

## Message #98: April 2005

Welcome to TechDirect! Since the February 1 message, TechDirect gained 270 new subscribers for a total of 21,568. 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.

**Special SERDP Solicitation:** The Department of Defense (DoD) Strategic Environmental Research and Development Program (SERDP) is seeking proposals focusing on research and technologies in order to design an extensive environmental monitoring system at Marine Corps Base Camp Lejeune and surrounding environs in east central North Carolina. The system will be part of a broader effort for the newly formed Defense Coastal/Estuarine Research Program (DCERP) being undertaken by SERDP in order to address military and other impacts on the New River Estuary in eastern North Carolina. This solicitation was released March 18, 2005. The due date for all proposals is April 14, 2005. Detailed instructions for both federal and non-federal proposals may be found at <http://www.serdp.org/funding/funding.html> .

### ***Upcoming Internet Seminars***

**ITRC Characterization and Remediation of Soils at Closed Small Arms Firing Ranges - April 7.** 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 Permeable Reactive Barriers: Lessons Learned and New Directions - April 26.** This training presents updated information regarding new developments, innovative approaches, and lessons learned in the application of PRBs to treat a variety of groundwater contaminants. The information will be presented by reviewing the approaches and results at several sites where PRBs have been deployed. The training is based on the ITRC guidance document titled Permeable Reactive Barriers: Lessons Learned / New Directions (PRB-4, 2005). For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/studio>.

## ***New Documents and Online Resources***

**Cost Effective Design of Pump and Treat Systems (EPA 542-R-05-008)** This fact sheet, published by EPA, summarizes key aspects of designing cost-effective pump and treat systems. Topics include considering remedy goals and associated performance monitoring requirements, establishing design parameters, selecting ground water extraction methods, selecting technologies for treatment of contaminated water, determining options for discharge of treated water, and incorporating system controls and automation (April 2005, 38 pages). View or download at <http://clu-in.org/techpubs.htm>.

**Effective Contracting Approaches for Operating Pump and Treat Systems (EPA 542-R-05-009).** This fact sheet, published by EPA, summarizes key aspects to consider for contracting to operate pump and treat systems. Topics include essential contract components, options for contract type, considerations specific to contracts for operating P&T systems, and incorporation of optimization (April 2005, 22 pages). View or download at <http://clu-in.org/techpubs.htm>.

**O&M Report Template for Ground Water Remedies (with Emphasis on Pump and Treat Systems) (EPA 542-R-05-010).** This fact sheet, published by EPA, provides a report template that can be used to present information on the operation and maintenance of a ground water remedy, particularly those including pump-and-treat. The template includes various report sections, suggested items to be included in those sections, and example tables and figures (April 2005, 58 pages). View or download at <http://clu-in.org/techpubs.htm>.

**Case Study of the Triad Approach: Expedited Characterization of Petroleum Constituents and PCBs Using Test Kits and a Mobile Chromatography Laboratory at the Former Cos Cob Power Plant Site (EPA 542-R-04-008).** This case study was prepared by the Brownfields Technology Support Center (BTSC) as

part of EPA's ongoing initiative to promote the use of an integrated Triad approach to limit decision uncertainty at hazardous waste sites through the use of sound science. The Triad approach, which consists of systematic planning, dynamic work strategies, and real-time measurement technologies that include field-based analyses is a viable method for streamlining site investigations (June 2004, 116 pages). View or download at <http://clu-in.org/techpubs.htm> .

**A Decision-Making Framework for Cleanup of Sites Impacted with Light Non-Aqueous Phase Liquids (LNAPL) (EPA 542-R-04-011)** This document has been prepared by the Remediation Technologies Development Forum (RTDF) NAPL Cleanup Alliance to provide a guide to practicable and reasonable approaches for management of LNAPL petroleum hydrocarbons in the subsurface. It describes an innovative consensus-based process to develop a long-term vision for a particular site (e.g., an industrial site for the next 100 years with groundwater standards attained in 125 years), while providing a roadmap that calls for specific goals and endpoints to measure progress during each phase of the LNAPL management project. The major benefit of this innovative approach is the establishment of a practicable vision that is consistent with regulatory requirements and can be attained within a realistic timeframe and a reasonable budget, using a phased, stepwise process. The consensus-based process is designed to support the stakeholder group in developing a common, site-specific understanding of what realistic timeframes and reasonable budgets will mean for any particular site (March 2005, 86 pages). View or download at <http://clu-in.org/techpubs.htm> .

**On-Line Course! The Basics: Understanding the Behavior of Light Non-Aqueous Phase Liquids (LNAPLs) in the Subsurface** is a new on-line training course offered by the Remediation Technologies Development Forum (RTDF)/Non-Aqueous Phase Liquid (NAPL) Cleanup Alliance. The RTDF is a public-private partnership that undertakes research, development, demonstration, and evaluation efforts focused on finding innovative solutions to high priority problems. The course provides a basic description of the behavior of LNAPLs (specifically, petroleum hydrocarbon liquids) in the subsurface. The training presents the technical concepts involved in LNAPL behavior, discusses the application of these concepts to real world situations, and explores how heterogeneity and other factors affect LNAPL behavior and complicate recovery. To access the course, visit <http://www.rtdf.org/public/napl/> and click on the Training button. For more information contact Kathy Yager, [yager.kathleen@epa.gov](mailto:yager.kathleen@epa.gov) or Ellen Rubin, [rubin.ellen@epa.gov](mailto:rubin.ellen@epa.gov) .

