Message #65: July 2002

Welcome to TechDirect. Since the June 1 message, TechDirect gained 258 new subscribers for a total of 14,184. 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.

Special USTfields Announcement

On July 1, 2002, the U.S. EPA announced the selection and funding of forty new USTfields pilots. The USTfields Initiative was created by the Office of Underground Storage Tanks (OUST) to address brownfields sites with petroleum contamination from underground storage tanks (USTs). Brownfields are idle or underutilized facilities or properties that are actually or perceived to be environmentally contaminated. USTfields are abandoned or underused industrial and commercial properties where redevelopment is complicated by real or perceived environmental contamination from underground storage tanks. Each pilot was awarded up to $100,000 of Leaking Underground Storage Tank (LUST) Trust funds to assess and clean up petroleum-contaminated sites. See more information on the USTfields program and the forty new pilots at http://www.epa.gov/oust/ustfield .

Upcoming Live Internet Seminars

Remediation System Evaluation and Optimization of Pump and Treat Projects - July 16. The objective of this presentation is to enhance current understanding of the Remediation System Evaluation (RSE) process and optimization tools available to site managers of pump and treat systems. RSEs aim to improve the efficiency of operation and maximize the remedy's effectiveness by identifying ways to reduce O&M costs, shorten closure time, verify clear goals and exit strategy, and assure equipment is adequately maintained. Pump and treat systems have been operating for two decades and this experience has led to large gains in knowledge and understanding. For more information and to register, see or http://clu-in.org/studio .

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 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 .

New Documents

Ground Water Sampling Guidelines for Superfund and RCRA Project Managers (EPA 542-S-02-001). This document provides sampling guidelines primarily for ground-water monitoring wells which have a screen or open interval with a length of ten feet or less which can accept a sampling device. A summary of current and/or recommended ground-water sampling procedures is provided. These guidelines were developed by the Superfund/RCRA Ground Water Forum and incorporate comments from ORD, Regional Superfund hydrogeologists, and others. These guidelines are applicable to the majority of sites, but are not intended to replace or supersede regional and/or project-specific sampling plans. These guidelines are intended to assist in developing sampling plans using the project-specific goals and objectives (May 2002, 53 pages). View or download at http://www.epa.gov/tio/tsp/download/gw_sampling_guide.pdf .

Proven Alternatives for Aboveground Treatment of Arsenic in Groundwater (EPA 542-S-02-002). This issue paper, developed for EPA's Engineering Forum, identifies and summarizes experiences with proven aboveground treatment alternatives for arsenic in groundwater, and provides information on their relative effectiveness and cost. The four technologies included in the report are precipitation/coprecipitation, adsorption, ion exchange, and membrane filtration. The report describes the theory and operation of each technique, available project-specific performance and cost data, and limitations. The report also discusses special considerations for retrofitting systems to meet the lower arsenic drinking water standard (maximum contaminant level or MCL) of 10 ug/l (June 2002, 63 pages). View or download at http://clu-in.org/techpubs.htm .

Perchlorate Screening Study: Low Concentration Method for the Determination of Perchlorate in Aqueous Samples Using Ion Selective Electrodes. This report was prepared by the US Army Corps of Engineers for EPA under the EPA Measurement and Monitoring Technologies for the 21st Century (21M2) initiative (see http://clu-in.org/21m2). The project resulted in a field method to measure perchlorate concentration in ground water. The method, which uses an ion selective electrode, has a method reporting limit of 15 µg/L and a detection limit of 3 µg/L. The California advisory level for perchlorates is 18 µg/L. The method is subject to some interference from bromide, chloride, and nitrate (October 2001, 172 pages). View or download at http://clu-in.org/techpubs.htm .

