

## Message #88: June 2004

Welcome to TechDirect. Since the May 1 message, TechDirect gained 371 new subscribers for a total of 19,238. 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.

### Upcoming Internet Seminars

**ITRC Constructed Treatment Wetlands, June 15.** This course, developed by the Interstate Technology and Regulatory Council (ITRC), is based on Technical and Regulatory Guidance for Treating Storm Water and Wastewater Using Constructed Treatment Wetlands (WTLND-1). It describes the physical, chemical, and biological mechanisms operating in wetlands treatment systems, the contaminants to which they apply, the characteristics of sites suitable to treatment in this fashion, and relevant regulatory issues. To register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

**Cleanup Goals Appropriate for DNAPL Source Zones, and Ground Water Use, Value and Vulnerability as Factors in Setting Cleanup Goals - June 8 and June 23.** The U.S. EPA's Ground Water Task Force has developed two discussion papers on these topics and is requesting input from a range of national interest groups including federal and state regulatory officials, industry groups and other members of the regulated community, as well as environmental and public interest groups. The purpose of this Internet seminar is to present and discuss the ideas in these two draft issue papers. The papers are intended to promote dialogue on factors used by regulatory programs in setting appropriate cleanup goals at a particular site. The Internet seminar is meant to communicate and clarify the ideas presented. Questions and comments conveyed during the internet seminar should not replace written comments submitted to EPA through the Ground Water Task

Force web site. Comments received on the papers will be used in planning future activities of the Task Force and in developing recommendations for EPA senior managers on a course of action to address the issues raised in the discussion papers. Refer to <http://gwtf.clu-in.org/> for further information on the Ground Water Task Force and the discussion papers, and instructions for submitting comments on the papers. To register for the June 8 OR June 23 seminar (Note: same topic repeated), see <http://clu-in.org/studio> .

**ITRC Munitions Response Historical Record Review (MRHRR), June 22.** This training introduces participants to the ITRC Technical and Regulatory Guidance Document: Munitions Response Historical Record Review (UXO-2). It assists reviewers in assessing the adequacy of an MRHRR review of property potentially impacted by the use of military munitions. The course teaches the purpose, content, and terminology of munitions historical research; provides a uniform technical approach and useful tools for reviewing an MRHRR document independent of regulatory framework or authorities; and communicates state regulator expectations to those initiating, planning, and executing an MRHRR document. To register, see <http://www.itrcweb.org> OR <http://clu-in.org/studio> .

## ***New Documents, Websites and Models***

**Technologies for Treating MtBE and Other Fuel Oxygenates (EPA 542-R-04-009).** This report, published by the EPA Office of Superfund Remediation and Technology Innovation, provides an overview of the treatment technologies used to remediate groundwater, soil and drinking water contaminated with MtBE and other fuel oxygenates. The report summarizes available cost and performance information for eight treatment technologies, examples of where they have been used and additional sources of information (May 2004, 109 pages). View or download at <http://clu-in.org/techpubs.htm> .

**New EPA Abandoned Mine Lands Website.** The EPA Office of Superfund Remediation and Technology Innovation (OSRTI) recently launched the new AML website. The purpose of the web page is to identify EPA's resources related to the range of environmental risks and challenges from Abandoned Mine Lands as well as risk management approaches. It contains information on sites, policy guidance, technical resources, and revitalization. For more information, see <http://www.epa.gov/superfund/programs/aml/index.htm> .

**Brownfields and Land Revitalization Technology Support Center** Internet site has undergone a major overhaul to facilitate access to the information, products, and services it provides. The

process for new requests for assistance has been simplified. The BTSC can help decision-makers at brownfields and land revitalization sites evaluate strategies to streamline the site investigation and cleanup process, identify and review information about complex technology options, evaluate contractor capabilities and recommendations, and explain complex technologies to nontechnical communities. The site contains an expanding portfolio of ongoing and completed technical support projects. In addition the site features a number of technology primers and other general information resources targeting Brownfields audiences and includes on-line versions of the Road Map to Understanding Innovative Technology Options for Brownfields Investigation and Cleanup and the Directory of Technical Assistance for Land Revitalization. See

<http://www.brownfieldstsc.org> .

