

TechDirect, August 1, 2011

Welcome to TechDirect! Since the July 1 message, TechDirect gained 205 new subscribers for a total of 38,510. 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.

TechDirect's purpose is to identify new technical, policy and guidance resources related to the assessment and remediation of contaminated soil, sediments 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.

> Special Announcements

One Open Position Supporting EPA. The following employment opportunity, which may of interest to hazardous waste professionals, is being advertised as a public service for the CLU-IN audience: 1 Chemist Position with EPA's Environmental Response Team in Las Vegas, NV. For more information and application instructions, see <http://www.clu-in.org/jobs/> .

Please Join Us for the Next Apps Challenge Webinar on EPA's Superfund, Hazardous Materials and Brownfields Data - August 3, 2011, 2:00PM-2:30PM EDT (18:00-18:30 GMT). This is the sixth in our series of weekly webinars for developers about EPA's data. Each week we're highlighting different datasets we hope you'll use to design an app for EPA's Apps for the Environment challenge. This webinar will cover data systems that are related to Superfund sites, hazardous waste management facilities, and brownfields. Superfund deals with hazardous waste sites and brownfields deal with redeveloping properties that are or could be contaminated. All of these systems include locational information. They can be used in conjunction with EPA's Facility Registry System (FRS) (<http://www.epa.gov/enviro/html/fri/index.html>). For more information and to register, see <https://www1.gotomeeting.com/register/691663744> . Archived webinars are available now at <http://www.epa.gov/appsfortheenvironment/webinar.html> .

> Upcoming Live Internet Seminars

Curso de Capacitaci3n sobre Remediaci3n de Sitios Contaminados - August 1 and 2, 2011. Una buena caracterizaci3n de los sitios contaminados es esencial antes de embarcarse en proyectos de restauraci3n. Para tal fin, es necesario obtener datos de calidad y caracter3sticas acordes a las necesidades del proyecto y que conformen con normativas medioambientales en vigor. En este seminario de dos d3as se tratar3n los procedimientos administrativos para la caracterizaci3n de sitios, los procesos de supervisi3n y verificaci3n del cumplimiento normativo, y los plazos de respuesta de la autoridad. Metas del seminario: (1) describir los tipos de an3lisis qu3micos y f3sicos para la caracterizaci3n de sitios contaminados (m3todos, equipos, y limitaciones); (2) interpretar los resultados de los principales tipos de an3lisis

utilizados en la caracterización de sitios contaminados; (3) describir la preparación y el contenido de un estudio de caracterización de pasivos ambientales; y (4) proporcionar estudios de casos reales sobre evaluación de los riesgos ambientales y de salud. Para obtener más información o para inscribirse en este seminario gratuito dirigirse a <http://clu-in.org/live> . This internet seminar will be presented in Spanish.

OSC Readiness Presents...Constitutional Issues and the OSC - August 3, 2011, 1:00PM-3:00PM EDT (17:00-19:00 GMT). Constitutional Issues and the OSC focuses on providing participants with an overview and basic understanding of the U.S. Constitution and those laws that have a direct effect on the OSC. Participants will gain information on such topics as takings, due process, liability, and just compensation. For more information and to register, see <http://clu-in.org/live> .

Greener Cleanups - EPA's Methodology for Understanding and Reducing a Project's Environmental Footprint - August 10, 2011, 1:00PM-3:00PM EDT (17:00-19:00 GMT). The process of cleaning up a hazardous waste site uses energy, water, and other natural or materials resources and consequently creates an environmental footprint of its own. The US EPA is developing a methodology for evaluating the environmental footprint in order to reduce the footprint and improve the outcome of cleanup under any regulatory program. EPA will host an interactive Internet seminar to provide information about the environmental footprint assessment methodology and to obtain feedback from the environmental remediation community. This two-hour seminar will: (1) discuss the metrics for environmental footprint assessment and the methodology for estimating or quantifying the footprint; and (2) provide an interactive case study to allow participants to get a feel for the process of calculating an environmental footprint and evaluating options to reduce it. An open forum will be held after the presentations, during which participants will be able to submit questions and feedback to the speakers. For more information and to register, see <http://clu-in.org/live> .