Role of Background in the CERCLA Cleanup Program (OSWER 9285.6-07P). This document, produced by EPA's Office of Solid Waste and Emergency Response (OSWER) clarifies the U.S. EPA preferred approach for the consideration of background constituent concentrations of hazardous substances, pollutants, and contaminants in certain steps of the remedy selection process, such as risk assessment and risk management, at Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund") sites. To the extent practicable, this document may also be applicable to sites addressed under removal actions and time-critical actions. In general, the presence of high background concentrations of hazardous substances, pollutants, and contaminants found at a site is a factor that should be considered in risk assessment and risk management (April 2002, 15 pages). View or download at http://www.epa.gov/superfund/programs/risk/role.pdf .

Risk Assessment Guidance for Superfund, Part D (Publication 9285.7-47). RAGS Part D complements the guidance provided in Parts A, B, C, and E and presents recommended approaches to standardize risk assessment planning, reporting, and review. Part D guidance spans the CERCLA remedial process from project scoping to periodic review of the implemented remedial action. approach consists of three basic elements: Use of Planning Tools, Continuous Involvement of EPA Risk Assessors, and Information Transfer to a National Superfund Risk Data Repository (December 2001, 250 pages). Download in sections at http://www.epa.gov/superfund/programs/risk/ragsd/tara.htm . See http://www.epa.gov/superfund/programs/risk/tooltrad.htm#gp for RAGS Parts A-D in HTML.

VOC Off-Gas Treatment Technologies Database. This online resource was developed by the Naval Facilities Engineering Service Center. This system assists site managers in choosing options for VOC Off-gas Treatment. It includes technologies that are emerging, developing and mature. It also includes a cost estimator that

incorporates site specific information. To access the database, see http://enviro.nfesc.navy.mil/erb/erb_a/restoration/technologies/sel_tools/voc/index.asp.

In Situ Enhanced Source Removal (EPA 600-C-99-002). This report was produced by the EPA National Risk Management Research Laboratory. The objective of this report is to document research findings that suggest remedial objectives are technically achievable in a reasonable time frame. The program demonstrated in the field the effectiveness of emerging technologies using side by side comparisons in controlled experiments. The performance of each approach was compared to "pump-and-treat" technology to normalize the variability at the site. The first site selected for evaluation was Operable Unit 1, Hill Air Force Base, Utah, USA. To view the report, see http://www.epa.gov/ada/research/src_remed2.html . The report is also available on CD ROM, contact Kay Cooper at (580) 436-8651 or fax (580) 436-8503.

Surfactant-Enhanced Aquifer Remediation (SEAR) Design Manual (TR-2206-ENV). This report was published by the Naval Facilities Engineering Service Center. This design manual is intended to provide background information and specific guidance for technical personnel who would like to evaluate and apply in situ surfactant flooding or surfactant-enhanced aquifer remediation (SEAR) at sites contaminated with dense nonaqueous-phase liquid (DNAPL) such as chlorinated solvents. This volume covers feasibility issues and design aspects of the technology and the second volume (Implementation Manual) will cover field implementation including system setup and operations (April 2002, 112 pages). View or download at http://enviro.nfesc.navy.mil/erb/erb_a/restoration/technologies/remed/phys_chem/sear/tr-2206-sear.pdf.

Report of the Nicole Workshop, November 2001: Information and Communication Technologies for Sustainable Land Management and Monitored Natural Attenuation. The Workshop provided an overview of the current state of the art and emerging Information and Communication Technology (ICT) developments. Presentations illustrated the use of ICT in site assessment, site investigation and data management at large industrial sites. This report provides summary information from the workshop (May 2002, 43 pages). View or download at http://www.nicole.org/ .

Conferences and Symposia

ConSoil 2003, Call for Papers! The 8th International Consoil conference will be in Gent, Belgium in May 2003. It will focus on policies, research and development, and practical implementation experiences related to contaminated sites. The coordinating committee issued a call for abstracts. The deadline for abstract

submission is July 15, 2002. For more information on Consoil 2003 and to download the abstract format, see http://www.consoil.de .

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.

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 .

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