**Cost and Performance Report for LNAPL Characterization and Remediation: Multi-Phase Extraction and Dual-Pump Recovery of LNAPL at the BP Amoco Refinery, Sugar Creek, MO (EPA 542-R-05-016).** This case study was prepared to summarize the recovery of light non-aqueous phase liquid (LNAPL) at two locations at the BP Products of North America, Inc. Former Amoco Refinery (former refinery) in Sugar Creek, Missouri. The purpose of this case study was to evaluate the cost and performance of two remediation systems - one innovative (high-vacuum multi-phase extraction) and one comprised of a more traditional approach (dual-pump LNAPL and groundwater recovery) (March 2005, 47 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Cost and Performance Report for LNAPL Characterization and Remediation: Partition Interwell Tracer Testing (PITT) and Rapid Optical Screening Tool (ROST) Characterization and Evaluation of the Feasibility of Surfactant Enhanced Aquifer Remediation (SEAR) at the Chevron Cincinnati Facility, Hooven, OH (EPA 542-R-05-017).** This case study summarizes the characterization studies and technology evaluation of surfactant enhanced aquifer remediation (SEAR) conducted for LNAPL at the Chevron Cincinnati Facility in Hooven, OH. It summarizes the evaluation of the use of SEAR as a potential innovative and aggressive technology to treat LNAPL at this site (February 2005, 42 pages). View or download at <http://clu-in.org/techpubs.htm> .

**NATO/CCMS Pilot Study: Prevention and Remediation Issues in Selected Industrial Sectors: Rehabilitation of Old Landfills, 2004 Annual Report (EPA 542-R-04-014).** This document reports on the second meeting of the Pilot Study on Prevention and Remediation Issues in Selected Industrial Sectors. The purpose of the 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 (e.g., metals mining, organic chemical production, gasworks, and fertilizer manufacturing) as well as other unique site types (e.g., old landfills, privatization sites [i.e., facilities transitioning from former state ownership in certain categories], mega sites [i.e., large scale former industrial and mining facilities], and shoreline sediment sites). View or download at <http://clu-in.org/techpubs.htm> .

## ***Conferences and Symposia***

**Demystification of the Asian Development Bank.** The Asian Development Bank (ADB) and the U.S. Department of Commerce are sponsoring a series of ADB Business Opportunity Seminars titled, Demystification of the Asian Development Bank. These

seminars are an ideal venue for U.S. manufacturers, suppliers, contractors and consultants to learn how to pursue ADB-funded business opportunities, and for project sponsors and commercial banks to learn about the ADB's private lending, co-financing operations and risk mitigation facilities. The seminars will take place in the following locations: April 11/12 -- Seattle, April 14/15 -- Denver, April 18/19 --Chicago, April 21/22 -- Newark. For more information see, <http://www.buyusa.gov/adb/bos2005.html> .

**Reminder!! International Phytotechnologies Conference, Atlanta, April 20-22.** Phytotechnologies, using plants for remediation, have been successfully applied in many places. This conference answers the persistent questions of what contaminants can plants clean, how long will it take, and how much money can be saved over conventional technologies. Organized by EPA's ORD and OSRTI, the conference is expected to have over 100 presentations from North and South America, Europe, Australia, and Asia. Topics include: Case Studies of Successful Applications, Measurement Technologies; Decreasing Costs for Existing Sites; Phytotechnologies for Developing Economies; Eco-restoration & Remediation; and Eco-risk. For registration information please see <http://www.cluin.org/phytoconf> .

**National Corrective Action Conference 2005, Denver, May 3-4.** The theme of this EPA conference is: Implementing the 2020 Corrective Action Initiative. The conference will cover: meeting national program goals, major policy issues and guidance documents, and implementation of the 2020 initiative. The conference will also provide a forum for EPA, state and community leaders, as well as industry representatives and environmental consulting professionals to have a frank discussion on corrective action issues. For registration, agenda and hotel information, see <http://www.nationalcaconf.com/home.html> . If you have any questions regarding the conference, please contact William Rothenmeyer at (303) 312-6045 or Karen Tomimatsu at (703) 605-0698.

**Collaborative Cleanups: Revitalizing America's Communities, Keystone, CO, May 23-24.** The U.S. EPA is sponsoring this community-based meeting on collaborative solutions to complex cleanups. This meeting will explore how federal, state and local cleanup agencies and communities can collaborate to better integrate complex, multi-site cleanups with large scale revitalization and community development planning. For more information and to register, see <http://ems-mx4.sradev.com/uri-ocp/index.cfm> .

**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 217 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](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.