

TechDirect, June 1, 2011

Welcome to TechDirect! Since the May 1 message, TechDirect gained 214 new subscribers for a total of 38,072. 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.

> Upcoming Live Internet Seminars

ITRC LNAPL Training Parts 1, 2, and 3 - June 7, 14, and 21, 2011. Light non-aqueous phase liquids (LNAPLs) are organic liquids such as gasoline, diesel, and other petroleum hydrocarbon products that are immiscible with water and less dense than water. LNAPLs are important because they are present in the subsurface at thousands of remediation sites across the country, and are frequently the focus of assessment and remediation efforts. Part 1 of this training course explains how LNAPLs behave in the subsurface and examines what controls their behavior. Part 1 also explains what LNAPL data can tell you about the LNAPL and site conditions. Relevant and practical examples are used to illustrate key concepts. Part 2 addresses LNAPL characterization and site conceptual model development as well as LNAPL recovery evaluation and remedial considerations. Specifically, Part 2 discusses key LNAPL and site data, when and why those data may be important, and how to get those data. Part 2 also discusses how to evaluate LNAPL recoverability. Part 3 uses the LNAPL conceptual site model (LCSM) approach to identify the LNAPL concerns or risks and set proper LNAPL remedial objectives and technology-specific remediation goals and performance metrics. Part 3 also provides an overview of the LNAPL remedial technology selection framework. For more information and to register, see <http://www.itrcweb.org> OR <http://clu-in.org/live> .

Conducting Contamination Assessment at Drycleaning Sites - June 8, 2011, 1:00PM-3:30PM EDT (17:00-19:30 GMT). The State Coalition for Remediation of Drycleaners (SCRD) is a forum of state environmental agencies designed to exchange information and facilitate discussion of drycleaner remediation issues. In this training, SCRDR members will present information from a recently updated guidance document on conducting contamination assessment work at drycleaning sites. Salient aspects of this document will be presented, including: an overview of the drycleaning process, chemicals used, waste generation and management practices in the drycleaning industry, site reconnaissance, identifying sampling locations and environmental assessment technologies applied to drycleaning facilities. The guidance and internet seminar will help state regulators and practitioners identify likely areas of contamination and more effectively implement investigation approaches at current and former drycleaner facilities. For more information and to register, see <http://clu-in.org/live> .

Gestión de Sitios Contaminados en las Américas - June 15, 2011, 2:00PM-4:00PM EDT (18:00-20:00 GMT). El seminario comenzará con un análisis resumido del estado de desarrollo de normativas de suelos contaminados en las Américas por parte del Dr. Wini Schmidt (ReLASC). A continuación el Dr. Ulises Ruiz, de SEMARNAT (México), presentará con más detalle una actualización de la normativa en México. Posteriormente, habrá una presentación sobre las tecnologías de descontaminación de uso más común en los EE UU por parte del licenciado Carlos Pachón, del Programa Superfund de los EE UU. La última ponencia la hará el licenciado Robert Montgomery, del Banco Mundial, quien presentará un nuevo programa de préstamos para proyectos de recuperación de sitios contaminados. Finalmente, habrá unos minutos para formular preguntas e intercambiar opiniones. Las presentaciones serán en castellano. 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.

Bioavailability-Based Remediation of Metals Using Soil Amendments: Considerations & Evaluation Techniques - June 22, 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>.

ITRC Project Risk Management for Site Remediation - June 23, 2011, 11:00AM-1:15PM EDT (15:00-17:15 GMT). Remediation Risk Management (RRM) is a course of action through which all risks related to the remediation processes (site investigations, remedy selection, execution, and completion) are holistically addressed in order to maximize the certainty in the cleanup process to protect human health and the environment. Remediation decisions to achieve such a goal should be made based on threshold criteria on human health and ecological risks, while considering all the other potential project risks. Through this training course and associated ITRC Technical and Regulatory Guidance Document: Project Risk Management for Site Remediation (RRM-1, 2011), the ITRC RRM team presents tools and processes that can help the site remediation practitioner anticipate, plan for, and mitigate many of the most common obstacles to a successful site remediation project. Examples of project risks include remediation technology feasibility risks; remedy selection risks; remedy construction, operation and monitoring risks; remedy performance and operations risks; environmental impacts of systems during their operation; worker safety risk, human health and ecological impacts due to remedy operation; as well as costs and schedules risks including funding and contracting issues. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

