

## Message #76: June 2003

Welcome to TechDirect. Since the May 1 message, TechDirect gained 233 new subscribers for a total of 16,713. 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.

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.

### Internet Seminars

**ITRC Small Arms Firing Ranges - Characterization and Remediation of Soils at Closed Small Arms Firing Ranges - June 10.** The Internet training 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>.

**NIEHS/EPA Metals Analytical Methods - June 11.** NIEHS/EPA Metals - Analytical Methods, June 11, 2003. This is the third in a series of three seminars on Metals sponsored by the NIEHS Superfund Basic Research Program and the EPA Office of Emergency and Remedial Response. Dr. Paul Bishop, of the University of Cincinnati, will discuss metals analysis at Superfund sites. This kind of analysis can be done off-site, on-site, ex-situ or in-situ. The technique selected will depend on cost factors, data reliability needed, the elements to be analyzed and available technologies. Dr. Bishop's talk will focus on on-site analysis procedures, including the use of specialty microelectrodes, laser-induced breakdown spectroscopy (LIBS), X-ray fluorescence (XRF), and electrochemical techniques such as ultramicroelectrode arrays and voltammetry. Tammy Jones-Lepp, of EPA's National Exposure Research Laboratory in Las Vegas, NV, will discuss state-of-the-science methods applied to real-world analytical

chemistry problems of the Regions, the States, and Tribal Authorities. For example, high resolution mass spectrometry (HRMS) and a uniquely developed in-house software package for HRMS (ion composition elucidation - ICE) have been used to determine the compositions of unknown and potentially toxic pollutants that otherwise were undiscovered via conventional methodology. To Register, see <http://clu-in.org/studio> .

**ITRC Phytotechnologies - June 12.** This seminar focuses on the ITRC Phytotechnologies Technical and Regulatory Guidance and Phytoremediation Decision Tree. It provides technical and regulatory information to help you understand, evaluate and make informed decisions on phytotechnology proposals. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio>.

**ITRC In Situ Chemical Oxidation - June 17.** It provides technical and regulatory information to help you 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>.

**Corrective Action Streamlined Consent Orders - June 18.** This is the first of six seminars in the ROSA (Results Oriented Streamlined Approaches) series, designed to bring about more efficient and timely investigation and remediation at RCRA corrective action facilities. Streamlined orders have the advantages of being briefer, having a shorter time frame for issuance and implementation, and promote achieving Environmental Indicators. They also focus on identifying and achieving acceptable cleanup objectives rather than on process and formal review and comment. Streamlined consent orders offer the same quality investigation and cleanup requirements as a more traditional approach, but limit formal review and approval, and provide increased flexibility and reduced costs in order to expedite corrective action. For more information and to register, see <http://clu-in.org/studio> .

**ITRC In Situ Flushing of DNAPLs - June 19.** The purpose of this training is to familiarize participants with the recently released ITRC Technical and Regulatory Guidance for Surfactant/Cosolvent Flushing of DNAPL Source Zones (DNAPL-3). This document provides technical and regulatory information to help professionals understand, evaluate and make informed decisions regarding potential surfactant/cosolvent flushing projects. Included is a description of the technology, system operation, performance assessment, 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>.

## Documents

**Using Dynamic Field Activities for On-Site Decision Making: A Guide for Project Managers (EPA/540/R-03/002).** This document was developed by EPA's Office of Solid Waste and Emergency Response to provide environmental cleanup professionals with guidance on how to use an on-site decision making process to streamline field work at contaminated sites. The process is not new, rather, this document outlines techniques that have been successfully used at a variety of contaminated sites (e.g., Superfund, RCRA facilities, leaking underground storage tanks, Brownfields) so that other project managers can take advantage of existing knowledge. Not only does this process promote better decision making, but it also saves time and money (May 2003, 205 pages). View or download at <http://www.epa.gov/superfund/programs/dfa/guidoc.htm> .

**Dynamic Field Activity Case Study: Soil and Groundwater Characterization, Marine Corps Air Station Tustin (EPA/540/R-2/005)** This case study describes and evaluates the results of a dynamic field activity used for the characterization of this military base. The case study shows that the dynamic field activity saved at least 15 percent of the project cost and over 60 percent of the project time for the work at one site on the base. (November 2002, 39 pages). View or download at

<http://www.epa.gov/superfund/programs/dfa/casestudies/>

**Dynamic Field Activity Case Study: Treatment System Optimization, Umatilla Chemical Depot (EPA/540/R-02/007).** A dynamic field activity was used to optimize the treatment of RDX and TNT contaminated groundwater at the Umatilla Chemical Depot in northeastern Oregon in 1999. This case study shows that the on-site decision making process used to manage the treatment system is providing the Army an annual savings of at least 45 percent (December 2002, 40 pages). View or download at

<http://www.epa.gov/superfund/programs/dfa/casestudies/> .

