

## Message #86: April 2004

Welcome to TechDirect. Since the March 1 message, TechDirect gained 423 new subscribers for a total of 18,635. 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.

The purpose of TechDirect is to identify new technical, policy and guidance resources related to the assessment and remediation of contaminated soil 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.

### Employment Announcement

The EPA Environmental Intern Program (EIP) is a full-time, professional, entry-level employment and career development program at the U.S. Environmental Protection Agency. Since the inaugural class in 1998, EPA has hired 192 new professionals and placed them in the Washington, DC headquarters and eleven regional offices. For 2004, the EPA plans to hire approximately forty-five (45) Interns as entry-level, professional Environmental Protection Specialists (GS-7), Environmental Scientists (GS-7 or 9), and Biologists (GS-7 or 9). Applicants can qualify for the EIP with a minimum of a bachelors degree or relevant work experience. These are professional, career positions – not summer or temporary student jobs. The Vacancy Announcement for the EIP Class of 2004 will be open March 29 - April 9, 2004, at EPA's EZhire website, <http://www.epa.gov/ezhire> or at the U.S. Office of Personnel Management's website at <http://www.usajobs.opm.gov>. Applications are to be completed online with supplemental materials mailed to the addresses noted in the application packages.

### New Documents

**Treatment Technologies for Site Cleanup: Annual Status Report (ASR), Eleventh Edition (EPA 542-R-03-009)**. This report, published by the EPA Office of Superfund Remediation and Technology Innovation (OSRTI), documents, as of the spring of 2003, the status of treatment technology applications at more than

1,800 soil and groundwater cleanup projects at Superfund Remedial action sites. The status of projects included in the ASR 10th Edition is updated, and new information on projects derived from Records of Decision signed in 2000, 2001, and 2002 is added. The report includes a first time look at the status of over 740 Superfund pump and treat (P&T) projects, and highlights innovations in cleanup technologies, with a special section on Chemical Treatment applications in Superfund. The ASR is based on the analysis of over 2,500 Records of Decision signed since 1982 at 1,499 National Priority List sites. The online version includes new downloadable spreadsheets with the data for several of the key charts and figures in the report. Specific information on each technology application has been incorporated into the ASR Remediation database available at <http://cfpub.epa.gov/asr/> . 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.

**In Situ Thermal Treatment of Chlorinated Solvents: Fundamentals and Field Applications (EPA 542-R-04-010)**. This report was published by the EPA Office of Superfund Remediation and Technology Innovation. It contains information about the use of in situ thermal treatment technologies to treat chlorinated solvents in source zones containing free-phase contamination or high concentrations of contaminants that are either sorbed to soil or dissolved in groundwater in the saturated or unsaturated zone. As a technology overview document, the information can serve as a starting point for identifying options for chlorinated solvent remediation. However, decisions about the use of a particular technology will depend on site-specific factors and may require treatability studies (March 2004, 145 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.

**Technology News and Trends - current issue (EPA 542-N-04-002)**. This U.S. EPA periodic update for environmental professionals features a combination of articles on innovative, in-situ technologies for the characterization and treatment of soil, sediment, and ground water. This issue feature articles on treatment of Dioxane-Contaminated Ground Water, Evaluation of Ground-Water Sampling Devices, Evaluation of Bimetallic Nanoscale Particles in Treating CVOCs, and Evaluation of Microbial Responses to Ground-Water Remediation Technologies (March 2004, 6 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Monitoring Arsenic in the Environment: A Review of Science and Technologies for Field Measurements and Sensors (EPA**

**542-R-04-002).** This report, published by the EPA Office of Superfund Remediation and Technology Innovation, reviews field assays and other technologies with the potential to measure and monitor arsenic in the environment. The strengths and weaknesses of the various assays are discussed with respect to their sensitivity, ability to detect the chemical states of arsenic, performance in various media, potential interferences, and ease of operation (March 2004, 29 pages). View or download at <http://clu-in.org/techpubs.htm>.

**Technical and Regulatory Guidance for Using Polyethylene Diffusion Bag Samplers to Monitor Volatile Organic Compounds in Groundwater (DSP-3).** This document, published by the Interstate Technology and Regulatory Council, provides a guide to facilitate the use of PDB sampling, particularly for long term monitoring. It contains a set of sequenced questions to provide a quick preliminary screening of a site's potential for PDB sampling. It also discusses regulatory issues related to PDB use, considers potential regulatory impediments to the implementation of PDB sampling, provides suggestions for expediting the process, and reports on a survey of state regulators' acceptance of the technology. The final sections provide a cost model to estimate the potential savings associated with conversion to PDB monitoring and present some case histories of the technology's implementation (February 2004, 78 pages). View or download at <http://www.itrcweb.org/DSP-3.pdf>

**NATO/CCMS Pilot Study: Prevention and Remediation Issues in Selected Industrial Sectors - Nonferrous Mining, 2003 Annual Report (EPA 542-R-04-003).** This NATO report presents the proceedings of the first meeting of Pilot Study members. Representatives from 10 member nations, the World Bank, and Joint Research Center of the EU, met in Baia Mare, Romania, September 7-10, 2003, to discuss health and environmental impacts from mining. The purpose of the overall pilot study is to define and explore best practices for reducing the health and environmental impact on soil and groundwater from industrial sectors of interest, as well as other unique sites, such as landfills, privatization sites, mega sites, and shoreline sediment sites (January 2004, 42 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Acid Mine Drainage: Innovative Treatment Technologies.** This document was prepared by Christine Costello, a National Network of Environmental Management Studies grantee under a fellowship from the U.S. Environmental Protection Agency. It provides an overview of treatment technologies being used to remedy environmental problems at abandoned mine sites, with a focus on innovative treatment techniques (October 2003, 52 pages). View or download at

<http://clu-in.org/techpubs.htm> .

