



U.S. ENVIRONMENTAL PROTECTION AGENCY

TechDirect, January 1, 2013

Happy Holidays and may you have a prosperous new year! Welcome to TechDirect! Since the December 1 message, TechDirect gained 193 new subscribers for a total of 33,142. 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

EPA's Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources: A Progress Report - January 3 and 4, 2013. On December 18, 2012, the U.S. Environmental Protection Agency (EPA) released a report highlighting the progress it has made on its national study to understand the potential impacts of hydraulic fracturing on drinking water resources. This webinar will provide project-specific updates that include research approach, status, and next steps. EPA will also provide updates on the five technical Roundtables held in November 2012. For more information and to register, see <http://clu-in.org/live>.

ITRC Integrated DNAPL Site Strategy, January 8, 2013, 2:00PM-4:15PM EST (19:00-21:15 GMT). The ITRC Integrated Dense Nonaqueous Phase Liquid Site Strategy (IDSS-1, 2011) technical and regulatory guidance document will assist site managers in development of an integrated site remedial strategy. This course highlights five important features of an IDSS including: a conceptual site model (CSM) that is based on reliable characterization and an understanding of the subsurface conditions that control contaminant transport, reactivity, and distribution; remedial objectives and performance metrics that are clear, concise, and measurable; treatment technologies applied to optimize performance and take advantage of potential synergistic effects; monitoring based on interim and final cleanup objectives, the selected treatment technology and approach, and remedial performance goals; and reevaluating the strategy repeatedly and even modifying the approach when objectives are not being met or when alternative methods offer similar or better outcomes at lower cost. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

ITRC Development of Performance Specifications for Solidification/Stabilization -

January 10, 2013, 11:00AM-1:15PM EST (16:00-18:15 GMT). The ITRC technical and regulatory guidance document Development of Performance Specifications for Solidification/Stabilization (S/S-1, 2011) and associated Internet-based training provide an approach to assist practitioners and regulators with measuring and determining acceptable S/S performance. This approach developed by the ITRC Solidification/Stabilization Team provides information for developing, testing, and evaluating appropriate site-specific performance specifications and the considerations for designing appropriate long-term stewardship programs. In addition, the approach provides useful tools for establishing an appropriate degree of treatment and regulatory confidence in the performance data to support decision-making. This training and guidance is intended to be beneficial to anyone involved with CERCLA, RCRA, Brownfields, UST or any other regulatory program where S/S has been selected or implemented as a remedial technology. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/live> .

ITRC Mining Waste Treatment Technology Selection - January 15, 2013, 2:00PM-4:15PM EST (19:00-21:15 GMT). ITRC's Mining Waste Team developed the ITRC Web-based Mining Waste Technology Selection site to assist 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 case 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, and community stakeholders should attend this training class to learn how to use the ITRC Web-based Mining 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> .

ITRC A Decision Framework for Applying Attenuation Processes to Metals and Radionuclides - January 17, 2013, 11:00AM-1:15PM EST (16:00-18:15 GMT). This training and the associated ITRC Technical and Regulatory Guidance document, A Decision Framework for Applying Attenuation Processes to Metals and Radionuclides (APMR-1, 2010), is intended for anyone involved with evaluating, investigating, remediating or managing a site that involves metal and radionuclide contaminants in groundwater. This training and document provides: introduction to key attenuation processes for metals and radionuclides, information on incorporating Monitored Natural Attenuation (MNA) into remedial alternatives for metals/rads, and an overview of the decision framework on MNA for metals and radionuclides in groundwater within the larger evaluation framework of a contaminated site. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/live> .

Superfund Research Program (SRP) Funding Opportunities Web Seminar - January 30, 2013, 1:30PM-3:00PM EST (18:30-20:00 GMT). The SRP will be holding a web seminar to provide information about current "Superfund Hazardous Substance Research and Training Program (P42)" funding opportunities. Primary focus will be on the new multi-project center grant announcement (P42), including an emphasis on changes compared to previous solicitations. Participants will have an opportunity to ask questions. For more information and to register, see <http://clu-in.org/live> .