ITRC Use and Measurement of Mass Flux and Mass Discharge - August 16, 2011, 2:00PM-4:15PM EDT (18:00-20:15 GMT). The ITRC technology overview, Use and Measurement of Mass Flux and Mass Discharge (MASSFLUX-1, 2010), and associated Internet-based training provide a description of the underlying concepts, potential applications, description of methods for measuring and calculating, and case studies of the uses of mass flux and mass discharge. This Technology Overview, and associated Internet-based training are intended to foster the appropriate understanding and application of mass flux and mass discharge estimates, and provide examples of use and analysis. The document and training assumes the participant has a general understanding of hydrogeology, the movement of chemicals in porous media, remediation technologies, and the overall remedial process. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

OSC Readiness Presents...Debris Management Issues during Natural Disasters - August 23, 2011, 1:00PM-3:00PM EDT (17:00-19:00 GMT). The Debris Management Issues during Natural Disasters session will discuss debris-related roles of Emergency Support Function-3 (ESF-3) and ESF-10: the division of responsibilities and coordination between the two ESFs during natural disaster and contaminated debris responses. For more information and to register, see <http://clu-in.org/live> .

ITRC Permeable Reactive Barrier: Technology Update - August 25, 2011, 11:00AM-1:15PM EDT (15:00-17:15 GMT). The ITRC Technical/Regulatory Guidance Permeable Reactive Barrier: Technology Update (PRB-5, 2011) and associated Internet-based training is intended to help guide state and federal regulators, consultants, project managers, and other stakeholders and technology implementers through the decision process when a Permeable Reactive Barrier (PRB) is being considered as a remedy, or part of a remedy, to address contaminated groundwater; and to provide updated information regarding several technical aspects of the PRB

using information attained from the more than 15 years that the PRB has been a viable and accepted in situ remediation technology for contaminated groundwater. The guidance and training provides an update on PRBs to include discussions of additional types of reactive media and contaminants that can be treated, design considerations, construction/installation approaches and technologies, performance assessment, and longevity. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

OSC Readiness Presents...RAD Emergency Response Plan - August 25, 2011, 2:00PM-4:00PM EDT (18:00-20:00 GMT). RAD Emergency Response Plan will provide participants with a basic understanding of the RAD Emergency Response Plan. The session will also provide an update and status on the EPA Protective Action Guides (PAGs) and other resources available to OSCs regarding radiation. For more information and to register, see <http://clu-in.org/live> .

ITRC Use of Risk Assessment in Management of Contaminated Sites - August 30, 2011, 2:00PM-4:15PM EDT (18:00-20:15 GMT). This training course identifies how various risk-based approaches and criteria are applied throughout the processes of screening, characterization, and management of contaminated sites. The training course and associated overview document, Use of Risk Assessment in Management of Contaminated Sites (RISK-2, 2008), are intended for risk assessors and project managers involved with the characterization, remediation, and/or re-use of sites. The training and overview document provide a valuable tool for federal and state regulatory agencies to demonstrate how site data collection, risk assessment, and risk management may be better integrated. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/live> .

Bioavailability-Based Remediation of Metals Using Soil Amendments: Considerations & Evaluation Techniques: Part 2 - August 31, 2011, 2:00PM-4:00PM EDT (18:00-20:00 GMT). Attend this session to learn about soil contaminant bioavailability-based remediation of metal contaminants with soil amendments. You'll learn about what we've done and learned and where we need to focus for future success. For more information and to register, see <http://clu-in.org/live> .

> New Documents and Web Resources

Technology News and Trends (EPA 542-N-11-003). This issue provides site-specific updates about innovative cleanup technologies and methods described in past issues. Recent work at these sites involved testing materials to improve technology performance, integrating advanced equipment to improve field and project management efficiencies, and developing "lessons learned" to aid technology applications at other sites (July 2011, 6 pages). View or download at <http://clu-in.org/techpubs.htm> .

Remediation System Evaluation (RSE), Moss-American Superfund Site, Milwaukee, Wisconsin (EPA-540-R-11-018). This document presents the results of a Remediation System Evaluation (RSE) conducted for the Moss-American Superfund Site in Milwaukee, Wisconsin. This RSE report focuses primarily on optimizing system performance, in particular addressing the stagnant groundwater zone that is limiting flow through the treatment gates and elevated COC concentrations in the vicinity of MW-34S. This report provides a brief background on the site, current operations, and recommendations for changes and additional actions. The cost impacts of the recommendations are also discussed (March 2011, 60 pages). View or download at <http://clu-in.org/techpubs.htm> .

