Welcome to TechDirect! Since the August 1 message, TechDirect gained 170 new subscribers for a total of 34,004. 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.

> Grant Opportunities and Awards

**FY 2010 EPA Brownfields Assessment, Revolving Loan Fund and Cleanup Grants.** These grants may be used to address sites contaminated by petroleum and hazardous substances, pollutants, or contaminants (including hazardous substances co-mingled with petroleum). Opportunities for funding are as follows: Brownfields Assessment Grants (each funded up to $200,000 over three years; coalitions are funded up to $1,000,000 over three years), Brownfields Revolving Loan Fund (RLF) Grants (each funded up to $1,000,000 over five years) and Brownfields Cleanup Grants (each funded up to $200,000 over three years). The proposal deadline is October 16, 2009. Proposal guidelines are available at http://www.epa.gov/brownfields/applicat.htm.

**EPA Announces Brownfields RLF and Environmental Job Training Grants.** Communities in 55 state or local governments will receive $55 million in supplemental funding for brownfields RLF grants to help communities carry out cleanup activities, redevelopment projects, and create jobs for local residents living near brownfields sites. The grants include $42 million from the American Recovery and Reinvestment Act of 2009 that President Obama signed into law on February 17, 2009, and $13 million from the EPA brownfields general program funding. Fourteen communities in eight states will share $6.8 million in Brownfields Job Training Grants geared toward cleaning up contaminated properties and turning them into productive community assets. These grants are funded through the American Recovery and Reinvestment Act of 2009. The U.S. EPA, under its Brownfields Program, is awarding grants of up to $500,000 each to eligible governmental entities and non-profit organizations. For more information, see http://epa.gov/brownfields/eparecovery/index.htm#supp.

**ASTM Green Cleanup Standards - Call for Participation.** ASTM has established a workgroup to initiate the development of green cleanup standards. The first meeting for the ASTM E50.04 Green Cleanup Task Group will take place in conjunction with the regularly scheduled E50 meetings on Thursday, October 22, 2009 8am-4pm in Atlanta at the Hyatt Regency. The purpose of this meeting will be to review proposed core elements for the standards as well as a draft outline for the ASTM Guide (Guide to be distributed prior to the meeting). If you interested in serving on the Green Cleanup task group or for further information on the effort see the Green Clean Up Announcement.
> Upcoming Live Internet Seminars

**Solar Energy on Closed Landfills: Regulatory and Technical Considerations - September 9, 2009, 10:00AM-11:00AM EDT (14:00-15:00 GMT).** The briefing provides an overview of technical and regulatory facets of constructing solar farms on closed landfills. It summarizes the findings of a draft paper covering a combination of case study evidence and literature research. The target audience for this study includes project managers, owners, developers, operators, regulators, and various levels of stakeholders with an interest in revitalizing contaminated lands. The author is a National Network for Environmental Management Studies Fellow with EPA's Office of Superfund Remediation and Technology Innovation. For more information and to register, see [http://clu-in.org/live](http://clu-in.org/live).

**Computational Toxicology: ToxCast and the Comparative Toxicogenomics Database (CTD) - September 9, 2009, 2:00PM-4:00PM EDT (18:00-20:00 GMT).** The National Institute of Environmental Health Sciences (NIEHS) Superfund Research Program (SRP), in collaboration with U.S. EPA/OSRTI, presents the Risk eLearning session "Computational Toxicology: ToxCast and the Comparative Toxicogenomics Database (CTD)." This seminar will indicate the utility of computational approaches to achieving a better understanding of the potential risks of contaminants and is a must see as a follow up to the Cumulative Risk seminars. Dr. David J. Dix, Acting Deputy Director of EPA/ORD's National Center for Computational Toxicology will present "ToxCast - Screening and Prioritization of Environmental Chemicals Based on Bioactivity Profiling and Predictions of Toxicity." NIEHS grantee and Mount Desert Island Biological Laboratory investigator, Dr. Carolyn Mattingly, will present "The Comparative Toxicogenomics Database: A resource for predicting chemical-gene-disease networks." For more information and to register, see [http://clu-in.org/live](http://clu-in.org/live).

