

## Message #46: December 2000

Since November 1, TechDirect gained 304 new subscribers for a total of 9567. Welcome to everyone just joining TechDirect. This month we offer a few webcast seminars, an EPA Region 9 grant solicitation (with a very short deadline), three phytoremediation documents, two conference proceedings, guidance on Institutional Controls, and two guidance documents related to managing Underground Storage Tanks (USTs).

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. Remember, you may subscribe, unsubscribe or change your subscription address at <http://clu-in.org/techdirect> any time night or day.

### ***Live Webcasts***

**1. Dynamic Data Collection Strategy Using Systematic Planning and Innovative Field-Based Measurement Technologies.** Using case studies, the seminar provides insight for three distinct data collection efforts: site characterization, removal/remedial action and treatment system optimization. Seminars are scheduled for December 6 and 19. See <http://clu-in.org/studio> .

**2. Natural Attenuation of Chlorinated Solvents in Groundwater: Principles and Practices, AND Historical Case Analysis of Chlorinated Volatile Organic Compound Plumes.** Two courses back-to-back in a 4-hour live training special event via the internet on Wednesday, December 13, 2000. The training will be offered from 11:00 AM - 3:30 PM, EST (includes a 30 minute break between topics). N.B. One registration for both courses. See <http://clu-in.org/studio> .

### ***New Documents***

**Subsurface Remediation: Improving Long-Term Monitoring and Remedial Systems Performance Conference - Proceedings (EPA 542-B-00-002).** This document summarizes the presentations and workshops of a conference on improving long-term monitoring (LTM) and remedial systems performance that was held in St. Louis, Missouri between June 8-11, 1999. The conference was sponsored and developed by the Federal Remediation Technologies Roundtable. The conference was designed to provide up-to-date

information on LTM and systems optimization through presentations and topical workshops (April 2000, 81 pages). View or download at <http://clu-in.org/techpub.htm> .

**Abiotic In Situ Technologies for Groundwater Remediation Conference - Proceedings (EPA 625-R-99-012).** This document summarizes the presentations and case studies from a conference on Abiotic in situ cleanup technologies held in Dallas August 31-September 2, 1999. The conference provided information on treatment technologies in the following areas: treatment walls, thermal enhancement, VOC stripping, in situ oxidation, reactive zones and in situ flushing (August 2000, 110 pages). Hard copies only, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

**Characterization of Mine Leachates and the Development of a Ground-Water Monitoring Strategy for Mine Sites" (EPA 600/R-99/007).** This report was published by the U.S. EPA National Risk Management Research Laboratory. The objective of this research project was to develop a better understanding of the composition of mine waste leachates and to identify cost effective ground-water monitoring parameters that could be incorporated into a monitoring strategy to reliably detect the migration of contaminants from hard rock mining operations (February 1999, 299 pages). View or download at <http://clu-in.org/techpub.htm> . See also the 3-page Project Summary Fact Sheet (EPA/600/SR-99/007) at <http://clu-in.org/techpubs.htm> .

**An Overview of the Phytoremediation of Lead and Mercury.** The potential use of plants to remediate contaminated soil and groundwater has recently received a great deal of interest. EPA's Technology Innovation Office (TIO) provided a grant through the National Network for Environmental Management Studies (NNEMS) to assess the status of the use of phytoremediation to clean up lead (Pb) and mercury (Hg) contaminated soil. This report was prepared by Jeanna Henry, a student from Salisbury State University during the summer of 2000 (August 2000, 55 pages). View or download at <http://clu-in.org/techpubs.htm> .

**The Bioremediation and Phytoremediation of Pesticide-contaminated Sites.** Bioremediation and phytoremediation are innovative technologies that have the potential to alleviate numerous pesticide contamination problems. EPA's Technology Innovation Office (TIO) provided a grant through the National Network for Environmental Management Studies (NNEMS) to prepare a technology assessment report on the use of bioremediation and phytoremediation for the cleanup of pesticide-contaminated sites. This report was prepared by Chris

Frazar, a first year graduate student from the University of Montana during the summer of 2000 (August 2000, 55 pages). View or download at <http://clu-in.org/techpubs.htm> .

**The Use of Plants for the Removal of Toxic Metals from Contaminated Soil.** Remediation of metal contaminated soil faces a particular challenge. Unlike organic contaminants, metals cannot be degraded. Commonly, decontamination of metal-contaminated soils requires the removal of toxic metals. Recently, phytoextraction, the use of plants to extract toxic metals from contaminated soils, has emerged as a cost-effective, environment-friendly cleanup alternative. In this paper, Mitch Lasat, an American Association for the Advancement of Science (AAAS) Fellow, reviews the processes and mechanisms that allow plants to remove metals from contaminated soils and discusses the effects of agronomic practices on these processes (September 2000, 33 pages). View or download at <http://clu-in.org/techpubs.htm> .

**Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups (EPA 540-F-00-005)** . This Fact sheet was produced by the U.S. EPA Office of Solid Waste and Emergency Response. It provides Superfund and RCRA Corrective Action site managers and decision-makers with an overview of the types of Institutional Controls (ICs) that are commonly used or implemented, and outlines the factors that should generally be considered when evaluating and selecting ICs as part of the remedy (September 2000, 32 pages). View or download at

<http://www.epa.gov/superfund/resources/institut/guide.pdf> .