Remediation System Evaluation, Colbert Landfill Superfund Site, Spokane

County, Washington (EPA-540-R-11-020). The Colbert Landfill Superfund Site is located approximately 2.5 miles north of Colbert, Washington, and approximately 15 miles north of Spokane, Washington. Contaminants of concern in groundwater are specific volatile organic compounds (VOCs): 1,1,1-Trichloroethane (TCA), 1,1-Dichloroethene (DCE), 1,1-Dichloroethane (DCA), Trichloroethene (TCE), Tetrachloroethene (PCE), and Methylene Chloride (MC). There have also been low levels of 1,4-Dioxane observed in groundwater. The groundwater remedy includes a pump-and-treat (P&T) system as well as components of landfill post-closure (e.g., landfill cap, landfill gas system) that serve to reduce contaminant source loading to groundwater over time. The remedy has also included the provision of an alternate water supply to impacted residents plus institutional controls. The RSE provides an opportunity for an independent third-party review of these remediation efforts (October 2010, 80 pages). View or download at <http://clu-in.org/techpubs.htm> .

Streamlined Remediation System Evaluation, Wash King Laundry Superfund Site, Pleasant Plains Township, Michigan (EPA-540-R-11-019). The Wash King Laundry site was placed on the National Priorities List of Superfund sites in 1983. The Remedial Investigation/Feasibility Study (RI/FS) process, lead by the Michigan Department of Natural Resources, began in September 1988 with an emphasis on data collection and site characterization. The Record of Decision was signed in March 1993, followed by an Explanation of Significant Differences in June 1996, and a remedy design thereafter. Remedy implementation began in June 1999 and included building demolition, tank removal, installation of a pump and treat (P&T) system, and installation of a soil vapor extraction (SVE) system. The P&T system and SVE system were fully operational in April 2001. In July 2009, the site contractor provided a work plan for implementing in-situ bioremediation of the groundwater and saturated soils in the vicinity of the former Wash King Laundry facility. In-situ bioremediation began in January 2010. This RSE-lite focuses on all aspects of site remediation including the P&T system, SVE system, in-situ bioremediation, and site-wide monitoring program (February 2011, 55 pages). View or download at <http://clu-in.org/techpubs.htm> .

Updated Radioactive Contaminated Land Exposure Assessment (RCLEA) Process Methodology (2011). The UK's Environment Agency published an update to the RCLEA which is the recommended approach for the first stage of a tiered approach to assess radioactively contaminated land. It applies to long-term radiation exposure situations that may require remedial action to reduce or avert individual doses ('intervention' situations). View or download at <http://www.environment-agency.gov.uk/research/planning/33746.aspx> .

Applied NAPL Science Review - July 2011 Issue. This scientific ejournal provides technical insight into the science behind the characterization and remediation of light and dense non-aqueous phase liquids (NAPLs). The 7th issue of volume one focuses on LNAPL transmissivity. View or download the latest issue at <http://www.h2altd.com/knowledge-center> .

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 17 resources, events, projects and news items were added to EUGRIS in July 1-24, 2011. These can be viewed at <http://www.eugris.info/whatsnew.asp> . Then select the appropriate month and year for the updates in which you are interested. The following resource was posted on EUGRIS:

Consideration of Natural Attenuation in Remediating Contaminated Sites (2011). The Federal Environment Agency of Germany's UBA has translated into English a position paper of the Federal/State Working Group on Soil Protection about the consideration of natural attenuation in remediating contaminated sites. The position paper details the knowledge and approaches existing in Germany and provides practical recommendations. View or download at

> Conferences and Symposia

Training Opportunities for Small and Disadvantaged Businesses (SDBs). The U.S. EPA Technology Innovation and Field Services Division (TIFSD) is offering training that is designed to build the technical capacity of SDBs in the site characterization and remediation field. The training is part of an exciting new initiative designed to build the technical capacity of SDBs as they compete for environmental cleanup jobs in a greener workforce. The following courses are scheduled to be offered in New Orleans, LA and New York, New York: Best Management Practices for Site Assessment, Site Remediation, and Green Remediation Footprint Reduction, August 29, 2011 in New Orleans and November 15, 2011 in New York City (<http://trainex.org/1228>); Triad Training for Practitioners, August 30-September 1, 2011 in New Orleans and November 16-18, 2011 in New York City (<http://trainex.org/796>); OSC 201, October 17-19, 2011 in New Orleans (<http://www.trainex.org/285>), Removal Process for RPMs, October 18-19, 2011 in New Orleans (<http://www.trainex.org/53>), Waste Treatment, Transportation, and Disposal, October 20-21, 2011 (<http://www.trainex.org/46>). There are no tuition costs for these courses. Other environmental professionals who may find these courses of interest, EPA, federal, state, and tribal technical project managers and stakeholders involved in the cleanup and reuse of hazardous waste sites. For additional information on this initiative, visit <http://clu-in.org/smallbusiness>.

