

## TechDirect, December 1, 2010

Welcome to TechDirect! Since the November 1 message, TechDirect gained 245 new subscribers for a total of 36,592. If you 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.

### > Open Solicitations

**ESTCP Environmental Restoration Special Solicitation: Perchlorate Treatment Technologies.** The Environmental Security Technology Certification Program (ESTCP) has issued a special solicitation requesting proposals for technologies for treatment of perchlorate-contaminated groundwater used for drinking water. Researchers from Federal organizations, universities, and private industry can apply for ESTCP funding via the appropriate solicitation. All proposals in response to this BAA must respond to the topic, "Technologies for Treatment of Perchlorate-Contaminated Groundwater for Drinking Water." Pre-proposals are due January 11, 2011. View the call for proposals and instructions at <http://www.serdp-estcp.org/Funding-Opportunities/ESTCP-Solicitations/Environmental-Restoration-Special-Solicitation>.

**Superfund Research Program Multiproject Program Grants and Individual Research Grants.** Multiproject Program Grants will be for coordinated, multi-project, multi- and interdisciplinary programs. The objective remains to establish and maintain a program that links and integrates biomedical research with related engineering, hydrogeologic, and ecologic components. Grants are awarded in response to request for applications (RFA). The 2010 RFA was released on October 29, 2010 and applications are due by April 15, 2011. The Individual Research Project Program (R01) is designed to address specific issues that complete multi-project research programs, meet high priority research needs of the national Superfund Program or tackle issues of environmental concern. Grants awarded under this mechanism will be for discrete, single projects. Grant applications are solicited and awarded in response to this Funding Opportunity Announcement (FOA). The current FOA was released on November 4, 2010 and closes on February 17, 2011. More information is available at <http://www.niehs.nih.gov/research/supported/srp/funding/>.

**Air Force Center for Engineering and the Environment Broad Agency Announcement.** Proposals are sought that demonstrate and validate innovative, sustainable, and cost-effective technologies and/or methodologies that will lead to accelerated closure of environmental sites across the Air Force, eliminate or reduce hazardous material use and environmental release, and serve the Air Force's future environmental needs. This acquisition is not to test theoretical concepts or technologies that currently exist solely in a laboratory R&D phase or that have already been tested and validated multiple times in the field. Phase I submittals are due no later than 4:00 PM CST, December 16, 2010. View proposal instructions and areas of need at <https://www.fbo.gov/spg/USAF/AFMC/HQAFCEE/AFCEEBA-11-001/listing.html>.

### > Upcoming Live Internet Seminars

**Enhanced Attenuation of Chlorinated Organics: A Site Management Tool - December 2, 2010, 11:00AM-1:00PM EST (16:00-18:00 GMT).** 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 contaminants. 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/live>.

**BIT Desktop Edition - a Free, Brownfields Site Inventory Tool for your PC - December 6, 2010, 11:00AM-12:30PM EST (16:00-17:30 GMT).** EPA's Brownfields Program will sponsor this seminar on the desktop edition of the Brownfields Inventory (BIT). BIT operates from and stores site data on an individual personal computer for Brownfields sites. Tribes, Cities, and regional coalitions can use BIT to create site inventories; submit reports such as the multiple property profile form to the EPA; and log emergency response and other administrative information about brownfields and other environmental programs. The desktop

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was requested by tribal stakeholders, to provide an added level of data security by storage of information on a users person: computer instead of on an outside server connected to the internet. The Desktop Edition can be downloaded from the BIT we at <http://www.tab-bit.org> or by going directly to <http://tab-bit.org/BitDesktop/BitInstaller.exe>. For more information and to register, see <http://clu>.

**ITRC Mine Waste Treatment Technology Selection - December 7, 2010, 2:00PM-4:15PM EST (19:00-21:15 GMT).** ITRC's Waste Team developed the ITRC Web-based Mine Waste Technology Selection site (<http://www.itrcweb.org/miningwaste-guidance/>) to project managers in selecting an applicable technology, or suite of technologies, which can be used to remediate mine waste contaminated sites. Decision trees, through a series of questions, guide users to a set of treatment technologies that may be applicable to that particular site situation. Each technology is described, along with a summary of the applicability, advantages: limitations, performance, stakeholder and regulatory considerations, and lessons learned. Each technology overview links to studies where the technology has been implemented. In this associated Internet-based training, instructors provide background information then take participants through the decision tree using example sites. Project managers, regulators, site owners, a community stakeholders should attend this training class to learn how to use the ITRC Web-based Mine Waste Technology Selection site to identify appropriate technologies, address all impacted media, access case studies, and understand potential regulatory constraints. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

**Your Role in Green Remediation Implementation and Case Studies in Green Remediation - This Year's Models and To 2010 NARPM Green Remediation Session Follow-on Webinars) - December 8, January 11, and February 10.** In May 2010 held its annual National Association of Remedial Project Managers (NARPM) meeting in Crystal City, VA, and for the third year, one of our most attended sessions was on Green Remediation (GR). And like last year, we are offering those talks again online audience! EPA's definition of GR includes the practice of considering the environmental effects of a remediation strategy (the remedy selected and the implementation approach) early in the process, and incorporating options to maximize the net environmental benefit of the cleanup action. We've got more case studies and maturing policy and guidance that we'd like to share with an online audience. EPA's Technical Support Project, led by the Engineering Forum, has taken this full-day session and broken it into three separate sessions, one per month starting in December. Each session is scheduled for two hours and will include presentations, case studies, with time for Q&A along the way. For more information and to register for all three sessions, see <http://clu-in.org/live>.