**Integrated Exposure Uptake Biokinetic Model for Lead in Children.** This model was released by the EPA Office of Superfund Remediation and Technology Innovation. It is the Windows-based version of the IEUBK (IEUBKwin v1.0 build 260). Two updates were made in this build, which replaces build 255: Air units displayed as ug/dL were changed to ug/day in text output of Single and Multiple runs. No changes to calculations were made. Additionally, after processing each batch run file, the warning that was included after the results in the batch run output file if any one of the batch run records had 'PBB' greater than 30 ug/dL is added only if any one of the 'PRED' values is greater than 30 ug/dL (April 2004). To download the model, see <http://www.epa.gov/superfund/programs/lead/products.htm#guidance> .

**The DNAPL Remediation Challenge: Is There a Case for Source Depletion? (EPA/600/R-03/143).** This report is the product of an independent expert panel funded by the U.S. EPA Office of Research and Development. At many hazardous waste sites contaminants reside in the subsurface as separate dense non-aqueous phase liquids (DNAPL), which serve as persistent sources of dissolved phase contamination and are a major impediment to successful and cost-effective cleanup of sites. Commonly used pump-and-treat remediation systems have not been effective in removing DNAPL from these subsurface source areas or in restoring down-gradient contaminated groundwater to desired levels of cleanliness. Field-scale research has demonstrated that a high percentage of the DNAPL mass can be removed by implementing aggressive in-situ technologies such as thermal or chemical flooding. These studies have shown that while a significant fraction of the DNAPL mass can be efficiently removed in a short period, the efficiency of DNAPL extraction often decays exponentially with increasing mass removal. As a result, there is

currently no consensus in the academic, technical and regulatory communities on the ecological or environmental benefits of DNAPL source treatment or on the appropriate metrics for quantifying these benefits. To provide technical guidance regarding these critical environmental issues the US EPA convened a panel of national and international scientists and practitioners to conduct a critical, independent review of DNAPL remediation issues (December 2003, 129 pages). View or download at

<http://www.epa.gov/ada/download/reports/600R03143/600R03143.pdf> .

**Cleanup Goals Appropriate for DNAPL Source Zones (DRAFT).**

This paper was drafted by the U.S. EPA Ground Water Task Force. Its purpose is to promote dialogue on this issue. It provides a brief background on DNAPLs as a source of contamination, differing stakeholder points of view (based on written or anecdotal input) with respect to challenges posed by DNAPLs, and potential options for addressing these problems (May 2004, 16 pages). View or download at [http://gwtf.cluin.org/docs/options/dnapl\\_goals\\_paper.pdf](http://gwtf.cluin.org/docs/options/dnapl_goals_paper.pdf) . Note related Internet seminar listed above.

**Ground Water Use, Value and Vulnerability as Factors in Setting Cleanup Goals (DRAFT).**

This is the second of two issue papers drafted by the U.S. EPA Ground Water Task Force. The purpose of this paper is to promote dialogue by providing a brief background, followed by differing stakeholder points of view (based on written or anecdotal input) with respect to problems and/or challenges, and potential options for addressing these problems (May 2004, 13 pages). View or download at

[http://gwtf.cluin.org/docs/options/gw\\_use\\_paper.pdf](http://gwtf.cluin.org/docs/options/gw_use_paper.pdf) . Note related Internet seminar listed above.

**ESTCP Cost and Performance Report: Aboveground Storage Tank (AST) Leak Detection and Monitoring (CU-0118).**

This report was published by the DoD Environmental Security Technology Certification Program (ESTCP). The Naval Facilities Engineering Service Center (NFESC) and its industrial partners, Vista Engineering Technologies, L.L.C., and Vista Research, Inc., have demonstrated and validated (an innovative, mass-based leak detection system for aboveground storage tanks (AST). The Low-Range Differential Pressure (LRDP) system is a computer controlled system that can reliably detect small leaks in ASTs, which range from 50,000 gal to ASTs with diameters of over 260 ft containing over 10,000,000 gal of petroleum fuel (May 2004, 43 pages). View or download at <http://www.estcp.org/documents/techdocs/cp-0118.pdf> .

**Making the Case for Ecological Enhancements (ECO-1).** This document was published by the Interstate Technology and

Regulatory Council (ITRC). The purpose of this paper is to present natural alternatives to traditional remediation processes, thus allowing the incorporation of ecological enhancements as integral components of the remediation process, as well as the incorporation of ecological enhancements in the reuse of environmentally impacted sites. Case studies identify benefits, incentives, and limitations for implementing ecological enhancements at environmentally impacted sites (January 2004, 76 pages). View or download at <http://www.itrcweb.org/ECO-1.pdf> .