Training Opportunities on Best Management Practices for Site Characterization, Remediation, and Footprint Reduction. The U.S. EPA Technology Innovation and Field Services Division (TIFSD) and the CERCLA Education Center (CEC) is offering training based on best management practices (BMP) implemented by the U.S. EPA, partnership organizations, federal and state partners, and consultants. Participants learn how these BMPs can be used to streamline projects in a legal, technically sound, and cost-effective manner. The following courses are scheduled to be offered in New Orleans, LA and New York, New York: Best Management Practices for Site Assessment, Site Remediation, and Green Remediation Footprint Reduction, August 29, 2011 in New Orleans and November 15, 2011 in New York City (<http://trainex.org/1228>) and Triad Training for Practitioners, August 30-September 1, 2011 in New Orleans and November 16-18, 2011 in New York City (<http://trainex.org/796>). There are no tuition costs for these courses. The target audience includes EPA, federal, state, tribal, and private industry technical project managers and stakeholders involved in the development and implementation of BMPs at hazardous waste sites. For additional information about these training courses, visit <http://www.trainex.org>.

LNAPLs: Science, Management, and Technology ITRC 2-day Classroom Training, Minneapolis, MN, September 20-21, 2011. Led by internationally recognized experts, this 2-day ITRC classroom training will enable you to develop and apply an LNAPL Conceptual Site Model (LCSM), understand and assess LNAPL subsurface behavior, develop and justify LNAPL remedial objectives including maximum extent practicable considerations, select appropriate LNAPL remedial technologies and measure progress, and use ITRC's science-based LNAPL guidance to efficiently move sites to closure. Interactive learning with classroom exercises and Q&A sessions will reinforce these course learning objectives. For more information and to register, see <http://www.itrcweb.org/crt.asp> .

Vapor Intrusion Pathway: A Practical Guideline ITRC 2-day Classroom Training, Denver, CO, October 3-4, 2011. Led by internationally recognized experts, this 2-day ITRC classroom training will enable you to learn the latest strategies to conduct site

screening and investigations; determine what tools are appropriate to collect quality data and evaluate the results; apply multiple lines of evidence to ensure quality decision-making; build solutions for VI issues through understanding of mitigation options; and network with environmental professionals dealing with this interdisciplinary and complex pathway. Interactive learning with hands-on exhibits, classroom exercises, and frequent Q&A sessions will reinforce these course objectives and contribute to a practical understanding of this difficult pathway. For more information and to register, see <http://www.itrcweb.org/crt.asp>.

Innovative Approaches to Mining Remediation and Reuse Workshop, Arlington, VA, October 6th, 2011. This workshop is sponsored by the U.S. EPA Office of Superfund Remediation and Technology Innovation and the International Committee on Contaminated Land. The workshop will facilitate the information exchange and networking among professionals from the public and private sectors, domestic and international, on mining site remediation and reuse and specifically address: (1) building sustainability into mining site remediation (land conservation, soil amendments, approaches to prioritize the use of limited resources, sludge management, environmental impact assessment practices and sustainable practices), (2) innovations in mining site cleanup technologies (addressing metal mobility, pit lake remediation, treatment reactors, bioavailability, arid land mining, and chemical extracted processes) and (3) engaging communities in site cleanup and reuse decisions (mine impacted waters, socioeconomic perspectives on mining, communities perspective on mining, community renewal programs, First Nations and mining remediation, and corporate responsibility on mining. For more information, to register, and those interested in participating in the exhibit hall and the poster session, see <http://www.MiningWorkshop.org>.

NOTE: For TechDirect, 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. Currently there are 32 conferences and courses featured. 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/techdirect> at any time night or day.

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