

TechDirect, July 1, 2014

Welcome to TechDirect! Since the June 1 message, TechDirect gained 215 new subscribers for a total of 37,452. 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 groundwater.

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

CEC Preliminary Assessment/Site Inspection (PA/SI) Webinar Series - July 2, 7, 9, 11, 14, 21, 28, 30. The CERCLA Education Center (CEC) is offering a nine-part Preliminary Assessment and Site Inspection (PA/SI) Webinar Series in June and July 2014. PA/SI is an intermediate training course designed for personnel who are required to compile, draft and review PA, SI and HRS documentation records and packages submitted for sites proposed for the National Priorities List (NPL). **This course is open to EPA, federal, state, tribal and contractor personnel who support site investigation programs.** The PA/SI Webinar Series provides an introduction to the Superfund site assessment process and describes the preliminary assessment and site inspection phases of this process. The course will incorporate a mix of lecture and exercises using Quickscore for each of the four pathways. The objective of the exercise is to give participants the opportunity to evaluate and score PA information using the HRS Quickscore software. Participants will use information from a fictitious site to (1) evaluate and calculate a preliminary HRS score, and (2) develop release and target hypotheses that should be pursued in an SI. In order to receive credit for taking the course, participants must participate in each session. If you are unable to make one of the sessions, archived versions will be made available at www.clu-in.org that you can take to receive credit for the missed live session. In order to receive credit for a missed session, you must complete the missed session within 2 months of the originally scheduled date and submit an evaluation form from that archived module. For more information and to register, see <http://clu-in.org/live> .

ITRC LNAPL Training Parts 1, 2, and 3 - July 8, 15, 22. 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> .

Reuse Opportunities at Capped Superfund Sites - July 16, 2014, 2:00PM-4:00PM EDT (18:00-20:00 GMT). Former landfills, abandoned dumps and other contaminated sites throughout the United States were once thought to be of limited or no value. Today, these sites are being transformed into viable commercial and industrial developments, recreational areas and wildlife areas. With forethought, coordination with regulatory agencies, and effective planning, communities and site stakeholders can return sites to productive use without jeopardizing the effectiveness of a remedial cap put into place to protect human health and the environment. Reuse can provide long-term benefits for the local community, the local government, site owners and even for EPA through continued site stewardship after remedial efforts are complete. This webinar will share examples and lessons learned from the effective assessment and successful reuse of capped sites. For more information and to register, see <http://clu-in.org/live> .

ITRC Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites - July 17, 2014, 11:00AM-1:15PM EDT (15:00-17:15 GMT). ITRC's web-based Technical and Regulatory Guidance, Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites (Sed-1, 2011) and associated Internet-based training are intended to assist state regulators and practitioners with understanding and incorporating fundamental concepts of bioavailability in contaminated sediment management practices. This guidance and training describe how bioavailability considerations can be used to evaluate exposure at contaminated sediment sites, the mechanisms affecting contaminant bioavailability, available tools used to assess bioavailability, the proper application of those tools and how bioavailability information can be incorporated into risk-management decisions. This guidance and training also contain summaries of case studies where bioavailability has been assessed and considered in the contaminated sediment remedial decision making process. This guidance and training provide insight on how bioavailability assessments can be used to understand, mitigate and manage risk at a contaminated sediment site, often at a reduced overall project cost. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live> .

If Cells Could Talk, What Would They Tell Us About Chemical Exposure? Applications of Cell-Based Bioanalytical Methods - August 11, 2014, 1:00PM-3:00PM EDT (17:00-18:00 GMT). This two-part seminar will feature Dr. Michael Denison of the University of California Davis Superfund Research Program (SRP) and Dr. Scott Boitano from the University of Arizona SRP and will focus on applications of cell-based bioanalytical methods to better understand environmental toxicities. For more information and to register, see <http://clu-in.org/live> .

> New Documents and Web Resources

Climate Change Adaptation Technical Fact Sheet: Landfills and Containment as an Element of Site Remediation (EPA 542-F-14-001). In February 2013, the U.S. EPA released the draft U.S. Environmental Protection Agency Climate Change Adaptation Plan. The plan examines how EPA programs may be vulnerable to a changing climate and how the Agency can accordingly adapt in order to continue meeting its mission of protecting human health and the environment. EPA's Superfund

Program has undertaken associated efforts to identify potential impacts of climate change on site remediation projects and to identify adaptation strategies. A key component of the Superfund climate change adaptation action plan involves developing tools that can help project managers and other cleanup stakeholders to identify, prioritize and implement site-specific measures for increasing remedy resilience to climate change impacts. This fact sheet addresses contaminated site remedies involving landfills and source containment systems. It is intended to serve as an adaptation planning tool by (1) providing an overview of potential climate change vulnerabilities and (2) presenting possible adaptation measures that may be considered to increase a remedy's resilience to climate change impacts. This tool was developed in context of the Superfund Program but its concepts may apply to site cleanups conducted under other regulatory programs or through voluntary efforts (May 2014, 8 pages). To learn more about climate change adaptation in the Superfund Program, visit <http://www.epa.gov/superfund/climatechange> . View or download the fact sheet at <http://clu-in.org/techpubs.htm> .