**ITRC In Situ Bioremediation of Chlorinated Ethene - DNAPL Source Zones - September 10, 2009, 11:00AM-1:15PM EDT (15:00-17:15 GMT).** Treatment of dissolved-phase chlorinated ethenes in groundwater using in situ bioremediation (ISB) is an established technology; however, its use for DNAPL source zones is an emerging application. This training course supports the ITRC Technical and Regulatory Guidance document In Situ Bioremediation of Chlorinated Ethene: DNAPL Source Zones (BioDNAPL-3, 2008). This document provides the regulatory community, stakeholders, and practitioners with the general steps practitioners and regulators can use to objectively assess, design, monitor, and optimize ISB treatment of DNAPL source zones. For more information and to register, see [http://www.itrcweb.org](http://www.itrcweb.org) or [http://clu-in.org/live](http://clu-in.org/live).

**TABEZ - Free, Online Tool to Facilitate Writing EPA Brownfields Assessment and Cleanup Grants - September 14, 2009, 1:00PM-2:30PM EDT (17:00-18:30 GMT).** This tool takes the "fear factor" out of EPA brownfields grant applications. Learn how to use TABEZ to produce a quality proposal, including helpful tips for your proposal preparation. For more information and to register, see [http://clu-in.org/live](http://clu-in.org/live).

**EPA Region 8 Brownfields Grant Guidelines Q&A Session for Potential Applicants - September 15, 2009, 11:00AM-1:00PM EDT (15:00-17:00 GMT).** The US EPA is currently accepting proposals for (approx.) $79.4 million under its Assessment, Revolving Loan Fund and Cleanup (ARC) grant programs. Brownfields
Program staff in the EPA Denver office will provide a brief overview of this funding opportunity and be available to answer questions from potential applicants. For more information and to register, see http://clu-in.org/live.

Collaborative Research on Environmental Toxicants in Rapidly Developing Settlements of the U.S.-Mexico Border - September 16, 2009, 2:00PM-3:00PM EDT (18:00-19:00 GMT). This project aims to improve environmental public health in the San Diego-Tijuana city-region. The objective is twofold: (1) develop new watershed-based strategies/models that can help the National Institute of Environmental Health Sciences (NIHES) address Global Environmental Health (GEH), and (2) share the science and technology contributions of of University of California San Diego's (UCSD) Superfund Basic Research Program (SBRP) with urban-regional planning scholars, educators and professionals who are struggling to better understand how problems of the built environment, land use and pollution impact environmental public health. For more information and to register, see http://clu-in.org/live.

ITRC LNAPL Training Parts 1 and 2 - September 17 and 22, 2009. 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. For more information and to register, see http://www.itrcweb.org or http://clu-in.org/live.

Superfund Redevelopment Initiative (SRI) 10th Anniversary: Celebrating Success - September 17 and October 22. EPA's Superfund Redevelopment Initiative (SRI) celebrates its 10-year Anniversary in 2009! To mark this event, EPA is hosting a diverse series of seminars featuring Superfund site reuse success stories. This and successive webinars will present reuse case studies on multi-use, renewable energy, ecological reuse, and commercial reuse. For more information and to register, see http://clu-in.org/sri.

Understanding Life Cycle Assessment: Applications for OSWER's Land and Materials Management - September 23, 2009, 2:00PM-3:30PM EDT (18:00-19:30 GMT). The Office of Superfund Remediation and Technology Innovation (OSRTI) is hosting an informative webcast presentation by Jane Bare, expert on Life Cycle Impact Assessment (LCIA) in EPA's Office of Research and Development. Ms. Bare's presentation will provide an overview of LCIA, including general scope, terminology and existing models, and will provide examples of how LCIA has been applied, including an application to a Superfund site. Ms. Bare is the author of several scientific journal papers on life cycle impact assessment, is one of fourteen international experts controlling the UNEP/SETAC Life Cycle Initiative, and has worked on ISO 14042 development. For more information and to register, see http://clu-in.org/live.

