

TechDirect, August 1, 2010

Welcome to TechDirect! Since the July 1 message, TechDirect gained 240 new subscribers for a total of 35,983. 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

Six Open Positions Supporting EPA. The following employment opportunities, which may of interest to hazardous waste professionals, are being advertised as a public service for the CLU-IN audience: (1) Two Environmental Scientists with EPA's Technology Innovation and Field Services Division, Analytical Services Branch in Arlington, VA; (2) One Research Hydrologist with EPA's Office of Research and Development in Ada, OK; (3) Two Senior Environmental Employee (SEE) Program Positions with EPA's Contract Laboratory Program in Arlington, VA and (4) One Senior Environmental Employee (SEE) Program Position with EPA's Environmental Response Team in Erlanger, Kentucky. For more information and application instructions, see <http://www.clu-in.org/jobs/> .

EPA Solicits Innovative Ideas and Technological Solutions for Enbridge Oil Spill. EPA has developed a voluntary submittal process to allow for faster review of the suggestions being offered and to provide guidance regarding what information would be most useful to the reviewing officials. The information received through this voluntary submittal process will be scrutinized for innovative ideas and technological solutions that are safe for the environment and public health and can be deployed along the Kalamazoo River to help with cleanup. The information submitted will be forwarded to the appropriate reviewing official who will contact submitters, if necessary. For more information or to submit a technical solution, go to the EPA Enbridge Oil Spill web site at <http://www.epa.gov/enbridgespill/technology/index.html> .

> Upcoming Live Internet Seminars

ITRC LNAPL Training Parts 1, 2, and 3 - August 3, 10, and 17, 2010. 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> .

The Charrette: Redevelopment by Design - August 11, 2010, 2:00PM-3:30PM EDT (18:00-19:30 GMT).

A Charrette uses pictures and mapping tools to develop innovative, sustainable plans for revitalization. Traditional planning and negotiation efforts can be stymied by the complex issues and divergent perspectives, leaving all parties frustrated. These collaborative workshops help participants visually understand the complexities of land re-use and revitalization. They have made a difference across the country by moving the affected stakeholders from negative approaches to positive plans for the future. This training will help EPA employees explore the use of Charrettes for collaborative redevelopment of Superfund sites. For more information and to register, see <http://clu-in.org/live> .

Identifying & Evaluating Ecosystem Services at Contaminated Sites Prior to Remediation - August 18, 2010, 3:00PM-4:30PM EDT (19:00-20:30 GMT).

Green remediation is the practice of considering all environmental effects of remedy implementation and incorporating options to maximize net environmental benefits of cleanup actions at contaminated sites. One of the core elements of green remediation is land & ecosystems, which promotes ideas of land management and ecosystem protection. There is a growing recognition of the significance of ecosystem services, as well as the dramatic impacts human activities can have on these essential services. Ecosystem services are the benefits that human populations derive from ecosystems. Examples include erosion control, climate regulation, recreational opportunities and raw materials. There is a unique opportunity to mitigate impacts on ecosystem services, which may occur from the remediation of contaminated sites. Learn more about ecosystem services, opportunities to mitigate impacts on ecosystem services at a site level, and much more during this seminar brought to you by Sarah Slack, a NNEMS fellow at the EPA. For more information and to register, see <http://clu-in.org/live> .

PAH and PCB Toxicity and Adaptation - Lessons Learned from Chronically Exposed Wild Populations - August 19, 2010, 2:00PM-4:00PM EDT (18:00-20:00 GMT).

This seminar will feature Dr. Mark E. Hahn of Woods Hole Oceanographic Institution and Dr. Richard T. Di Giulio, Director of Duke University's Integrated Toxicology Program. Dr. Hahn will describe research to understand the role of aryl hydrocarbon receptors (AHRs) and AHR variants in the mechanism of resistance to PCBs that has evolved in Atlantic killifish (*Fundulus heteroclitus*) inhabiting the New Bedford Harbor (MA) superfund site. Other studies that address the role of AHRs as biomarkers of susceptibility and resistance will be discussed. Dr. Di Giulio will describe studies addressing mechanisms underlying the marked resistance to PAH toxicity displayed by a population of Atlantic killifish (*Fundulus heteroclitus*) inhabiting a PAH contaminated estuary adjacent to the Atlantic Woods Industries Superfund site in Virginia. These studies subsequently motivated additional studies that will be described that examined the unanticipated phenomenon of synergistic toxicity between certain PAHs. These latter studies included both the killifish and the zebrafish as models. For more information and to register, see <http://clu-in.org/live> .

Understanding the FY11 Job Training Grant Application Guidelines - August 30, 2010, 2:00PM-4:00PM EDT (18:00-20:00 GMT). This seminar will provide an overview of the FY11 application guidelines for the Environmental Workforce Development and Job Training Grants - formerly known as the "Brownfields Job Training Grants," and is specifically geared towards tribal, tribal and minority academic institution applicants (however, anyone is free to attend). See the second session on September 2 for other applicants below. Eligibility and ranking evaluation criteria will be covered, as well as information on formatting and key building blocks of a successful proposal. A questions and answers session will be held at the end. For more information and to register, see <http://clu-in.org/live> .

