



TechDirect, May 1, 2017

Welcome to TechDirect! Since the April 1 message, TechDirect gained 245 new subscribers for a total of 38,947. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing may do so on CLU-IN at <https://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

ITRC LNAPL Training Parts 1, 2, and 3 - May 4, 11, 18. 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 <https://clu-in.org/live>.

Filing EPA Information in AES Targeted at Current Exporters Only - May 8 & June 5. Exporters of manifested hazardous wastes, spent/used lead-acid batteries, universal wastes and cathode ray tubes for recycling should now be transitioning to an electronic border process using the Automated Export System (AES) or AESDirect. This 30-minute webinar will provide detailed filing instructions for exporters and their authorized filing agents (e.g., customs brokers) on how to file the RCRA information about their shipments in AES and AESDirect. For more information and to register, see <https://clu-in.org/live>.

ITRC Long-term Contaminant Management Using Institutional Controls - May 9, 2017, 1:00PM-3:15PM EDT (17:00-19:15 GMT). ITRC's Long-term Contaminant Management Using Institutional Controls (IC-1, 2016) guidance and this associated training class focuses on post-implementation IC management, including monitoring, evaluation, stakeholder communications, enforcement, and termination. The ITRC guidance and training will assist those who are responsible for the management and stewardship of Ics. ITRC has developed a downloadable tool that steps users through the process of planning and designing IC management needs. This tool can help to create a long lasting record of the site that includes the regulatory authority, details of the IC, the responsibilities of all parties, a schedule for monitoring the performance of the IC, and more. The tool generates an editable Long Term Stewardship (LTS) plan in Microsoft Word. After attending the training, participants will be able to: describe best practices and evolving trends for IC management at individual sites and across state agency programs; use this guidance to improve IC reliability and prevent IC failures, improve existing, or develop new, IC Management programs, and identify the pros and cons about differing IC management approaches; use the tools to establish an LTS plan for specific sites; and use the elements in the tools to understand the information that should populate an IC registry or data management system. For more information and to register, see <http://www.itrcweb.org> or <http://clu-in.org/live>.

Superfund Redevelopment Initiative Series: Restoring Superfund Sites to Public Good - May 15, 2017, 2:00PM-3:30PM EDT (18:00-19:30 GMT). Superfund sites can be reused in many ways, but many local governments are seeing unique opportunities to use sites for public or local government purposes. From roads to firefighting training facilities, local governments who own or acquire Superfund sites are finding ways to put these properties to good use. For more information and to register, see <https://clu-in.org/live>.

SERDP & ESTCP Webinar Series - May 18, 2017, 12:00PM EDT (16:00 GMT). An upcoming SERDP & ESTCP webinar will feature Department of Defense (DoD) research to advance high-resolution site characterization technologies for chlorinated solvents sites. The first presentation will offer validation results for a new technology to quickly delineate residual chlorinated solvent dense non-aqueous phase liquid (DNAPL) in three dimensions. The second will present results from an ESTCP project to develop a direct-push high-resolution passive profiler (HRPP) to quantify and delineate the distribution of chlorinated solvents, groundwater velocity, geochemistry, and microbial community activity within complex layered aquifers. For more information and to register see <https://serdp-estcp.org/Tools-and-Training/Webinar-Series/05-18-2017>.

Analytical Tools and Methods: Session II - Techniques for Trace Analysis of Metals and Chemical Metabolites - May 22, 2017, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This webinar series highlights innovative analytical tools and methods developed and used by Superfund Research Program (SRP) grantees. During the second session of the series, speakers will highlight techniques that help measure trace levels of metals and chemical metabolites in order to better understand environmentally relevant chemical exposures. Presenters include: Tracy Punshon, Ph.D., Dartmouth SRP Center; Bruce Buchholz, Ph.D., Lawrence Livermore National Laboratory, University of California, Davis SRP Center; and Lee Ferguson, Ph.D., Duke University SRP Center. For more information and to register, see <https://clu-in.org/live>.

OSC Academy Presents...ESA and NHPA for OSCs and RPMs - May 23, 2017, 1:00PM-3:00PM EDT (17:00-19:00 GMT). The course provides OSCs and RPMs with an overview of the Endangered Species Act (ESA) and Section 7 requirements under EPA's Emergency Response and Removal Program, including a discussion of the responsibility to consider the effects of its actions on listed species and their habitat and the components of Section 7 consultation. The course also provides OSCs and RPMs with an overview of the National Historic Preservation Act (NHPA) and Section 106 requirements under EPA's Emergency Response and Removal Program, including a

discussion of its responsibility to consider the effects of its undertakings on historic properties and the components of Section 106 review. The primary audience for this training is EPA OSCs and RPMs; however, it is open to other federal agencies, states, tribes and consultants who are interested in learning more about the ESA and NHPA statutes. For more information and to register, see <https://clu-in.org/live>.

Overview, Lessons Learned and Best Practices Derived from Independent Optimization Reviews of Superfund Mining Sites - May 24, 2017, 1:00PM-3:00PM EDT (17:00-19:00 GMT). This webinar presents an overview of the EPA Office of Superfund Remediation and Technology Innovation (OSRTI) "Mine Site Optimization Initiative," and summarizes the lessons learned identified and best practices derived from independent optimization reviews performed on over 30 Superfund mine sites and mining district sites nationwide. The initiative is being performed under the EPA's *National Strategy to Expand Superfund Optimization Practices from Site Assessment to Site Completion*, which expanded and formalized optimization practices as an operating business model for the Superfund remedial program. The webinar will present case studies of mine site reviews performed, a summary of specific lessons learned identified for site characterization, and an update on the development of best practices resources to support consistent and safe approaches to characterization of mine sites with the potential for sudden, uncontrolled release of mining-influenced waters. For more information and to register, see <https://clu-in.org/live>.