Understanding the FY 2010 Brownfields Job Training Grant Application Process and Request for Proposals - September 28, 2009, 2:00PM-3:30PM EDT (18:00-19:30 GMT). The purpose of the presentation will be to provide guidance to prospective applicants on how to apply for a Brownfields Job Training Grant for the fiscal year 2010 competition. This will include information on how to build a strong proposal, eligibility information, the competition process, a discussion of the ranking...
evaluation criteria, and changes which have occurred since the FY09 and Recovery Act competitions. Applicants who received funding in FY09 or through the Economic Stimulus/ARRA funding are not eligible to apply for FY 2010 funds. For more information and to register, see [http://clu-in.org/live](http://clu-in.org/live).

> New Documents and Web Resources

**DNAPL Remediation: Selected Projects Where Regulatory Closure Goals Have Been Achieved (EPA 542-R-09-008).** The purpose of this paper is to highlight sites where dense nonaqueous phase liquid (DNAPL) source reduction has been demonstrated as an aid in meeting regulatory cleanup goals. The presence of DNAPL in the subsurface can serve as a long-term source of dissolved contaminant plumes in groundwater, making it more difficult to reach regulatory closure. However, once the DNAPL source is addressed, residual groundwater plumes may be more amenable to treatment, including less aggressive techniques such as monitored natural attenuation (MNA) or bioremediation. This paper updates the document, DNAPL Remediation: Selected Projects Approaching Regulatory Closure, prepared in 2004 by providing more recent information on technologies and on five additional selected sites at which DNAPL source reduction technologies were applied (August 2009, 52 pages). View or download at [http://www.clu-in.org/techpubs.htm](http://www.clu-in.org/techpubs.htm).

**Considerations for Applying the Triad Approach: Hartford Area Hydrocarbon Plume Site, Hartford, Illinois (EPA 542-R-06-008).** Intermittent fires related to vapor intrusion and odor complaints at the Hartford site have affected residences throughout the Village of Hartford. Subsequent investigations by a group of potentially responsible parties, known as the Hartford Working Group (HWG), have detected extensive hydrocarbon contamination beneath the site. The suggestions provided in this report are intended to provide input to the HWG so characterization and remedial design can be optimized. This report was based on review of on-going project documents and subsequent discussions with the Region 5 on-scene coordinators (OSC) and State of Illinois Environmental Protection Agency (IEPA) representatives. The suggestions provided are intended as a starting point for refining the existing conceptual site model (CSM) for the Hartford site so that an effective remedy can be designed and implemented as quickly as possible (August 2007, 68 pages). View or download at [http://www.clu-in.org/techpubs.htm](http://www.clu-in.org/techpubs.htm).

**EPA Data Finder.** Data Finder is a single place to find EPA's data sources so people can access and understand environmental information. All of the data sources are available on the Internet and have been organized by topics such as air, water, and chemicals. In the near future, EPA will use Data Finder to discover raw data and make it accessible via Data.gov, a federal site that helps people find, download, and use datasets that are generated and held by the Federal Government. This version of Data Finder provides an initial collection of EPA's data sources. View and use at [http://www.epa.gov/datafinder/](http://www.epa.gov/datafinder/).

**Assessment Tool for Closure of Low-Threat Chlorinated Solvent Sites.** The Groundwater Committee, a staff committee of the San Francisco Bay Regional Water Quality Control Board embarked on a project to develop criteria for evaluating if and when chlorinated solvent sites that pose little threat to human and ecological health, water quality, and beneficial uses but do not yet meet cleanup standards at all locations, could be closed. This process is referred to as "low-threat closure." Low-threat closure is based on the understanding that cleanup standards can be met under natural conditions within a reasonable timeframe, once adequate source control and plume remediation are complete and considering site-specific conditions, the future...
land use, and the likelihood of and timeframe for actual beneficial use of the affected water resources. Nonetheless, it can be difficult to close chlorinated solvent sites due to concerns about pollutant toxicity, recalcitrance, and mobility, and the uncertainty associated with site characterization and remediation. This document summarizes nine narrative criteria for site closure. The narrative criteria describe the conditions under which closure is warranted for low-threat sites. View or download at http://www.waterboards.ca.gov/sanfranciscobay/sitecleanupprogram.shtml#SCPElements.