> New Documents and Web Resources

Updated CLU-IN Contaminant Focus Area on Persistent Organic Pollutants (POPs). EPA has updated the Persistent Organic Pollutants (POPs) section on the CLU-IN website to...[description to be provided by Michele Mahoney]. View and use at <http://www.clu-in.org/pops>.

Lessons Learned in Detecting, Monitoring, Modeling and Remediating Radioactive Ground-Water Contamination. Brookhaven National Laboratory (BNL) is a multi-discipline Department of Energy (DOE) research institute that has been in operation since 1947. Historical operations included running accelerators, nuclear research reactors, and other large complex equipment. Some of these operations caused groundwater contamination. This report discusses the tritium plume from the

High Flux Beam Reactor and several strontium plumes from past operations at the Brookhaven Graphite Research Reactor, their discovery through monitoring, and their treatment. The tritium plume discovery led to public outrage; characterization, design, and implementation of a treatment system within 60 days; and eventual dismissal of Associated Universities Incorporated from the management of BNL despite the small health risk to employees or the public. Management of the strontium plume included a major alteration to the original regulatory cleanup agreement when field data showed the preferred alternative to be economically impractical. The report documents activities used to manage these contamination issues through source control, monitoring, modeling, plume and risk management, and communications. The lessons learned from these cleanup projects have altered the stewardship culture and methods of performing research, communicating with the public, and conducting work at BNL. These valuable lessons are highlighted in this report (April 2011, 105 pages). View or download at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr7029/cr7029.pdf> .

Technology News and Trends (EPA 542-N-11-002). This issue highlights passive treatment systems (PTSs) used to treat mining influenced water (MIW) at former or current hard rock mines. Each PTS uses a biochemical reactor (BCR) supported by remediation polishing technologies such as aerobic wetlands or limestone beds. As passive systems, these technologies rely on natural hydraulic gradients (and in some cases renewable energy sources) to transfer impacted water from mine adits and seeps to the ground-surface treatment cells (May 2011, 6 pages). View or download at <http://clu-in.org/techpubs.htm> .

June 2011 State Coalition for Remediation of Drycleaners Newsletter. The State Coalition for Remediation of Drycleaners (SCRD) produces a newsletter to announce recent events and undertakings. The June 2011 issue discusses the June 8 seminar on Conducting Contamination Assessment at Drycleaning Sites (see the entry under Upcoming Live Internet Seminars above for more information), member presentations at the International Conference on Sustainable Remediation 2011: State of the Practice, the new drycleaning solvent SolvonK4, state and national updates, state progress on remediation of drycleaning sites, remedial technologies employed at SCRDR drycleaning sites, and upcoming events (June 2011, 7 pages). View or download at <http://drycleancoalition.org/download/news0611.pdf> .

Investigation and Remediation of Plating Facilities. The California Department of Toxic Substances Control has issued the fifth document developed as part of its proven technologies and remedies (PT&R) initiative. The guidance addresses the overall cleanup process for various types of metal finishing facilities. The document streamlines the cleanup process by applying previously identified proven technologies for cleanup of metals and VOCs in soil. The guidance identifies likely cleanup technologies for remediating hexavalentchromium and VOCs in groundwater (May 2011, 139 pages). View or download at <http://www.dtsc.ca.gov/SiteCleanup/PTandR.cfm> .