**Contaminated Sediments: New Tools and Approaches for in-situ Remediation - Session II - December 8, 2010, 2:00PM EST (19:00-21:00 GMT).** This seminar will feature SRP grantees Dr. Upal Ghosh (Associate Professor and Graduate Program Director at the Department of Civil and Environmental Engineering, University of Maryland Baltimore County) and Dr. Joel Bui (Professor of Civil, Architectural & Environmental Engineering and Interim Director of the Environmental Research Center). Dr. Bui will present an overview of ongoing research on activated carbon amendments to reduce contaminant bioavailability in sediments. This in-situ technique binds toxic chemicals in sediments and reduces their exposure to the aquatic food web. Dr. Burken will present his research using a traditionally high pressure waterjet in a new and innovative manner to inject remediation amendments like powdered activated carbon at varying depths in contaminated sediments. This method also decreases contaminant bioavailability, minimizes resuspension and the impact on benthic communities. For more information and to register, see <http://clu-in.org/live>.

**ITRC LNAPL Training Parts 1, 2, and 3 - December 9, 14, and 16, 2010.** Light non-aqueous phase liquids (LNAPLs) are organic liquids such as gasoline, diesel, and other petroleum hydrocarbon products that are immiscible with water and less dense than water. LNAPLs are important because they are present in the subsurface at thousands of remediation sites across the country, and are frequently the focus of assessment and remediation efforts. Part 1 of this training course explains how LNAPLs behave in the subsurface and examines what controls their behavior. Part 1 also explains what LNAPL data can tell you about the LNAPL and site conditions. Relevant and practical examples are used to illustrate key concepts. Part 2 addresses LNAPL characterization and conceptual model development as well as LNAPL recovery evaluation and remedial considerations. Specifically, Part 2 discusses LNAPL and site data, when and why those data may be important, and how to get those data. Part 2 also discusses how to assess LNAPL recoverability. Part 3 uses the LNAPL conceptual site model (LCSM) approach to identify the LNAPL concerns or risks and proper LNAPL remedial objectives and technology-specific remediation goals and performance metrics. Part 3 also provides an overview of the LNAPL remedial technology selection framework. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

**Field scale Remediation Experience using Iron Nanoparticles and Evolving Risk-Benefit Understanding - December 10:00AM-12:15PM EST (15:00-17:15 GMT).** "Contaminated Land: Applications in Real Environments" (CL:AIRE), a not-for-profit organization, is presently undertaking a research project on behalf of the Department for Environment, Food and Rural Affairs (DEFRA), titled "A risk/benefit approach to the application of iron nanoparticles for the remediation of contaminated sites in the environment", supported by r3 Environmental Technology Ltd (UK), The University of Nottingham (UK), Deltares (Netherlands) and Geosyntec (USA). The purpose of this webinar is to hear presentations from some nano-remediation projects where nanoscale zero-valent iron has been used as a remediation technique in a practical way. Presentations will discuss the context of the application, the risk management problem being addressed, the practical delivery and use of the technology, the regulatory approval process, and the project outcomes and ongoing monitoring. In particular, a focus of the webinar will be to consider the risks and benefits of iron nanoparticle use for remediation, and this will be the focus of an open discussion following the presentations. For more information and to register, see <http://clu-in.org/live>.

**Renewable Energy on Potentially Contaminated Land Webinar Series: Department of Energy's Technical Assistance - December 15, 2010, 12:00PM-1:00PM EDT (17:00-18:00 GMT).** During this session, Courtney Welch will provide an overview of the Department of Energy's (DOE) Technical Assistance Program (TAP). TAP supports the Energy Efficiency and Conservation Block Grant Program (EECBG) and the State Energy Program (SEP) by providing state, local, and tribal officials the tools and resources needed to implement successful and sustainable clean energy programs. Through TAP, DOE has launched a \$25 million effort to assist EECBG and SEP Recovery Act recipients. This effort, which is jointly-funded with EECBG and SEP Recovery Act dollars.

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aimed at accelerating payments, improving project and program performance, and increasing the return on Recovery Act investment. From one-on-one assistance, to an extensive online resource library, to facilitation of peer exchange of best practices and lessons learned-TAP offers a wide range of resources to serve the needs of EECBG and SEP grantees. For more information and to see <http://clu-in.org/live>.

