry (919) 541-5330. For more information, see

<http://www-apps.niehs.nih.gov/sbrp/funding/funding2.cfm> .

**SERDP.** The DoD Strategic Environmental Research and Development Program (SERDP), released its annual Core and SERDP Exploratory Development (SEED) solicitations for FY 2008 on November 9, 2006. The Core solicitation requests proposals in response to Statements of Need (SON) related to the SERDP focus areas of Environmental Restoration, Munitions Management, Sustainable Infrastructure, and Weapons Systems and Platforms. For the SERDP Core solicitation, pre-proposals from the non-federal

sector are due January 4, 2007, and federal proposals are due March 8, 2007. In addition, two SEED SONs were released within the Munitions Management and Sustainable Infrastructure thrust areas. All SERDP SEED proposals are due March 8, 2007. For more information, see <http://www.serdp.org/> .

## ***Upcoming Live Internet Seminars***

**ITRC Planning and Promoting of Ecological Reuse of Remediated Sites - December 5** 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> .

**ITRC Overview of Direct-push Well Technology for Long-term Groundwater Monitoring - December 7.** Direct-push wells have been used for temporary groundwater monitoring purposes for many years but are generally prohibited for use as long-term groundwater monitoring wells. Recent research indicates that direct-push wells are as well suited for long-term environmental groundwater monitoring purposes as conventionally constructed wells. This training introduces ITRC's The Use of Direct-push Well Technology for Long-term Environmental Monitoring in Groundwater Investigations (SCM-2, 2006), provides a background in the principles of direct-push wells, and presents the state of the art regarding recent research. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/studio> .

**ITRC Risk Assessment and Risk Management: Determination and Application of Risk-Based Values ? December 12.** 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>.

**Revegetation and Restoration of an Oil Contaminated Wetland in Northern New Jersey ? December 14.** This presentation will attempt to show that a carefully supervised cleanup followed by a scientifically driven monitoring program can be effective in removing oil from a sensitive wetland habitat using the Green Pond Oil Spill Removal project as the prime example. A monitoring program for determining the success of the revegetation/restoration effort was conducted. Species composition and productivity measurements were an integral part of the parameters to measure the progress of the effort to determine comparability between the remediated site and undisturbed wetlands. The presentation will incorporate all that has been learned from the removal activity in terms of How Clean is Clean as applied to an oil contaminated fresh water wetland. This information should be useful for decision makers, responders, and consultants alike when faced with remediating disturbed or contaminated habitats. For more information and to register, see <http://clu-in.org/studio>.

## ***Documents and Web Resources***

**Treatment Technologies for 1,4-Dioxane: Fundamentals and Field Applications (EPA 542-R-06-009).** 1,4-Dioxane is a solvent stabilizer frequently found at contaminated sites where methyl chloroform (1,1,1-trichloroethane) was used for degreasing. This report profiles the occurrence and properties of 1,4-dioxane and provides a summary of the available remedial technologies. The information presented should prove useful to project managers and other regulatory officials who oversee cleanup of contaminated groundwater, particularly where chlorinated solvents are the principal contaminant. Consultants, including hydrogeologists, remediation engineers, and modelers, should also find this report useful, as should water utility operators and regulators (November 2006, 30 pages). View or download at <http://clu-in.org/techpubs.htm>.

**In Situ Treatment Technologies for Contaminated Soil (EPA 542-F-06-013).** This issue paper provides summary information on a wide variety of in situ technologies for the treatment of contaminated soil in both the vadose zone and saturated and unsaturated zones. The document presents information on common practices such as soil vapor extraction and bioventing, and less frequently used technologies such as in situ thermal treatment. This information is

intended to give project managers a basic understanding that will allow for further consideration of the technology's applicability at a site (November 2006, 35 pages). View or download the document at

<http://clu-in.org/techpubs.htm> .

**Hazardous Waste Clean-Up Information (CLU-IN) On-line Remediation Databases Fact Sheet (EPA 542-F-06-006).** This factsheet describes databases available on CLU-IN (<http://clu-in.org>) sponsored by the U.S. EPA's Office of Superfund Remediation and Technology Innovation (OSRTI). These databases provide timely information about selected pilot- and full-scale applications of innovative treatment and site characterization technologies for EPA remedial project managers (RPM), other federal and state personnel, consulting engineers, technology developers and vendors, remediation contractors, researchers, community groups, and individual citizens. They have recently been updated, reformatted, and made available through a Universal Search Engine. They facilitate and encourage the hazardous waste remediation community to share their knowledge and experiences about innovative technologies (September 2006, 4 pages). View or download at <http://clu-in.org/techpubs.htm> .

**New In Situ Flushing Profiles.** EPA has developed this CLU-IN area to summarize timely information about selected full- and field-scale applications of in situ flushing technologies. This area provides information about ongoing and completed applications to treat chlorinated solvents, petroleum products, metals, explosives, and PCBs in groundwater and soil. The project profiles provide summary information about each application, including relevant site information, contaminants and media treated, technology design and operation, cost information, and performance results, as well as point(s) of contact and references. Projects for this Web site are collected using information from technical journals, conference proceedings as well as other published sources including Record of Decisions (RODs) or 5-year reviews. As of April 2006, the Web site includes information on 23 in situ flushing project profiles including completed and on-going applications. For more information, see

<http://clu-in.org/products/isf/> .