CL:AIRE Webinar Download Now Available. The SuRF-UK Framework for Assessing the Sustainability of Soil and Groundwater Remediation This free one hour podcast will present an overview of the framework for assessing the sustainability of soil and groundwater remediation which was published by CL:AIRE and the UKs Sustainable Remediation Forum in March 2010. The framework highlights the importance of incorporating sustainability issues right at the forefront of the remediation and redevelopment process. View or download at http://www.claire.co.uk/index.php?option=com_phocadownload&view=file&id=224:initiatives&Itemid=78 .

Environmental Technology Verification Program Announces New Testing Events. Several testing events under the ETV Advanced Monitoring Systems Center and Materials Management and Remediation Center that are on-going or planned for the near future were announced in the recent edition of ETVoice. These testing events

include: testing of underground storage tank leak detection technologies at Battelles facility in West Jefferson, OH, planned for May-July 2011; testing of multi-metal continuous emission monitors at a field site in East Liverpool, OH, planned for June-July 2011, testing of in-situ chemical oxidation technologies at a test site in EPA Region 3 (to be determined), planned for June-July 2011. View or download the latest edition of ETVoice at <http://www.epa.gov/nrmrl/std/etv/etvcurrent.html> .

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 39 resources, events, projects and news items were added to EUGRIS in April 1-May 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:

Applying Sustainable Development Principles to Contaminated Land Management Using the SuRF-UK Framework (2011). In the past decade, management of historically contaminated land has largely been based on prevention of unacceptable risks to human health and the environment, to ensure a site is fit for use. More recently, interest has been shown in including sustainability as a decision-making criterion. Sustainability concerns include the environmental, social, and economic consequences of risk management activities themselves, and also the opportunities for wider benefit beyond achievement of risk-reduction goals alone. In the UK, this interest has led to the formation of a multi-stakeholder initiative, the UK Sustainable Remediation Forum (SuRF-UK). This article presents a framework for assessing sustainable remediation; describes how it links with the relevant regulatory guidance; reviews the factors considered in sustainability; and the appraisal tools that have been applied to evaluate the wider benefits and impacts of land remediation. View or download at http://www.claire.co.uk/index.php?option=com_phocadownload&view=file&id=220:initiatives&Itemid=78

> 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: Preliminary Assessment/Site Inspection (PA/SI), June 21-23, 2011 (<http://trainex.org/457>); Superfund 101, August 8-12, 2011 (<http://trainex.org/254>); Best Management Practices for Site Assessment, Site Remediation, and Green Remediation Footprint Reduction, August 29, 2011 (<http://trainex.org/1228>); and Triad Training for Practitioners, August 30-September 1, 2011 (<http://trainex.org/796>). For additional information on this initiative, visit <http://clu-in.org/smallbusiness> .

Vapor Intrusion Pathway: A Practical Guideline ITRC 2-day Classroom Training, Novi, MI (Detroit area), July 18-19, 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> .

Practical Models Supporting Remediation of Chlorinated Solvents, Seattle, WA, July 26-27, 2011. Explore a subset of the publicly-available simulation and data analysis tools that can be used alone or in combination to answer questions such as: Will source remediation meet site goals? What will happen if no action is taken? Should I combine source and plume remediation? What is the remediation timeframe? What is a reasonable remediation objective? The model discussion will focus on the unique features of selected models and how those features can support strategy development. Emphasis will be on REMChlor, a newly released tool that simulates both source and plume remediation. By providing the ability to simulate sites where conditions change in space and time, REMChlor can provide information "equivalent" to the types of output from more sophisticated numerical models. For more information and to register, see <http://srnl.doe.gov/csgss/> .

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>.

Call for Abstracts and Registration Now Open!! Innovative Approaches to Mining Cleanup 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. Abstracts for presentations are welcome through July 29, 2011. The workshop will facilitate the information exchange and networking among professionals from the public and private sectors, domestic and international, on mining site cleanup and reuse and specifically address: building sustainability into mining site cleanup, innovations in mining site cleanup technologies, and engaging communities in site cleanup and reuse decisions. For more information, to register, and to submit an abstract for consideration, 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 30 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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