

Message #66: August 2002

Welcome to TechDirect. Since the July 1 message, TechDirect gained 290 new subscribers for a total of 14,406. 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 TechDirect messages 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.

New Site-Specific Technical Assistance Available. The U.S. Army Corps of Engineers has a new agreement with EPA to provide site-specific technical assistance for site managers who would like to consider using systematic planning, field measurement technologies/real time data generation, and a dynamic work plan, which is referred to as the Triad approach. The Corps can provide experienced technical staff to help determine if there are field measurement technologies (such as XRF, immunoassay, on site GC or GC/MS, and direct push sensors) that might optimize data collection activities. Use of the Triad approach can often result in significant total cost savings by allowing project managers to reach site decisions while avoiding numerous planning efforts and field mobilizations that would otherwise be necessary. In addition, use of the Triad approach can assist with the management of decision uncertainty by increasing the sampling density possible for the money available and/or by designing sample collection to yield the most valuable information. Because of its flexible approach, the Triad process is applicable to all data collection activities, including initial site screening, characterization, remediation, and monitoring. This technical assistance is available, at no initial cost, to EPA site managers (and to states through EPA) who are managing Superfund, RCRA, UST, or Brownfields sites. For more information, call Kira Lynch at 206-764-6918 or e-mail kira.p.lynch@usace.army.mil.

Upcoming Live Internet Seminars

ITRC Phytotechnologies - August 13. This ITRC 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 Passive Diffusion Bag Samplers - August 15. This seminar will present the technical and regulatory considerations associated with deployment of diffusion samplers, and summarize major points of the recently issued USGS document, Users Guide For Polyethylene-Based Passive Diffusion Bag Samplers To Obtain Volatile Organic Compound Concentrations In Wells. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

ITRC In Situ Chemical Oxidation - August 20. The purpose of this training is to familiarize participants with the recently released ITRC In Situ Chemical Oxidation Technical and Regulatory Guidance document. It provides technical and regulatory information to help you understand, evaluate and make informed decisions on ISCO 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> .

New Documents and CD ROMs

Abstracts of Remediation Case Studies Volume Six (EPA 542-R-02-006). This report was published by the Federal Remediation Technologies Roundtable. It is a collection of abstracts summarizing 39 case studies of site remediation applications prepared primarily by federal agencies. The case studies were undertaken to document the results and lessons learned from technology applications. They will help establish benchmark data on cost and performance which should lead to greater confidence in the selection and use of cleanup technologies (June 2002, 139 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.

FRTR Cost and Performance Remediation Case Studies and Related Information (EPA 542-C-02-004). This CD, produced by the Federal Remediation Technologies Roundtable, contains 313 cost and performance reports about full-scale remediation projects and large scale demonstrations. The new additions include case studies addressing cleanup of contaminated groundwater using in situ technologies such as bioremediation, surfactant flushing, chemical oxidation, thermal treatment, permeable reactive barriers, phytoremediation, air sparging, and in-well air stripping. In addition, the CD ROM provides 110 case study reports about site characterization and monitoring technologies, and seven reports

about optimization of long-term monitoring. The remediation case studies are in a searchable database at <http://www.frtr.gov> . The CD ROM is available at (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Innovative Remediation Technologies: Field-Scale Demonstration Project Database and Report. EPA has expanded and revised the interface of its online, searchable database of completed and ongoing field-scale demonstrations of innovative hazardous waste remediation technologies. Through the database, information on 663 projects can be searched by media, technology type, contaminant type, and demonstration date to help users find reference and contact information for projects that match their cleanup needs. Also, the interface now allows users to submit information on projects for inclusion in the database (after EPA review). An electronic version of the Year 2000 Report, containing information on projects up to June 2000, is available for download. Find the online database and report at <http://clu-in.org/products/nairt> .

Innovative Remediation and Site Characterization Technologies Resources CD-ROM (542-C-02-002). This CD ROM, produced by the EPA Technology Innovation Office, is an update to the previous version (spring 2001). It contains 120 documents related to characterization and remediation technologies. The CD ROM is available at (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Dynamic Workplans & Field Analytics: The Keys to Cost Effective Site Cleanup (EPA 542-C-02-003). This 18-minute video is available on CD-ROM.. A number of governmental, academic, and private sector organizations have articulated innovative strategies for performing hazardous site characterization and remediation in a more efficient and cost-effective manner. Certain basic elements are common to all these strategies, and the cost-effectiveness and practicality of this approach has been demonstrated in a number of settings. The CD ROM is available at (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Site Characterization Library Volume 1, Release 2.5 CD ROM. (EPA 600-C-02-002). This CD ROM was produced by the EPA National Exposure Research Laboratory. It contains documents and computer programs related to the characterization of hazardous waste sites. The CD ROM is available at (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Method 5035A: Closed-system Purge-and-trap and Extraction for Volatile Organics in Soil and Waste Samples. US EPA has

updated its guidance to reflect the latest evaluation of currently available data and technologies for VOC sample handling and preservation procedures for solid samples. The procedures are designed to minimize VOC losses through the two most common mechanisms, volatilization and biodegradation. This guidance appears in SW-846 Method 5035A, which includes a 30-page appendix of detailed explanatory material (July 2002, 69 pages). View or download at <http://clu-in.org/techpubs.htm> .