**Superfund Research Program Funding Opportunities - December 15, 2010, 2:00PM-3:30PM EST (19:00-20:30 GMT).** The Superfund Research Program (SRP) will describe current funding opportunities including the multi-project center grant, the independent research program grant, and the small business innovative research grant. Primary focus will be on the new multi-project center grant announcement. This seminar will be of interest to academic institutions with an interest in applying for Superfund Research Program grants. For more information and to register, see <http://clu-in.org/live>.

## > New Documents and Web Resources

**Technology News and Trends (EPA 542-N-10-005).** This issue describes accelerated remediation of contaminant source areas containing dense nonaqueous phase liquid (DNAPL). Treatment typically involves conversion of contaminants, most commonly trichloroethene, from the nonaqueous phase to the dissolved phase where degradation occurs more readily through chemical and biological processes (October 2010, 6 pages). View or download at <http://clu-in.org/techpubs.htm>.

**Data Quality Screening Using Trend Charts.** U.S. EPA's Region 9 Quality Assurance Office introduces an innovative, transparent quantitative and graphical method the Region is using to communicate analytical data quality information. Trend charts provide a visual method for use in assessing QC results and QA oversight of Quality Assurance Project Plan implementation over time and laboratory QC data, performance evaluation sample results, field and laboratory audit findings for Superfund, RCRA, and other programs. The charts permit one to identify patterns, potential problems and to suggest corrective action. EPA's Contract Laboratory Program (CLP) developed Trending Analytical Data (TAD) tool to generate and communicate data quality information (quality assurance results) for Superfund data users in near real time. This paper briefly covers the automated tools capability and features that are available to anyone accessing CLP analytical services. Although developed for Superfund, private laboratories can easily prepare trend charts for samples analyzed in the RCRA and water programs. The graphical and/or supporting data may then be loaded onto a data management system (DMS) for sharing information and QC performance data amongst project staff, including states, regulators and stakeholders for collaboration and discussion. Region 9's DMS is QUICKR. QUICKR is currently being utilized to house trend charts, along with associated Quality Assurance Project Plan, Laboratory QC, field and laboratory audit reports, corrective action and validation reports. Laboratory raw data may also be stored on QUICKR (July 2010, 19 pages). View or download at <http://www.epa.gov/region9/qa/pdfs/TrendCharting.pdf>.

**New Documents on EUGRIS, the platform for European contaminated soil and water information.** More than 18 resource events, projects and news items were added to EUGRIS in November 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 first resource was posted on EUGRIS:

**Communicating Understanding of Contaminated Land Risks (2010).** The Scotland & Northern Ireland Forum for Environmental Research (SNIFFER) released this guidance which notes that communicating about land contamination and proposed remediation solutions is exceedingly complex and often emotionally charged because of the potentially serious implications of the problem and diverse range of people involved and competing priorities. Effective risk communication is not just about convincing people as you perceive as the real risk following a technical risk assessment, but must be based on an understanding that people will have different perceptions of the risk as a result of their own situation and values. This guidance document is designed to assist in communicating with the public and other stakeholders about land contamination risks. It includes: Recommendations on how to develop an effective communication strategy, and Practical advice on how to communicate effectively about land contamination or download at [http://www.sniffer.org.uk/Webcontrol/Secure/ClientSpecific/ResourceManagement/UploadedFiles/Communicating%20understanding%20of%20contaminated%20land%20guidance%20\(UKQLQ13\).pdf](http://www.sniffer.org.uk/Webcontrol/Secure/ClientSpecific/ResourceManagement/UploadedFiles/Communicating%20understanding%20of%20contaminated%20land%20guidance%20(UKQLQ13).pdf).

## > Conferences and Symposia

**Call for Abstracts!! 2011 Environmental Monitoring and Data Quality Workshop, Arlington, VA, March 28-April 1, 2011** The annual DoD Environmental Monitoring & Data Quality Workshop includes technical training sessions, technical presentations, a plenary session featuring distinguished speakers, a Q&A forum, component meetings, a poster session, an update on the DoD Environmental Laboratory Accreditation Program (ELAP), and networking opportunities with members of the environmental laboratory community. This workshop is open to all interested environmental professionals involved with DoD sites or projects including representatives from the DoD services, other federal agencies, state, local, and tribal governments, academia, and the private sector. All abstracts for technical presentations and posters must be submitted via email by January 14, 2011. For more information or to submit an abstract, see <http://www.regonline.com/2011emdqworkshop>.

**Vapor Intrusion Pathway: A Practical Guideline ITRC 2-day Classroom Training, San Antonio, TX, January 20-21, 2011**

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internationally recognized experts, this 2-day ITRC classroom training will enable you to learn the latest strategies to conduct 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 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>.

**NOTE: For TechDirect, we prefer to concentrate mainly on new documents and the Internet live events.** However, we support an area on CLU-IN where announcement of conferences and courses can be regularly posted. Currently there are 24 conferences and courses featured. We invite sponsors to input information on their events at <http://clu-in.org/courses>. Likewise, you 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). To unsubscribe, send a blank email to [UnSub@clu-in.org](mailto:UnSub@clu-in.org). 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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