

TechDirect, September 1, 2010

Welcome to TechDirect! Since the August 1 message, TechDirect gained 277 new subscribers for a total of 36,171. 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.

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

Understanding the FY11 Job Training Grant Application Guidelines - September 2, 2010, 2:00PM-4:00PM EDT (18:00-20:00 GMT). This seminar will provide an overview of the FY11 application guidelines for the Environmental Workforce Development and Job Training Grants -formerly known as the "Brownfields Job Training Grants." Eligibility and ranking evaluation criteria will be covered, as well as information on formatting and key building blocks of a successful proposal. A questions and answers session will be held at the end. For more information and to register, see <http://clu-in.org/live> .

TABEZ - Free E-Tool to Facilitate Writing of EPA Assessment and Cleanup Grants - September 8, 2010, 2:00PM-3:30PM EDT (18:00-19:30 GMT). TAB EZ is a FREE online tool intended to streamline and simplify the grant writing process when applying for EPA brownfields assessment and cleanup grants. The goal of TAB EZ is to level the playing field for smaller local governments and communities so they may have an increased chance to obtain EPA brownfields grant funds. TAB EZ is very user friendly. It offers helpful hints for addressing proposal requirements, as well as links to additional resources. Multiple participants may work on a proposal, while at the same time all proposals are password protected to prevent unauthorized use. TAB EZ was developed by the TAB (Technical Assistance to Brownfields communities) program at Kansas State University with funding from the U.S. Environmental Protection Agency (EPA) under cooperative agreement TR83389401. This webinar will step attendees through TABEZ and explain the use of the tool. Attendees may want to log on to TABEZ before the webcast and follow along using the live tool. TAB EZ is available at <http://www.tabez.org> For more information and to register, see <http://clu-in.org/live> .

Stable Isotope Analyses to Understand the Degradation of Organic Contaminants in Ground Water (Parts 1 and 2) - September 9 and 16, 2010, 2:00PM-3:30PM EDT (18:00-19:30 GMT). When organic contaminants such as benzene, TCE or MTBE are degraded, the ratio of the stable isotopes of carbon in the organic contaminants will often change in a predictable fashion. This webinar will briefly review the theory behind isotopic effects, it will explain the units used to characterize the ratio of isotopes, and it will discuss the simple mathematics that can relate the shift in the ratio to the extent of degradation. Then the webinar will illustrate an approach to estimate rate constants for

natural biodegradation of contaminants in ground water. The isotope analysis will be used to estimate the extent of natural biodegradation of MTBE at a gasoline spill site. The extent of biodegradation will be combined with the hydrological parameters at the site to estimate rate constants for biodegradation. The webinar will conclude with a number of cautions and warnings. Heterogeneity in flow paths in the aquifer and proximity to NAPL or other source of contamination to ground water can substantially confuse the interpretation of stable isotope data. Both these conditions cause the isotope analysis to underestimate the extent of degradation. Heterogeneity in the rate of biodegradation can produce substantial errors in the forecasts of plume behavior. The webinar will provide recommendations to deal with the effects of heterogeneity in rates of biodegradation. Note: This is a repeat of the June 16, 2010 seminar on this topic split across two sessions. For more information and to register, see <http://clu-in.org/live> .

ITRC Protocol for Use of Five Passive Samplers - September 14, 2010, 2:00PM-4:15PM EDT (18:00-20:15 GMT). This training supports the understanding and use of the ITRC Protocol for Use of Five Passive Samplers to Sample for a Variety of Contaminants in Groundwater (DSP-5, 2007). The five technologies included in this document include diffusion samplers, equilibrated grab samplers, and an accumulation sampler. The training starts with information common to all five samples then focuses on each sampler as instructors describe the sampler and explain how it works; discuss deployment and retrieval of the sampler; highlight advantages and limitations; and present results of data comparison studies. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/live> .