An Assessment of Protocols for Splitting Soil Samples. The heterogeneous particulate nature of soil samples can cause wide variability in analytical results if the subsampling and sample splitting procedures used are not carefully selected and controlled. This study (published on-line May 14, 2002 through the Journal of Chemometrics by Gerlach et al.) demonstrates the ability of riffle splitting to minimize subsampling error. In contrast, grab sampling (the most common form of subsampling) produced the worst data quality. Sample mixing prior to grab sampling may not be sufficient to avoid sampling errors when matrices are composed of particulates of different sizes and densities, as is typical of environmental soils. Sampling accuracy was at least 2 orders of magnitude worse than the analytical method accuracy of this study (September 2001, 8 pages). View or download at <http://clu-in.org/techpubs.htm> .

Report of the Nicole Workshop: Cost Effective Site Characterization Dealing with Uncertainties, Innovation, Legislation Constraints. This report summarizes the conference sessions at the April 2002 meeting in Pisa, Italy. The goal of the workshop was to investigate the optimization of investigation costs versus more accurate knowledge of pollution at a site (June 2002, 48 pages). View or download at <http://www.nicole.org/> .

Monitoring Well Comparison Study: An Evaluation of Direct-push Versus Conventional Monitoring Wells. This study was conducted by BP Amoco in partnership with U.S. EPA Regions 4 and 5. This project was undertaken to determine whether measurements of groundwater parameters obtained using direct-push wells are comparable to those obtained from conventional monitoring wells. Direct-push monitoring wells contained no filter pack and were pushed into the subsurface; conventional monitoring wells contained filter packs and were installed with typical drilling and completion methods. The measured parameters were groundwater levels, chemical concentrations (BTEX, MTBE, TSS, and naphthalene), hydraulic conductivity, and natural attenuation (geochemistry) parameters. The study was conducted at two sites in Ohio and two sites in Georgia and they

were chosen so there was a wide-range of soils, conductivities, and concentrations (May 2002, 80 pages). View or download at

<http://www.epa.gov/swerust1/cat/wellstdv.pdf> .

Spill Prevention Control and Countermeasure Rule (40 CFR 112). On July 17th, 2002, EPA issued a final rule amending the Oil Pollution Prevention regulation promulgated under the authority of the Federal Water Pollution Control Act (Clean Water Act). This rule addresses requirements for Spill Prevention Control and Countermeasure Plans (SPCC Plans) and some provisions may also affect Facility Response Plans (FRPs). The new SPCC rule addresses will become effective August 16, 2002 and applies to owners or operators of facilities that drill, produce, gather, store, use, process, refine, transfer, distribute, or consume oil and oil products. For more information, see <http://www.epa.gov/oilspill> or you may access the SPCC rule through the Government Printing Office at http://www.access.gpo.gov/su_docs/fedreg/a020717c.html . If you have questions about the final rule, contact the EPA Call Center at 1-800-424-9346 or locally within the Washington, DC area at (703) 412-9810 or email oilinfo@epa.gov

Technology Trends and News (EPA 542-N-02-003). This is the first issue of Technology News and Trends, a technology newsletter for environmental professionals published by EPA's Technology Innovation Office (TIO). Technology News and Trends is replacing Tech Trends and Ground Water Currents-TIO's technology newsletters for the past 10 years. The new newsletter features a combination of articles on innovative, in-situ technologies for the characterization and treatment of soil, sediment, and ground water (July 2002, 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.

Conferences and Symposia

Reminder!! WTQA 2002, August 11-15, Arlington, VA. The theme for this year's Waste Testing and Quality Assurance conference is Sound Science Through Effective Project Planning. This is the most important conference of the year if you are involved in procuring, generating, or using environmental analytical data. Conference will include sessions on pesticide monitoring, electronic data management and reporting, states issues, and new short courses and workshops. See <http://www.wtqa.org> for agenda and logistics information.

Reminder!! Design of Waste Containment Liner & Final Closure Systems, August 22-23, Rancho Cordova, CA. For those who

work with MSW landfills, hazardous waste landfills, superfund sites, industrial landfills, mine tailing closures, or mine heap leachpads. Comprehensive coverage of the latest technology available. Learn how to design waste containment liner systems and final closure systems. Design and failure examples throughout. For more information, please visit <http://www.asce.org/conted/seminars/geotechnical.cfm> .

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.