

Message #70: December 2002

Welcome to TechDirect. Have a safe and happy holiday season. Since the November 1 message, TechDirect gained 408 new subscribers for a total of 15,249. 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.

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.

Open Solicitation

Strategic Environmental Research and Development Program (SERDP). SERDP funds environmental research and development through a competitive process. Because both government and private sector parties may compete for SERDP funds, there are two announcements for each solicitation: (1) a Broad Agency Announcement (BAA) for the private sector and (2) a Call For Proposals to the Federal Sector. There are usually two solicitations annually. The Core solicitation provides funding in various amounts for multi-year projects. The solicitation for FY 2004 was released on November 13, 2002. Preproposals from the non-federal sector are due January 9, 2003. Federal proposals are due March 6, 2003 via your Executive Working Group member. Detailed instructions for both Federal and non-Federal proposers may be found at

<http://www.serdp.org/funding/funding.html> .

Live Webcasts

NIEHS/EPA PCBs - Health Effects, December 4. This seminar, sponsored by the National Institute for Environmental Health Sciences (NIEHS) and U.S. EPA Office of Emergency and Remedial Response, will highlight the cutting edge research being conducted by two NIEHS scientists into the non-cancer endpoints of exposure to PCBs. The first presentation will review findings from the population-based epidemiologic studies for which prenatal PCB exposure measures are available. The particular emphasis will be on findings related to growth and neurocognitive development in infancy and later childhood. The second presentation will present findings that acute in vitro exposures to commercial PCB mixtures and microbially dechlorinated commercial PCB mixtures increase the

frequency of spontaneous contractions of uteri from pregnant rats. Increased uterine stimulation was observed with PCB mixtures containing increased abundance of lesser-chlorinated, ortho-substituted congeners. By showing that PCBs stimulate uterine contraction in vitro, these studies provide a biologically plausible mechanism by which PCB exposures could decrease gestation length. For more information and to register, see <http://clu-in.org/studio> .

In Situ Treatment of Groundwater Contaminated with NAPL, December 10-12. We are broadcasting live over the internet from this conference in Chicago. You may register for one or more of the conference's four topical sessions over the three-day period. There are a few simulcast ports remaining for the sessions. For more information and to register for one or more webcast sessions, see <http://clu-in.org/studio>

Primer Seminario Hispano-Estadounidense de Terrenos Contaminados, 16 de diciembre, 2002. El Primer Seminario Hispano-Norteamericano de Terrenos Contaminados será impartido de forma gratuita por Internet el lunes 16 de diciembre. Consistirá en siete ponencias tratando experiencias en el tratamiento de suelos contaminados en España y en los EE.UU. El seminario comenzará con un resumen de los programas de recuperación de suelos contaminados en España y en los EE.UU., seguido por presentaciones de proyectos completados en ambos lados del Atlántico. Estas ponencias incluyen la recuperación de terrenos contaminados con DNAPL por medio de biocorrección y extracción de vapores, junto con proyectos de recuperación de terrenos contaminados por explosivos. Las presentaciones serán en vivo y habrá oportunidad de diálogo con los ponentes. Este seminario está patrocinado por el Ministerio de Medio Ambiente, el Instituto Geológico y Minero de España y la Agencia de Protección Medio Ambiental de los EE.UU. (USEPA). Cuenta así mismo con ponencias del Departamento de Medio Ambiente de la Generalitat de Catalunya y de la Comunidad Foral de Navarra. Para más información e inscripción visite <http://clu-in.org/seminarios>

ITRC Systematic Approach to In Situ Bioremediation in Groundwater: Nitrates, Carbon Tetrachloride & Perchlorate, December 17. This course presents a decision tree for reviewing, planning, evaluating, and approving in situ bioremediation (ISB) systems in the saturated subsurface. It defines site parameters and appropriate ranges of criteria necessary for characterization, testing, design and monitoring of ISB technologies. For more information and to register, see <http://www.itcreweb.org> Or <http://clu-in.org/studio> .

Documents and Databases

Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway From Groundwater and Soils (RCRA-2002-033). This U.S. EPA guidance provides current technical and policy recommendations on determining if the vapor intrusion pathway poses an unacceptable risk to human health at cleanup sites. It is not intended to provide recommendations for delineating extent of risk or eliminating risk. The guidance is suggested for use at the Resource Conservation and Recovery Act (RCRA) Corrective Action sites, National Priorities List and Superfund Alternative sites and Brownfields sites, but is not recommended for use at Subtitle I Underground Storage Tank sites at this time (November 2002, 177 pages). Various download options available, see <http://www.epa.gov/correctiveaction/eis/vapor.htm> . This document is being placed in the Federal Register for a ninety-day comment period. To submit comments on the document during the open comment period, see http://cascade.epa.gov/RightSite/dk_public_home.htm .

Technology Evaluation Report: Engineered Bioremediation (TE-02-03). This report was published by the Ground-Water Remediation Technologies Analysis Center (GWRTAC). The report provides a broad-based look at the theory and practice of engineered bioremediation. Factors involved in engineering bioremediation systems for treatment of hazardous organic contaminants in soils and groundwater are emphasized and supported by case studies. An overview of pertinent metabolic processes that can be harnessed in bioremediation is first presented, and the extension of these cellular level metabolic processes to engineered systems to achieve remediation subsequently discussed. The ten case studies selected for presentation illustrate a variety of different design approaches to engineered bioremediation. Cost of bioremediation is then generally addressed, as are pertinent regulatory issues. Many useful reference materials are cited or listed. (September 2002, 103 pages). View or download at http://www.gwrtac.org/pdf/bio_e.pdf .

