Message #45: November 2000

Since October 1, TechDirect gained 225 new subscribers for a total of 9301. Welcome to everyone just joining TechDirect. We hope this continues to be a useful resource.

Editor's Note. Our Internet Seminar series has become an increasingly popular method for sharing new information on technical approaches to site clean-up. More than 3500 people from 19 countries on five continents participate on these live events. If you haven't participated on one to date, you might be surprised how easy it is to do so.

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.

Live Seminar Webcasts

Dynamic Data Collection Strategy Using Systematic Planning and Innovative Field-Based Measurement Technologies. This live FREE webcast is designed to introduce regulators, site cleanup professionals, site owners, and community stakeholders to the importance of using systematic planning to implement dynamic data collection approaches using innovative field measurement technologies. Using case studies, the seminar provides insight for three distinct data collection efforts: site characterization, removal/remedial action and treatment system optimization. Systematic planning ensures that the project team collects the "right" data about the matrix (i.e. groundwater, soils, sediments) under investigation to support the critical project decisions. These tools may be used at any project stage to accurately characterize, optimize and effectively achieve site clean-up goals with minimal mobilizations to the field. Seminars are scheduled for November 16, December 6 and 19. To participate via phone line or simulcast port, you must register at http://clu-in.org/conf/tio . To find out about other upcoming web events or access archived presentations from past seminars, see http://clu-in.org/studio .

Documents

Statistical Estimation and Visualization of Ground-Water Contamination Data (EPA 600-R-00-034). This report was

published by EPA's National Risk Management Research Laboratory. This work presents methods of visualizing and animating statistical estimates of ground water and/or soil contamination over a region from observations of the contaminant for that region. The primary statistical methods used to produce the regional estimates are non-parametric regression and geostatistical modeling (kriging). Nonparametric regression can be used as a more "rough and ready"method to produce surface estimates with little outside intervention, whereas geostatistical modeling produces prediction errors. Finally, a method is proposed for estimating the total amount of contaminant present in a region (August 2000, 59 pages). View or download at http://www.epa.gov/ada/download/reports/epa_600_r00_034.pdf . Hard copies will be available in 2-3 weeks, contact Kay Cooper at (580) 436-8651 or fax (580) 436-8503.

Results-Based Corrective Action - Draft Guidance Document for Public Comment. The U.S. EPA Office of Solid Waste (OSW) draft Results-Based Approaches to Corrective Action Guidance is now available for public comment. This guidance is part of the RCRA Cleanup Reforms that EPA announced on July 8, 1999. Tim Fields, in his July 1999 announcement of the Reforms highlighted this guidance as one of the key elements in changing the culture of the RCRA Corrective Action Program. EPA is writing this guidance so that EPA and State regulators and owner/operators will begin to understand and routinely incorporate results-based approaches where appropriate into their cleanups. Results-based approaches are intended to help project managers and owner/operators more efficiently identify releases and risks, and increase the pace of facility cleanup. These approaches encourage technical and administrative innovation to achieve environmentally protective cleanups on a facility-specific basis (July 2000, 21 pages). View or download at http://www.epa.gov/correctiveaction .

No-Purge Groundwater Sampling: An Approach for Long-Term Monitoring (API Bulletin No. 12). This report was prepared for the American Petroleum Institute. It reviews data at six studies which compared no-purge sampling to conventional sampling with purging. The report authors found that samples collected without prior purging of the monitoring well are not statistically different or provide conservative results compared to samples from wells which were purged using conventional techniques. The report defines no- purge sampling, presents data from each of the comparative studies and provides suggestions on when and how no-purge sampling should be used. The regulatory status of no-purge sampling in the US is summarized (October 2000, 10 pages). View or download http://www.api.org/ehs/sgresbul.htm . A website has been established for discussion

of no-purge sampling at: http://communities.msn.com/NoPurgeGroundwaterSampling .