**Operating and Maintaining Underground Storage Tank Systems: Practical Help and Checklists (EPA 510-B-00-008)**. This manual was published by the EPA Office of Underground Storage Tanks. It contains brief summaries of the federal UST requirements for operation and maintenance and practical help that goes beyond the requirements. Checklists prompt the user to look closely at what kinds of equipment are in use and how to keep that equipment working properly over the lifetime of the UST system. The manual provides record keeping forms that also help the UST owner and operator keep equipment operating properly. Owners and operators of underground storage tank (UST) systems will find this manual contains checklists and information that will help them properly operate and maintain their USTs. State and EPA UST inspectors can use the manual and its checklists to help educate UST owners and operators and encourage their compliance with the UST requirements (August 2000, 51 pages). Available in several formats

at <http://www.epa.gov/swerst1/pubs/ommanual.pdf> .

**Automatic Tank Gauging Systems for Release Detection: Reference Manual for Underground Storage Tank Inspectors (EPA 510-B-00-009)**. This manual, developed by the EPA Office of Underground Storage Tanks, can help State and EPA inspectors evaluate how well UST owners and operators are using their automatic tank gauging (ATG) systems to comply with release detection requirements. Also, the manual provides handouts that UST inspectors can distribute to UST owners and operators to help them understand the proper operation and maintenance of their ATG systems. The manual contains a summary of specifications, based on third-party evaluations, for ATG systems that detect leaks from USTs and their piping. Each summary provides information on certified detectable leak rate/threshold, test period duration, product applicability, calibration requirements, restrictions on the use of the device, vendor contact information, printing and interpreting reports, and sample reports (August 2000, 136 pages). View or download at [http://www.epa.gov/swerst1/pubs/atg\\_0900.pdf](http://www.epa.gov/swerst1/pubs/atg_0900.pdf) .

**New Environmental Technology Verification (ETV) reports available.** The EPA ETV Program published four new evaluation reports on Open Path Monitors. These reports were produced by Batelle under cooperative agreement with the U.S. EPA. For more information on ETV, see <http://www.epa.gov/etv> . The four specific reports are:

All Systems Inc. - RAM 2000 Fourier Transform Infrared Open-Path Monitor (September 2000, 44 pages)View or download at [http://www.epa.gov/etv/07/ail\\_vr.pdf](http://www.epa.gov/etv/07/ail_vr.pdf) .

Boreal Laser Inc. - GasFinder 2.0 Tunable Diode Laser Open-Path Monitor (September 2000, 45 pages). View or download at [http://www.epa.gov/etv/07/boreal\\_vr.pdf](http://www.epa.gov/etv/07/boreal_vr.pdf) .

Opsis Inc. - AR 500 Ultraviolet Open-Path Monitor (September 2000, 44 pages). View or download at [http://www.epa.gov/etv/07/opsis\\_vr.pdf](http://www.epa.gov/etv/07/opsis_vr.pdf) .

Unisearch Associates - LasIRr Tunable Diode Laser Open-Path Monitor (September 2000, 43 pages). View or download at [http://www.epa.gov/etv/07/unisearch\\_vr.pdf](http://www.epa.gov/etv/07/unisearch_vr.pdf) .

## ***Grant Announcement - Immediate Action Required !!***

**Solid Waste Assistance Funds.** The U.S. Environmental Protection Agency Region 9 is soliciting proposals for cooperative agreements that address source reduction, product stewardship, reuse, market

development, or the purchase or manufacturing of products with post-consumer recycled content. States, tribes, territories, multi-state/tribal organizations, universities, local governments, and not-for-profit organizations located in Region 9 (which includes the states of California, Arizona, Nevada and Hawaii, the U.S. territories in the Pacific, and the lands in Indian Country belonging to over 140 federally recognized tribes) are eligible to compete for SWAF. If interested in responding to this solicitation, please contact Timonie Hood, EPA Region 9, at (415)744-1113 or by e-mail at [hood.timonie@epa.gov](mailto:hood.timonie@epa.gov) by December 5, 2000, to discuss your project ideas.. The purpose of this step is to ensure that your project idea meets the application eligibility requirements. Two page Pre-proposal due December 15, 2000. For complete information on the grant solicitation, see <http://www.epa.gov/region09/waste/solid/swaf2001.htm#intro> .

**SITE Solicitation.** USEPA plans to issue a request for proposals on December 1, 2000 to initiate the fifth solicitation for the Superfund Innovative Technology Evaluation (SITE) Demonstration Program. The Host Site Solicitation (HSA) is intended to produce proposals from the private sector, local, state and federal agencies for sites that will be used as testing areas for innovative technologies. This solicitation is directed toward those who have the responsibility for site clean up: EPA Remedial Project Managers, and On Scene Coordinators, site managers from local, state and federal agencies, or other site representative. The RFP can be downloaded from the <http://www.epa.gov/ORD/SITE>.

## ***Conferences and Symposia***

**The 6th International HCH & Pesticides Forum, Poznan, Poland, March 20-21, 2001.** This conference, organized by the Plant Protection Institute Poznan and the IHPA (International HCH & Pesticides Association) deals exclusively with the solutions of pesticides problems in the environment. The preliminary program is available at <http://hiem.get2net.dk/HCH-Pesticides/>

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