Message #87: May 2004

Welcome to TechDirect. Since the April 1 message, TechDirect gained 283 new subscribers for a total of 18,883. 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 Radiation Risk Assessment: Updates and Tools, May 4. This training clarifies the variations between the dose approach used at some sites and EPA's risk-based approach. It also elaborates on the methodology used to develop risk-based remediation goals. For more information and to register, see or http://clu-in.org/studio or http://www.itrcweb.org .

ITRC Alternative Landfill Covers - Design, Installation, and Monitoring of Alternative Final Landfill Covers, May 13. This training focuses on evapotranspiration (ET) covers and the decisions associated with their successful design, construction, and long-term care. For more information and to register, see or http://clu-in.org/studio or http://www.itrcweb.org .

NIEHS Biosensor Research - Part Two, May 18. This is the second of two seminars on Biosensors for Environmental Monitoring. Dr. Patrick Larkin of EcoArray, Inc. will describe their work to develop gene chips and related products for several key wildlife models of interest to government agencies. In addition, Dr. Elwood Linney of Duke University will present his work on the zebrafish model and place it within the context of mammalian models that are used to investigate the effects of environmental toxicants. To register, see http://clu-in.org/studio .

ITRC Systematic Approach to In Situ Bioremediation: Nitrates, Carbon Tetrachloride, and Perchlorate, May 20. This training

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 or http://clu-in.org/studio or http://www.itrcweb.org .

New Documents

Guidance for Monitoring at Hazardous Waste Sites: Framework for Monitoring Plan Development and Implementation (OSWER Directive 9355.4-28). This U.S. EPA guidance document presents a framework for developing and implementing technically defensible Monitoring Plans for hazardous waste sites in support of the One Cleanup Program. It was written for site managers who are legally responsible for managing removal and remedial site activities. The document is intended for use at hazardous waste sites that have completed site characterization, risk assessment, and remedy selection and are in the process of implementing a removal action or site mitigation (January 2004, 64 pages). View or download at http://clu-in.org/techpubs.htm .

CLU-IN Contaminant Focus Update. EPA understands that site owners and other parties involved in remedial activities need information in a variety of formats. Cleanup information may, for example, be organized according to site types, technologies, or environmental media. The 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. We have recently added two new contaminant areas to the site: PCBs and MTBE. For more information, see http://clu-in.org/contaminantfocus/ .

ESTCP Cost and Performance Report: Natural Pressure-Driven Passive Bioventing (CU-9715). This report was produced by the DoD Environmental Security Technology Certification Program (ESTCP). It provides information needed for comparing passive bioventing to conventional bioventing on the basis of performance, installation and operating costs, and implementation issues. The primary demonstration objective was to identify a site where passive bioventing would be successful. The secondary objective was to measure the rate of airflow and radius of oxygen influence as the result of operating a pilot-scale passive bioventing system that

consisted of one vent well with a one-way passive valve and soil-gas monitoring points (January 2004, 43 pages). View or download at http://www.estcp.org/documents/techdocs/CU-9715.pdf .

ESTCP Cost and Performance Report: Applied Innovative Technologies for Characterization of Explosives-Contaminated DoD Building Foundations and Underlying Soils (CU-0130). The DoD Environmental Security Technology Certification Program (ESTCP) evaluated a variety of methods for characterizing the foundations, adjacent areas, and underlying soils without having to remove the buildings and foundations first. As part of this demonstration, field test methods including Raman spectroscopy, Expray colorimetric indicator, and the Cold Regions Research and Engineering Laboratory (CRREL) Royal Demolition Explosive (RDX) colorimetric field screening method were evaluated at five buildings to determine the presence and/or concentration of nitrocellulose or nitroglycerine in soil samples and concrete slabs. Raman spectroscopy was also evaluated for identifying the presence of other organic compounds used in the manufacturing processes (February 2004, 49 pages). View or download at http://www.estcp.org/documents/techdocs/cu-0130.pdf .

Enhanced Access Penetration System (EAPS). The Department of Energy funded the development of a direct push (DP) system able to drill through refusal points. This report describes an evaluation study of the Enhanced Access Penetration System (EAPS) which extends cone penetrometer penetration depth. EAPS consists of four major components: (1) a Wireline CPT/Gas sampling probe and wireline soil and groundwater sampling system, (2) a small diameter air rotary drilling system, (3) environmental sensors that are used to detect and characterize contamination in both real and near-real time, and (4) an integral drill spoils collection and filtration system. (January 2004, 66 pages). View or download at http://clu-in.org/techpubs.htm .

CalEPA Evaluation Report: Hapsite GCMS. California EPA's Department of Toxic Substances Control (DTSC) has certified the analytical capabilities of the HAPSITE portable gas chromatograph-mass spectrometer (GC-MS) system as a field-based analytical method as well as a laboratory instrument for measuring volatile organic compounds (VOCs) in water, soil and soil gas. This 2004 certification report evaluates the performance of the HAPSITE instrument based on a detailed review of data packages submitted by the technology proponent, of field data generated by independent parties, and of new data collected under the oversight of the California Environmental Technolgy Certification Program (March 2004, 75 pages). View or download at http://clu-in.org/techpubs.htm .

Conferences and Symposia

MTBE & TBA - Comprehensive Site Assessment and Successful Groundwater Remediation, Mansfield, NJ, May 10-11. The Interstate Technology and Regulatory Council's MTBE and Other Fuel Oxygenates Team, in cooperation with the New Jersey Department of Environmental Protection (NJDEP), the Long Island Groundwater Research Institute, the American Petroleum Institute and USEPA are presenting a 2-day classroom training at the Rutgers University Eco-Complex. Participants will be introduced to a variety of MTBE and TBA contaminated ground water topics including chemical, physical and biological characteristics; available remediation technologies; technology selection and sequencing, and processes for successful site assessment and remediation. The course is free to state and federal regulators, and community stakeholders. The fee for industry representatives is $495. Travel scholarships may be available for qualified state regulators and community stakeholders (inquire at mtbe@itrcweb.net). To register, visit http://www.itrcweb.net and look under "Training."

Phytotechnologies - Mechanisms and Applications, Middletown, PA on June 9-10. This course provides scientific, engineering, and regulatory information on how phytotechnologies are used in a variety of real-world applications. Participants will learn advantages, limitations, and uncertainties of phytotechnologies in a variety of situations. The curriculum includes an introduction to the science, case studies, hands-on group exercises, and open discussion of the regulation of phytotechnologies. The training is intended to reduce or eliminate barriers to the appropriate use of the innovative treatment approach. For more information, see http://www.itrcweb.org .

Reminder!! Accelerating Site Closeout, Improving Performance, and Reducing Costs Through Optimization, Dallas, June 15-17. This conference, sponsored by member agencies of the Federal Remediation Technologies Roundtable, will outline long-term remediation liabilities and optimization needs and opportunities; disseminate existing and emerging optimization strategies, technologies, tools and science; communicate lessons learned; and present remedial optimization within the context of site wide and multi-site management programs. For registration and agenda information, see http://clu-in.org/siteopt .

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. The proceedings of the conference will be published on CD and distributed to all participants afterward. Four states (Illinois, Indiana, Michigan, and Ohio) are co-chairing sessions this year, and we expect to draw participants from across the country. The call for papers is extended to June 1. 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. Remember, you may subscribe, unsubscribe or change your subscription address at http://clu-in.org/techdrct at any time night or day.