**Dynamic Field Activity Case Study: Soil and Sediment Cleanup, Loring Air Force Base (EPA/540/R-02/006).** A dynamic field activity was used to cleanup PCB, lead, pesticide, and PAH soil/sediment contamination at Loring Air Force Base in 1997 and 1998. This case study shows that the on-site decision making process used to remove and dispose contamination saved the Air Force 50 percent of the analytical costs, 25 percent of the total project costs, and 33 percent of the time this project would have otherwise required.

(March 2003, 39 pages). View or download at

<http://www.epa.gov/superfund/programs/dfa/casestudies/> .

**Technical and Regulatory Guidance for Surfactant/Cosolvent Flushing of DNAPL Source Zones (DNAPLs-3).** This report was published by the Interstate Technology and Regulatory Council (ITRC). It is intended to serve as a technical and regulatory guide for stakeholders, regulators, technology decision makers, and others involved in selecting and implementing surfactant/cosolvent flushing of dense nonaqueous-phase liquids (DNAPLs) as a remedial action (April 2003, 151 pages). View or download at <http://www.itrcweb.org/DNAPL-3.pdf> .

**Proceedings for the International Applied Phytotechnologies Conference** are now available on Clu-In at <http://clu-in.org/studio/2003phyto> . This Web site provides access to archived presentation abstracts, slides, and presenter information for all of the conference's eleven topical sessions and two evening workshops. Note that there is no audio available. The conference was held March 3-5 in Chicago and provided up to date information on the status and use of phytotechnologies for site remediation.

**New Contaminant Focus Area on CLU-IN.** The new Clu-In Contaminant Focus area bundles information associated with the cleanup of individual contaminants and contaminant groups. This information is presented in categories such as Policy and Guidance, Chemistry and Behavior, Environmental Occurrence, Toxicology, Detection and Site Characterization, Treatment Technologies, and Conferences and Seminars. Sections currently exist for arsenic, chromium VI, and perchlorate; we welcome any suggestions you have for new topics or additional resources. Visit Contaminant Focus at <http://clu-in.org/contaminantfocus> .

**New CLU-IN Vendor Support Area.** The US EPA Technology Innovation Office announces the release of the newly revamped Vendor Support site, created to provide technology developers and vendors with tools to help advance technologies through all stages of product development from bench scale to full commercialization. The resources collected for this site cover a broad range of topics that include business planning, marketing, financing, and technical issues. Topics are organized into seven sections arranged, approximately, in the order in which they are encountered in developing and commercializing a technology. Each section addresses a particular group of activities that lead to the advancement of a technology from the germination of an idea to research, development, testing, and finally to commercial application. For more information, see <http://clu-in.org/vendor> .

**Western Hazardous Substance Research Center.** The Western Region Hazardous Substance Research Center (WRHSRC) focuses on developing in situ treatment methods for groundwater contaminated with volatile organic compounds (VOCs). It is one of five university-based hazardous substance research centers in the United States and is a partnership between Oregon State University and Stanford University. New additions to the center website include: a searchable publications database - search for publications and projects carried by the Center since its formation in 1989 at <http://www.wrsrc.orst.edu/database/index.htm> ; and a research brief on the development of new field tools to measure redox potential in aquifers using indicator dyes and pocket spectrometers can be seen at [http://www.wrsrc.orst.edu/briefs/brief\\_1.htm](http://www.wrsrc.orst.edu/briefs/brief_1.htm) . To receive research briefs and other Center research news in quarterly emails, sign up on line at <http://www.wrsrc.orst.edu/news/listserv.htm> .

## **Conferences and Symposia**

**Reminder!! RevTech Conference** - Cleaning Up Contaminated Properties for Reuse and Revitalization: Effective Technical Approaches and Tools - July 22-24, Pittsburgh, PA. EPA's Technology Innovation Office is co-sponsoring this conference on how and where innovative technologies and approaches can be considered in a reuse setting. Opportunities exist for technology vendors and service providers who would like to present a poster at the conference. Posters should focus on applications that show effective clean up in a reuse setting. If you are interested in presenting a poster, please submit a one-paragraph abstract describing the technology/application. Abstracts submission deadline has been extended to May 9. To see the conference agenda, register, get a hotel or submit a poster abstract, see <http://www.brownfieldstsc.org/revtech.htm> .

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.