XRF Analysis of PCBs and Inorganics (OST/TMS ID 2398). This report was published by the U.S. Department of Energy Decontamination and Decommissioning Focus Area. This demonstration investigated the feasibility of using the SPECTRO XEPOS X-ray Fluorescence (XRF) Analyzer to measure Polychlorinated biphenyls (PCBs) and RCRA metals in paint and soil. This report compares the cost and performance of the baseline laboratory analysis to the cost and performance of the SPECTRO XEPOS Analyzer (September 2000, 35 pages). View or download at http://tms.em.doe.gov/ . [This is an updated URL from the mailing]

Compact High Resolution Spectrometer (DOE/EM-0548). This report was published by the U.S. Department of Energy Characterization, Monitoring, and Sensor Technology Crosscutting Program. This report describes the cost, performance, and other key characteristics of the Compact High Resolution Spectrometer. The capabilities of the CHRS were documented in a number of separate demonstrations described in the report. Because the CHRS is a technology component, it was appropriate that most of the demonstrations were in a laboratory environment, culminating in pilot-scale field demonstrations of the CHRS as part of a complete multi-element CEM system (September 2000, 39 Pages). View or download at http://tms.em.doe.gov/ .

Innovative Technology Summary Report: Spectral Gamma Probe (DOE EM-0542). This report was published by the U.S. Department of Energy. The spectral Gamma Probe was evaluated at the R-Reactor Seepage Basins at the Savannah River Site in South Carolina during 1997 for its ability to provide quantitative measurements of gamma radiation in situ in the subsurface. The Spectral Gamma Probe was tested for its ability to measure cesium-137 (Cs-137) in the presence of other subsurface radioactive contaminants. A total of nine CPT pushes were conducted in seepage basins near the R-reactor. The data from these nine holes were from three different basins and were compared to laboratory measurements on core material collected from each of the same three basins (September 2000, 26 pages). View or download at http://apps.em.doe.gov/ost/ .

Grant Opportunity

JOINT PROGRAM ON PHYTOREMEDIATION (2001-STAR- C1). This solicitation is sponsored by the U.S. Environmental Protection Agency, the National Science Foundation, the Office of Naval

Research, and the DOD/DOE/EPA Strategic Environmental Research and Development Program. The solicitation opened September 5 and closes January 22, 2001. This Announcement of Opportunity is to solicit applications for research projects that address the fundamental mechanisms of interactions between microorganisms, plants, and contaminant chemicals in soils and sediments (which might include marine, estuarine, or freshwater systems) which result in the degradation, extraction, volatilization, or stabilization of the waste chemical. Academic and not-for-profit institutions located in the U.S., and state or local governments, are eligible under all existing authorizations. Approximately $ 2.8 million will be available for this program during the first year, depending on the availability of funds and the programmatic relevance of recommended projects to the participating agencies. The upper limit for awards is $150,000 per year, total costs, for up to three years. For complete information, see

http://es.epa.gov/ncerqa/rfa/phytore00.html#PROGRAMDESCRIPTION .

Conferences and Symposia

ITRC Training: Accelerated ISB of Chlorinated Solvents, Tampa, FL, December 5-6. The Interstate Technology Regulatory Cooperation (ITRC) workgroup's In Situ Bioremediation Team, in conjunction with the Remediation Technologies Development Forum, developed the classroom training course Accelerated In Situ Bioremediation of Chlorinated Solvents, a follow-on to the team's successful natural attenuation course. This course focuses on the use of enhancements to the subsurface environment to accelerate the biodegradation of chlorinated solvents and is designed to provide sufficient technical and regulatory information for making informed decisions about the feasibility of enhanced in situ bioremediation projects. A brochure for for future events may be seen at

http://www.itrcweb.org/ .

Partners in Environmental Technology Workshop, Arlington, VA, November 28-30. This event is sponsored by the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP). This DOD conference hopes to nurture public/ private collaboration to develop promising new technologies to address DOD environmental issues. For agenda and logistics information, see http://www.serdp.org or http://www.estcp.org.

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.