

Message #60: February 2002

Welcome to TechDirect. Since the January 1 message, TechDirect gained 594 new subscribers for a total of 12,846. 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 TechDirect messages 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.

Upcoming Internet Seminars

Remediation System Evaluation and Optimization of Pump and Treat Projects - February 5. The objective of this presentation is to enhance current understanding of the Remediation System Evaluation (RSE) process and optimization tools available to site managers of pump and treat systems. RSEs aim to improve the efficiency of operation and maximize the remedy's effectiveness by identifying ways to reduce O&M costs, shorten closure time, verify clear goals and exit strategy, and assure equipment is adequately maintained. Pump and treat systems have been operating for two decades and this experience has led to large gains in knowledge and understanding. For more information and to register, see or <http://clu-in.org/studio> .

EPA Small Business Innovation Research Overview and Proposal Writing - February 13. This seminar will describe the EPA Small Business Innovation Research (SBIR) program which provides financial support to help small technology based firms develop new environmental technologies and ready them for commercialization. The presentation will cover the basics of the SBIR program, upcoming 2002 solicitations and schedules, and helpful information on writing a competitive proposal and winning an SBIR award. For more information and to register, see <http://clu-in.org/studio> .

Modernizing Site Cleanup: Managing Decision Uncertainties Using the Triad Approach - February 27. 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 using systematic planning to implement dynamic data collection strategies using innovative field measurement technologies. For more information and to register, see or

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

New Documents

Field Applications of In Situ Remediation Technologies: Permeable Reactive Barriers. This document, produced by the EPA Technology Innovation Office, is a summary of technical data and lessons learned from more than 45 permeable reactive barrier installations. Included are data from ongoing and completed pilot- and full-scale PRB demonstrations and full-scale cleanups of ground-water remediation in the United States, Canada, and selected locations abroad (January 2002, 36 pages). View or download at <http://clu-in.org/techpubs.htm> . More in-depth information about each of the sites included in this summary is available in "Permeable Reactive Barrier Installation Profiles," a collection of individual profiles of each site, at <http://www.rtdf.org/public/permbarr/prbsumms/> .

Drycleaner Remediation Programs: an Overview and Case Studies. EPA's Technology Innovation Office (TIO) provided a grant through the National Network for Environmental Management Studies (NNEMS) to assess the status of state drycleaner remediation programs and cleanups. This report was prepared by Kate Cardamone, a graduate student from the University of Michigan during the summer of 2001. It is intended to provide an overview of the drycleaner remediation programs in Kansas, Oregon and Wisconsin, an analysis of the common program strengths, and case studies documenting drycleaner site cleanups within these states (August 2001, 24 pages). View or download at <http://clu-in.org/techpubs.htm> .

Ground Water Currents - December issue (EPA 542-N-01-008). This quarterly newsletter is published by the U.S. EPA Technology Innovation office. This issue highlights a range of methods for field-testing, implementing, and monitoring innovative technologies for removing organic compounds and metals from ground water (December 2001, 4 pages). View or download at <http://clu-in.org/techpubs.htm> .

Development of Chemical Methods to Assess the Bioavailability of Arsenic in Contaminated Media (STAR Grant #R825410). This report, funded through the U.S. EPA Science To Achieve Results (STAR) Program, summarizes research conducted on the ability of chemical speciation or in-vitro gastrointestinal (IVG) methods to provide a reasonable estimate of Arsenic (As) bioavailability in contaminated media. To accomplish this, arsenic from fifteen

contaminated soils collected from mining/smelter sites ranging from 401 to 17,500 mg As/kg were measured by chemical extraction methods. Investigators then compared the results with arsenic uptake in immature pigs that ingested contaminated media (soil and slag) collected from smelter sites. For the abstract and final report please visit: http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/676/report/0 .

Use of Cometabolic Air Sparging to Remediate Chloroethene-Contaminated Groundwater Aquifers. The U.S. DOD Environmental Security Technology Certification Program (ESTCP) supported an 18-month field study to investigate the cometabolic air sparging (CAS) process at McClellan Air Force Base, California. The purpose of this demonstration was to evaluate the effectiveness of and costs associated with CAS for removal of CAHs from groundwater. CAS is an innovative form of conventional air sparging designed to remediate chlorinated aliphatic hydrocarbons (CAH) contaminated groundwater and to reduce off-gas CAH emissions. This report contains design and results information from this field demonstration (August 2001, 73 pages). View or download at <http://www.estcp.org/documents/techdocs/199810.pdf> .

