TechDirect

Message #71: January 2003

Welcome to TechDirect. Happy New Year. I hope you all have a prosperous and safe 2003. Since the December 1 message, TechDirect gained 308 new subscribers for a total of 15,514. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing to TechDirect may do so on CLU-IN at http://clu-in.org/techdirect . All previous issues of TechDirect are archived there.

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.

Internet Seminars

The Triad Approach to Better Cleanup Projects: Illustrated with the Tree Fruit Case Study - January 23. This seminar is sponsored by the U.S. Army Corps of Engineers and U.S. EPA Technology Innovation Office. It is designed to introduce state and federal project managers and technical staff, environmental consultants, site owners, and community stakeholders to the importance of systematic project planning to ensure the quality of project decisions. Dynamic work strategies and field measurement technologies simultaneously bring down project costs while increasing decision confidence. The introductory material of this seminar updates the material in the seminar entitled, Modernizing Site Cleanup: Managing Decision Uncertainties Using the Triad Approach, while using the same project case study. For more information and to register, see http://clu-in.org/studio .

We have completed the archives for a number of recent internet seminars and conference webcasts. By accessing the archives of a particular seminar you can see the slides and hear the presentation using Real Player or Windows Media Player. For more information and access to the archived seminars AND conference webcasts, see http://clu-in.org/studio . Seminars include:

In Situ Treatment of Groundwater Contaminated with Non-Aqueous Phase Liquid Contamination: Fundamentals and Case Studies
Primer Seminario Hispano-Estadounidense de Terrenos

Contaminados

Documents and Websites

Arsenic Treatment Technologies for Soil, Waste, and Water (EPA 542-R-02-004). This document published by the U.S. EPA Technology Innovation Office, is intended to be used as a screening tool for arsenic treatment technologies. It provides descriptions of the theory, design, and operation of the technologies; information on commercial availability and use; performance and cost data, where available; and a discussion of factors affecting effectiveness and cost. As a technology overview document, the information can serve as a starting point for identifying options for arsenic treatment. The feasibility of particular technologies will depend heavily on site-specific factors, and final treatment and remedy decisions will require further analysis, expertise, and possibly treatability studies (September 2002, 132 pages). View or download at http://clu-in.org/techpubs.htm . For hard copies, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Proven Alternatives for Aboveground Treatment of Arsenic in Groundwater (EPA 542-S-02-002). This issue paper, developed for EPA's Engineering Forum, identifies and summarizes experiences with proven aboveground treatment alternatives for arsenic in groundwater, and provides information on their relative effectiveness and cost. The four technologies included in the report are precipitation/coprecipitation, adsorption, ion exchange, and membrane filtration. The report describes the theory and operation of each technique, available project-specific performance and cost data, and limitations. The report also discusses special considerations for retrofitting systems to meet the lower arsenic drinking water standard - maximum contaminant level or MCL of 10 ug/l (October 2002, 68 pages). View or download at http://clu-in.org/techpubs.htm . For hard copies, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Pilot Project to Optimize Superfund-financed Pump and Treat Systems: Summary Report and Lessons Learned (EPA 542-R-02-008a). This report, published by the EPA Office of Solid Waste and Emergency Response, summarizes Phase II (site optimization) of the Nationwide Fund-lead Pump and Treat Optimization Project. This phase included conducting Remediation System Evaluations (RSEs) at each of the 20 sites selected in Phase I with the purpose of providing recommendations to improve remedy effectiveness, reduce remedy costs, improve technical operations, and gain site closeout November 2002, 31 pages). This site also contains summary reports for each individual site. See http://clu-in.org/rse/ .

Elements for Effective Management of Operating Pump and Treat Systems (EPA 542-R-02-009). This fact sheet was produced by the EPA Office of Solid Waste and Emergency Response. It summarizes key aspects of effective management for operating pump and treat systems. It was developed from lessons learned from conducting system evaluations at 20 operating Superfund pump and treat sites. The lessons learned should be relevant to most pump and treat systems whether or not the system is operated under Superfund (October 2002, 18 pages). View or download at http://clu-in.org/techpubs.htm . This was mentioned in the November TechDirect, subsequently underwent some minor editing and reposted on the site.

Preliminary Remediation Goals for Radionuclides website. This website provides a Preliminary Remediation Goal (PRG) calculation tool to assist risk assessors, remedial project managers, and others involved with risk assessment and decision-making at CERCLA sites. It is based on Risk Assessment Guidance for Superfund: Volume I, Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals) (RAGs Part B). RAGs Part B provides guidance on using EPA toxicity values and exposure information to calculate risk-based PRGs. Initially used at the scoping phase of a project using readily available information, risk-based PRGs generally are modified based on site-specific data gathered during the RI/FS study. Chemical-specific PRGs are from two general sources. These are: (1) concentrations based on potential Applicable or Relevant and Appropriate Requirements (ARARs) and (2) concentrations based on risk assessment. ARARs include concentration limits set by other environmental regulations such as Safe Drinking water Act maximum contaminant levels (MCLs). The second source for PRGs, and the focus of this database tool, is risk-based calculations that set concentration limits using carcinogenic toxicity values under specific exposure conditions. For more information, see http://epa-prgs.ornl.gov/radionuclides/ .

