TechDirect, May 1, 2007

Special Notice

Upcoming Live Internet Seminars

New Documents and Web Resources

Conferences and Symposia

Welcome to TechDirect! Since the April 1 message, TechDirect gained 228 new subscribers for a total of 27,936. 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.

> Special Notice

Draft Grant Guidelines To States For Implementing The Operator Training Provision Of The Energy Policy Act Of 2005 (510-D-07-002) is now available for public comment. EPA, in conjunction with states, developed these draft grant guidelines for state underground storage tank programs. After receiving comments, EPA will develop final guidelines and incorporate them in grant agreements between EPA and states. EPA developed the guidelines according to Title XV, Subtitle B of the Energy Policy Act of 2005, which focuses on preventing underground storage tank releases. Comments are due by May 10, 2007. For more information, see http://www.epa.gov/oust/fedlaws/draft_ot.htm

> Upcoming Live Internet Seminars

New Search Options for Archived Internet Seminars & Podcasts. Over the past 8 years, we have presented Internet Seminars covering a wide variety of technical topics related to hazardous waste characterization, monitoring, and remediation. For each seminar topic, we have selected the highest-quality offering for placement in our archives. In addition to browsing all 129 archived seminars, you may now also search the archives for seminars that interest you based on keywords, sponsors, and archived date. Search archived Internet Seminars & Podcasts at http://www.clu-in.org/live/archive.cfm .

Understanding and Reconstructing Soil Conditions at Remediation Sites - May 2. Effective in situ rehabilitation of drastically disturbed and/or

contaminated sites is usually dependent upon understanding and modifying on-site soil conditions to support revegetation efforts. While site-specific characterization of soil conditions is essential to the development of any revegetation strategy, limitations posed by reactive sulfides and very low pH, excess soil compaction, and excess salinity are dominant and widespread problems on disturbed sites. This seminar will focus on essential steps and procedures for (A) characterizing limiting soil conditions, (B) ameliorating soil phytotoxicity, and (C) reconstructing viable and productive soil profiles for long-term rehabilitation. The importance of matching remediated soil conditions to the intended vegetative community will be emphasized via discussion of case study sites including metal contaminated sites, acid-sulfate spoils, and forested wetlands restoration. For more information and to register, see http://clu-in.org/studio .

ITRC Vapor Intrusion Pathway: A Practical Guideline - May 8. The ITRC Vapor Intrusion Team developed the ITRC Technical and Regulatory Guidance document Vapor Intrusion Pathway: A Practical Guideline (VI-1, 2007), companion document Vapor Intrusion Pathway: Investigative Approaches for Typical Scenarios (VI-1A, 2007), and this Internet-based training course to be used by regulatory agencies and practitioners alike. This training course provides an overview of the vapor intrusion pathway and information on the framework (evaluation process), investigative tools, and mitigation approaches. The training course uses typical scenarios to illustrate the process. For more information and to register, see http://www.itrcweb.org or http://clu-in.org/studio .

ITRC Radiation Risk Assessment: Updates and Tools - May 15. The ITRC has developed a document, Determining Cleanup Goals at Radioactively Contaminated Sites: Case Studies (RAD-2, 2002), that examines the factors influencing the variations in cleanup level development at various radioactively contaminated sites. This document underscores the need for radiation risk assessment training to enhance consistency in risk assessment application. The document also acknowledges the differences between the 'dose approach' used at some sites and EPA's 'risk-based approach'. Since most radioactively contaminated DOE and DOD sites are developing cleanup goals under CERCLA authority, there is a need for a training course that clarifies the variations between these approaches and elaborates on the methodology used to develop risk-based remediation goals. To meet this need, this training course has been collaboratively developed by the ITRC Radionuclides Team and EPA's Superfund Office. The focus of this training is EPA's new radiation risk assessment tools, which can facilitate better decision making for accelerated cleanups. For more information and to register, see http://www.itrcweb.org or http://clu-in.org/studio .