Surfactant Enhanced DNAPL Removal. This report was published by the U.S. DOD Environmental Security Technology Certification Program (ESTCP). A demonstration of Surfactant-Enhanced Aquifer Remediation (SEAR) was conducted from April to August 1999 at Site 88, at the location of the central dry-cleaning facility (Building 25), Marine Corps Base (MCB) Camp Lejeune, NC. The demonstration included recovery and recycling of surfactant for reinjection during the surfactant flood. The SEAR demonstration included DNAPL source zone characterization by soil coring and a pre-SEAR partitioning interwell tracer test (PITT), design and synthesis of a custom surfactant, surfactant recovery, and a post-SEAR PITT and soil coring for performance evaluation (August 2001, 216 pages). View or download at <http://www.estcp.org/documents/techdocs/199714.pdf> .

Special Announcements

ETC2 Announces Environmental Incubator Business Plan Competition. Have your business plan analyzed by experts. The National Environmental Technology (NET) Incubator, with support from Battelle's Environmental Technology Commercialization Center (ETC2) and the Energy and Environmental Capital Network (ECN), is presenting its first Annual Business Plan Competition on April 17, 2002. First prize will be \$10,000 and an expense-paid trip to present the business to the equity investors at the Nation's premier Early

Stage Capital Forum presented by ECN in Boston, Massachusetts on May 8, 2002. Details of the Business Plan Competition and application forms can be found by following the link at www.centralstate.edu/netincubator. TC2 - a U.S. EPA technology transfer center managed by Battelle - makes EPA-developed technologies and expertise available to the private sector. Please contact us at (513) 362-2600 or visit our website at www.etc2.org to learn more about how ETC2 can help you with your environmental technology and commercialization needs.

SABIT Program Grants. The U.S. Department of Commerce Special American Business Internship Program (SABIT) announced a \$1.5 million grant program to U.S. companies doing business in Russia or the New Independent States. SABIT awards grants on a competitive basis to individual U.S. firms to help defray the costs of training English-speaking NIS managers and scientists in the United States. Through this program, one company or organization can host 1-10 interns together or individually for up to six months. Applications accepted through March 1, 2002. For more information, see <http://www.mac.doc.gov/sabit/sabit.html> .

Conferences and Symposia

Third Annual RCRA Corrective Action Conference, Chicago, February 13 and 14. The title of this year's conference is "Getting to Yes and Beyond". This event is co-sponsored by Region 5 States, U.S. EPA Regions 4, 5, 6 and 8, and the RCRA Corrective Action Project (RCAP). Presenters from States, EPA Regional offices, and EPA Headquarters as well as industry representatives will describe their particular programs, successes, and innovative methods used to achieve cleanups and property reuse. For agenda and registration information, see <http://www.epa.gov/region5/waste/cars/conference/> .

ITRC Phytotechnologies Training, Chattanooga, February 19-20. The two-day ITRC Phytotechnologies training brings regulators to learn, alongside environmental consultants, the latest applications of phytotechnologies in remediation and waste management. The curriculum focuses on application and teaches systems design using hands-on team problem solving, case studies, and evening homework. All lecture topics are based on a series of case studies. An additional offering will be held in San Diego on March 20-21 in conjunction with 12th Annual AEHS Conference on Soils, Sediments & Water. For more information on these ITRC courses, see <http://www.itrcweb.org> .

Call for Abstracts. Scientific Issues Related to Management of

Landfills In Arid and Semi-Arid Regions. This conference is sponsored by the Arizona Hydrological Society. Topics include: cover design, bioreactor landfills, contaminant fate and transport, gas generation and control, remediation, and atmospheric emissions. The Symposium will include two plenary presentations, eleven technical presentations, a concurrent poster session, and an optional Saturday field trip to a local landfill. Space is limited, and talks and posters will be selected by committee based on their scientific merit. Deadline for abstract submittal is March 15, 2002. For more information on the event and the abstract submittal, see

<http://www.azhydrosoc.org/callforabstractslandfill.pdf> .

Opportunity for Vendors to Exhibit at New England Conference and Trade Show. The Northeast Waste Management Officials's Association in cooperation with US EPA and the six New England States are organizing a conference and trade show on improving the quality of site characterization and monitoring at non-Superfund sites. Target audience includes federal, state and local officials, consultants and engineers. Vendors with appropriate analytical technologies are invited to participate in the trade show. There will be two one-day conferences/trade shows to be held in early June 2002 in New Hampshire and Connecticut. Vendors interested in exhibiting should notify Rob Guillemain at Guillemain.Robert@epa.gov in order to receive further instructions on participation.

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.