ITRC Phytotechnologies - September 16, 2010, 11:00AM-1:15PM EDT (15:00-17:15 GMT). This training familiarizes participants with ITRC's Phytotechnology Technical and Regulatory Guidance and Decision Trees, Revised (Phyto-3, 2009). This document provides guidance for regulators who evaluate and make informed decisions on phytotechnology work plans and practitioners who have to evaluate any number of remedial alternatives at a given site. This document updates and replaces Phytoremediation Decision Tree (Phyto-1, 1999) and Phytotechnology Technical and Regulatory Guidance Document (Phyto-2, 2001). It has merged the concepts of both documents into a single document. This guidance includes new, and more importantly, practical information on the process and protocol for selecting and applying various phytotechnologies as remedial alternatives. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/live> .

Biological-based Assays - Indicators of Ecological Stress - September 23, 2010, 2:00PM-4:00PM EDT (18:00-20:00 GMT). This seminar will feature Dr. Bruce Duncan, Senior Ecologist with EPA Region 10's Office of Environmental Assessment, and Dr. Jim Shine, Associate Professor of Aquatic Chemistry at Harvard University's Center for the Environment and part of the Harvard School of Public Health Superfund Research Program. Dr. Duncan and EPA Region 10 have been assisting the NIEHS Superfund Research Program for many years. Part of recent support has been through the National Bioassay Project, a consortium of existing research centers focused on developing and crosswalking a suite of tests to evaluate complex mixtures in sediments. As an ancillary to that project, detailed work on evaluating organism exposures to contaminants was conducted at a Superfund Site (Lower Duwamish Waterway) in Seattle, WA. A 2009 exposure study led largely by Matt Kelley (Texas A&M, now with LSU Health Sciences Center-Shreveport) and supported by EPA, Texas A&M, Southern California Coastal Water Research Project, and NOAA looked at the concordance between media concentrations, biomarker response, and bioaccumulation of PCBs and PAHs at several locations. Dr. Shine's presentation will focus on the "Gellyfish" sampling tool. The "Gellyfish", an in-situ equilibrium-based sampling tool for determining multiple free metal ion concentrations in aquatic systems, has been developed and refined under both laboratory and field conditions. The device is based on the equilibrium partitioning between free metal ions in the surrounding solution and

iminodiacetate binding groups held within the gel matrix of the sampler. An accompanying computer model (GELLYMOD) was also developed to account for metal-metal competition for uptake into the sampler. Compared to other analytical methods for free metal ions, the Gellyfish sampler is inexpensive, rapid, reusable, easy to use, and can measure multiple metals simultaneously, thus permitting the generation of adequate quantities of data to examine spatial and temporal variability and other factors affecting metal speciation. For more information and to register, see

<http://clu-in.org/live> .

ITRC In Situ Bioremediation of Chlorinated Ethene - DNAPL Source Zones - September 30, 2010, 11:00AM-1:15PM EDT (15:00-17:15 GMT). 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/live> .

Superfund Redevelopment Seminar Series - September 30, 2010, 2:00PM-4:00PM EDT (18:00-20:00 GMT). The Superfund Redevelopment Initiative has developed a new alternative energy pre-feasibility analysis process for Superfund sites. This process, which often involves economic analysis and GIS mapping components, serves as an initial step to determine if a Superfund property could support alternative energy projects. The presentation will highlight two sites: the Iron King Mine Humboldt Smelter site and the Apache Powder Company site in Arizona at which SRI has provided site stakeholders with pre-feasibility analyses. Key stakeholders at these sites were interested in determining if alternative energy production were viable reuses. Presenters will walk participants through the steps involved in conducting the pre-feasibility analysis, paying particular attention to how stakeholder concerns were addressed, outcomes of the analyses and important lessons learned. For more information and to register, see <http://clu-in.org/live> .

> New Documents and Web Resources

New CLU-IN RSS Feeds. CLU-IN regulars have been notified when new content is posted by subscribing to our main RSS feed since 2005. We have just added three new targeted RSS feeds for our Technology Innovation News Survey, Federal Business Opportunities (FedBizOpps) Notices, and our Courses and Conferences area. RSS is a form of web syndication and information aggregation. Instead of having to repeatedly browse websites for information of interest, this information is sent directly to you.

CLU-IN's RSS feeds provide headlines and short descriptions of new CLU-IN content with links to the full version. This happens when new content is loaded onto the site. Sound useful? For more information and to subscribe, visit <http://www.clu-in.org/rss/about/> .