ITRC An Overview of Direct-push Well Technology for Long-term Groundwater Monitoring - May 17. 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 .

Nanotechnology - Environmental Sensors - May 31. The Superfund Basic Research Program (SBRP), in collaboration with the Environmental Protection Agency (EPA), presents "Nanotechnology - Environmental Sensors." This seminar is part of a series covering the applications and implications of nanotechnology as it pertains to the National Superfund Program. Nanotechnology involves the understanding and control of matter at dimensions of roughly 1 to 100 nanometers. In

terms of environmental sensing, the use of nanotechnology has led to the production of numerous small-scale, rapid, sensitive multi-analyte instruments useful not only in the laboratory, but also as field portable instruments. This seminar will provide an overview of some of the capabilities and advantages of nanotechnology-based sensors. The speakers will include Paul Gilman (Director, Oak Ridge Center for Advanced Studies), Desmond Stubbs (Research Associate, ORCAS), and Ian Kennedy (Professor of Mechanical and Aeronautical Engineering, University of California - Davis). For more information and to register, see http://clu-in.org/studio .

ITRC Radiation Site Cleanup: CERCLA Requirements and Guidance - June 5. The focus of this ITRC training is EPA's guidance for remediating radioactively contaminated sites, which can facilitate cleanups that are consistent with how chemical contaminants are addressed, except where technical differences posed by radiation are addressed. This course also discusses long term stewardship (LTS) challenges related to the large radioactively contaminated sites. This understanding of LTS issues is integral to the cleanup process and decisions made at the radiation sites. For more information and to register, see http://www.itrcweb.org or http://clu-in.org/studio .

> New Documents and Web Resources

In Situ Bioremediation of Chlorinated Ethene DNAPL Source Zones: Case Studies (BioDNAPL-2). This report was published by the Interstate Technology and Regulatory Council (ITRC). As part of its strategic approach, the ITRC BioDNAPL's Team determined that an independent evaluation of the status of bioremediation was needed, that review of a data rich set of case studies would be the best evaluation approach, and that a forum would be an appropriate setting for the process. The team gathered and evaluated a number of proposed case studies and selected a group of six that would demonstrate bioremediation of DNAPLs in a wide range of conditions. The selected case studies can be classified as demonstrations, pilot-scale tests, those in design, and full-scale cleanups (April 2007, 173 pages). View or download at http://www.itrcweb.org/Documents/bioDNPL_Docs/BioDNAPL-2.pdf . For hard copies, see http://www.itrcweb.org/gd.asp .

Hurricane Katrina, Hurricane Rita: A Coordinated Response. EPA's role in the multi-agency emergency response to the nation's largest natural disaster is examined. Non-traditional activities like search and rescue as well as more traditional tasks such as HAZMAT collection, floodwater, sediment, and air sampling are presented. EPA coordinated their response using the Incident Command System through the National Incident Management System and the National Response Plan. Running time is 23 minutes. View or download at http://www.clu-in.org/studio .

Inventory of Radiological Methodologies for Sites Contaminated with Radioactive Materials (EPA 402-R-06-007). This document is part of a continuing effort by the Office of Radiation and Indoor Air and the Office of Superfund Remediation and Technology Innovation to provide guidance to EPA site managers and their contractors responsible for managing the cleanup of sites contaminated with radioactive materials. The document is an overview of radioanalytical methodologies that can be used for the identification and quantification of radionuclides likely to be found in soil and water at cleanup sites contaminated with radioactive materials. It is not a catalog of analytical methods, but rather is intended to assist project managers in understanding the concepts, requirements, practices, and limitations of radioanalytical laboratory analyses of environmental samples. It describes appropriate radioanalytical methodologies used to characterize environmental samples containing radionuclides, including screening methodologies and radionuclide-specific analyses and includes a

primer on radiation physics and the basics of radiochemistry. View or download at http://clu-in.org/techpubs.htm .