**Revegetating Landfills and Waste Containment Areas Fact Sheet (EPA 542-F-06-001).** The U.S. EPA Office of Superfund Remediation and Technology Innovation (OSRTI) is developing a series of fact sheets on ecological restoration and revegetation of contaminated sites. This fact sheet provides information on revegetation of landfill surfaces for EPA site managers, consultants, and others interested in the revegetation of landfill surfaces (October

2006, 12 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Technology News and Trends (EPA 542-N-06-006).** This issue highlights various techniques used to design, construct, and operate permeable reactive barriers containing organic reactive media. Implementation of these "biobarriers" (PRBs) involves amending the aquifer with relatively inexpensive and readily available carbon-donor materials capable of enhancing biological degradation of contaminants. Several federal agencies are evaluating this technology particularly for treatment of ground water contaminated with perchlorate or volatile organic compounds (November 2006, 6 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Bioremediation of Acid Mine Drainage Using Sulfate-Reducing Bacteria.** This document was prepared by Sheela M. Doshi, a National Network of Environmental Management studies grantee, under a fellowship from the U.S. Environmental Protection Agency. This innovative technology report provides an overview of innovative acid mine drainage treatment technologies that employ sulfate-reducing bacteria (SRB). Through a synthesis of research and case studies of SRB treatment at coal and hardrock mine sites, it presents lessons for further application of this technology (August 2006, 72 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Phytoremediation of Petroleum Hydrocarbons.** This document was prepared by Amanda Van Epps during an internship with the U.S. Environmental Protection Agency, sponsored by the Environmental Careers Organization. The purpose of this report is to compile existing data to evaluate the appropriateness of phytoremediation for particular sites (August 2006, 171 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Grant Guidelines to States for Implementing the Secondary Containment Provision of the Energy Policy Act of 2005.** The UST provisions of the Energy Policy Act focus on preventing releases and direct EPA to help states comply with new UST requirements. EPA and states, working closely with other stakeholders, developed the secondary containment grant guidelines, which include definitions, requirements, and examples for states choosing to implement the secondary containment provision. States receiving federal funds must implement the secondary containment requirements by February 8, 2007. EPA regions will incorporate the guidelines into their future grant agreements with states (November 2006, 13 pages). View or download at [http://www.epa.gov/oust/fedlaws/final\\_sc.htm](http://www.epa.gov/oust/fedlaws/final_sc.htm) .

**API Launches New Soil and Groundwater Website.** API has

reorganized its website to make it easier to find technical information related to subsurface fate and transport and natural attenuation of fuel constituents, site characterization and remediation. Sections of the website are devoted to oxygenates (including MtBE and ethanol), LNAPL and petroleum vapor intrusion. For more information, see

<http://www.epi.org/groundwater> .

**EUGRIS Corner.** New Documents on EUGRIS, the platform for European contaminated soil and water information. See the following link to access the following documents: <http://www.euqris.info/Whatsnew.asp> .

1) How to use EUGRIS to prepare for the forthcoming European Framework 7 research and development program (open to US organizations as "third country" participants)

<http://www.euqris.info/DisplayNewsItem.asp?NewsID=376> . A call for proposals for the new Framework 7 Programme is expected December 2006 to January 2007. FP7 will last 7 years and have a budget greater than 50 billion over this period. The programme is open to organizations in the EU and many countries outside the EU. For the most part countries outside the EU can join FP7 proposals only if they can secure their own funding. The benefit is therefore the gearing of being able to participate in a much larger project. FP7 includes a range of funding lines for proposals related to soil and water topics.

2) Copies of older UK contaminated land guidance documents scanned to PDF at <http://www.euqris.info/DisplayNewsItem.asp?NewsID=371> . Some contaminated land guidance still in use in the UK dates back to the 1980s and has not been available in downloadable form, in particular: Contaminated Land Reports (CLRs) 1 to 6 and 12, and Publications of the former Interdepartmental Committee on the Redevelopment of Contaminated Land (ICRCL). Defra and the Environment Agency have recently completed scanning these to PDF, and these are now available for download.

## ***Conferences and Symposia***

**Reminder! Call for Abstracts for the 2007 Conference on Design and Construction Issues at Hazardous Waste Sites, April 4 - 5, Philadelphia.** This conference is hosted by the US EPA and the US Army Corps of Engineers. The conference will provide a forum for discussion between the private sector and the federal, state, local, and tribal governments regarding design and construction issues at hazardous waste sites, including effective methods, lessons learned, application of technologies, and field approaches. Abstracts are due by December 15, 2006. For abstract guidelines or to register please see the conference website at <http://hq.environmental.usace.army.mil/rdra-07> .

**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 89 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.