Streamlining Site Cleanup in New York City (EPA 542-R-10-005). The United States Environmental Protection Agency (EPA) Brownfields and Land Revitalization Technology Support Center (BTSC) and the New York City (NYC) Mayor's Office of Environmental Remediation (OER) have jointly prepared this document as a technical transfer resource for organizations and individuals involved in the redevelopment of contaminated properties in NYC. This joint effort, supported by the New York State Department of Environmental Conservation (NYS DEC), advances the environmental

cleanup goals of PlaNYC 2030, the city's comprehensive sustainability plan. The purpose of this document is to present how Triad Approach best management practices (BMP) for site investigation and remediation advance EPA's and NYC Mayor's Office initiatives in the areas of community revitalization and Brownfields redevelopment (August 2010, 37 pages). View or download at <http://clu-in.org/techpubs.htm> .

Green Remediation Best Management Practices: Clean Fuel & Emission Technologies for Site Cleanup (EPA 542-F-10-008). Cleanup of hazardous waste sites can involve significant consumption of gasoline, diesel, or other fuels by mobile and stationary sources. Minimizing emission of air pollutants such as greenhouse gases (GHGs) and particulate matter (PM) resulting from cleanup activities, including those needing fossil or alternative fuel, is a core element of green remediation strategies. Efforts to reduce these emissions during site investigation, remedial or corrective actions, and long-term operation and maintenance (O&M) must meet regulatory requirements under the Clean Air Act (CAA) and state air quality standards as well as federal and state cleanup programs. Deployment of green remediation BMPs can help reduce negative impacts of cleanup activities on public health and the environment (August 2010, 10 pages). View or download at <http://clu-in.org/techpubs.htm> .

Technology News and Trends (EPA 542-N-10-004). This issue describes selected field applications of new materials, advanced equipment, and various material dispersion methods for treating contaminated soil and groundwater (August 2010, 6 pages). View or download at <http://clu-in.org/techpubs.htm> .

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 9 resources, events, projects and news items were added to EUGRIS in August 1-24, 2010. 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 resources were posted on EUGRIS:

US Navy Web site on Green and Sustainable Remediation. The site on green and sustainable remediation (GSR) provides links to fact sheets and guidance documents, case studies, and Web tools on sustainable practices for remediation. The Web-based multi-media tool discusses sustainability, sustainable remediation, and regulatory drivers for considering GSR. The tool also discusses GSR metrics, tools, and environmental footprint reduction methodologies. View online at <http://www.ert2.org/t2gsportal/> .

> Conferences and Symposia

Vapor Intrusion Pathway: A Practical Guideline ITRC 2-day Classroom Training, Atlanta, GA, October 4-5, 2010. 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> .

Registration Now Open!! 2010 National Training Conference On The Toxics Release Inventory (TRI) and Environmental Conditions in Communities, Washington, DC, November 1-4, 2010. This year's conference expands on previous

TRI National Training conferences to include sessions on sources of other environmental data and on conditions and trends in ecological and human health that collectively help to support environmentally-related decision making in communities . For more information and to register, see

<http://chemicalright2know.com/content/2010-national-training-conference> .

Call for Abstracts!! International Conference on Sustainable Remediation 2011: State of the Practice, Amherst, MA, June 1-3, 2011. The Environmental Institute at the University of Massachusetts Amherst and the U.S. EPA Office of Superfund Remediation and Technology Innovation are pleased to announce the International Conference on Sustainable Remediation 2011: State of the Practice to be held in Amherst, Massachusetts June 1-3, 2011. The conference will bring together researchers and practitioners from around the globe to address the state of the practice and future needs in sustainable remediation across the themes of green chemistry, human health, and environmental response. Session presentations by scientists, practitioners, and regulators will feature new research, field applications, and lessons learned. Abstracts are encouraged in all areas of green and sustainable remediation as related to hazardous waste cleanup, from basic to applied research, from case studies to demonstration projects. The deadline for platform presentations is November 1, 2010. For more information and to submit an abstract, see

<http://www.umass.edu/tei/conferences/SustainableRemediation/callforabstracts.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 119 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/techdirect> at any time night or day.

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