Brownfields Nonprofit Outreach Training - August 31, 2010, 1:00PM-3:00PM EDT (17:00-19:00 GMT). The purpose of this meeting is to learn about the different types of grants and assistance available through the Brownfields Program specifically targeting nonprofits and their partners. For more information and to register, see <http://clu-in.org/live> .

Understanding the FY11 Job Training Grant Application Guidelines - September 2, 2010, 2:00PM-4:00PM EDT (18:00-20:00 GMT). This seminar will provide an overview of the FY11 application guidelines for the Environmental Workforce Development and Job Training Grants -formerly known as the "Brownfields Job Training Grants." Eligibility and ranking evaluation criteria will be covered, as well as information on formatting and key building blocks of a successful proposal. A questions and answers session will be held at the end. For more information and to register, see <http://clu-in.org/live> .

> New Documents and Web Resources

Impacts of DNAPL Source Treatment: Experimental and Modeling Assessment of the Benefits of Partial DNAPL Source Removal (EPA 600-R-09-096). When it is not practical or economically feasible to achieve complete DNAPL mass depletion using aggressive remediation techniques, it must be determined if the aggregate benefits of partial DNAPL mass depletion are sufficient to reduce risks to an acceptable level and if the costs associated with this partial depletion are justified by the benefits received. This report summarizes field, lab, and modeling research conducted to address these issues, with the primary objective being the development of a scientifically defensible approach for assessing the long-term environmental impacts (benefits) of DNAPL removal from source zones (September 2009, 172 pages). View or download at <http://clu-in.org/techpubs.htm> .

EPA Launches a Collaborative Web Site for Integrated Environmental Modeling. The U.S. EPA is launching a new on-line tool for scientific collaboration and knowledge sharing that was built by Purdue University with support from EPA. The Integrated Environmental Modeling Hub (iemHUB) allows environmental researchers to analyze environmental problems and combine environmental models so that a better understanding of the environment can be developed. EPA uses integrated modeling assessments to inform decision making in support of its broad mission of protecting human health and safeguarding the environment. With the website, the agency is providing a state-of-the-art resource to the environmental modeling community. The iemHUB supports the development of integrated models and their use in conducting research and informing the decision making process. The iemHUB is being released by the EPA-supported Community of Practice for Integrated Environmental Modeling (CIEM). The Community of Practice is an informal collaborative organization that was set-up by EPA and other scientists to advance the state of the science and technology related to integrated modeling. View and use at <http://www.iemhub.org> .

EUGRIS Corner. EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 22 resources, events, projects and news items were added to EUGRIS in July 1-24, 2010. 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.

> Conferences and Symposia

National Environmental Monitoring Conference (NEMC) 2010, Washington, DC, August 9-13, 2010. The National Environmental Monitoring Conference (NEMC) brings together scientists and managers from federal and state agencies, the regulated community, and laboratory and engineering support communities. It includes technical sessions, training courses, exhibits, and networking opportunities. As in previous years, this year's conference is being combined with the Forum on Laboratory Accreditation under the umbrella of the Environmental Measurement Symposium to allow many attendees to minimize travel costs. The Forum consists of meetings of a number of committees of The NELAC Institute (TNI). The technical program will feature over 100 technical presentations on recent developments in environmental monitoring. The Environmental Laboratory Advisory Board (ELAB), a Federal Advisory Committee to the U.S. EPA, will also be having an open public meeting to discuss their efforts on topics such as the performance approach and laboratory accreditation. For more information and to register, see <http://www.nemc.us> .

Vapor Intrusion Pathway: A Practical Guideline ITRC 2-day Classroom Training, Atlanta, GA, October 4-5, 2010. 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> .

Registration Now Open!! Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, November 30-December 2, 2010. Hosted by the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP), this event will offer a comprehensive technical program featuring multiple technical sessions and several short courses. This conference will assemble environmental researchers and technology developers with the defense user and regulatory communities to showcase cutting edge environmental technologies and ideas, as well as communicate the most difficult challenges of our defense establishment. For more information and to register, see <http://www.serdp-estcp.org/symposium2010/> .

Call for Abstracts!! International Conference on Sustainable Remediation 2011: State of the Practice, Amherst, MA, June 1-3, 2011. The Environmental Institute at the University of Massachusetts Amherst and the U.S. EPA Office of Superfund Remediation and Technology Innovation are pleased to announce the International Conference on Sustainable Remediation 2011: State of the Practice to be held in Amherst, Massachusetts June 1-3, 2011. The conference will bring together researchers and practitioners from around the globe to address the state of the practice

and future needs in sustainable remediation across the themes of green chemistry, human health, and environmental response. Session presentations by scientists, practitioners, and regulators will feature new research, field applications, and lessons learned. Abstracts are encouraged in all areas of green and sustainable remediation as related to hazardous waste cleanup, from basic to applied research, from case studies to demonstration projects. The deadline for platform presentations is November 1, 2010. For more information and to submit an abstract, see

<http://www.umass.edu/tei/conferences/SustainableRemediation/callforabstracts.html> .

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 118 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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