**Technology News and Trends - current issue (EPA 542-N-04-003)**. This quarterly newsletter is published by the EPA Office of Superfund Remediation and Technology Innovation. This issue features articles on sediment capping in the Anacostia River; Evaluation of Active and Semi-passive technologies for Treating Acid Mine Drainage; In Situ Chemical Oxidation in Fractured Bedrock; and Bioaugmentation of DNAPL Sources (May 2004, 6 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.

**Cleanup News (EPA 300-N-04-002)**. This periodic newsletter is produced by the EPA Office of Site Remediation Enforcement. It highlights policy developments, case studies, technology advances, new resources and publications, court cases, and more (Spring 2004, 8 pages). View or download current and past issues at <http://www.epa.gov/compliance/resources/newsletters/cleanup/cleanupnews.html> .

## ***Conferences and Symposia***

**Triad Workshops and Sessions**. Interested in learning more about the Triad approach to improved site decision making? Triad workshops or panel sessions are being offered at the following upcoming conferences. Conference registration is required to attend.

Reducing Costs through Optimization, Dallas, TX, June 15-17  
(<http://clu-in.org/siteopt>)

7th Biennial Symposium, Int'l Society of Environmental Biotechnology, Chicago, IL, June 18-21 (<http://www.iseb-chicago.com/>)

EPA 2004 Site Assessment Symposium, San Diego, CA, June 28-30  
(<http://www.epa.gov/superfund/programs/siteasmt/symp04/index.htm>)

EPA Nat'l Environmental Monitoring Conference (NEMC), Washington, DC, July 19-21 (<http://www.nemc.us/>)

Midwestern States Risk Assessment Symposium, Indianapolis, IN, Aug. 25-27 (<http://www.spea.indiana.edu/msras/>)

Annual Conference on Soils, Sediments, and Water, Amherst, MA, Oct 17-21 (<http://www.umasssoils.com/>)

**ITRC Phytotechnologies - Mechanisms and Applications, Middletown, PA, June 9-10.** This ITRC workshop provides scientific, engineering and regulatory information designed to help regulators and practitioners uniformly conduct site remediation using phytotechnologies in a variety of applications. It includes an introduction to the science, case studies, hands-on group exercises, and an open discussion of the regulatory issues regarding application of phytotechnologies, and is based on the ITRC Phytotechnology Technical and Regulatory Guidance document. For more information and to register, see <http://www.itrcweb.org> .

**Mold-Related Health Effects: Clinical, Remediation Worker Protection, and Biomedical Research Issues, Washington, D.C., June 28-29.** This conference is sponsored by the National Institutes for Environmental Health Sciences (NIEHS). It will cover a broad range of issues on mold that should be of interest to health practitioners, industrial hygienists, safety professionals, worker trainers, and researchers. The purpose of this cross-disciplinary meeting is to bring together experts in clinical science, worker protection and education, and basic research to further efforts to prevent, diagnose, and treat conditions related to exposure to indoor mold. For agenda and registration information, see <http://www.soeh.org/> .

**National Environmental Monitoring Conference, Washington, DC, July 19-22.** NEMC provides the principal forum for addressing policy and technical issues affecting monitoring in all environmental media and across all environmental programs. Organized by U.S. EPA and ACIL's Independent Laboratories Institute, jointly with Instant Reference Sources, Inc., the focus of this year's conference includes new approaches for analyzing for conventional and emerging pollutants in water, soil, and air as well as homeland security issues as they apply to environmental monitoring for terrorism agents. For agenda and registration information, see <http://www.nemc.us> .

**Midwestern States Risk Assessment Symposium, Indianapolis, August 25-27.** The symposium, sponsored by Indiana Department of Environmental Management and others, will feature the leading experts in the United States as speakers on urban metals, urban PAHs, methods for evaluating vapor intrusion, and characterizing Brownfields Sites. The format will include oral and poster presentations and panel discussions. The symposium will also feature vendor exhibits and provide many opportunities for

networking with colleagues from industry, government, academia, and consulting firms. The Interstate Technical and Regulatory Council will host three training opportunities at the symposium. Four states (Illinois, Indiana, Michigan, and Ohio) are co-chairing sessions this year. For registration and agenda information, see

<http://www.spea.indiana.edu/msras/> .

**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.