> New Documents and Web Resources

NanoRem Toolbox. The Toolbox is the primary gateway to the NanoRem Project's (Taking Nanotechnological Remediation Processes from Lab-Scale to End-User Applications for the Restoration of a Clean Environment) results. The Toolbox focuses on the needs of decision makers, consultants and site owners. It provides the respective output of NanoRem in three levels: an entry level showing the project bulletins as high level information in a condensed and concise way; more detailed information on nanoparticles and tools described as "Nanoparticles and Tools;" other dissemination products and selected project deliverables as "Supporting Information." View and use at <http://nanorem.eu/toolbox/>.

Research Update: Assessing Sediment Cap Effectiveness at the McCormick and Baxter Superfund Site. The McCormick and Baxter Superfund Site is located on the Willamette River in Portland, Oregon and has PAH contaminated soils and sediments from historical creosote operations. As part of an Oregon Department of Environmental Quality (ODEQ) ten year study to assess the effectiveness of the sediment cap, passive sampling devices were deployed by U.S. EPA Region 10 divers in both sediment and water at the site. Included in this study was a newly designed passive sampling sediment probe which allowed for deployment in the rocky armoring of the sediment cap. Based on data from this study, the ODEQ reported that the sediment cap appears to be effective in meeting its remedial objectives. View or download the full results of the study beginning on page 20 at <https://semspub.epa.gov/src/document/10/100031136>.

Superfund Research Program (SRP) Research Briefs. To get monthly updates on research advances from the SRP you can subscribe to their Research Brief mailing list at <https://list.nih.gov/cgi-bin/wa.exe?SUBED1=SRP-BRIEF&A=1>.

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 16 resources, events, projects and news items were added to EUGRIS in April 2017. 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:

Assessment Management and Remediation for PFOS and PFOA Management and Remediation of PFOS and PFOA and Other Emerging Contaminants. (CRC CARE, 2017) Australia's Cooperative Research Centre (CRC) for Contamination Assessment and Remediation of the Environment (CARE) has released a risk-based guideline for assessing, managing and remediating per- and poly- fluoroalkyl substances contamination and other emerging contaminants. View or download from <http://www.crccare.com/publications/technical-reports> .

> Conferences and Symposia

Remediation Innovative Technology Seminar (RITS), May 16-17, June 12-13 & 14-15, and July 11-12, 2017. The RITS is the Department of the Navy (DON) showcase for the latest Environmental Restoration (ER) technologies, methodologies, and guidance. The seminar is geared toward Remedial Project Managers (RPMs), but other Department of Defense (DoD) personnel, federal/state/local regulators, and contractors with an active DON ER contract are welcome to attend. The RITS will be conducted at several locations through July 12, 2017. The 2017 RITS topics include: Risk Communication for Per- and Polyfluoroalkyl Substances (PFAS) Sites; Innovations in In Situ Sediment Remediation; Light Nonaqueous Phase Liquid (LNAPL) Site Management - How to Use Tools to Support Monitored Natural Attenuation and Risk-Based Closure; Natural Attenuation Processes at the Groundwater-Surface Water Interface; Demonstrating a Geophysics Strategy for Minimally Invasive Remediation Performance Assessment; and Enhanced In Situ Bioremediation - State-of-the-Practice. For more information and to register, see <https://clu-in.org/RITS>.

Groundwater High-Resolution Site Characterization (HRSC), San Francisco, CA, June 13-14 & Dallas, TX, November 15-16, 2017. This training course focuses on groundwater characterization and discusses (1) the impacts of subsurface heterogeneity on the investigation and cleanup of groundwater and related media, (2) the need for scale-appropriate measurements and adequate data density, and (3) the tools and strategies that are available to overcome the impacts of subsurface heterogeneity. After taking this course, participants will be armed with information that will allow them to improve their subsurface investigation approaches and develop more realistic and comprehensive conceptual site models (CSM). CSMs developed based on HRSC strategies and tools will decrease site uncertainty, improve the remedy selection process for groundwater remedies, and better enable the evaluation, design, and implementation of targeted in situ and ex situ groundwater remedies. The Groundwater HRSC course is an advanced 2-day course. The recommended audience includes EPA, federal, state, tribal and private industry technical project managers, practitioners and other stakeholders involved in groundwater investigation and remediation. For more information and to register, see <https://trainex.org/hrsc>.

Best Practices for Site Characterization Throughout the Remediation Process, Dallas, TX, August 1-3 & New York, NY, September 12-14, 2017. This training course is based on best management practices (BMP) implemented by the U.S. EPA, partnership organizations, federal and state partners, and consultants. Participants will learn how to streamline projects in a legal, technically sound, and cost-effective manner. By taking the course, participants achieve the following objectives: integrate best practices into traditional project activities; effectively collect and communicate critical project information; design dynamic work strategies; recognize and overcome

the challenges presented while implementing a dynamic work strategy; and use BMPs to support all phases of the environmental cleanup life cycle. For more information and to register, see <https://trainex.org/offeringslist.cfm?courseid=1515>.

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 <https://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 Jean Balent at (703) 603-9924 or balent.jean@epa.gov. Remember, you may subscribe, unsubscribe or change your subscription address at <https://clu-in.org/techdirect> at any time night or day.

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