New Triad Section on CLU-IN. The Triad is a term referring to improved site characterization and faster cleanups through the integration of systematic planning, dynamic work plans, and real-time measurement technologies to achieve more cost-effective hazardous waste site cleanup strategies. Technology Innovation Office is compiling some of the most relevant information on the theory and application of the Triad and posting it on one location. TIO is preparing to greatly expand the depth and availability of information facilitating the incorporation of the TRIAD into standard work practices by regulators, consultants, and parties challenged with site cleanups. For more information, see <http://clu-in.org/triad/> .

Alternative Covers Assessment Program. The goal of the Alternative Cover Assessment Program (ACAP) is the development of field-scale performance data for landfill final cover systems. Both prescriptive (RCRA) and innovative alternative cover designs are currently being tested in the project. ACAP is part of the U.S. Environmental Protection Agency (EPA) - National Risk Management Research Laboratory's (NRMRL) Superfund Innovative Technology Evaluation (SITE) Program established to promote the development of new and innovative technologies used to address hazardous waste problems. For more information see <http://www.acap.dri.edu/>

RCRA Waste Sampling Draft Technical Guidance: Planning, Implementation, and Assessment (EPA 530-D-02-002). This new guidance updates the information provided in Chapter Nine of SW-846, which was last published in 1986. It contains recommended procedures for sampling solid waste under the Resource Conservation and Recovery Act (RCRA). The regulated and regulatory communities can use this guidance to develop sampling plans to determine if (1) a solid waste exhibits any of the characteristics of a hazardous waste¹, (2) a hazardous waste is prohibited from land disposal, and (3) a numeric treatment standard has been met (August 2002, 353 pages). There are various download options, see http://www.epa.gov/epaoswer/hazwaste/test/samp_guid.htm .

The **National Environmental Methods Index (NEMI)** is a free new database of environmental monitoring methods that can be searched using a standard Internet connection and a browser. It helps users quickly "ferret out" and evaluate environmental methods that are scattered over multiple government agencies and private organizations. The initial database contains over 600 chemical, biological, and radiochemical method summaries of lab and field protocols for regulatory and non-regulatory water quality analyses (including multiple water sources such as drinking, waste, and ground waters). It is being expanded to include other matrices (e.g, soil, air, biota, and waste). Some of the methods include corrections to currently used methods that are not available from any other source. NEMI can be reached at www.nemi.gov .

The **Environmental Monitoring and Measurement Advisor (EMMA)**. EMMA, funded by the National Science Foundation, is a web-based expert system that helps users to consider, and answer, all critical questions for environmental monitoring. It guides users through complex decisions to tailor their plans to meet specific project needs by considering the physical and chemical characteristics of the sampling site and target analytes, desired data

quality, available budget, and their objectives. It combines decision criteria based on systematic planning, a user's specific project needs, and methods information from the new National Environmental Methods Index (NEMI). The software incorporates elements of EPA's Data Quality Objective (DQO) process, its new Performance and Acceptance Criteria (PAC) Process, and its new Triad Approach. The free methods selection module is linked from the NEMI web site. EMMA is reached at <http://www.EMMA-ExpertSystem.com> .

Sediments listserv. EPA's South & Southwest Hazardous Substance Research Center is distributing a monthly e-mail update on developments in contaminated sediments remediation. The update includes items on new publications, regulatory activity, conference announcements, remediation programs, and outreach assistance services. The service is free of charge. To subscribe, send a note to mark.hodges@qtri.gatech.edu.

Conferences and Symposia

Vapor Intrusion Seminar. In early 2003, the U.S. EPA is sponsoring two two-day seminars on the potential for vapor intrusion of toxic and hazardous chemicals from contaminated soils or groundwater into indoor air pathways. At sites where soils or groundwater contain volatile or semi-volatile chemicals of concern, there is the potential for chemical vapors to migrate from the subsurface to overlying buildings. In extreme cases, these vapors may accumulate at concentrations that pose near-term safety hazards. The seminars will introduce new EPA guidance and enable the dissemination and exchange of state-of-the-science information to better understand indoor air vapor intrusion from groundwater. Topics will include the following: EPA's Guidance on Vapor Intrusion into Indoor Air; Risk Characterization and Assessment; Sampling and Analytical Methods; Case Studies; Risk Reduction and Communication; Transport Mechanisms; Models - Conceptual and Mathematical; and State Perspectives & Community Relations. Dallas - January 14-15 and Atlanta, February 25-26. For more information and to register, see <http://www.epa.gov/ttnmrl/indoorair.htm> .

NOTE: Over the past few years, I have received numerous requests from conference sponsors to feature their upcoming training courses and conferences in TechDirect. In fact, so many that if all were included, TechDirect would be twice as long or primarily a laundry list of events. I 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. I invite sponsors to input information on their events at

<http://clu-in.org/courses> . Likewise, I invite readers to check out this area for 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. Remember, you may subscribe, unsubscribe or change your subscription address at <http://clu-in.org/techdrct> at any time night or day.