> New Documents and Web Resources

Technology News and Trends (EPA 542-N-12-006). This issue highlights the use of in situ bioremediation to address groundwater contamination caused by past releases of organic contaminants. Implementation of bioremediation at these sites involves biostimulation techniques, in which amendments are administered to the subsurface to provide nutrition for microorganisms capable of consuming and consequently biodegrading the contaminants, as well as bioaugmentation techniques involving subsurface injection of biodegrading microorganisms that may not already exist onsite (December 2012). View at <http://clu-in.org/tnandt/1212> .

Optimization Review: Fairfield Coal Gasification Plant Superfund Site, Fairfield, Iowa (EPA 542-R-12-004). This document provides project background and information about the optimization review conducted at the Fairfield Coal Gasification Plant Superfund Site, including information about site-specific background; the conceptual site model; optimization findings related to source structures and impacted soil removal, the dissolved phase groundwater plume, and establishment of technical impracticability waivers; and optimization recommendations related to improving effectiveness, reducing cost, technical improvement, and site closure (August 2012). View or download at <http://clu-in.org/techpubs.htm> .

Technology Innovation News Survey Corner. The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete archives, and subscription information is available at <http://clu-in.org/products/tins/> . The following resources were included in recent issues:

- A Low-Cost, Passive Approach for Bacterial Growth and Distribution for Large-Scale Implementation of Bioaugmentation: ESTCP Cost and Performance Report
- Demonstration and Evaluation of Solid Phase Microextraction for the Assessment of Bioavailability and Contaminant Mobility: ESTCP Cost and Performance Report
- Application of Advanced Sensor Technology to DoD Soil Vapor Intrusion Problems
- Field Experiment on Thin-Layer Capping in Ornefjorden and Eidangerfjorden, Telemark: Functional Response and Bioavailability of Dioxins, 2009-2011
- Literature Review of Remediation Methods for PCBs in Buildings
- PCB Bulk Product Waste Reinterpretation
- Mitigation of Building-Related Polychlorinated Biphenyls in Indoor Air of a School
- Remedial Methods and Strategies for PFCs
- Guidance for the Inventory of Perfluorooctane Sulfonic Acid (PFOS) and Related Chemicals Listed under the Stockholm Convention
- Detection and Quantification of Oxygenated Polycyclic Aromatic Hydrocarbons (Oxy-PAHS) in Groundwater near the Former Manufactured Gas Plant in Bay Shore, N.Y.
- Hazardous Waste Treatment, Storage and Disposal Facility (TSDF) Regulations: A User-Friendly Reference Document for RCRA Subtitle C Permit Writers and Permittees
- Assessing Protectiveness at Sites for Vapor Intrusion: Supplement to the "Comprehensive Five-Year Review Guidance"
- Alternatives for Managing the Nation's Complex Contaminated Groundwater Sites

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 10 resources, events, projects and

news items were added to EUGRIS in December 2012. 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 resource was posted on EUGRIS:

> Conferences and Symposia

Call for Poster Ideas!! National Brownfields 2013 Conference, Atlanta, GA, May 15-17, 2013. The National Brownfields 2013 Conference invites you to submit a poster that displays best practices and innovative ideas and technologies in environmental revitalization and economic redevelopment. Posters may present tools and technical information, results of projects and research, success stories, and other information related to the expansion, redevelopment, or reuse of brownfields property. Posters will be showcased in a dedicated Poster Gallery within the Exhibit Hall which will receive high foot traffic from the over 5,000 attendees. The deadline for submission is January 11, 2013. For more information and to submit a poster idea, see <http://www.brownfieldsconference.org> .

Call for Presenters!! Applications of Nanotechnology for Safe and Sustainable Environmental Remediations, Hammond, LA, June 5-7, 2013. This is the first national workshop that provides an opportunity for representatives from the environmental remediation community, industry, academia, and government to: share their perspectives, pose questions, and develop ideas for design of good guidelines, selection criteria, and work practices to support safe and sustainable nano-enabled environmental remediation; become acquainted with other U.S. nanotechnology stakeholders, including vendors, transporters, and contractors of the remediation sites and communities; and share case studies of nano-enhanced clean up technologies, including selection criteria for alternative remediation strategies and methods, job planning, job tasks, and nanomaterial handling practices. Presenters should submit titles and abstracts by the new, extended deadline of January 31, 2013. For more information and the call for presenters, see <http://selu.edu/nano-4-rem-anssers> .

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. 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. To unsubscribe, send a blank email to [\\$subst\('Email.UnSub'\)](mailto:$subst('Email.UnSub')). 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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