SITE Technology Capsule: Compost-Free Bioreactor Treatment of Acid Rock Drainage. As part of the Superfund Innovative Technology Evaluation (SITE) program, the EPA Office of Research and Development conducted an evaluation of the compost-free bioreactor treatment of acid rock drainage (ARD). The compost-free bioreactor treatment system was shown to be extremely effective at neutralizing acidity and reducing the concentrations of the 4 of the 5 target metals to below EPA interim discharge standards (2005, 11 pages). View or download at http://www.epa.gov/ORD/SITE/reports/540r06009/540r06009a.pdf . The more detailed Innovative Technology Evaluation Report on this study (March 2006, 93 pages) is also available at http://www.epa.gov/ORD/SITE/reports/540r06009/540r06009.pdf .

Mineralogical Preservation of Solid Samples Collected from Anoxic Subsurface Environments (EPA 600-R-065-112). This Issue Paper discusses mineralogical preservation methods for solid samples that can be applied during site characterization studies and assessments of remedial performance. A preservation protocol is presented that is applicable to solids collected from anoxic subsurface environments, such as soils, aquifers, and sediments (October 2006, 8 pages). View or download at http://www.epa.gov/ada/download/issue/600R06112.pdf .

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. See http://www.eugris.info/DisplayNewsItem.asp?NewsID=400 to access important new information from Europe, including the following documents and web links. Look at the New RESOURCES section under NEWS. More than 50 new resources, projects and news items were added to EUGRIS in March 2007. These include:

Issues and System Understanding: Review of Existing Practices in Dredging Management of Partner Countries. This report was published by the European Commission. It provides a review of the existing practices in dredging management for the example estuaries in the partner countries. Discussions led to a review of the issues that need to be considered when assessing the potential impacts of dredging activities in estuaries with respect to European legislation. It is recognized that estuaries are highly dynamic systems. As a result, a conceptual understanding of the physical processes and geomorphologic dynamics of the system is needed. This must take into account not only the natural variability, historical developments and ongoing trends, but also the effects of all uses and users, of which dredging is only one. The significance of any effects of dredging should be based on the understanding of the particular estuary system. However, it must be clear that this understanding is still quite limited and the assessment of the effects must rely, among other, on expertise (April 2007, 158 pages). View or download at http://www.newdelta.org/navigatie/frameset.asp .

Nanotechnology and Life Cycle Assessment. This publication is the outcome of the workshop on Nanotechnology and Life Cycle Assessment, Washington, DC, 2-3 October 2006, co-organized by the EC and the Woodrow Wilson Center. This document provides an overview of Life Cycle Assessment (LCA) and nanotechnology, discusses the current state of the art, identifies current knowledge gaps that may prevent the proper application of LCA in this field, and makes recommendations on the application of LCA for assessing the potential environmental impacts of nanotechnology, nanomaterials, and nanoproducts. For the purposes of this report, nanoproducts are defined as products containing nanomaterials (March 2007, 37 pages). View or download at http://www.nanotechproject.org/file_download/168 .

> Conferences and Symposia

Call for Abstracts!! Fourth International Phytotechnologies Conference September 24-26, 2007. Denver. The sponsors are inviting abstracts for speakers and poster presentations. This conference is for regulators, researchers, consultants and site owners. The purpose of this conference is to understand which technologies using plants for environmental goals are currently effective, how best to integrate research science and field application, and what questions need further research. Abstracts for speakers and poster presentations are due May 31, 2007. For Abstract topics and requirements, see http://www.phytosociety.org/ under Awards, Events, and Conferences.

Brownfields 2008 Call for Ideas. The U.S. EPA and International City/County Management Association (ICMA) co-sponsored National Brownfields Conference 2008 expects nearly 6,000 attendees, over 150 educational sessions, more than 200 exhibitors, and networking events. Abstracts, proposals for complete sessions, or simply an idea for the conference are being accepted through September 14. More information is available at http://www.brownfields2008.org/en/Ideas.aspx .

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 139 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/techdrct at any time night or day.

Unsubscribe | Modify Your Subscription | Questions & Comments | Technical Problems
Privacy and Security Notice
TechDirect Archives