

Message #64: June 2002

Welcome to TechDirect. Since the May 1 message, TechDirect gained 390 new subscribers for a total of 13,963. 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.

CLU-IN Studio Update. Two new videos have been posted in the Studio section of CLU-IN. Both videos were produced by the U.S. EPA Environmental Response Team. The videos may be viewed using Real Player or Windows Media Player. See <http://clu-in.org/studio> . The two new titles are:

Martin County, Kentucky Coal Waste Spill (Run Time 21 minutes).

Tranguch Gasoline Spill Site (Run Time 14 minutes).

New Documents and CDs

Workshop on Monitoring Oxidation-Reduction Processes for Ground-water Restoration (EPA 600-R-02-002). This report was published by the U.S. EPA National Risk Management Research Laboratory. It summarizes the findings of a workshop held to discuss and summarize the current state-of-the-science with respect to methods of redox monitoring, data interpretation, and their applications to ground-water remediation (January 2002, 148 pages). View or download at http://www.epa.gov/ada/download/reports/epa_600_r02_002.pdf . For hard copies, contact Kay Cooper at (580) 436-8651 or fax (580) 436-8503.

DNAPL Source Reduction: Facing the Challenge (DNAPL-2). This report was published by the Interstate Technology and Regulatory Council (ITRC). It summarizes current regulatory attitudes toward DNAPL source zone remediation and outlines the pros and cons of partial source removal. Along the way, it challenges assumptions about the infeasibility of removing DNAPLs from certain geological settings where recent advances have made significant source reduction more feasible and cost-effective (April 2002, 48 pages). View or download at <http://www.itrcweb.org/user/DNAPL-2.pdf> .

Determining Cleanup Goals at Radioactively Contaminated Sites: Case Studies (RAD-2). This report was published by the ITRC. This document summarizes the various regulatory standards and requirements that dictate the cleanup at radioactively contaminated sites. It discusses processes used to develop cleanup levels and presents case studies from 12 selected sites to demonstrate variations in the decision-making framework and basis (April 2002, 111 pages). View or download at <http://www.itrcweb.org/user/RAD-2.pdf> .

Guide for Characterization of Sites Contaminated with Energetic Materials (ERDC/CRREL TR-02-1). This document was published by the Army Corps of Engineers

Cold Regions Research Engineering Laboratory. This guide serves as a reference for future sampling campaigns on sites potentially contaminated with explosives. The characterization of training and firing ranges, demolition, and open burning/open detonation ranges will allow assessment of the environmental impacts of these various operational activities. The guide discusses the major issues involved with the characterization of explosives materials in the main body of the text and uses appendixes to provide more detailed descriptions of the procedures and methodologies currently recommended for these tasks (February 2002, 58 pages). View or download [http://www.crrel.usace.army.mil/techpub/CRREL_Reports/reports/TR02-1\(ERDC-CRL\).pdf](http://www.crrel.usace.army.mil/techpub/CRREL_Reports/reports/TR02-1(ERDC-CRL).pdf)

Identifying Critical Parameters for the J&E Vapor Pathway Model. The Johnson and Ettinger (1991) Vapor Intrusion Model is the most widely used set of algorithms for assessing the intrusion of chemical vapors to enclosed spaces. A new report explains the relationship between model inputs and outputs so that users can identify critical inputs. The report contains a brief overview of the J&E (1991) model, including differences between it and the EPA's J&E model spreadsheets. Eight primary model inputs are highlighted and a flowchart-based approach for identifying critical model inputs is presented. Reasonable ranges of model inputs are discussed. Finally, use of the flowchart is illustrated with case examples. The report can be downloaded for free at:

<http://www.api.org/bulletins> .

Technology Evaluation Report: Fracturing Technologies to Enhance Site Remediation (TE-02-02). This report was authored by Dr. John Schuring, New Jersey Institute of Technology, for the Ground Water Remediation Technologies Analysis Center (GWRTAC). The document covers the three general categories of fracturing technologies, including pneumatic, hydraulic, and blast fracturing, for enhancement of site remediation. The use of fracturing to introduce various liquid and granular supplements that are beneficial to remediation is discussed, as well as the use of fracturing in improving remediation performance by increasing effective permeability. This report is companion to the GWRTAC status report on fracturing technologies, and further analyzes case studies originally presented in the status report. In addition to providing descriptions of the three fracturing technologies, this document discusses their benefits and restrictions, application, integrated technologies, modeling, regulatory issues, and technology results, status, cost, and commercial vendors. (April 2002, 52 pages). View or download at

http://www.gwrtac.org/pdf/frac_e_2002.pdf .

The **Superfund Public Information System (SPIS)** Compact Disc contains abstracts for and the full texts of Records of Decision (RODs), ROD Amendments, and Explanations of Significant Differences (ESDs) issued from 1982 through 2001. Produced in PDF format and updated quarterly, the first quarter FY 2002 release of the SPIS CD will contain almost 2,500 documents, including over 65 signed in fiscal years 2000 and 2001. To order the free CD, see <http://www.epa.gov/superfund/sites/phonefax/descript/spiscd.htm> .

ITRC Quarterly Update. This quarterly newsletter highlights the progress and activities of the ITRC and all of its teams (March 2002, 8 pages). View or download at

<http://www.itrcweb.org/ITRC0302Update.pdf> .

Upcoming Live Webcasts

ITRC Permeable Reactive Barriers for Chlorinated Solvent, Inorganic, and Radionuclide Contamination - June 11. The Interstate Technology and Regulatory Council (ITRC) training focuses on the basic information one needs to determine and document the conditions necessary to effectively apply a permeable reactive barrier to a contaminated zone to be an effective part of remediating chlorinated solvents, radionuclides and other inorganic compounds in ground water. It provides a framework, that is, how to think about permeable reactive barriers based on science. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

ITRC Advanced Techniques on Installation of Iron Based Permeable Reactive Barriers and Non-Iron Based Barrier Treatment Material - June 13. This ITRC seminar uses case studies to describe long-term performance of iron-based systems and details how to design them according to the heterogeneities of the subsurface. New construction techniques for excavation and wall emplacement have improved dramatically and the attention to barrier construction is as critical as is performance monitoring. It also describes non-iron barrier systems, the material most commonly used and the mechanisms encouraging a reduction in contaminant concentrations within the systems. For more information and to register, see <http://www.itrcweb.org> Or <http://clu-in.org/studio> .

ITRC Enhanced In Situ Bioremediation of Solvents in Ground Water - June 18. The training focuses on a variety of amendments, which may be added to in situ bioremediation systems, the mechanism of delivery and regulatory issues associated with approving or permitting EISB systems. It will also cover common problems encountered during operation of a system. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/studio> .

Conferences and Symposia

ConSoil 2003. Call for Abstracts. The conference is organized by Forschungszentrum Karlsruhe (FZK) and the Netherlands Organization for Applied Scientific Research (TNO), in cooperation with the Public Waste Agency of Flanders (OVAM). It is supported by governments and agencies from Germany, The Netherlands and other countries. Deadline for abstract submittal is July 15, 2002. For more information on conference themes and abstract formats, see <http://www.consoil.de/consoil/call.html> .

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.

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.