EPA Releases Final Risk Assessment on Trichloroethylene (TCE). The final risk assessment for TCE identified health risks from TCE exposures to consumers using spray aerosol degreasers and spray fixatives. It also identifies health risks to workers when TCE is used as a degreaser in small commercial shops and as a stain removing agent in dry cleaning. The final TCE risk assessment was developed as part of the agency's Toxic Substances Control Act (TSCA) Work Plan, which identified chemicals for review and assessment of potential risks to people's health and the environment. EPA developed the draft TCE risk assessment based on the best available information and finalized the assessment after careful consideration of comments from the public and experts during an independent, scientific peer review of the assessment. TCE is the first chemical to complete the work plan risk assessment process under TSCA. EPA is conducting a workshop from July 29-30, on potential TCE degreaser alternatives and risk reduction approaches. EPA will conduct other activities to address TCE uses as a stain removing agent in dry cleaning and as a clear protective spray fixative. For more information on the TCE risk assessment, the July 29-30 public workshop, and TSCA workplan chemical, see <http://www.epa.gov/oppt/existingchemicals/pubs/riskassess.html> .

New Adjuncts to ASTM Standard Guide for Greener Cleanups (ASTM E2893-13e1). ASTM Incorporated recently released two adjuncts that facilitate use of the Standard Guide for Greener Cleanups. One adjunct is the Appendix X2 "Technical Summary Form" as a writable PDF (ADJE289301). The second adjunct is the Appendix X3 "Greener Cleanup BMPs" table containing over 160 best management practices (BMPs) in an Excel format (ADJE289302). With the Excel format, users can sort BMPs applying to particular remediation technologies and core elements and add more BMPs. These adjunct files are available to purchase from ASTM separately or at a reduced rate with the standard. For more information on purchasing the standard and adjuncts, see <http://www.astm.org/Standards/E2893.htm> .

Getting Started - Guidance on Preparing Your Brownfields Area-Wide Planning Grant Proposal. Some applicants find it difficult to prepare their grant proposals within 60 days, the typical amount of time the Request for Proposals (RFP) allows until the proposals are due. However, there are several activities that applicants can perform in advance of the RFP being made publically available. Potential applicants for our Brownfields Area-Wide Planning grants can get a head start with proposal preparation by familiarizing themselves with the document below, discussing possible projects with local partners and stakeholders, pulling together important information, and working with their local Brownfields contacts to resolve any questions about brownfields site eligibility. We hope this information will help applicants prepare a thorough, well-organized, and timely proposal (June 2014, 3 pages). View or download at <http://epa.gov/brownfields/pdfs/preparing-BF-AWP-proposal-in-advance-FY15-RFP.pdf> .

Technology Innovation News Survey Corner. The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete archives, and subscription information is available at <http://clu-in.org/products/tins/> . The following resources were included in recent issues:

- Management of Contaminants Stored in Low Permeability Zones: A State-of-the-Science Review
- Frequently Asked Questions about Monitored Natural Attenuation in Groundwater
- Chlorinated Solvent Source Zone Remediation
- Use of Compound-Specific Stable Isotope Analysis to Distinguish between Vapor Intrusion and Indoor Sources of VOC: ESTCP Cost and Performance Report
- Use of On-Site GC/MS Analysis to Distinguish between Vapor Intrusion and Indoor Sources of VOC: ESTCP Cost and Performance Report
- Determining Source Attenuation History to Support Closure by Natural Attenuation: ESTCP Cost and Performance Report
- Demonstration of the AGI Universal Samplers (f.k.a. the GORE ♦ Modules) for Passive Sampling of Groundwater
- Preconcentration for Improved Long-Term Monitoring of Contaminants in Groundwater
- Summary Review of the Aquatic Toxicology of Munitions Constituents
- Characterization and Prediction of Trace Metal-Bearing Phases in ARD Neutralization Sludges
- Modelling the Critical Interactions Between Cover Systems and Vegetation
- Enhanced Knowledge in Mercury Fate and Transport for Improved Management of Hg Soil Contamination

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 34 resources, events, projects and news items were added to EUGRIS in June. 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:

Hydrogeological Risk Assessment Guidance and Tool to Set Targets to Remediate Contaminated Land or Groundwater (UK Environment Agency, 2014).

This report presents a recommended methodology for deriving site-specific remedial (clean up) objectives for contaminated soils or groundwater to protect the aquatic environment. The methodology applies to soils and groundwater that are already contaminated, where the original surface source of the contamination has stopped. View or download at <https://www.gov.uk/government/publications/remedial-targets-worksheet-v22a-user-manual> .

> Conferences and Symposia

Registration Now Open!! National Conference on Mining-Influenced Waters: Approaches for Characterization, Source Control and Treatment, Albuquerque, NM, August 12-14, 2014. Sponsored by the U.S. EPA, this free conference will provide a forum for the exchange of scientific information on current and emerging approaches to assessing characterization, monitoring, source control, treatment and/or remediation on mining-influenced waters. For more information and to register, see <http://www.cvent.com/d/14qz9s> .

LNAPLs: Science, Management, and Technology - ITRC 2-day Classroom Training, Richmond, VA, October 29-30, 2014. 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 local, state, and federal government; students; community stakeholders; and tribal representatives, ITRC has a limited number of scholarships (waiver of registration fee only) available. For more information and to register, see <http://www.itrcweb.org/training>.

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. 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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