**EUGRIS Corner.** New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 12 resources, events projects and news items were added to EUGRIS 1 - 24 August, 2009. 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 reports were featured on EUGRIS:

**European Communities Environmental Protection Groundwater Regulations (Northern Ireland) 2009; Statutory Rules of Northern Ireland 2009 No 254.** New Groundwater Regulations, taking into account responses to the consultation, will come into force on 10 August 2009. The new regulations will: protect groundwater by preventing the direct discharge of certain hazardous substances; require anyone wishing to discharge other substances to go through an authorisation procedure; and provide a more flexible risk-based approach. View or download at http://www.doeni.gov.uk/groundwater_regulations__northern_ireland__2009.pdf.

**An Introduction to Land Contamination for Public Health Professionals (2009).** The purpose of this document is to introduce environmental public health practitioners to the process used for dealing with land contamination. The document aims to provide an overview of public health issues surrounding land contamination and the public health risk assessment process. This includes aspects of the environmental protection regimes where they apply to the protection of public health from substances contained in, on or under land, determination of sites as contaminated land as well as risk assessment procedures. Where more in-depth information is required, the appendices contain additional information including a guide to other documents available. It is hoped that this will be a useful guide to the public health issues surrounding land contamination and the regulatory processes used to examine and mitigate the impacts of land contamination. View or download at http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1242198452556/?p=1158934607604.

> **Conferences and Symposia**

**Call for Abstracts!! Green Remediation: Environment - Energy - Economics, Amherst, MA, June 15-17, 2010.** The conference will address the full range of environmental, energy and economic aspects of green and sustainable remediation, taking into account the energy requirements of treatment systems, air emissions, water use requirements and impacts on water resources, land and ecosystem use and impacts, energy use and renewables, material consumption, reuse, and waste generation. The conference will provide a forum for scientists, regulators, managers, and other stakeholders from around the globe to interact and share new knowledge in both basic and applied research in green and sustainable remediation. Abstracts are encouraged in all areas of green and sustainable remediation, from basic to applied research, from case studies to demonstration projects. Abstracts for platform presentations are due by November 1, 2009. For more information and to submit an abstract, see http://www.umass.edu/tei/conferences/GreenRemediation/GreenCallForAbstracts.html.

**GreenRemediation, Copenhagen, Denmark, November 9-10, 2009.** Sustainable
approaches for decision-making and soil remediation are more relevant than ever. The objective of the GreenRemediation Conference is to improve the awareness of green remediation solutions among environmentalists and decision makers. Main topics are Policy Drivers, Decision Support Tools and Sustainable Remediation Technologies. Attendees from countries around the world are expected. The conference is being organized in collaboration with Danish EPA, Information Centre on Contaminated Sites - DANISH REGIONS, The Capital Region of Denmark and a number of private organizations. The Scientific Committee is formed by international capacities from Nordic Countries, Austria, the UK and the US. For more information and to register, see http://www.polytec.dk/GreenRemediation/.

Brownfields 2009 Conference, New Orleans, LA, November 16-18, 2009. The Brownfields 2009 Conference will see stakeholders from community, planning, real estate, finance, and policy interests from across the nation converge to focus on brownfields cleanup, redevelopment, and a broad range of land revitalization solutions. Take advantage of learning and networking opportunities including first-rate educational sessions, valuable mobile workshops, dynamic plenary speakers, excellent organizational meetings, and more. For more information and to register, see http://www.brownfieldsconference.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 90 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.

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