Contaminated Sediments in Superfund. This web site was developed by EPA's Office of Solid Waste and Emergency Response. It contains recent EPA guidance on sediment sites and direct links to NPL fact sheets for 66 EPA sites where RODS have been signed. It is designed for government agencies, consultants and contractors, and other interested parties such as community groups, to locate about EPA policies and guidance and information about specific contaminated sediment sites within the Superfund program. See http://www.epa.gov/superfund/resources/sediment .

Groundwater Sensitivity Toolkit. The American Petroleum Institute (API) published a new spreadsheet-based software utility to help site

managers, water purveyors and regulators to easily prioritize the sensitivity of a groundwater resource to a release (e.g., an MTBE-oxygenated fuel). The Groundwater Sensitivity Toolkit examines three aspects of sensitivity: Resource Value, Receptor Vulnerability and Natural Sensitivity. The user supplies site-specific information and the toolkit returns a "high," "medium" or "low" ranking addressing each of the three aspects of sensitivity. Although this utility was designed with petroleum hydrocarbon releases in mind, it can also be used to assess chlorinated and inorganic compounds. This program may be particularly useful for screening large numbers of sites in cases where risk assumptions or cleanup standards change. The toolkit was co-developed by API and the California MTBE Research Partnership. It can be downloaded at no cost from http://groundwater.api.org/toolkit .

New documents from the European Union-sponsored Contaminated Land Rehabilitation Network for Environmental Technologies in Europe (CLARINET). Several of the CLARINET working groups finalized and posted final reports. View or download the following documents at http://www.clarinet.at . These include:
Sustainable Management of Contaminated Land: An Overview (August 2002, 128 pages)
Brownfields and Redevelopment of Urban Areas (August 2002, 145 pages)
Remediation of Contaminated Land. Technology Implementation in Europe (October 2002, 118 pages)
Review of Decision Support Tools for Contaminated Land Management and their use in Europe (November 2002, 192 pages).

Conferences and Symposia

Call For Abstracts! In-situ Contaminated Sediment Capping Workshop, Cincinnati, May 12-14. This national workshop will review the science, technology and applications of capping at contaminated sediment sites, examine lessons learned, and discuss future directions. The Workshop sponsors are soliciting presentations for the platform and poster sessions. Abstracts are due February 15. For more information and instructions for submitting abstracts, see http://www.epri.com . Go to Events for May 2003, click on Call for Papers or contact Ash Jain at ajain@epri.com .

International Applied Phytotechnologies Conference, Chicago, March 3-5. Environment Canada and EPA's Office of Research and Development and TIO are co-sponsoring a FREE conference on the state of science and engineering advances in pytotechnologies worldwide. Sessions topics include international research; EPA and

National Science Foundation grants; Site Revitalization and Brownfields; Phytoremediation of PCBs, PAHs, Pesticides, and Phytoextraction of Toxic and Precious Metals; Plume Control; Vegetative Cover Research, and Case Studies. Evening workshops will be held on Transgenic Plants and Bioavailability. Poster sessions will accompany each day's presentations. The conference is designed to assist professionals in the regulatory community in determining feasibility of using phytotechnologies at contaminated sites, and explore designing, implementing, and monitoring site cleanups with plants. For logistics information and to register, see http://www.epa.gov/ttbnrmrl . For information on displaying a poster or exhibit or on becoming a Conference Sponsor, contact Jordan Radin (Midwest Hazardous Substance Research Center) at (765) 496-2436 or jradin@purdue.edu .

Advancing Risk-Based, Scientifically Sound Approaches for Evaluation of Sediment Management Decisions, San Diego, April 8-10. Several Federal agencies are hosting a 3-day workshop on the important biogeochemical and physical factors that modify the stability, mobility, and/or bioavailability of inorganic and organic contaminants in aquatic sediments; to explore the fate, effects and risks of sediment bound contaminants; to agree on general yet pragmatic guidelines for the assessment and management of contaminated sediments that may pose an unacceptable human health and/or environmental risk. For agenda and registration information, see http://www.smwg.org/ .

NOTE: Over the past few years, we have received numerous requests from conference sponsors to feature their upcoming training courses and conferences in TechDirect. In fact, so many that if all were included, TechDirect would be twice as long or primarily a laundry list of events. 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. Remember, you may subscribe, unsubscribe or change your subscription address at http://clu-in.org/techdrct at any time night or day.