**Drycleaner Site Assessment & Remediation - A Technology Snapshot (2003).** In this report, the State Coalition for the Remediation Of Drycleaners (SCRD) evaluates changing trends in the used of technologies to address drycleaner sites across the country over the last three years. The analysis is based on the responses of 28 states to a 2002 SCRD survey and comparison of these responses to those from a similar survey in 1999. The survey gathered information on technologies states have used or evaluated for assessment and remediation of drycleaning solvent-contaminated sites as well as program and project-specific information concerning contaminant types, general costs, technologies, clean-up standards, guidance documents, and lessons learned (March 2004, 11 pages). View or download at <http://www.drycleancoalition.org/pubs.cfm> .

**Inventory and Analysis of State Programs for the Remediation of Contaminated Soil and Groundwater Caused by Agricultural Waste.** This document was prepared by Deirdra Williams, a National Network of Environmental Management Studies grantee under a fellowship from the U.S. Environmental Protection Agency. It explains state programs for the remediation of contaminated soil and groundwater caused by agricultural waste and implementation experiences. At least four states—Illinois, Michigan, Minnesota, and Wisconsin—have implemented programs to address contamination from agricultural activities (August 2003, 30 pages). View or download at <http://clu-in.org/techpubs.htm> .

### **Upcoming Internet Seminars**

**EPA Small Business Innovation Research (SBIR) - Overview and Proposal Information, April 8.** This seminar is designed to assist small business owners and representatives in the development of proposals for the EPA SBIR Program. Register in advance at <http://clu-in.org/studio> .

**ITRC In Situ Chemical Oxidation, April 13.** This seminar provides technical and regulatory information to help practitioners understand, evaluate and make informed decisions on In Situ Chemical Oxidation proposals. Included is a description of the various chemical oxidants, regulatory considerations, stakeholder concerns, case studies, and technical references. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio>.

**ITRC Characterization and Remediation of Soils at Small Arms Firing Ranges, April 15.** This seminar introduces the participants to the various physical (including hydraulic), chemical, and biochemical mechanisms available to treat or stabilize SAFRs after some unique

characterization challenges are overcome. This training is based on the ITRC document entitled: Technical & Regulatory Guidance Document for Small Arms Firing Range Remediation Technologies. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio>.

**ITRC Advanced Techniques on Installation of Iron Based Permeable Reactive Barriers and Non-Iron Based Barrier Treatment Material, April 22.** This seminar uses case studies to describe long-term performance of iron-based systems and details how to design them according to the heterogeneities of the subsurface. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

**ITRC Surfactant/Cosolvent Flushing of DNAPL Source Zones - April 27.** The purpose of this training is to familiarize participants with the ITRC Technical and Regulatory Guidance for Surfactant/Cosolvent Flushing of DNAPL Source Zones (DNAPL-3). This document provides technical and regulatory information to help practitioners understand, evaluate and make informed decisions regarding potential surfactant/cosolvent flushing projects. Register to participate at <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

## **Conferences and Symposia**

Reminder!! **EPA SITE Demonstration.** The Superfund Innovative Technology Evaluation (SITE) program will conduct a demonstration of dioxin monitoring and measurement technologies beginning the week of April 26 at the Green Point Nature Center near Saginaw MI. The demonstration will include six technologies that will be used to analyze more than two hundred soil and sediment samples for dioxins, furans, and coplanar PCBs. There will be a visitors' day Wednesday, April 28 in the auditorium of the Nature Center, the public is invited to attend. The demonstration and quality assurance project plan will be available after April 1st. For additional information regarding the SITE program, see <http://www.epa.gov/ORD/SITE> or contact Stephen Billets at 702-798-2232.

**EPA ETV Program Stakeholders Briefing, Arlington VA, May 11-12.** The U.S. EPA's Environmental Technology Verification (ETV) Program is hosting a stakeholders briefing at the Hilton Crystal City. This briefing is designed to communicate the benefits of ETV and elicit input on program design and priorities. Paul Gilman, EPA Assistant Administrator for Research and Development, will lead the briefing. Vendors with ETV-verified technologies have been invited to display and demonstrate their technologies. ETV personnel will provide updates on recent and upcoming innovative technology verifications in the areas of: water and water security, air and energy,

toxics and prevention, and safe buildings. For agenda, logistical and hotel information, see <http://www.scgcorp.com/etvbrief2004/>. The deadline to secure a room at the Hilton Crystal City at the government rate is April 10. For more on the ETV Program, see <http://www.epa.gov/etv>.

**EPA RCRA National Corrective Action Conference, Orlando, May 11-12.** One of the primary purposes of this event is to bring together industries subject to the RCRA regulations, consultants, State regulators and EPA regional project managers. EPA encourages open and frank discussions of actions that make a difference with respect to corrective action progress. The Conference will focus on the most significant issues pertaining to RCRA Corrective Action, including: 2005 and 2008 Environmental Indicators, streamlining RCRA Reforms, state cleanup programs, emerging technologies, EPA policy and guidance, EPA Regional success stories and strategies, partnerships with industry, as well as many other important issues. For registration and agenda information, see <http://www.nationalcaconf.com/default.html>.

**Accelerating Site Closeout, Improving Performance, and Reducing Costs Through Optimization, Dallas, June 15-17, 2004.** This conference, sponsored by member agencies of the Federal Remediation Technologies Roundtable, will outline long-term remediation liabilities and optimization needs and opportunities; disseminate existing and emerging optimization strategies, technologies, tools and science; communicate lessons learned; and present remedial optimization within the context of site wide and multi-site management programs. For registration and agenda information, see <http://clu-in.org/siteopt>.

**NOTE:** 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](mailto: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.